

In-patient setting

I. INTRODUCTION

This document contains sample test data that can be used for the certification towards objective 170.315(b)(1). 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 and be able to receive a summary care record formatted according to the C-CDA Release 1.1.

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

The following is the summary of test data presented herein for 170.315(b)(1) 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] |
|---------------------------|---------------------|

- 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. Guidance to Change Test Data: Vendors can work with their ATLs to change the test data specified below. ATLs have been provided a document on how to use the test tools to verify SUT’s capabilities when the test data is changed. This document has also been posted as part of ETT Google Group thread: https://groups.google.com/forum/#!topic/edge-test-tool/fDYr_kqp9_g

To exemplify 170.315 (b) (1), the following clinical scenario will be employed.

Document Narrative:

[Ms. Jane Clarkson is a two year old girl with a history of Hypertension, Iron deficiency and is a recipient of Renal Allograft is admitted on 6/22/2020 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) USCDI Data Class/Element: Patient Demographics

| USCDI Data Elements | Contextual Data Elements required for the Medical Record encoding to C-CDA IG | Details | Additional Information |
|--|---|--|------------------------|
| Patient Name (First Name, Last Name, Previous Name, Middle Name, Suffix) | | First Name: Jane Last Name: Clarkson Middle Name: Annie Previous Name: Suffix: | |
| Birth Sex | | Female (F) | |
| Date of Birth | | 6/1/2018 | |
| Race | | White (2106-3) | |
| More Granular Race Code | | 2108-9(White European) | |
| Ethnicity | | Not Hispanic or Latino (2186-5) | |
| Preferred Language | | English (en) | |
| Current Address | Home Address | 1357, Amber Dr, Beaverton, OR-97006 | |
| Previous Address | Previous Home Address | 1402 Dariy Dr, Beaverton, OR-97006 | |
| Phone Number | | Mobile: 555-777-1234 Home: 555-723-1544 | |
| Email Address | | janeclarkson@gmail.com | |

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 ONC Health IT Certification Program-required data elements.

| USCDI Data Class/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 | |

| USCDI Data Class/Elements | Contextual Data Elements required for medical record encoding to C-CDA | Details | Additional Information |
|---------------------------|--|--|--|
| | [Author/Legal Authenticator/ Authenticator of Electronic Medical Record] | [Dr Henry Seven Date: 6/22/2020] | |
| | [System that generated the document] | [Community Health Hospitals EMR] | |
| | [Informants] | [Frank Larson (Father) First Name: Frank Last Name: Larson] | |
| | [Medical Record Custodian] | [Community Health and Hospitals] | |
| | [Information Recipient] | [Dr Henry Seven] | |
| | Admission Date | 6/22/2020 | |
| | Discharge Date | 6/24/2020 | |
| Care Team Members | Care Team Members | Dr Henry Seven [Function: Attending Physician] Since: 6/22/2020 | |
| | [Other Participants in event] | [Mr Robert Matthews (Grand Parent) First Name: Robert Last Name: Matthews Mr Frank Larson (Father) – Same Address information as Ms Jane Clarkson.] | |
| | [Event Documentation Details or Documentation of Event] | [Dr Henry Seven (PCP) 2 day encounter Event Code = Anemia] | [Code for Anemia Finding: 164139008 , 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) USCDI Data Class/Element: Provenance Information

The following is the Provenance information that needs to be captured for each of the USCDI Data classes and elements represented by appropriate CCDA Entry templates created using the test data provided in this document.

| USCDI Data Elements | Contextual Data Elements required for medical record encoding to C-CDA | Details | Additional Information |
|---------------------|--|--|------------------------|
| [Author Name] | | [Full Name: Dr Henry Seven] [First Name: Henry] [Last Name: Seven] | |
| Author Organization | | Community Health Hospitals | |
| Author Timestamp | | 6/22/2020 11:00am ET | |

Note: If the provenance timestamp time value cannot be generated please work with your ATL to change the timestamp and demonstrate that an appropriate timestamp is being populated in the provenance template following the guidance to change test data described earlier in the document. All timestamps for provenance are expected to have time zone information.

B) USCDI Data Class/Element: Allergies and Intolerances

Note: Allergies and Intolerances are to be represented using the Allergies and Intolerances Section. The Start Date is to be represented using the effectiveTime data element of Allergy Intolerance Observation as biologically relevant time.

| Code | CodeSystem | [Allergy Substance] | Reaction | Severity | [Timing Information] | Concern Status |
|----------------|------------|--|-----------------------------------|----------|------------------------|----------------|
| 1009148 | RxNorm | [Ampicillin] Note: This is a substance of type medication. | Hives (code-247472004, SNOMED-CT) | Moderate | Start Date – 12/1/2019 | Active |

| Code | CodeSystem | [Allergy Substance] | Reaction | Severity | [Timing Information] | Concern Status |
|----------|------------|---|---|----------|------------------------|----------------|
| 16047007 | SNOMED-CT | [Product containing benzodiazepine] Note: This is a substance of type drug class. | Allergic Headache (code – 4448006, SNOMED-CT) | Mild | Start Date – 12/1/2019 | Active |

C) USCDI Data Class/Element: 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: 6/22/2020, End Date 6/30/2020 | Injectable | Two times daily | 1 unit |
| 209459 (SBD) | RxNorm | Tylenol 500mg | StartDate: 6/22/2020, End Date 7/01/2020 | Oral | As needed | 1 unit |
| 731241 (SBD) | RxNorm | Aranesp 0.5 MG/ML | StartDate: 6/22/2020, | Injectable | Once a week | 1 unit |

D) USCDI Data Class/Element: Problems

Note: Timing information is to be represented using the effectiveTime data element in the Problem Observation. Start Date is to be used as Onset Date and End Date as Resolution Date.

