

In-patient setting

**I. INTRODUCTION**

This document contains sample test data that can be used for the certification towards 2015 objective 170.315(b)(7). This section of the Code of Federal Regulations Title 45 documents the required Health IT technology to be able to create, send and receive a summary care record formatted according to the Consolidated CDA (C-CDA) Release 2.1 that is document-level tagged as restricted and subject to restrictions on re-disclosure.

A) Test of 45 CFR 170.315 (b)(7)

The following is the summary of test data presented herein for 170.315(b)(7) criteria.

**Conventions used in the document:**

1. The test data outlined below has both required and optional data that is specified to help the vendors create C-CDA's with the appropriate context and follow the HL7 C-CDA best practices. The optional data is indicated by enclosing them in [ ]. For e.g. [Medical Record Custodian] or [Allergy Substance].
  - a. When a narrative or text block is surrounded by [ ] the entire narrative block is optional.
  - b. When a column heading is surrounded by [ ] the data represented by the column is optional. For e.g. [ Allergy Substance ], the display name is optional.
  - c. When the data within a table cell is surrounded by [ ] the data within the cell is optional. For e.g. The information recipient Dr Albert Davis is optional from a certification standpoint. Vendors can include it in their C-CDA's to comply with HL7 C-CDA IG and best practices.

[ Information Recipient ]	[ Dr Albert Davis ]
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- d. The C-CDA IG allows display names and text elements to be optionally included in the structured entries. Hence the above optional markings designated by [ ] in the test data are with respect to the structured entries in the XML. If a certification criteria requires visual display of the structured data (for e.g View, Download and Transmit - VDT), then the vendors have to display the coded data elements in their English representation. For example Medication Name, Problem Name, Vital Sign Name which are English representations of the coded data have to be displayed for the VDT criteria even though they are marked optional in the test data.

2. Additional clarifications are added with the keyword **“Note”**.
3. Data that needs to be visually inspected by the ATL’s in the generated C-CDA’s are indicated by the key word **“Visual Inspection”**.
4. Guidance for No Information Sections: When the test data instructions specify “No Information” for certain data elements, vendors are expected to use the HL7 recommended best practices to represent the information. However vendors don’t have to include sections and entries not required by the document template to represent “No information”.
5. Yellow highlighted text is specific for DS4P testing.

To exemplify 170.315 (b) (7), the following clinical scenario will be employed.

**Document Narrative:**

[ Ms. Rebecca Larson is a 45 year old female with a history of Hypertension, Hypothyroidism, Iron deficiency and is a recipient of Renal Allograft is admitted on 6/22/2015 at 10 am EST to Community Health and Hospitals with history of intermittent fever for 2 days. The patient disclosed history of nausea, loose stools and weakness. She was found to have Anemia secondary to iron deficiency and CKD. After conducting multiple tests and administering necessary medications, the patient was discharged to Ambulatory facility to follow up with immunosuppression as an out-patient. The condition of the patient at discharge was stable, with controlled blood sugar levels and a pain score below 3. Additional follow up instructions have been provided to the patient. ]

**Note:** The test data provided in the document was captured during this encounter including historical data. The contextual data provided is to help the vendors create their C-CDA documents using appropriate data. Vendors can ignore the contextual data if it is not required for C-CDA generation; however the generated C-CDA is expected to contain the data relevant to the criteria as specified in the regulation.

**II. HEADER DATA**

**Note:** The following data is part of the medical record header identifying the contextual information necessary when exchanging data.

