

Integrating the Healthcare Enterprise



5 **IHE Patient Care Coordination (PCC)  
Technical Framework Supplement**

10 **CDA<sup>®</sup> Document Summary Section  
(CDA-DSS)**

15 **Revision 1.0 – Draft for Public Comment**

20 Date: May 25, 2018  
Author: PCC Technical Committee  
Email: [pcc@ihe.net](mailto:pcc@ihe.net)

25 **Please verify you have the most recent version of this document. See [here](#) for Trial  
Implementation and Final Text versions and [here](#) for Public Comment versions.**

## Foreword

30 This is a supplement to the IHE Patient Care Coordination Technical Framework 11.0. Each supplement undergoes a process of public comment and trial implementation before being incorporated into the volumes of the Technical Frameworks.

This supplement is published on May 25, 2018 for public comment. Comments are invited and can be submitted at [http://ihe.net/PCC\\_Public\\_Comments](http://ihe.net/PCC_Public_Comments). In order to be considered in development of the trial implementation version of the supplement, comments must be received by June 24, 2018.

35 This supplement describes changes to the existing technical framework documents.

“Boxed” instructions like the sample below indicate to the Volume Editor how to integrate the relevant section(s) into the relevant Technical Framework volume.

<i>Amend section X.X by the following:</i>
--

40 Where the amendment adds text, make the added text **bold underline**. Where the amendment removes text, make the removed text **~~bold strikethrough~~**. When entire new sections are added, introduce with editor’s instructions to “add new text” or similar, which for readability are not bolded or underlined.

General information about IHE can be found at [www.ihe.net](http://www.ihe.net).

45 Information about the IHE Patient Care Coordination domain can be found at [ihe.net/IHE\\_Domains](http://ihe.net/IHE_Domains).

Information about the organization of IHE Technical Frameworks and Supplements and the process used to create them can be found at [http://ihe.net/IHE\\_Process](http://ihe.net/IHE_Process) and <http://ihe.net/Profiles>.

50 The current version of the IHE Patient Care Coordination Technical Framework can be found at [http://ihe.net/Technical\\_Frameworks](http://ihe.net/Technical_Frameworks).

## CONTENTS

55	Introduction to this Supplement.....	5
	Open Issues and Questions .....	5
	Closed Issues.....	5
	General Introduction and Shared Appendices .....	6
	Appendix A – Actor Summary Definitions .....	6
60	Appendix B – Transaction Summary Definitions.....	6
	Appendix D – Glossary.....	6
	<b>Volume 1 – Profiles .....</b>	<b>7</b>
	Copyright Licenses.....	7
	Domain-specific additions .....	7
65	X CDA Document Summary Section Profile (CDA-DSS) .....	8
	X.1 CDA-DSS Actors, Transactions, and Content Modules .....	8
	X.1.1 Actor Descriptions and Actor Profile Requirements.....	10
	X.1.1.1 Content Creator.....	10
	X.1.1.2 Content Consumer .....	10
70	X.1.2 Content Modules .....	10
	X.2 CDA-DSS Actor Options .....	11
	X.2.1 Summary Section Option .....	11
	X.2.2 Summary Section View Option.....	11
	X.3 CDA-DSS Required Actor Groupings .....	11
75	X.4 CDA-DSS Overview .....	11
	X.4.1 Concepts .....	13
	X.4.1.1 Considerations for User Defined Summary Section Views .....	13
	X.4.1.1.1 Status and Dates.....	14
	X.4.1.1.2 New or Previously Unknown Data or Relationships.....	14
80	X.4.1.1.3 Changes in Treatment, Diagnosis or Related Information .....	14
	X.4.1.1.4 Corrections to previously reported Treatment or Diagnosis.....	15
	X.4.1.1.5 Rendering Trends.....	15
	X.4.2 Use Cases .....	15
	X.4.2.1 Use Case #1: User Defined Summary Section View .....	15
85	X.4.2.1.1 User Defined Summary Section View Use Case Description .....	16
	X.4.2.1.2 User Defined Summary Section View Process Flow .....	17
	X.4.2.2 Use Case #2: Care Plan Summary Section .....	18
	X.4.2.2.1 Care Plan Summary Section Use Case Description.....	18
	X.4.2.2.2 Care Plan Summary Section Process Flow .....	19
90	X.4.2.3 Use Case #3: Encounter Summary Section .....	20
	X.4.2.3.1 Encounter Summary Section Use Case Description.....	20
	X.4.2.3.2 Encounter Summary Section Process Flow .....	21
	X.4.2.4 Use Case #4: Active/Planned Medications Summary Section .....	22
	X.4.2.4.1 Active/Planned Medications Summary Section Use Case Description.....	22
95	X.4.2.4.2 Active/Planned Medications Summary Section Process Flow .....	23

	X.4.2.5 Use Case #5: Document Summary Section.....	24
	X.4.2.5.1 Document Summary Section Use Case Description.....	24
	X.4.2.5.2 Document Summary Section Process Flow.....	25
100	X.4.2.6 Use Case #6: Notes Section.....	26
	X.4.2.6.1 Notes Section Use Case Description.....	26
	X.4.2.6.2 Notes Section Process Flow.....	27
	X.4.2.7 Use Case #7: Care Team Summary Section.....	28
	X.4.2.7.1 Care Team Summary Section Use Case Description.....	28
	X.4.2.7.2 Care Team Summary Section Process Flow.....	29
105	X.5 CDA-DSS Security Considerations.....	30
	X.6 CDA-DSS Cross Profile Considerations.....	30
	<b>Volume 2 – Transactions.....</b>	<b>31</b>
	Appendices.....	32
	Volume 2 Namespace Additions.....	33
110	<b>Volume 3 – Content Modules.....</b>	<b>34</b>
	5 IHE Namespaces, Concept Domains and Vocabularies.....	35
	5.1 IHE Namespaces.....	35
	5.2 IHE Concept Domains.....	35
	5.3 IHE Format Codes and Vocabularies.....	35
115	5.3.1 IHE Format Codes.....	35
	5.3.2 IHEActCode Vocabulary.....	35
	5.3.3 IHERoleCode Vocabulary.....	35
	6 Content Modules.....	36
	6.3.1 CDA Document Content Module.....	36
120	6.3.3 CDA Section Content Modules.....	36
	6.3.3.10.S1 Care Plan Summary Section Content Module.....	36
	6.3.3.10.S1.1 Care Plan Summary Section Condition.....	36
	6.3.3.10.S2 Encounter Summary Section Content Module.....	37
125	6.3.3.10.S2.1 Encounter Summary Section Condition, Specification Document, or Vocabulary Constraint.....	37
	6.3.3.10.S3 Active/Planned Medication Summary Section Content Module.....	38
	6.3.3.10.S3.1 Active/Planned Medication Summary Section.....	39
	6.3.3.10.S4 Document Summary Section Content Module.....	40
	6.3.3.10.S4.1 Document Summary Section.....	40
130	6.3.3.10.S5 Notes Section Content Module.....	41
	6.3.3.10.S6 Care Team Summary Section Content Module.....	43
	6.3.3.10.S6.1 Care Team Summary Section.....	43
	6.3.4 CDA Entry Content Modules.....	43
	Appendices.....	44
135	<b>Volume 4 – National Extensions.....</b>	<b>45</b>
	4 National Extensions.....	45

## **Introduction to this Supplement**

- 140 Current CDA<sup>®1</sup> content profiles do not capture specific summary information about a document based on user need. Nor does it capture summary information about content in varying section(s) that is needed to be communicated to the reader (e.g., provider and/or patient) in a concise way. This profile will provide a way to communicate precise information about a document or section(s) in a useful way.

## **145 Open Issues and Questions**

1. How should HL7 C-CDA templates be handled in the Supplement template (Volume 6) when there is a need to internationalize content? Should there be in internationalized ‘template’?

## **Closed Issues**

- 150 None.

---

<sup>1</sup> CDA is the registered trademark of Health Level Seven International.

## General Introduction and Shared Appendices

*Update the following appendices to the General Introduction as indicated below. Note that these are **not** appendices to Volume 1.*

### 155 **Appendix A – Actor Summary Definitions**

*Add the following actors to the IHE Technical Frameworks General Introduction Appendix A:*

No new actors.