| Code | CodeSystem | [Problem Name] | [Timing Information] | Health concern status |
|----------|------------|-------------------------------------|------------------------|-----------------------|
| 59621000 | SNOMED-CT | Essential hypertension (Disorder,) | 6/10/2019 - Start Date | Active |
| 87522002 | SNOMED-CT | Iron deficiency anemia (disorder) | 6/22/2020 – Start Date | Active |
| 64667001 | SNOMED-CT | Interstitial pneumonia (disorder) | 6/22/2020 – Start Date | Active |

E) Encounter Diagnoses

Note: Encounter Diagnoses can be represented by either SNOMED-CT or ICD-10. So SUT can choose either the ICD-10 code or the SNOMED-CT code as appropriate from the table below based on the CodeSystem supported.

| Code | CodeSystem | [Description] | Start Date | [Service Delivery Location] |
|-------|------------|----------------------------------|------------|--|
| D63.1 | ICD-10 | Anemia in Chronic Kidney Disease | 6/22/2020 | Community Health and Hospitals 1002, Healthcare Dr, Portland, OR-97266 |

F) USCDI Data Class/Element: 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)) | 6/22/2020 | 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) | 6/22/2020 | Community Health and Hospitals 1002, Healthcare Dr, Portland, OR-97266 |

| Code | CodeSystem | [Procedure Name] | [Target Site] | [Date] | [Service Delivery Location] |
|-----------|------------|---|---|-----------|--|
| 175135009 | SNOMED-CT | Introduction of cardiac pacemaker system via vein | 9454009 – Structure of subclavian vein, Code System - SNOMED-CT | 6/12/2019 | Community Health and Hospitals 1002, Healthcare Dr, Portland, OR-97266 |

G) USCDI Data Class/Element: Immunizations

No Information.

H) USCDI Data Class/Element: Vital Signs

| Code | Code System | [Vitals Name] | Timing Information | Value and Units |
|--------------------|-------------|------------------------------|--------------------------|------------------------|
| 8462-4 (Diastolic) | LOINC | Blood Pressure-Diastolic | 6/22/2020 [10:08 EST] | Value=88 units=mm[Hg] |
| 8480-6 (Systolic) | LOINC | Blood Pressure-Systolic | 6/22/2020 [10:08 EST] | Value=145 units=mm[Hg] |
| 8867-4 | LOINC | Heart Rate | 6/22/2020 [10:10 EST] | Value=80 Units=/min |
| 59408-5 | LOINC | O2 % BldC Oximetry | 6/22/2020 [10:12 EST] | Value=95 units=% |
| 3150-0 | LOINC | Inhaled Oxygen Concentration | 6/22/2020 [10:12 EST] | Value=36 units=% |
| 8310-5 | LOINC | Body Temperature | 6/22/2020 [10:15 EST] | Value=38 Units=Cel |
| 9279-1 | LOINC | Respiratory Rate | 6/22/2020 [10:15 EST] | Value=18 units=/min |
| 8302-2 | LOINC | Height | 6/22/2020, [10:15 EST] | Value=85 units=cm |
| 29463-7 | LOINC | Weight | 6/22/2020, [10:15 EST] | Value=12 units=kg |
| 59576-9 | LOINC | BMI Percentile | 6/22/2020 [10:15 EST] | Value=56 units=% |
| 77606-2 | LOINC | Weight for Length Percentile | 6/22/2020 [10:15 EST] | Value=51 Units=% |

| Code | Code System | [Vitals Name] | Timing Information | Value and Units |
|--------|-------------|--|--------------------------|---------------------|
| 8289-1 | LOINC | Head Occipital-frontal Circumference Percentile Note: For the head occipital frontal circumference percentile of 18, the actual head circumference value would be 46.24 cm | 6/22/2020 [10:15 EST] | Value=18 Units=% |

I) USCDI Data Class/Element: Laboratory Test

No Information

J) USCDI Data Class/Element: Laboratory Values/Results

No Information

K) USCDI Data Class/Element: Smoking Status

No Information

L) USCDI Data Class/Element: Unique Device Identifiers for a Patient's Implantable Device(s)

No Information

M) USCDI Data Class/Element: 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 Clarkson for Anemia during the 2 day stay at Community Health Hospitals. Ms Clarkson 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) USCDI Data Class/Element: 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) USCDI Data Class/Element: HealthConcerns: **(Visual Inspection – ATL’s need to visually inspect the System Under Test (SUT) generated C-CDA for the below narrative content)**
 - a. Sickness exhibited by patient
 - b. HealthCare Concerns refer to underlying clinical facts
 - i. Documented HyperTension problem
 - ii. Watch Weight of patient
 - iii. 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: 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.

Q) Functional Status

No Information.

R) Cognitive Status

No Information

- S) USCDI Data Class/Element: Clinical Notes **(Visual Inspection – ATL’s need to visually inspect the System Under Test (SUT) generated C-CDA for the text content, the validator will validate the presence of the notes section and entry. Only the text content needs to be visually inspected.)**

S.1 Progress Note:

Dr Henry Seven after treating Ms Jane Clarkson has seen considerable progress in her health in the two days that she was admitted to the hospital. The note was captured on June 24th 2020 at 11am ET.

S.1 Discharge Summary Note:

Dr Henry Seven has successfully discharged Ms Jane Clarkson and has advised her to follow the diet recommendations. The patient was found to have Anemia and Dr Seven and his staff diagnosed the condition and treated Ms Clarkson for Anemia during the 2 day stay at Community Health Hospitals. Ms Clarkson 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. The note was captured on June 24th 2020 at 11am ET.