BLANK PARTICIPANT

Use Case Specification: C-CDA Processing

Version 1.0

**Table of Contents**

1. C-CDA Processing 2

1.1 Brief Description 2

1.2 Assumptions 2

1.3 Exclusions 2

2. Participating Actors 2

2.1 Entities/Roles 2

Table 1: Entities and roles involved in C-CDA transactions between BLANK PARTICIPANT and the HIE. 2

3. Preconditions 2

3.1 Secure Connection 2

4. Flow of Events 3

4.1 Basic Flow 3

5. Alternative Flows 3

5.1 Schema Validation Errors 3

5.2 MPI Errors 3

6. Post Conditions 3

6.1 Successful Storage 3

7. Scenarios 3

7.1 Successfully C-CDA Process 3

7.2 C-CDA Schema Error 4

7.3 MPI Error 4

8. Special Requirements 4

8.1 C-CDA Sections 4

8.2 Phone Type crosswalk 5

9. 9.0 Addendum 5

BLANK PARTICIPANT CCDA notes 5

Receipt 5

Processing 5

Use-Case Specification: C-CDA Processing

# C-CDA Processing

## Brief Description

This use case specifies the C-CDA received from BLANK PARTICIPANT. This includes the sections received, the code sets use, and how the message will be processed and stored.

## Assumptions

The following section lists the general assumptions for this use case:

* + 1. C-CDAs received will NOT be stored (and accessible) on the XDS Registry/Repository.
    2. The C-CDAs will NOT be stored on the XDS Registry/Repository will be NOT be available to view as whole documents in the Portal.
    3. BLANK PARTICIPANT will generate a C-CDA at the end of the day for every updated encounter during that day. Each C-CDA will contain only information pertaining to that encounter.
    4. An Encounter is defined as the following: Reviewing Results, Appointments, Verifying Results, Signing a Note
    5. Initially only the header section will be parsed for patient demographics and stored in the MPI.

## Exclusions

The following section lists information that is not included in this spec:

* + 1. Operational processes are not included in this spec. This includes reporting, error handling and all other processes specific to this interface.

# Participating Actors

## Entities/Roles

|  |  |
| --- | --- |
| **Entities** | **Role** |
| BLANK PARTICIPANT | BLANK PARTICIPANT will transmit C-CDAs to the HIE via standard IHE transactions. |
| New World HIE | Coordinate and work with all the respective parties to facilitate the build, test, and deployment of the system which will route C-CDAs from BLANK PARTICIPANT to the HIE. |
| HIE Vendor | Responsible for receiving, validating, transforming, and storing data. |

# Table 1: Entities and roles involved in C-CDA transactions between BLANK PARTICIPANT and the HIE.

# Preconditions

## Secure Connection

A secure connection (HTTPS) will be used to transmit C-CDAs between BLANK PARTICIPANT and the Vendor HIE integration engine used for the HIE.

# Flow of Events

## Basic Flow

### {XDS Provide and Register}

The use case starts when the HIE receives XDS.b Provide and Register Document (ITI-41) transaction from BLANK PARTICIPANT. The document provided is registered on the HIE XDS Registry and stored in the HIE XDS Repository.

### {C-CDA Schema Validation}

The HIE validates the schema of the received C-CDA.

### {C-CDA Parse and Store}

When a C-CDA document is registered/stored this triggers Rhapsody to parse and store specified sections from the C-CDA in to the MPI. During this process any codes requiring a local crosswalk will be translated by Rhapsody look up tables where applicable.

### {Use Case Ends}

# Alternative Flows

## Schema Validation Errors

### {Schema Error}

During Step 2 of the Basic Flow (Section 4.1.2), if there is an error when validating the schema of the provided C-CDA then the document will not be able to be processed.

### {C-CDA Error Log}

The C-CDA will be rejected and the error will be logged

### {Use Case Ends}

## MPI Errors

### {MPI Error}

If an error is encountered during Step 3 of the Basic Flow (Section 4.1.3) NextGate will return an error.

### {Error Log}

A NextGate Add/Update error will be logged in Rhapsody. The C-CDA will still be stored and available in the XDS Registry and Repository.

### {Use Case Ends}

# Post Conditions

## Successful Storage

The C-CDA message is successfully registered on the XDS registry and stored in the XDS repository. Additionally the patient demographics were parsed and stored in the MPI.