### **Appendix B – Transaction Summary Definitions**

160 *Add the following transactions to the IHE Technical Frameworks General Introduction Appendix B:*

No new transactions.

### **Appendix D – Glossary**

*Add the following **new** glossary terms to the IHE Technical Frameworks General Introduction Appendix D.*

165 No new glossary terms.

# Volume 1 – Profiles

## Copyright Licenses

*Add the following to the IHE Technical Frameworks General Introduction Copyright section:*

Not applicable

## 170 Domain-specific additions

None

*Add new Section X*

175 **X CDA Document Summary Section Profile (CDA-DSS)**

CDA Document Summary Section is a content profile that defines means of providing a concise summary about a document or summary of content in a CDA document based on user expectations. Depending on use case, a Document Summary Section can be added to a CDA document if the document template is open.

180 A Document Summary Section can be constructed by:

1. Dynamically populating the section with data found in existing section(s) in the document. The data is used to view or create a composite, single summary section that summarizes pertinent information. The data that goes in the Summary Section can be user defined or can be based on specified use cases provided in this profile.
- 185 2. Use of a pre-defined section template such as the Notes Section or the Care Team Section, etc.

The Summary Section can be rendered for viewing. It can also be imported when possible (i.e., contains discrete entries) by the user if desired.

**X.1 CDA-DSS Actors, Transactions, and Content Modules**

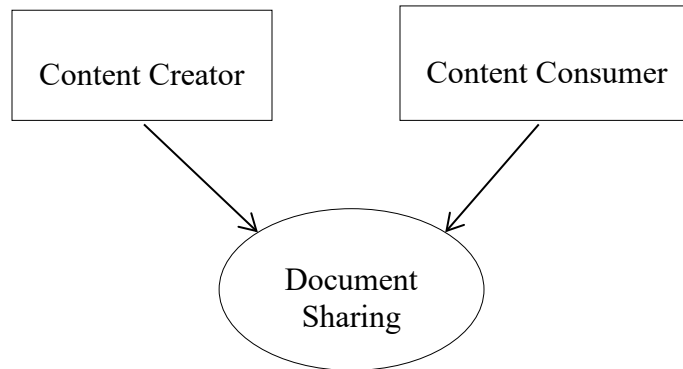
190 This section defines the actors, transactions, and/or content modules in this profile. General definitions of actors are given in the Technical Frameworks General Introduction Appendix A at [http://www.ihe.net/Technical\\_Frameworks](http://www.ihe.net/Technical_Frameworks).

Figure X.1-1 shows the actors involved in the Summary Section Integration Profile and the relevant transactions between them.

195







**Figure X.1-1: CDA-DSS Actor Diagram**

200 The CDA-DSS Profile introduces actor options for Content Creator and Content Consumer. These options are used in addition to the Content Creator and Content Consumer Options defined by other Patient Care Coordination profiles.

205 Table X.1-1 lists the transactions for each actor directly involved in the Summary Section Profile. In order to claim support of this integration profile, an implementation must perform the required transactions (labeled “R”). Transactions labeled “O” are optional. A complete list of options defined by this profile and that implementations may choose to support are listed in Volume 1, Section X.2.

**Table X.1-1: Summary Section Integration Profile - Actors and Transactions**

Actors	Transactions	Optionality	Section in TF
Content Creator	Document Sharing [PCC-1]	R	PCC TF-2:3.1
Content Consumer	Document Sharing [PCC-1]	R	PCC TF-2:3.1

210 Table X.1-2 lists the content module(s) defined in the CDA-DSS Profile. To claim support with this profile, an actor shall support all required content modules (labeled “R”) and may support optional content modules (labeled “O”).

**Table X.1-2: CDA-DSS – Actors and Content Modules**

Actors	Content Modules	Optionality	Reference
	Document Summary Section Template ID 1.3.6.1.4.1.19376.1.4.1.2.16	O	PCC TF-3: 6.3.1.S4
	Notes Summary Section Template ID 2.16.840.1.113883.10.20.22.2.65:2016-11-01	O	PCC TF-3: 6.3.1.S5

Actors	Content Modules	Optionality	Reference
	Care Plan Summary Section Template ID 1.3.6.1.4.1.19376.1.5.3.1.1.26.1.8	O	PCC TF-3: 6.3.3.S1
	Encounter Summary Section Template ID 1.3.6.1.4.1.19376.1.5.3.1.1.26.1.9	O	PCC TF-3: 6.3.1.S2
	Care Team Summary Section Template ID 1.3.6.1.4.1.19376.1.5.3.1.1.26.1.11	O	PCC TF-3: 6.3.1.S6
	Active/Planned Medication Summary Section Template ID 1.3.6.1.4.1.19376.1.5.3.1.1.26.1.10	O	PCC TF-3: 6.3.1.S3

215 **X.1.1 Actor Descriptions and Actor Profile Requirements**

**X.1.1.1 Content Creator**

A Content Creator that supports the CDA-DSS Profile shall support the Summary Section Option. See PCC TF-2: 3.Y.1

- 1. The Content Creator SHALL create a document with at least one summary section.
- 220 2. The Content Creator MAY create content conforming to a profile supporting a Medical Summary as defined in PCC TF-2:6.3.1.2 Medical Summary.
- 3. The Content Creator MAY create content conforming to a profile supporting a Consolidated CDA Implementation Guide Document.

**X.1.1.2 Content Consumer**

225 The Content Consumer that supports the CDA-DSS Profile shall support the Summary Section Option. See PCC TF-2: 3.Y.1

- 1. The Content Consumer SHALL render at least one summary section.
- 2. The Content Consumer MAY implement a content profile supporting a Medical Summary as defined in PCC TF-2:6.3.1.2 Medical Summary.
- 230 3. The Content Consumer MAY implement a content profile supporting documents as defined by C-CDA Implementation Guide

**X.1.2 Content Modules**

235 Table X.1.2-1 lists the content module(s) defined in the CDA-DSS Profile. To claim support with this profile, an actor shall support all required content modules (labeled “R”) and may support optional content modules (labeled “O”).

**Table X.1.2-1: Summary Section Content Modules**

Content Modules	Optionality	Template ID
Document Summary Section	O	1.3.6.1.4.1.19376.1.4.1.2.16
Notes Section	O	2.16.840.1.113883.10.20.22.2.65:2016-11-01
Care Plan Summary Section	O	1.3.6.1.4.1.19376.1.5.3.1.1.26.1.8
Encounter Summary Section	O	1.3.6.1.4.1.19376.1.5.3.1.1.26.1.9
Care Team Section	O	1.3.6.1.4.1.19376.1.5.3.1.1.26.1.11
Active/Planned Medication Section	O	1.3.6.1.4.1.19376.1.5.3.1.1.26.1.10

## X.2 CDA-DSS Actor Options

Options that may be selected for this profile are listed in the Table X.2-1 along with the actors to which they apply. Dependencies between options when applicable are specified in notes.

240

**Table X.2-1: CDA-DSS – Actors and Options**

Actor	Option Name	Reference
Content Creator	Summary Section Option	PCC TF- 2: 3.Y.1
Content Consumer	Summary Section View Option	PCC TF- 2: 3.Y.2

### X.2.1 Summary Section Option

A Content Creator that supports the Summary Section Option SHALL provide the capability to provide the section for a Content Consumer to render by producing documents that include the summary section(s).

245

### X.2.2 Summary Section View Option

The Content Consumer that supports the Summary Section View Option SHALL be able to determine how to render the summary section(s).

## X.3 CDA-DSS Required Actor Groupings

**Table X.3-1: CDA-DSS - Required Actor Groupings**

CDA-DSS Actor	Actor(s) to be grouped with	Reference	Content Bindings Reference
Content Creator	None	--	--
Content Consumer	None	--	--

250

## X.4 CDA-DSS Overview

Providing a concise summary of a document based on specific user expectations can be time saving for a provider. It can also reflect what the patient needs to see in a way that is not too overwhelming. This profile enables the ability to provide relevant and pertinent information in

255 sections that are concise and that support a specific purpose that the receiver and sender specifies. This allows the large amount of information in a CDA document to be provided yet at the same time not become overwhelming for the reader of the document.