A) Patient Demographics

CCDS Data Elements	Contextual Data Elements required for the Medical Record encoding to C-CDA IG	Details	Additional Information
Patient Name		First Name: Rebecca Last Name: Larson Middle Name: Jones Previous Name: Robin Suffix:	The Previous Name specified is the Patient’s Birth Name and should be coded accordingly.
Sex		Female (F)	

CCDS Data Elements	Contextual Data Elements required for the Medical Record encoding to C-CDA IG	Details	Additional Information
Date of Birth		5/1/1970	
Race		White (2106-3)	
Ethnicity		Not Hispanic or Latino (2186-5)	
Preferred Language		English (en)	
	Home Address	1357, Amber Dr, Beaverton, OR-97006	
	Telephone Number	Mobile: 555-777-1234 Home: 555-723-1544	

B) Relevant Information regarding the Visit

**Note:** The information in this table is provided for context and to help populate the required elements in the C-CDA Header along with any 2015 S&CC data elements.

CCDS Data Elements	Contextual Data Elements required for medical record encoding to C-CDA	Details	Additional Information
Providers Name		Dr Henry Seven First Name: Henry Last Name: Seven	[ Dr Seven and his staff work for Community Health and Hospitals 1002, Healthcare Dr, Portland, OR-97266 ]
Office Contact Information		Mary McDonald First Name: Mary Last Name: McDonald Telephone: 555-555-1002	
	[ Author/Legal Authenticator/Authenticated of Electronic Medical Record ]	[ Dr Henry Seven Date: 6/22/2015 ]	
	[ System that generated the document ]	[ Community Health Hospitals EMR ]	
	[ Informants ]	[ Frank Larson (Spouse) First Name: Frank Last Name: Larson ]	
	[ Medical Record Custodian ]	[ Community Health and Hospitals ]	

CCDS Data Elements	Contextual Data Elements required for medical record encoding to C-CDA	Details	Additional Information
	[ Information Recipient ]	[ Dr Henry Seven ]	
	Admission Date	6/22/2015	
	Discharge Date	6/24/2015	
	Confidentiality Code	Restricted	
Care Team Members	Care Team Members	Dr Henry Seven Mary McDonald	
	[ Other Participants in event ]	[ Mr Robert Matthews (Grand Parent) First Name: Robert Last Name: Matthews Mr Frank Larson (Spouse) – Same Address information as Ms Rebecca Larson. ]	
	[ Event Documentation Details or Documentation of Event ]	[ Dr Henry Seven (PCP) 2 day encounter Event Code = Anemia ]	[ Code for Anemia Finding: <b>164139008</b> , Code System: SNOMED-CT ]

### III. BODY DATA

**Note:** The following data is part of the medical record details identifying the relevant clinical data captured as part of the visit.

#### A) Security and Privacy Prohibitions:

##### a. Re-disclosure Notice Text: **(Visual Inspection)**

##### i. "PROHIBITION ON REDISCLOSURE OF CONFIDENTIAL INFORMATION"

This notice accompanies a disclosure of information concerning a client in alcohol/drug treatment, made to you with the consent of such client. This information has been disclosed to you from records protected by federal confidentiality rules (42 C.F.R. Part 2). The federal rules prohibit you from making any further disclosure of this information unless further disclosure is expressly permitted by the written consent of the person to whom it pertains or as otherwise permitted by 42 C.F.R. Part 2. A general authorization for the release of medical or other information is NOT sufficient for this purpose. The federal rules restrict any use of the information to criminally investigate or prosecute any alcohol or drug abuse patient.

b. Author Information

i. Use the same author information provided in the header data.

c. Confidentiality Information

i. Restricted information

d. Purpose of Use

i. Treatment

B) Medication Allergies

**Note:** Medication Allergies are to be represented using the Allergies and Intolerances Section.

Code	CodeSystem	[ Allergy Substance ]	Reaction	Severity	[Timing Information]	Concern Status
7980 (IN)	RxNorm	Penicillin G	Hives (code- 247472004, SNOMED-CT)	Moderate	Start Date – 5/10/1980,	Active
733 (IN)	RxNorm	Ampicillin	Hives (code- 247472004, SNOMED-CT)	Moderate	Start Date – 5/10/1980,	Active

C) Medications

**Note:** Timing information (Start and End Dates) are to be represented using the effectiveTime data element in the Medication Activity entry.