# Scenarios

## Successfully C-CDA Process

A C-CDA is received via a XDS Provide and Register Transaction (ITI-41). The patient demographics are successfully parsed and stored in the MPI with no errors.

## C-CDA Schema Error

A C-CDA is received via a XDS Provide and Register Transaction (ITI-41). During the C-CDA schema validation a problem is found. The message is not processed and added to the error queue.

## MPI Error

A C-CDA is received via a XDS Provide and Register Transaction (ITI-41). During the parsing of the C-CDA the MPI encountered an error with the parsed demographics. A NextGate MPI error is logged in Rhapsody. The document is still register/stored and available from the XDS Reg/Repo.

# Special Requirements

## C-CDA Sections

The following table provides a list of all sections being received from BLANK PARTICIPANT. Greyed out lines will be stored on the XDS Registry/Repository as part of the original C-CDA but will not be parsed and stored in the CDR.

For each section of the C-CDA it is expected that all data that is capable of being displayed in the portal or sent in a C-CDA will be parsed and stored in the CDR.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **C-CDA Section** | **Optional/**  **Required** | **Template ID(s)** | **Code Set** | **Crosswalk** |
| Header | R | The patient header will not be mapped. A separate ADT interface will establish patient and encounter identity. |  |  |
| Reason for Referral | O |  |  |  |
| Reason for Visit | O |  |  |  |
| Chief Complaint | O |  |  |  |
| HPI | O |  |  |  |
| Functional Status | R |  |  |  |
| Assessment | O |  |  |  |
| Problem | R |  |  |  |
| Medication | R |  |  |  |
| Medications Administered | O |  |  |  |
| Allergy | R |  |  |  |
| Past Medical History | O |  |  |  |
| Procedure | R |  |  |  |
| Immunization | R |  |  |  |
| Family History | O |  |  |  |
| Social History | R |  |  |  |
| Vital Sign | R |  |  |  |
| Result | R |  |  |  |
| Plan Of Care | R |  |  |  |
| Intervention | O |  |  |  |
| Instruction | R |  |  |  |
| Advance Directive | O |  |  |  |
| Encounter | R |  |  |  |
| Payer | O |  |  |  |

## Phone Type crosswalk

In the incoming C-CDA the phone type sent by EXAMPLE EMR VENDOR is mapped to an appropriate value for the Vendor HIE software. The table below lists the crosswalk used to handle the code mapping.

|  |  |
| --- | --- |
| **Phone Type from EXAMPLE EMR VENDOR** | **Mapped Code for Vendor HIE software** |
| HP | CH |
| HV | CH |
| WP | CO |
| MC | CC |

# 9.0 Addendum

# BLANK PARTICIPANT CCDA notes

# Receipt

The CCDA is received by WS call, ProvideAndRegisterDocumentSet-b

## Processing

From there the document is sent to be parsed into its discreet data elements. Those elements are Allergies, Problems, Medications, Results, and Demographics. Procedures and Encounters are not captured in the CCDA even though those sections are present. Therefore Procedures and Encounters are not parsed from the CCDA.

Also of note only the parsed data elements are stored, the whole document is not stored.

### Allergies

Using RxNorm codes

All data is pulled from standard and expected locations. Except in the case we receive a UNII code. When a UNII codeSystem is indicated the route looks up the code and replaces with a corresponding SNOMED code. This translation is provided by BLANK PARTICIPANT/New World HIE.

entry.act.entryRelationship.observation.participant.participantRole.playingEntity.code.code;

### Problems

Primarily using SNOMED. Uses ICD9 when SNOMED is not supplied.

Anytime Rhapsody cannot locate a SNOMED for a problem on the value node, the code will look in the translation nodes for an ICD9 code. If an ICD9 code is found it will be used in the absence of a SNOMED code.

### Medications

Using RxNorm codes

No unusual checks, lookups, combining, or altering of data in the mapper.

### Results

Using LONIC codes

Performs LOINC lookup on each result prior to mapping output message. If the lookup finds one of the 37 non-result codes supplied by BLANK PARTICIPANT, that result entry is not mapped to the output message.

Once the mapping has determined a result to map, it then uses the lookup again to determine the DiagnosticServiceSectID. This lookup table is supplied by BLANK PARTICIPANT/New World HIE.

All other mappings are extracted from expected locations within the CCDA xml document.