

In-Patient Setting

**I. INTRODUCTION**

This document contains sample test data that can be used for the certification towards 2015 objective 170.315(e)(1). This section of the Code of Federal Regulations Title 45 documents the required Health IT technology to provide patients or their representatives the ability to View, Download and Transmit health information formatted according to the Consolidated CDA (C-CDA) Release 2.1

A) Test of 45 CFR 170.315 (e) (1)

<Include text of 45 CFR 170.315 (e) (1) here for reference>

B) Summary of test data presented herein

**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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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"**.

To exemplify 170.315 (e) (1), 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)	
Date of Birth		5/1/1970	
Race		White (2106-3)	
More Granular Race Code		2108-9(White European)	
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/ Authenticator 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 ]	
	[ Information Recipient ]	[ Dr Henry Seven ]	
	Admission Date	6/22/2015	
	Discharge Date	6/24/2015	
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) Medication Allergies

Code	CodeSystem	[ Allergy Substance ]	Reaction	Severity	Timing Data	Concern Status
1432525 (SBD)	RxNorm	Penicillin G benzathine	Hives (code- 247472004, SNOMED-CT)	Moderate	Start Date – 5/10/1980,	Active
240984 (SCD)	RxNorm	Ampicillin 100 MG/ML / Sulbactam 50 MG/ML Injectable Solution	Hives (code- 247472004, SNOMED-CT)	Moderate	Start Date – 5/10/1980,	Active

#### B) Medications

Code	CodeSystem	[ Medication Name ]	Timing Information	Route	Frequency	Dose
309090 (SCD)	RxNorm	Ceftriaxone 100 MG/ML	StartDate: 6/22/2015, End Date 6/24/2015	Injectable	Two times daily	1 unit
214077 (SBD)	RxNorm	Vantin 100 MG (cefepodoxime 100mg)	StartDate: 6/22/2015, End Date 6/24/2015	Oral	Two times daily	1 unit
209459 (SBD)	RxNorm	Tylenol 500mg	StartDate: 6/22/2015, End Date 6/24/2015	Oral	As needed	1 unit
731184 (SCD)	RxNorm	Darbepoetin Alfa 0.5 MG/ML	StartDate: 6/22/2015, End Date 6/24/2015	Injectable	Once a week	1 unit
284215 (SCD)	RxNorm	Clindamycin 300mg	StartDate: 6/23/2015, End Date 6/24/2015	Oral	Three times daily	1 unit
198371 (SCD)	RxNorm	Torsemide 20mg	StartDate: 6/23/2015, End Date 6/24/2015	Oral	Daily	1 unit

Code	CodeSystem	[ Medication Name ]	Timing Information	Route	Frequency	Dose
892279 (SCD)	RxNorm	Levothyroxine Sodium 1 MG	StartDate: 6/23/2015, End Date: 6/24/2015	Oral	Daily	1 unit
348428 (SCD)	RxNorm	Prednisolone 50mg	Start Date :6/23/2015, End Date: 7/4/2015	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

### C) Problems

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
238131007	SNOMED-CT	Overweight (finding)	12/31/2006 – Start Date 6/1/2007 – End Date	Completed

### D) 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

E) Procedures

**Note:** Target Site is provided for context, vendors may or may not choose to include this as part of the C-CDA entries.

Code	CodeSystem	[ Procedure Name ]	[ Target Site ]	Start Date	End Date	[ Service Delivery Location ]
10847001	SNOMED-CT	Bronchoscopy	91724006 (Tracheobronchial structure (body structure))	6/22/2015	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	6/22/2015	Community Health and Hospitals 1002, Healthcare Dr, Portland, OR-97266

Code	CodeSystem	[ Procedure Name ]	[ Target Site ]	Start Date	End Date	[ Service Delivery Location ]
175135009	SNOMED-CT	Introduction of cardiac pacemaker system via vein	9454009 – Structure of subclavian vein, Code System - SNOMED-CT	10/5/2011	10/5/2011	Community Health and Hospitals 1002, Healthcare Dr, Portland, OR-97266

#### F) 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
88	CVX	Influenza Virus Vaccine	5/10/2014	Completed	1	Immuno Inc.	N/A
106	CVX	Tetanus and diphtheria toxoids	1/4/2012	Completed	2	Immuno Inc.	N/A
166	CVX	influenza, intradermal, quadrivalent, preservative free	6/22/2015	Cancelled	No Lot number provided – Vendors need to use NullFlavor	Immuno Inc.	Immunization was not given - Patient rejected immunization

#### G) Vital Signs

Code	Code System	[ Vitals Name ]	Date	Value
8302-2	LOINC	Height	6/22/2015 [ 10:05 EST ]	177 cm
29463-7	LOINC	Weight	6/22/2015 [ 10:05 EST ]	88 kg
8462-4 (Diastolic) 8480-6 (Systolic)	LOINC	Blood Pressure	6/22/2015 [ 10:08 EST ]	145/88 mmHg
8867-4	LOINC	Heart Rate	6/22/2015 [ 10:10 EST ]	80 per minute

Code	Code System	[ Vitals Name ]	Date	Value
59408-5	LOINC	O2 % BldC Oximetry	6/22/2015 [ 10:12 EST ]	95%
8310-5	LOINC	Body Temperature	6/22/2015 [ 10:15 EST ]	38 degree Celsius
9279-1	LOINC	Respiratory Rate	6/22/2015 [ 10:15 EST ]	18 breaths per minute

#### H) 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

#### I) 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 maynot choose to include them as part of their C-CDA entries.

Test Code	Code System	[ Name ]	Actual Result	Date	[ Reference Range ]
30313-1	LOINC	HGB	10.2 g/dl	6/22/2015	
33765-9	LOINC	WBC	12.3 (10+3/ul)	6/22/2015	N/A - 500,000
26515-7	LOINC	PLT	123 (10+3/ul)	6/22/2015	
50544-6	LOINC	Everolimus Blood	10 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	5.0 pH	6/22/2015	5.0-8.0
5792-7	LOINC	Glucose [Mass/volume] in urine by test strip	50mg/dl	6/22/2015	Neg



Test Code	Code System	[ Name ]	Actual Result	Date	[ Reference Range ]
5797-6	LOINC	Ketones [Mass/Volume] in urine by test strip	Negative	6/22/2015	Negative
5804-0	LOINC	Protein[Mass/Volume] in urine by test strip	100mg/dl	6/22/2015	negative

Laboratory Location Details for the above Laboratory Results: The laboratory location details are required to meet the 42 CFR 493.1291(c)(1) through (7) requirements identified in the Regulation. This information can be coded using the Author entry.

Location Item	Location Details
Id	2.16.840.1.113883.19.5
Name	Value Labs
Address	Address: 2474, Rocky place, Beaverton, OR-97006
Telephone	555-666-1002

#### J) 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

#### K) 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

L) 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.

M) 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.

N) 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

O) 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.

P) Diagnostic Imaging Report:

Test Code	Code System	[ Name ]	Date
36643-5	LOINC	Chest X-ray 2 Views	6/22/2015

Diagnostic Imaging Report – Consulting Specialists Interpretation: (**Visual Inspection** – ATL’s need to visually inspect the System Under Test (SUT) generated C-CDA for the below narrative content)

- Lungs are not clear. Other tests are required to confirm Anemia.