Code	CodeSystem	[ Medication Name]	[Timing Information]	Route	Frequency	Dose
309090 (SCD)	RxNorm	Ceftriaxone 100 MG/ML	StartDate: 6/22/2015, End Date 6/30/2015	Injectable	Two times daily	1 unit
209459 (SBD)	RxNorm	Tylenol 500mg	StartDate: 6/22/2015, End Date 6/30/2015	Oral	As needed	1 unit
731184 (SCD)	RxNorm	Darbepoetin Alfa 0.5 MG/ML	StartDate: 6/22/2015, End Date 6/30/2015	Injectable	Once a week	1 unit
284215 (SCD)	RxNorm	Clindamycin 300mg	StartDate: 6/23/2015, End Date 6/30/2015	Oral	Three times daily	1 unit

Code	CodeSystem	[ Medication Name]	[Timing Information]	Route	Frequency	Dose
198371 (SCD)	RxNorm	Torsemide 20mg	StartDate: 6/23/2015, End Date: 6/30/2015	Oral	Daily	1 unit
860886 (SCD)	RxNorm	FenoFibric Acid 35 mg	StartDate: 6/24/2015, End Date: 7/4/2015	Oral	At the hour of sleep	1 unit
485023 (SCD)	RxNorm	Mycophenolic Acid 360 mg	StartDate: 6/24/2015, End Date: 6/27/2015	Oral	Two times daily	1 unit
977434 (SCD)	RxNorm	Everolimus 0.5 mg	StartDate: 6/24/2015, End Date: 7/20/2015	Oral	Two times daily	1 unit
197511 (SCD)	RxNorm	Ciprofloxacin 250 mg	StartDate: 6/24/2015 , End Date: 7/24/2015	Oral	Three times daily	1 unit

#### D) Problems

**Note:** Timing information is to be represented using the effectiveTime data element in the Problem Observation and Problem Concern entry as appropriate.

#### D.1 - Security and Privacy Prohibitions:

##### a. Re-disclosure Notice Text: **(Visual Inspection)**

##### i. "PROHIBITION ON REDISCLOSURE OF CONFIDENTIAL INFORMATION"

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##### b. Author Information

##### i. Use the same author information provided in the header data.

##### c. Confidentiality Information

- i. Restricted information
- d. Purpose of Use
  - i. Treatment
- e. Entry Level Markings
  - i. Emancipation Age Finding of the patient has be marked with “No Redisclosure with patient consent”.

Code	CodeSystem	[ Problem Name ]	[Timing Information]	Health concern status
59621000	SNOMED-CT	Essential hypertension (Disorder, )	5/10/2015 - Start Date	Active
83986005	SNOMED-CT	Severe Hypothyroidism (Disorder)	12/31/2006 – Start Date	Active
236578006	SNOMED-CT	Chronic rejection of renal transplant (disorder)	12/31/2011 – Start Date	Active
87522002	SNOMED-CT	Iron deficiency anemia (disorder)	6/22/2015 – Start Date	Active
64667001	SNOMED-CT	Interstitial pneumonia (disorder)	6/22/2015 – Start Date	Active
192051000	SNOMED-CT	Emancipation Age	1/15/1980	Completed
238131007	SNOMED-CT	Overweight (finding)	12/31/2006 – Start Date 6/1/2007 – End Date	Completed

#### E) Encounter Diagnoses

Code	CodeSystem	[ Description ]	Start Date	[ Service Delivery Location ]
D63.1	ICD-10	Anemia in Chronic Kidney Disease	6/22/2015	Community Health and Hospitals 1002, Healthcare Dr, Portland, OR-97266

#### F) Procedures

**Note:** Target Site is provided for context, vendors may or may not choose to include this as part of the C-CDA entries. Date is to be represented using the effectiveTime data element in the Procedure Activity Procedure entry.