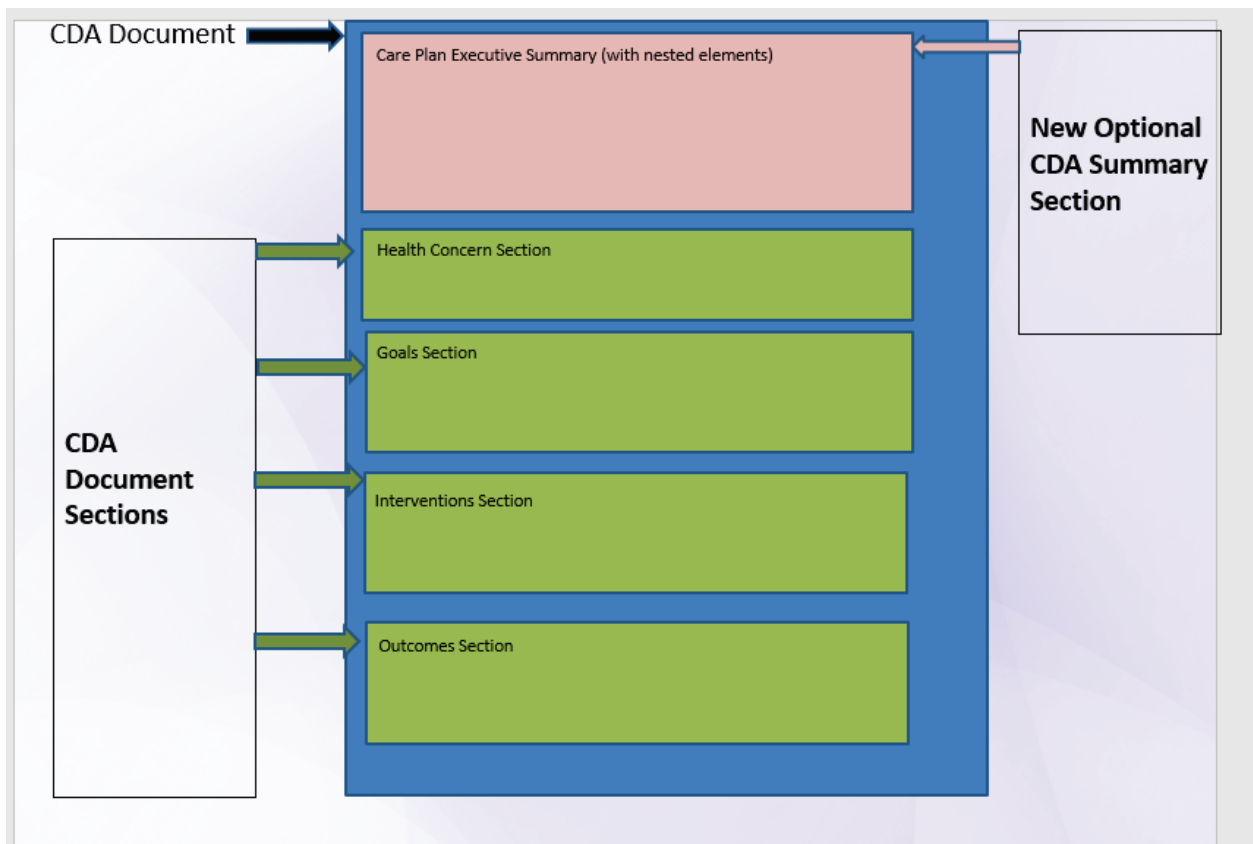
The definition of a summary section is based on specific use cases. A summary section can be added to any CDA document that is an open template. A summary section can be constructed dynamically, or a pre-defined section template can be used.

- 260
1. A summary section can be user defined. For example, a user can decide to create a summary section that lists procedures the patient had in the last six months. If the document has sections containing procedures with the relevant procedure dates, the applicable procedures can be rendered in the User Defined Summary Section View.
  - 265 2. A summary section can be a pre-defined section template. For example, the Notes Section is a pre-defined HL7<sup>®2</sup> C-CDA section template. The Document Summary Section and the Care Plan Summary Section are pre-defined IHE section templates.
  - 270 3. A summary section can be use case defined. For example, the Care Plan Summary Section can be dynamically created based on content from the relevant care plan sections. The applicable content is then rendered in the Care Plan Summary Section as defined by this IHE profile. Figure X.4-1 shows a Care Plan Summary Section in a Care Plan Document.

The following is an example of how care plan content may be represented in a CDA document with a summary section:

---

<sup>2</sup> HL7 is the registered trademark of Health Level Seven International.



275

**Figure X.4-1: Example of a Care Plan Summary Section**

### X.4.1 Concepts

A Summary Section can be generated for viewing or added to a CDA document when the document is created. A Summary Section can also be generated and viewed when a CDA document is received.

280

1. A user can create a User Defined Summary Section View based on user defined criteria when a CDA document is received.
2. A user can create a predefined Summary Section based on identified use cases when a CDA document is generated as well as when a CDA document is received.
3. A user can add a predefined summary section template to a document when the document is created.

285

#### X.4.1.1 Considerations for User Defined Summary Section Views

When a CDA document is received, a Summary Section View can be generated. The receiving system uses business logic to determine the content that is viewed. The following concepts can be taken into consideration to create varying views.

290 **X.4.1.1.1 Status and Dates**

Changes in the status of a data item often change the context of meaning of the data item **in relationship to a particular point in time**. However, these status updates **do not** change the fundamental meaning of the item.

295 Status updates are changes such as “this medication has been discontinued”, or “this problem is now resolved”. Status updates report on the normal evolution of a data item over time.

Implementers of the Summary Section View Option will need to examine the `status` to determine if the statuses of two data items are different. Decision of what to do with statuses of compared items should be part of the clinical workflow to support care.

300 A receiving system (Content Consumer) receives a CDA document and compares the patient problems that have been documented in the system with problems received in the document. The system business rule is to provide a summary section view containing comparable problems with applicable statuses and related dates. For example, the receiving system contains a documented cough problem, active status, onset date of March 1, 2017 (effective time low) and no resolved date (effective time high). The document that was received has the same cough problem,  
305 resolved status, onset date dated March 21, 2017 (effective time low) and resolved date of June 5, 2017 (effective time high). The system presents a summary section view with this information to the provider. This will assist in driving clinical workflows such as reconciling clinical data, as well as support for clinical decision making.

**X.4.1.1.2 New or Previously Unknown Data or Relationships**

310 When a CDA document is received, the receiving system business rules can determine if the sections in the CDA document contains data items that are not known by the system and render Summary Sections Views containing these data elements. The presented information can be used to assist in driving clinical workflows such as reconciling clinical data, as well as support for clinical decision making.

315 **X.4.1.1.3 Changes in Treatment, Diagnosis or Related Information**

When a CDA document is received, the receiving system business rules can determine if there are changes in the received document from previously documented content in the receiving system. The changes in the received document can create new “facts” that supplant or replace previously documented data items.

320 Perhaps the most common example is a change in dose for a particular medication, or substitution of a different medication for an existing medication that is being discontinued. In these cases, the new content provides an update to the existing documented content.

The presented information can be used to assist in driving clinical workflows such as reconciling clinical data, as well as support for clinical decision making.

325 **X.4.1.1.4 Corrections to previously reported Treatment or Diagnosis**

It is only when a data item was incorrectly reported that this concept applies. The receiving system received data elements from a previous CDA document containing incorrect data elements and the incorrect data elements were imported by the receiving system. The receiving system receives a subsequent CDA document with corrected data elements. Business rules can support a summary section view of the replacement data elements.

