

Ambulatory 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] |
|---------------------------|---------------------|

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. Alice Newman is a 45 year old female with a history of Hypertension, Hypothyroidism, Iron deficiency and is a recipient of Renal Allograft visits Neighborhood Physicians Practice on 6/22/2015 at

10am EST. The patient disclosed history of nausea, loose stools and weakness. After initial examination the patient was found to have fever, she was administered necessary medications and after examining the history of the patient, chest x-ray and the lab results, the doctor suspected anemia. So the patient was referred to Community Health Hospitals an Inpatient facility to get appropriate treatment and was asked to watch for appropriate changes in body temperature, blood pressure and take nebulizer treatment as needed.]

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: Alice Last Name: Newman Middle Name: Jones Previous Name: Alicia Suffix: | |
| 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 |
|---|--|---|------------------------|
| Referring or Transitioning Providers Name | | Full Name: Dr Albert Davis First Name: Albert Last Name: Davis | |
| Office Contact Information | | Full Name: Tracy Davis First Name: Tracy Last Name: Davis Telephone: 555-555-1002 Address: 2472, Rocky place, Beaverton, OR-97006 | |
| | [Author/Legal Authenticator/ Authenticator of Electronic Medical Record] | [Dr Albert Davis Date: 6/22/2015] | |
| | [System that generated the document] | [Neighborhood Physicians Practice EMR] | |
| | [Informants] | [Matthew Newman (Spouse) First Name: Matthew Last Name: Newman] | |
| | [Medical Record Custodian] | [Neighborhood Physicians Practice] | |
| | [Information Recipient] | [Dr Albert Davis] | |
| | [Visit Date] | [6/22/2015] | |
| Care Team Members | Care Team Members | Dr Albert Davis Tracy Davis | |

| CCDS Data Elements | Contextual Data Elements required for medical record encoding to C-CDA | Details | Additional Information |
|--------------------|--|---|--|
| | [Other Participants in event] | [Mr Rick Holler (Grand Parent) First Name: Rick Last Name: Holler Mr Matthew Newman (Spouse) First Name: Matthew Last Name: Newman (Mr Rick and Mr Matthew have the same address information as Ms Alice.)] | |
| | [Event Documentation Details or Documentation of Event] | [Dr Albert Davis 30 minute encounter Event Code = Fever] | [Code for Fever Finding: 386661006 , 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 Information | 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 |
|------|------------|---------------------|--------------------|-------|-----------|------|
|------|------------|---------------------|--------------------|-------|-----------|------|

| Code | CodeSystem | [Medication Name] | Timing Information | Route | Frequency | Dose |
|--------------|------------|----------------------------|--|------------|-----------------|--------|
| 309090 (SCD) | RxNorm | Ceftriaxone 100 MG/ML | 6/22/2015 – Start Date 6/30/2015 – End Date | Injectable | Two times daily | 1 unit |
| 209459 (SBD) | RxNorm | Tylenol 500mg | For 10 days, starting from 6/22/2015 | Oral | As needed | 1 unit |
| 731184 (SCD) | RxNorm | Darbepoetin Alfa 0.5 MG/ML | 6/22/2015 – Start Date (No End Date) | Injectable | Once a week | 1 unit |

C) Problems

| Code | CodeSystem | [Problem Name] | Timing Information | Concern Status |
|-----------|------------|--|---|----------------|
| 59621000 | SNOMED-CT | Essential hypertension (Disorder,) | 10/5/2011 – 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 |
| 386661006 | SNOMED-CT | Fever (finding) | 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] | Date Recorded | [Service Delivery Location] |
|------|------------|-----------------|---------------|-------------------------------|
|------|------------|-----------------|---------------|-------------------------------|

| Code | CodeSystem | [Description] | Date Recorded | [Service Delivery Location] |
|-----------|------------|-----------------|---------------|---|
| 386661006 | SNOMED-CT | Fever – Finding | 6/22/2015 | Neighborhood Physicians Practice Address: 2472, Rocky place, Beaverton, OR-97006 |

E) 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 | 1 | Immuno Inc. | Immunization was not given - Patient rejected immunization |

F) Vital Signs

| Code | Code System | [Vitals Name] | Date | Value |
|---|-------------|--------------------|--------------------------|---------------------|
| 8302-2 | LOINC | Height | 6/22/2015, [10:05 EST] | 177 cm |
| 3141-9 | 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 beats per minute |
| 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 |

| Code | Code System | [Vitals Name] | Date | Value |
|--------|-------------|------------------|----------------------------|-----------------------|
| 9279-1 | LOINC | Respiratory Rate | 6/22/2015 [10:15 EST] | 18 breaths per minute |

G) 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 |

H) 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 | [Procedure Name] | Date | [Target Site] | Status | [Performer] |
|------------------------|--------------------|-----------|--|-----------|--|
| (56251003) – SNOMED-CT | Nebulizer Therapy | 6/22/2015 | 82094008- Lower Respiratory Tract Structure, Code System – SNOMED-CT | Completed | Neighborhood Physicians Practice Telephone: 555-555-1002 Address: 2472, Rocky place, Beaverton, OR-97006 |

| Code | [Procedure Name] | Date | [Target Site] | Status | [Performer] |
|-----------------------|---|-----------|---|-----------|--|
| 175135009 (SNOMED-CT) | Introduction of cardiac pacemaker system via vein | 10/5/2011 | 9454009 – Structure of subclavian vein, Code System - SNOMED-CT | Completed | Community Health Hospitals. Telephone: 555-555-1003 Address: 3525, Newberry Avenue, Beaverton, OR-97006. |

I) Laboratory Tests

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 |
| 24357-6 | LOINC | Urinalysis macro (dipstick) panel | 6/29/2015 |

J) Laboratory Values/Results

Note: The results below correspond to the Urinalysis lab test 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.

| Result Code | Code System | [Name] | Actual Result | Date | [Reference Range] |
|-------------|-------------|--|---------------|-----------|--------------------|
| 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 |
| 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 |

K) UDI:

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 fever and Dr Davis is suspecting Anemia based on the patient history. So Dr Davis asked the patient to closely monitor the temperature and blood pressure and get admitted to Community Health Hospitals if the fever does not subside within a day.
- 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. Get an EKG done on 6/23/2015.
 - ii. Take Clindamycin 300mg three times a day as needed if pain does not subside/
 - iii. Schedule follow on visit with Neighborhood Physicians Practice on 7/1/2015.

- M) Goals **(Visual Inspection** – ATL’s need to visually inspect the System Under Test (SUT) generated C-CDA for the below narrative content)
- Get rid of intermittent fever that is occurring every few weeks.
 - Need to gain more energy to do regular activities
- N) HealthConcerns **(Visual Inspection** – ATL’s need to visually inspect the System Under Test (SUT) generated C-CDA for the below narrative content)
- Chronic Sickness exhibited by patient
 - HealthCare Concerns refer to underlying clinical facts
 - Documented HyperTension problem
 - Documented HypoThyroidism problem
 - Watch Weight of patient
- O) Reason For Referral: **(Visual Inspection** – ATL’s need to visually inspect the System Under Test (SUT) generated C-CDA for the below narrative content)

Ms Alice Newman is being referred to Community Health Hospitals Inpatient facility because of the high fever noticed and suspected Anemia.

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, cannot rule out Anemia. Other tests are required to determine the presence or absence of Anemia.