Code	CodeSystem	[ Procedure Name ]	[ Target Site ]	[Date]	[ Service Delivery Location ]
10847001	SNOMED-CT	Bronchoscopy	91724006 (Tracheobronchial structure (body structure))	6/22/2015	Community Health and Hospitals 1002, Healthcare Dr, Portland, OR-97266
168731009	SNOMED-CT	Chest X-Ray, PA and Lateral Views	82094008 (Lower Respiratory Tract Structure)	6/22/2015	Community Health and Hospitals 1002, Healthcare Dr, Portland, OR-97266
175135009	SNOMED-CT	Introduction of cardiac pacemaker system via vein	9454009 – Structure of subclavian vein, Code System - SNOMED-CT	10/5/2011	Community Health and Hospitals 1002, Healthcare Dr, Portland, OR-97266

#### G) Immunizations

**Note:** Additional Notes represent why the Immunization was cancelled and there are no specific notes applicable to the completed immunizations.

Vaccine Code	CodeSystem	[ Vaccine Name ]	Date	Status	[Lot Number]	[Manufacturer Name]	Additional Notes
106	CVX	Tetanus and diphtheria toxoids	1/4/2012	Completed	2	Immuno Inc.	N/A



Vaccine Code	CodeSystem	[ Vaccine Name ]	Date	Status	[Lot Number]	[Manufacturer Name]	Additional Notes
166	CVX	influenza, intradermal, quadrivalent, preservative free	6/22/2015	Cancelled		Immuno Inc.	Immunization was not given - Patient rejected immunization

#### H) Vital Signs

Code	Code System	[ Vitals Name ]	Timing Information	Value and Units
8302-2	LOINC	Height	6/22/2015 [ 10:05 EST ]	Value=177 units=cm
29463-7	LOINC	Weight	6/22/2015 [ 10:05 EST ]	Value=88 units=kg
8462-4 (Diastolic)	LOINC	Blood Pressure-Diastolic	6/22/2015 [ 10:08 EST ]	Value=88 units=mm[Hg]
8480-6 (Systolic)	LOINC	Blood Pressure-Systolic	6/22/2015 [ 10:08 EST ]	Value=145 units=mm[Hg]
8867-4	LOINC	Heart Rate	6/22/2015 [ 10:10 EST ]	Value=80 Units=/min
59408-5	LOINC	O2 % BldC Oximetry	6/22/2015 [ 10:12 EST ]	Value=95 units=%
3150-0	LOINC	Inhaled Oxygen Concentration	6/22/2015 [10:12 EST]	Value=36 units=%
8310-5	LOINC	Body Temperature	6/22/2015 [ 10:15 EST ]	Value=38 Units=Cel
9279-1	LOINC	Respiratory Rate	6/22/2015 [ 10:15 EST ]	Value=18 units=/min

#### I) Laboratory Test

**Note:** The pending Urinalysis lab test has no results yet and is a planned future event and has to be coded accordingly. The HL7 best practice to code a pending lab test is to represent it with a planned observation in the Plan of Treatment section.

Test Code	Code System	[ Name ]	Date
24357-6	LOINC	Urinalysis macro (dipstick) panel	6/22/2015
58410-2	LOINC	CBC	6/22/2015
24357-6	LOINC	Urinalysis macro (dipstick) panel	6/29/2015

#### J) Laboratory Values/Results

**Note:** The results below correspond to the CBC (First 4 rows) and the Urinalysis (Rest of the rows in the table except the first 4 rows) lab tests on 6/22/2015. Reference Ranges such as YELLOW are optional and vendors may or may not choose to include them as part of their C-CDA entries. Additionally when units are not present then the result value does not require any specific unit.