330

For example, a receiving system receives a CDA document with a problem section containing problems diabetes, asthma and pneumonia. The receiving system subsequently imports the three problems. The receiving system later receives a **replacement document** with a problem section containing problems diabetes, asthma and migraine (the pneumonia has been removed and migraine has been added). Business rules can determine that a replacement document has been provided because the replacement document contains a CDA relatedDocument element with @typeCode of RPLC. The replacement document contains a problem section with a removed problem and a newly added problem. The receiving system can render a User Defined Summary Section showing a comparison of the problems from the problem section of both documents. The presented information can be used to assist in driving clinical workflows such as reconciling clinical data, as well as support for clinical decision making.

335

340

**X.4.1.1.5 Rendering Trends**

This concept is used to render data elements that provides the ability to display trending of values such as vital signs and/or result observations, etc. The receiving system can gather data points in the received CDA document base on the observation effective time. This provides the ability to display the following:

345

- Most recent data elements.
- Data elements based on relevant trends such as displaying the comparison between the lowest and highest values (e.g., lowest weight value and the highest weight value) along the relevant effective time. This will provide the ability to show clinical relevance such as the time period it has taken for the patient’s weight to trend upwards.
- Values can be grouped by time precision of minute such as heart rate per minute or respiratory rate per minute. Other values can be grouped by day precision such as height or head circumference. Displaying grouped values together provides ability to determine clinical trends such as increase/decrease weight along with trends in blood pressure and heart rate.

350

355

**X.4.2 Use Cases**

**X.4.2.1 Use Case #1: User Defined Summary Section View**

This use case involves a Primary Care Physician (PCP) generating a User Defined Summary Section View based on content in a CDA document he has received. The information in the User Defined Summary Section View can be used to better direct the patient’s care.

360

#### **X.4.2.1.1 User Defined Summary Section View Use Case Description**

365 This use case involves a patient being seen by his PCP for an emergency department (ED)  
follow-up encounter. The patient was seen in the ED recently for complaints of chronic back  
pain. The PCP has access to the patient’s continuity of care document (CCD<sup>3</sup>) generated at the  
completion of the ED visit. The following is an example of how the User Defined Summary  
Section View is used. The PCP would like to view a summary section which lists all the ED  
visits this patient has had in the past six months including the reason for the visit and a list of  
370 medications prescribed during each of those ED visits. This may assist the provider in  
determining if a patient may be demonstrating drug seeking behavior.

375

380

385

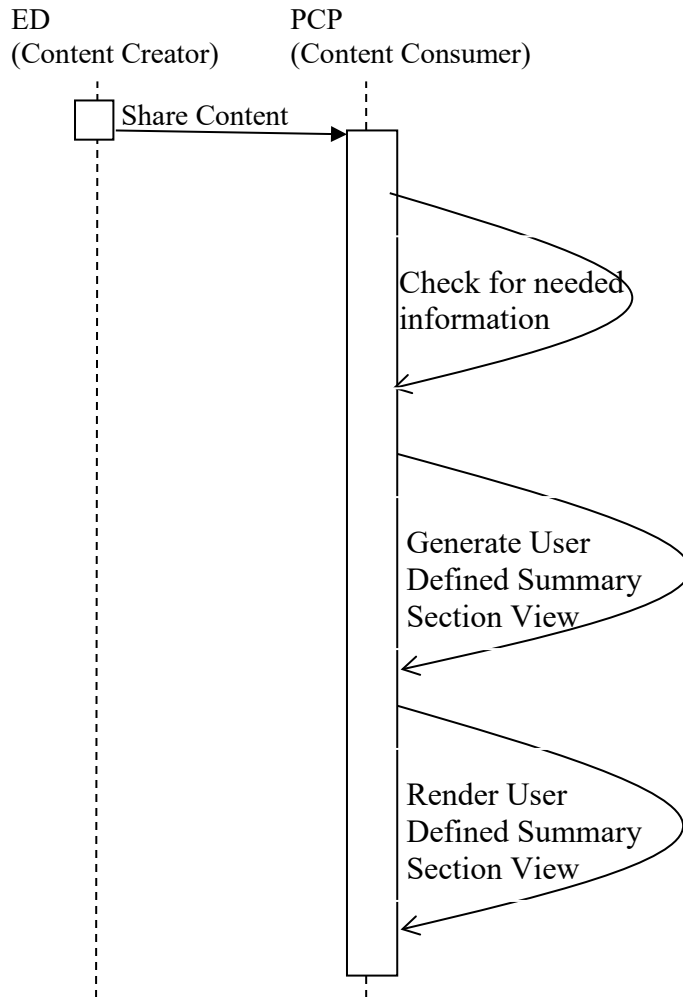
390

---

<sup>3</sup> CCD is the registered trademark of Health Level Seven International.



**X.4.2.1.2 User Defined Summary Section View Process Flow**



**Figure X.4.2.1.2-1: Basic Process Flow in CDA-DSS Profile**

395 Pre-conditions:

The ED CCD must contain the information needed to satisfy the user defined preferences that would go in the User Defined Summary Section View.

Main Flow:

400 The Content Consumer provides the ability to check the CCD generated by the ED for the needed information based on the Content Consumer user defined preference. The user defined preference includes encounters of ED visit type and encounter dates within the past six months. The user preference also includes medication information that is associated with the applicable ED encounters found in the ED CCD.

Post Conditions:

- 405 A User Defined Summary Section View is generated containing a list of ED visits in the last six months. Each encounter has the medications prescribed/administered during the encounter.

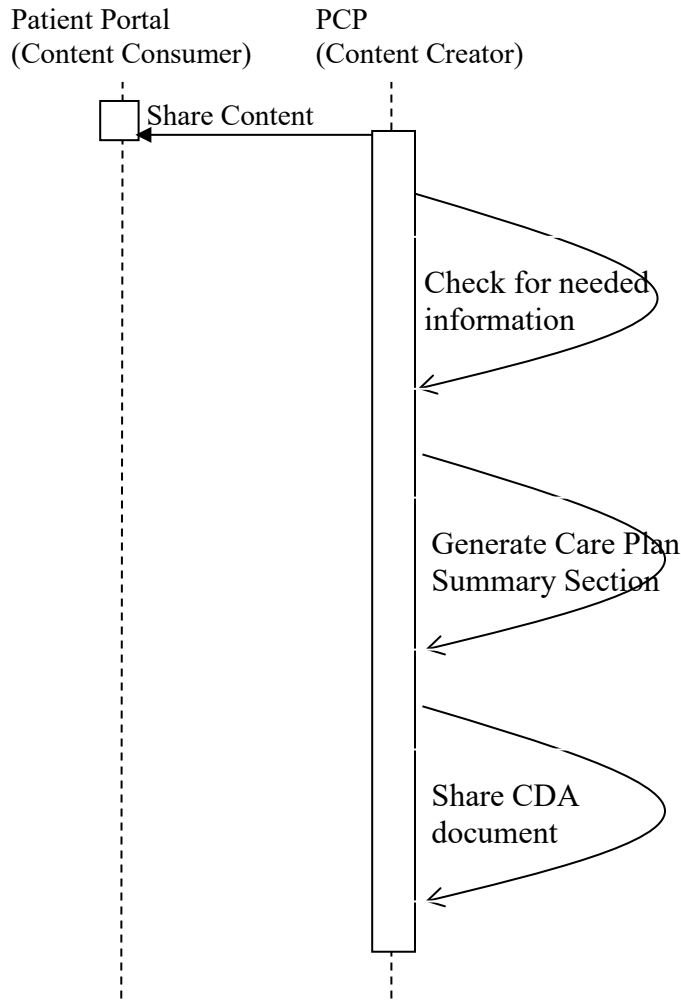
#### **X.4.2.2 Use Case #2: Care Plan Summary Section**

- 410 This use case involves a Primary Care Physician (PCP) generating and sharing a Care Plan Summary Section based on content in a care plan document. The PCP would like to view the care plan content with its applicable linkages to get a better understanding of the various health concerns that may be related to the same goals along with the applicable interventions. This will help the PCP in understanding which interventions are effective in assisting the patient attain desirable outcomes so that he is better able to direct his patient's care.

##### **X.4.2.2.1 Care Plan Summary Section Use Case Description**

- 415 This use case involves a patient visiting their Primary Care Physician for a routine visit. The patient arrives at the clinic with a list of health concerns that he wishes to discuss. The patient's sleep apnea, an existing condition, is getting worse. He has also developed frequent headaches. The PCP makes note of these new health concerns and performs a physical examination. He notes that the patient's weight has increased since his last visit, which may be an aggravating
- 420 factor. They agree to create a new care plan goal to reduce the patient's weight by ten percent and re-evaluate the condition when that goal has been reached before considering any more invasive treatment. In the meantime, the PCP prescribes an analgesic to help with the headaches. The PCP produces a care plan document at the end of the visit and shares it with the patient, as he wants to provide his patient with a meaningful recap of what they discussed during the visit.
- 425 This document contains the health concerns with related goals, interventions and planned interventions as well as outcomes discussed during this visit. The PCP would like for the patient to fully understand the care plan they have agreed on. The care plan includes a Care Plan Summary Section that is shows the care plan content with its applicable linkages.

**X.4.2.2.2 Care Plan Summary Section Process Flow**



430

**Figure X.4.2.2.2-1: Basic Process Flow in CDA-DSS Profile**

Pre-conditions:

The PCP care plan document must contain the information needed to satisfy the Care Plan Summary Section rendering.

435

Main Flow:

The content creator provides the ability to check the care plan document for the information needed to create the care plan summary section. At a minimal, the care plan document includes a health concern section with health concerns linked to the applicable goal(s). The goal references and is referenced by content in the interventions section. The interventions are referenced by content in the health status and evaluation section.

440

Post Conditions:

A Care Plan Summary Section is generated containing the care plan document components showing the relevant linkages. The document containing the Care Plan Summary Section is shared with the patient.

445 **X.4.2.3 Use Case #3: Encounter Summary Section**

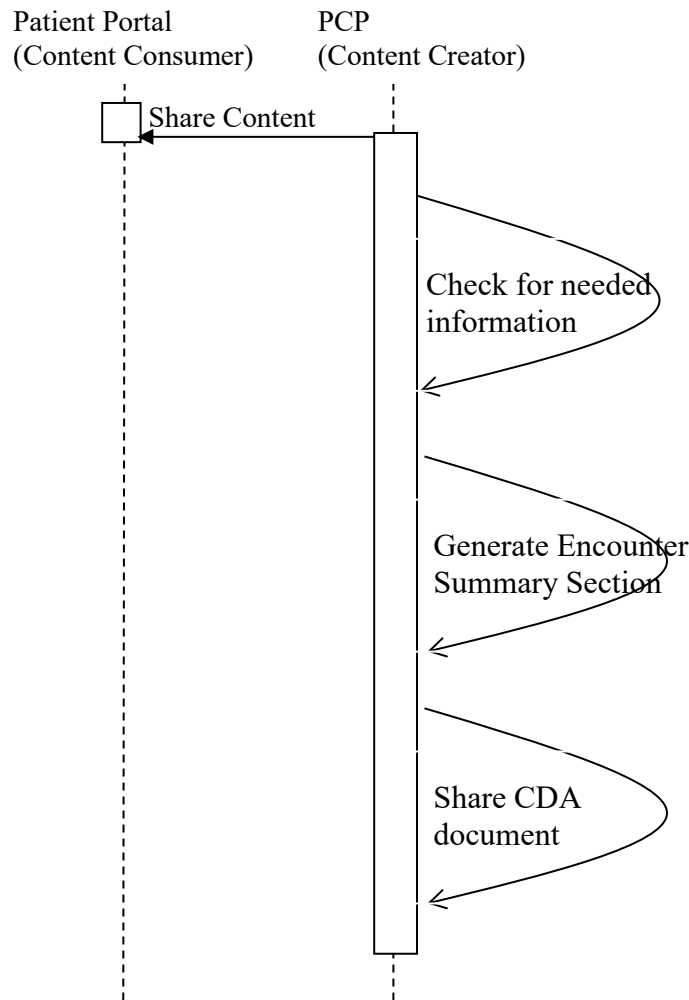
This use case involves a Primary Care Physician (PCP) generating and sharing specific information that was discussed, planned and accomplished during a specific encounter. An Encounter Summary Section is based on content in an encounter based CDA document that is concise and is provided to the patient as a reminder or to assist the patient in keeping abreast of specifics of an encounter. This will assist the PCP better direct the patient's care and supports the patient's engagement in his care.

**X.4.2.3.1 Encounter Summary Section Use Case Description**

This use case involves a patient visiting his Primary Care Physician for a routine visit. The patient arrives at the clinic with a list of problems that he wishes to discuss. The patient's joint pain, an existing condition, is getting worse. He has also developed frequent heartburn. The PCP makes note of these new problems and performs a physical examination. He notes that the patient's weight has decreased since his last visit, which may be due to decrease appetite related to his heartburn complaint. The PCP refers the patient to an ear, nose and throat (ENT) specialist. In the meantime, he starts the patient on an acid reducing medication, adjusts the amount of anti-inflammatory over-the-counter medication the patient is currently taking. He also prescribes a new narcotic pain medication for the patient to help with the joint pain.

The PCP produces an encounter based document at the end of the visit and shares it with his patient. He wants to provide his patient with a meaningful recap of what they discussed during the visit. The encounter based document contains the medications that were changed, added and reviewed during this visit as well as instructions and procedures performed. However, due to the requirements of the document type specification it also contains other medications and problems, along with other types of information, such as immunizations, that were not addressed. The PCP would like to generate an Encounter Summary Section specific to the things that were pertinent to his interactions with the patient during the encounter.

470 **X.4.2.3.2 Encounter Summary Section Process Flow**



**Figure X.4.2.3.2-1: Basic Process Flow in CDA-DSS Profile**

Pre-conditions:

475 The PCP CDA encounter document must contain the information needed to satisfy the Encounter Summary Section rendering.

Main Flow:

480 The content creator provides the ability to check the CDA document for the information needed to create the Encounter Summary Section. At a minimal, the CDA document includes the pertinent encounter related content. This information will be used to populate the Encounter Summary Section. For example, the PCP would like to generate an Encounter Summary Section with medications that were changed, prescribed or discontinued during the encounter, as well as applicable procedures that were done and instructions that were provided. The document will

need to contain the applicable medications, procedures and instructions information. This information is used to populate the Encounter Summary Section.

485 Post Conditions:

An Encounter Summary Section containing the relevant medication, procedure and instructions components is generated. The encounter document containing the Encounter Summary Section is shared with the patient.

#### **X.4.2.4 Use Case #4: Active/Planned Medications Summary Section**

490 This use case involves a Consulting Physician generating and viewing medication information in a referral document he has received.

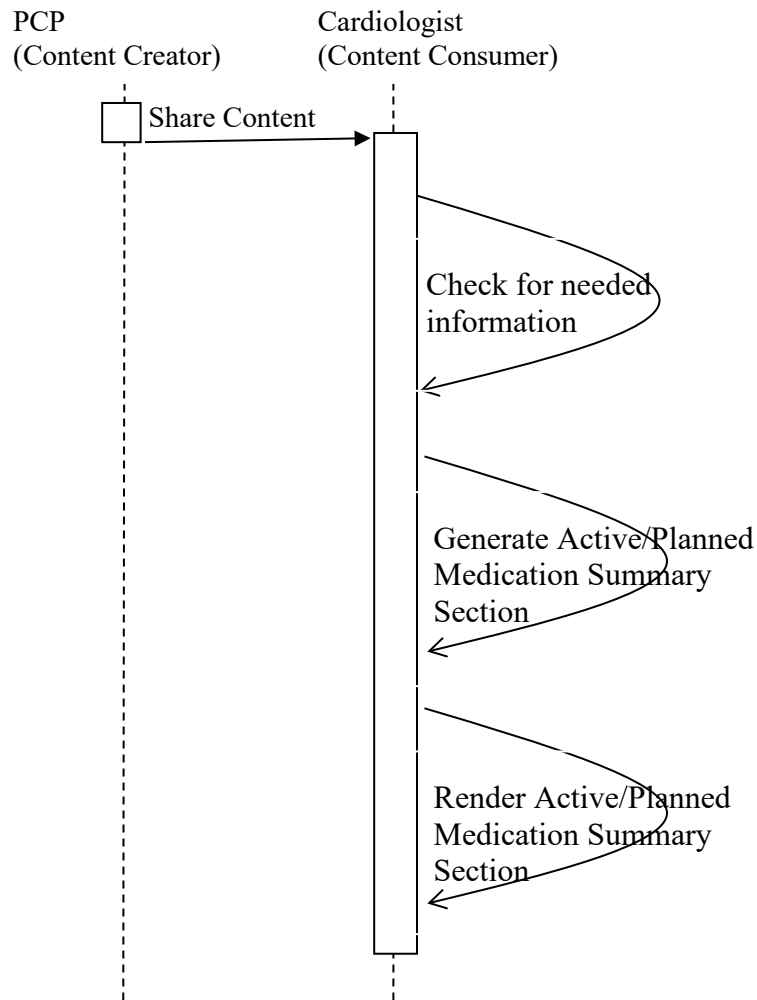
##### **X.4.2.4.1 Active/Planned Medications Summary Section Use Case Description**