Result Code	Code System	[ Name ]	Result Value and units	Date	[ Reference Range ]
30313-1	LOINC	HGB	Value=10.2 units= g/dL	6/22/2015	
33765-9	LOINC	WBC	Value = 12.3 units=10*3/uL	6/22/2015	N/A - 500,000
26515-7	LOINC	PLT	Value=123 units= 10*3/uL	6/22/2015	
50544-6	LOINC	Everolimus Blood	Value=10 units=ng/mL	6/22/2015	2.0-8.0
5778-6	LOINC	Color of Urine	YELLOW	6/22/2015	YELLOW
5767-9	LOINC	Appearance of Urine	CLEAR	6/22/2015	CLEAR
5811-5	LOINC	Specific gravity of Urine by Test strip	1.015	6/22/2015	1.005 – 1.030
5803-2	LOINC	pH of Urine by Test strip	Value=5.0 units=[pH]	6/22/2015	5.0-8.0
5792-7	LOINC	Glucose [Mass/volume] in urine by test strip	Value=50 units=mg/dL	6/22/2015	Neg
5797-6	LOINC	Ketones [Mass/Volume] in urine by test strip	Negative	6/22/2015	Negative
5804-0	LOINC	Protein[Mass/Volue] in urine by test strip	Value=100 units=mg/dL	6/22/2015	negative

#### K) Smoking Status and Tobacco Use

**Note:** The C-CDA IG specifies how Smoking Status has to be represented using a combination of Tobacco Use and Smoking Status templates. Vendors are expected to follow the C-CDA IG to encode these data elements appropriately

Element Description	[ Description ]	Start Date	End Date	Code	Code System
Historical Smoking Status	Heavy tobacco smoker	5/1/2005	2/27/2011	428071000124103	SNOMED-CT
Current Smoking Status	Current every day	6/22/2015	-	449868002	SNOMED-CT

L) UDI List

**Note:** Device Code is provided for context, vendors may or may not choose to include this as part of the C-CDA entries. Also the implantable device identified below was introduced as part of the procedure documented in the procedure section namely “Introduction of cardiac pacemaker system via vein”.

UDI	Assigning Authority	[ Device Code ]	[ Scoping Entity ]
(01)00643169007222(17)160128(21)BLC200461H	FDA	704708004 - Cardiac resynchronization therapy implantable pacemaker, CodeSystem – SNOMED-CT	FDA

M) Assessment and Plan of Treatment:

- a. **Assessment (Visual Inspection** – ATL’s need to visually inspect the System Under Test (SUT) generated C-CDA for the below narrative content)
  - i. The patient was found to have Anemia and Dr Seven and his staff diagnosed the condition and treated Ms Rebecca for Anemia during the 2 day stay at Community Health Hospitals. Ms Rebecca recovered from Anemia during the stay and is being discharged in a stable condition. If there is fever greater than 101.5 F or onset of chest pain/breathlessness the patient is advised to contact emergency.
- b. **Plan of Treatment (Visual Inspection** – ATL’s need to visually inspect the System Under Test (SUT) generated C-CDA for the below narrative content)
  - i. Schedule an appointment with Dr Seven after 1 week for Follow up with Outpatient facility for Immunosuppressive therapy.

N) Goals: **(Visual Inspection** – ATL’s need to visually inspect the System Under Test (SUT) generated C-CDA for the below narrative content)

- a. Need to gain more energy to do regular activities.**(Visual Inspection)**
- b. Negotiated Goal to keep Body Temperature at 98-99 degrees Fahrenheit with regular monitoring.

O) HealthConcerns: **(Visual Inspection** – ATL’s need to visually inspect the System Under Test (SUT) generated C-CDA for the below narrative content)

- a. Chronic Sickness exhibited by patient
- b. HealthCare Concerns refer to underlying clinical facts
  - i. Documented HyperTension problem
  - ii. Documented HypoThyroidism problem
  - iii. Watch Weight of patient
  - iv. Documented Anemia problem

- P) Discharge Instructions (**Visual Inspection** – ATL's need to visually inspect the System Under Test (SUT) generated C-CDA for the below narrative content)
- a. Diet: Diabetic low salt diet
  - b. Medications: Take prescribed medications as advised.
  - c. Appointments: Schedule an appointment with Dr Seven after 1 week. Follow up with Outpatient facility for Immunosuppression treatment.
  - d. For Fever of > 101.5 F, or onset of chest pain/breathlessness contact Emergency.