495 This use case involves the referral of a patient from their Primary Care Physician to a specialist (Consulting Provider). The patient, who is a diabetic, arrives at the primary care provider's clinic for a yearly physical. During the physical exam, the PCP notes some signs of irregularities with the patient's cardiac system. The PCP decides to refer the patient to a Cardiologist for further evaluation and treatment of the issue.

500 The PCP produces a referral document at the end of the visit and shares it with the specialist. This document contains the problems, physical exam, allergies, procedures, lab results and medications for the patient.

505 The specialist receives the document and notices the medication section is extremely long with a list of medications that the patient is currently taking, medications that have been prescribed but the patient has not started taking and medications that the patient is no longer taking. To further determine how to diagnose and treat the patient, the cardiologist would like to see all current and planned medications along with their related indications.

**X.4.2.4.2 Active/Planned Medications Summary Section Process Flow**



**Figure X.4.2.4.2-1: Basic Process Flow in CDA-DSS Profile**

Pre-conditions:

- 510 The PCP referral document must contain the information needed to satisfy the Active/Planned Medications Summary Section rendering.

Main Flow:

- 515 The content creator provides the ability to check the referral document for the information needed to create the Active/Planned Medications Summary Section. At a minimal, the referral document includes the pertinent medication related content. This information will be used to populate the Active/Planned Medications Summary Section. For example, the Specialist would like to generate an Active/Planned Medications Summary Section with medications that are

active (patient is currently taking) and mediations that are planned (patient is to start taking at a future time), as well as applicable indications for each medication.

520 Post Conditions:

An Active/Planned Medications Summary Section is generated containing the relevant active and planned medications along with the applicable indications. The Active/Planned Medications Summary Section is rendered to be viewed by the Specialist.

#### **X.4.2.5 Use Case #5: Document Summary Section**

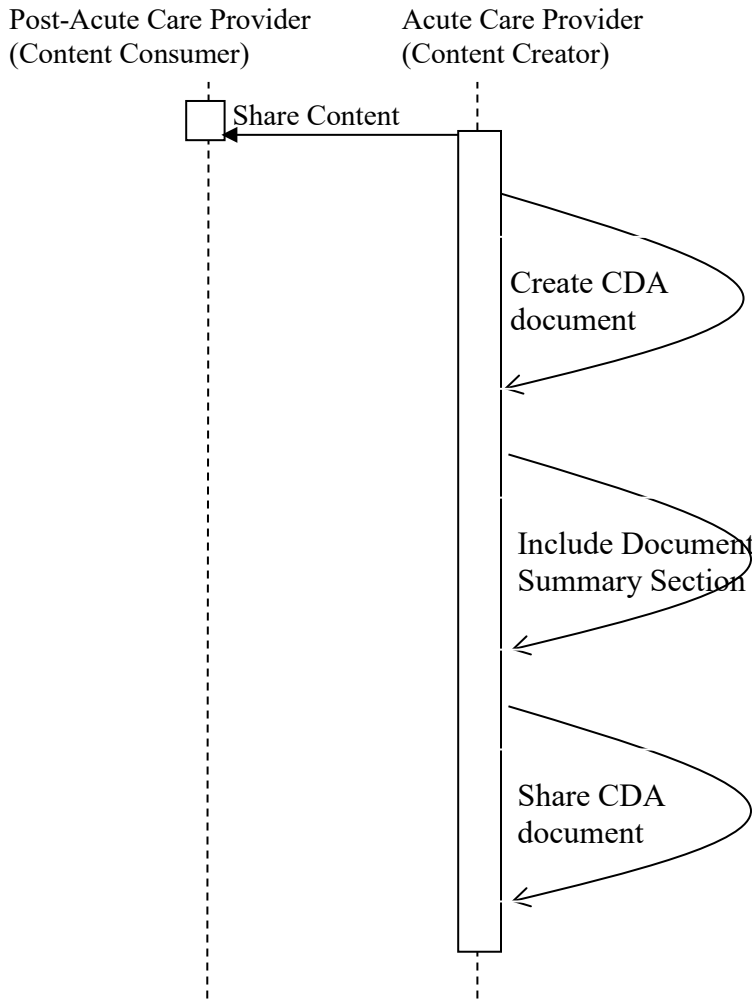
525 A provider is sending a CDA document and would like to communicate specific information to the receiving provider about the document or relevant information in the document. The provider creates the CDA document and include a Document Summary Section which contains the needed information.

##### **X.4.2.5.1 Document Summary Section Use Case Description**

530 This use case involves the transition of a patient from one care setting to another. The patient suffered a recent traumatic brain injury and is transferring from an acute rehabilitation care setting to a post-acute care setting. The transferring provider creates a CDA Transfer Summary Document. He would like the receiving provider to know the purpose of the document and portions or items in the document that the receiving provider should pay special attention to. The  
535 Transfer Summary document contains the problems, physical exam, allergies, procedures, lab results and medications for the patient. The transferring provider includes a Document Summary Section which contains information about the purpose of document. He also calls attention to the patient's care team members and specific procedures and results in the document.



**X.4.2.5.2 Document Summary Section Process Flow**



540

**Figure X.4.2.5.2-1: Basic Process Flow in CDA-DSS Profile**

Pre-conditions:

545 The transferring provider creates a CDA Transfer Summary document and include a Document Summary Section.

Main Flow:

550 The content creator provides the ability to create a CDA document which includes the Synopsis section. For example, the transferring provider generates a Transfer Summary document which contains pertinent procedures and results which he would like to call the receiver’s attention. He would also like to call the receiver’s attention to members of the patient’s care team and their applicable roles as well as their best means of contact. He includes this information in the

Document Summary Section and adds it to the document. The document also includes the other section with the content he refers to.

Post Conditions:

555 A Transfer Summary document is generated containing the Document Summary Section and the relevant content. The Transfer summary document is shared with the receiving provider.

#### **X.4.2.6 Use Case #6: Notes Section**

560 A Consulting Provider is sending a CDA document and would like to communicate a specific note to the Primary Care Provider. The Consulting Provider creates the CDA document and includes a Notes Section.

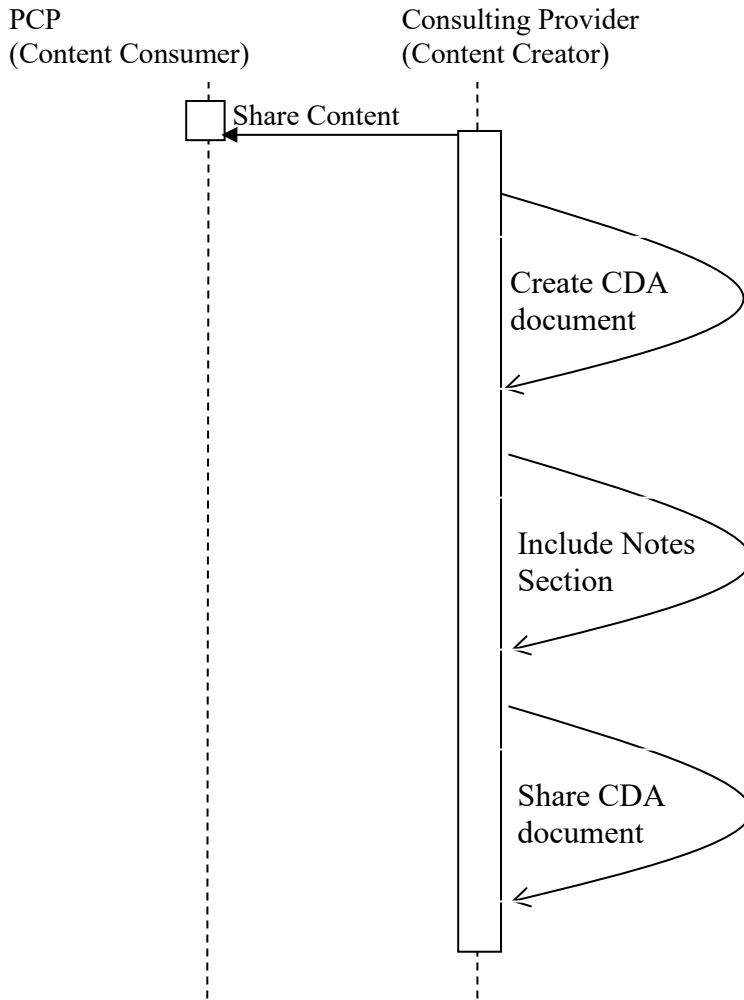
##### **X.4.2.6.1 Notes Section Use Case Description**

This use case involves the consultation of a patient by their specialist (Consulting Provider) with plans for their Primary Care Provider (PCP) to resume care.

565 The patient, who has new onset atrial fibrillation, arrives at the specialist's clinic for a follow-up consult visit. During the visit, the specialist discusses the recent diagnosis and plan of treatment with the patient. The specialist decides to return care of the patient back to the PCP.

570 At the end of the consultation period, the specialist creates a CDA Consultation document to share with the PCP. This document contains the problems, physical exam, allergies, procedures, lab results and medications for the patient. The specialist would like to include a consultation letter with the CDA consultation document. The specialist includes a Notes Section that contains the consultation letter.

**X.4.2.6.2 Notes Section Process Flow**



575

**Figure X.4.2.6.2-1: Basic Process Flow in CDA-DSS Profile**

Pre-conditions:

The consulting provider creates a CDA Consultation Note document and include a Notes Section.

Main Flow:

580 The content creator provides the ability to create a CDA document which includes the Notes Section. For example, the consulting provider generates a Consultation Note document which contains problems, physical exam, allergies, procedures, lab results and medications for the patient.

585 He would like to include a consultation letter. He includes this information in the Notes Section and adds it to the document.

Post Conditions:

A Consultation Note document is generated containing the Notes Section and other relevant content. The Consultation Note document is shared with the PCP.

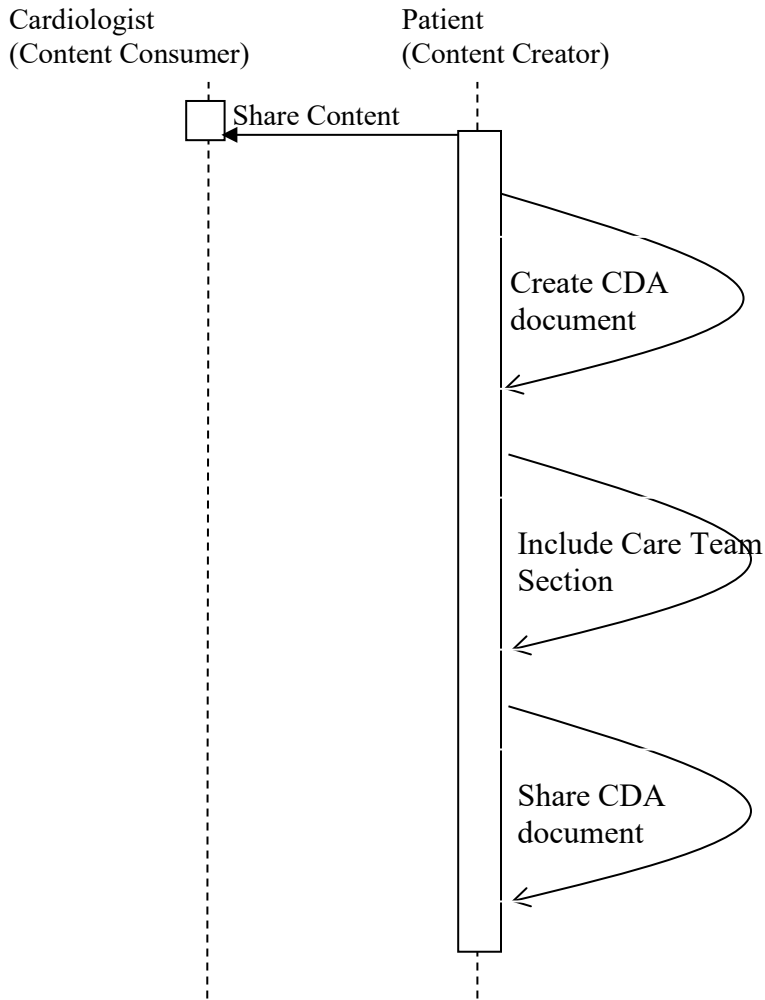
**X.4.2.7 Use Case #7: Care Team Summary Section**

590 A patient is a being treated by two different Primary Care Providers at different time of the year (Snowbird). The patient is sending a CDA document to the provider that is about to take over his care. He would like to communicate his Care Team information, so the provider would know who to contact in case information about his care is needed. The patient creates a CDA document and include a Care Team Summary Section.

595 **X.4.2.7.1 Care Team Summary Section Use Case Description**

600 Mr. Jonathan Allan is a 77 year old male ‘snowbird’. He lives in Michigan during the summer and lives in Florida the rest of the year. When he is in Michigan, his daughter Emily is his primary caregiver. When he’s in Florida, his son Eric is his primary caregiver. He has diabetes and has also undergone multiple open heart surgeries to correct irregular heartbeats and other ailments related to the heart. He is currently planning his return to Michigan. He makes an appointment with his Cardiologist in Michigan. He updates his care team information and includes it in his CDA document. He would like to share this information with his cardiologist in Michigan.

**X.4.2.7.2 Care Team Summary Section Process Flow**



605

**Figure X.4.2.7.2-1: Basic Process Flow in CDA-DSS Profile**

Pre-conditions:

The patient creates a CDA document and include a Care Team Summary Section.

Main Flow:

610 The content creator provides the ability to create a CDA document which includes the Care Team Summary Section. For example, the patient generates a CDA document which contains a list of his health concerns, goals, and medications he is currently taking.

He would like to include contact information about members of his most recent care team. He includes this information in the Care Team Summary Section and adds it to the document.

615 Post Conditions:

A CDA document is generated containing the Care Team Summary Section and other relevant content. The CDA document is shared with the cardiologist.

## **X.5 CDA-DSS Security Considerations**

See [ITI TF-2.x Appendix Z.8](#) “Mobile Security Considerations”

620 **X.6 CDA-DSS Cross Profile Considerations**

The Content Creator and Content Consumer Actors are those used by all PCC profiles. The options introduced by these actors are in addition to other PCC profile options. For example, an implementation of the XDS-MS Profile might declare use of the Summary Section Option as well as Content Creator View Option. Similarly, an implementation might declare conformance to both the Summary Section Option as well as the Content Consumer View Option.

## Volume 2 – Transactions

*Add Section 3.Y*

No new transactions.

630

## Appendices

None.



## **Volume 2 Namespace Additions**

N/A

## **Volume 3 – Content Modules**

## 5 IHE Namespaces, Concept Domains and Vocabularies

*Add to Section 5 IHE Namespaces, Concept Domains and Vocabularies*

### 5.1 IHE Namespaces

The QRPH registry of OIDs is located at [http://wiki.ihe.net/index.php/QRPH\\_Registry](http://wiki.ihe.net/index.php/QRPH_Registry).

640 There are no new additions to the QRPH OID Registry are:

### 5.2 IHE Concept Domains

NA

### 5.3 IHE Format Codes and Vocabularies

#### 5.3.1 IHE Format Codes

645

*List in the table below any **new** format codes to be added to the IHE Format Codes wiki page at [http://wiki.ihe.net/index.php/IHE\\_Format\\_Codes](http://wiki.ihe.net/index.php/IHE_Format_Codes). For public comment, the additions must be listed in the table below. The domain technical committee must ensure any new codes are also added to the wiki page prior to publication for trial implementation.*

650 No new Format Codes.

#### 5.3.2 IHEActCode Vocabulary

655

*List in the table below, any **new** additions to the IHEActCode Vocabulary wiki page at [http://wiki.ihe.net/index.php/IHEActCode\\_Vocabulary](http://wiki.ihe.net/index.php/IHEActCode_Vocabulary). For public comment, the additions must be listed in the table below. The domain technical committee must ensure any new codes are also added to the wiki page prior to publication for trial implementation.*

No new IHEActCode Vocabulary items.

#### 5.3.3 IHERoleCode Vocabulary

660

*List in the table below any **new** additions to the IHERoleCode Vocabulary wiki page at [http://wiki.ihe.net/index.php/IHERoleCode\\_Vocabulary](http://wiki.ihe.net/index.php/IHERoleCode_Vocabulary). For public comment, the additions must be listed in the table below. The domain technical committee must ensure any new codes are also added to the wiki page prior to publication for trial implementation.*

No new IHERoleCode Vocabulary items.

665 **6 Content Modules**

**6.3.1 CDA Document Content Module**

None

**6.3.3 CDA Section Content Modules**

*Add to section 6.3.3.10 Section Content Modules*

670 **6.3.3.10.S1 Care Plan Summary Section Content Module**

**Table 6.3.3.10.S1-1: Care Plan Summary Section**

<b>Template Name</b>		Care Plan Summary Section			
<b>Template ID</b>		1.3.6.1.4.1.19376.1.5.3.1.1.26.1.8			
<b>Parent Template</b>		CDA Section Template 2.16.840.1.113883.10.12.201			
<b>General Description</b>		Provides the ability to render care plan sections components with it applicable linkages			
<b>Section Code</b>		52521-2, LOINC, “Care Plan Summary”			
<b>Opt and Card</b>	<b>Condition</b>	<b>Data Element or Section Name</b>	<b>Template ID</b>	<b>Specification Document</b>	<b>Vocabulary Constraint</b>
<b>Text only section</b>					

**6.3.3.10.S1.1 Care Plan Summary Section Condition**

675 The purpose of the Care Plan Summary Section template is to render the linkages that occur with Care Plan section elements. This template SHALL be generated and/or rendered only if the applicable Care Plan components exists in the containing document. This section SHALL NOT be used to replace existing CDA Care Plan sections. The following guidance is provided to support generation and/or rendering of the Care Plan components linkages:

680 For each health concern (the hook) look for all goals that references the health concern. When found, output the Health Concern text and the goal text showing the relationship between the health concern and the goal.

For each goal, look for all interventions that reference the goal or is referenced by a goal. When found output the text of the entry relationship elements associated with the intervention act. For each intervention found, output the associated outcome observation. When found output the outcome observation text.

685 For each goal look for all planned interventions that reference the goal or is referenced by a goal. When found output the text of the entry relationship elements associated with the planned intervention act

For each goal look for all milestone goals that is referenced by a goal. When found output the goal text.

690 For each goal look for all outcomes that references the goal. When found output the outcome text.

Make sure to consider negation indicator where applicable.

```

695 <component>
      <section>
        <templateId root="1.3.6.1.4.1.19376.1.5.3.1.1.26.1.8"/>
        <id root=' ' extension=' '/>
        <code code='52521-2' displayName='Care Plan Summary'
700   codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'/>
        <title>Care Plan Summary</title>
        <text>
          Text as described above
        </text>
        </section>
705 </component>
    
```

**Figure 6.3.3.10.S1.1-1: Specification for IHE Care Plan Summary Section**

### 6.3.3.10.S2 Encounter Summary Section Content Module

**Table 6.3.3.10.S2-1: Encounter Summary Section**

<b>Template Name</b>		Encounter Summary Section			
<b>Template ID</b>		1.3.6.1.4.1.19376.1.5.3.1.1.26.1.9			
<b>Parent Template</b>		CDA Section Template 2.16.840.1.113883.10.12.201			
<b>General Description</b>		Provides ability to summarize information that was discussed, planned and accomplished during a specific encounter.			
<b>Section Code</b>		34133-9, LOINC, “Episode Summary”>			
<b>Opt and Card</b>	<b>Condition</b>	<b>Data Element or Section Name</b>	<b>Template ID</b>	<b>Specification Document</b>	<b>Vocabulary Constraint</b>
<b>Text only section</b>					

#### 6.3.3.10.S2.1 Encounter Summary Section Condition, Specification Document, or Vocabulary Constraint

710 Scan the document for data associated with an encounter that is the same as the DocumentationOf/ServiceEvent encounter. Content associated with the applicable encounter can be used to determine the needed information. Implementations may consider content from any section to be placed in the encounter summary section. For illustration purposes, the following

715 information can be used.

**Medications Started This Visit:**

Scan the medication section for medication start date the same as the encounter date. When found output the product name, sig, start date/time, end date/time, indication text.

**Medications Stopped This Visit:**

720 Scan the medication section for medication stop date the same as the encounter date. When found output the product name, sig, start date/time, end date/time, indication text.

**Procedures Performed This Visit:**

Scan the procedure section for procedure effective time the same as the encounter date. When found output the procedure text, effective time, instructions provided text.

725

```

<component>
  <section>
    <templateId root="1.3.6.1.4.1.19376.1.5.3.1.1.26.1.9"/>
    <id root=' ' extension=' '/>
    <code code='34133-9' displayName='Episode Summary'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'/>
    <title>Encounter Summary</title>
    <text>
      Text as described above
    </text>
  </section>
</component>
  
```

730

735

**Figure 6.3.3.10.S2.1-1: Specification for IHE Encounter Summary Section**

740 **6.3.3.10.S3 Active/Planned Medication Summary Section Content Module**

**Table 6.3.3.10.S3-1: Active/Planned Medication Summary Section**

<b>Template Name</b>		Active/Planned Medication Summary Section			
<b>Template ID</b>		1.3.6.1.4.1.19376.1.5.3.1.1.26.1.10			
<b>Parent Template</b>		CDA Section Template 2.16.840.1.113883.10.12.201			
<b>General Description</b>		This section summarizes active and/or planned medications and associated indications.			
<b>Section Code</b>		77604-7, LOINC, "Active/Planned Medication Section"			
<b>Opt and Card</b>	<b>Condition</b>	<b>Data Element or Section Name</b>	<b>Template ID</b>	<b>Specification Document</b>	<b>Vocabulary Constraint</b>
<b>Text only section</b>					

**6.3.3.10.S3.1 Active/Planned Medication Summary Section**

745 The purpose of the Active/Planned Medication Summary Section template is to render  
mediations that are active/planned which are located in medication related sections in the  
document. This summary section is meant to contain medications the patient is currently taking  
(active medications) and/or medications that is planned for the patient to start taking (planned  
750 medications) and their applicable indications. This template SHALL be generated and/or  
rendered only if the applicable medication components exists in the containing document. This  
section SHALL NOT be used to replace existing CDA medications sections. For illustration  
purposes, the following guidance is provided:

**Active Medications:**

Scan the medication section for medication considered to be active. When found output the  
product name, sig, start date/time, end date/time, indication.

**Planned Medications:**

755 Scan the medication section for medications with future start date. When found output the  
product name, sig, start date/time, end date/time, indication.

Scan the plan of treatment section for planned substance administration. When found output the  
product name, sig, start date/time, end date/time, indication.

```

760 <component>
      <section>
        <templateId root="1.3.6.1.4.1.19376.1.5.3.1.1.26.1.10"/>
        <id root=' ' extension=' '/>
        <code code='77604-7' displayName='Medication treatment plan.brief'
765       codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'/>
        <title>Active/Planned Medication Summary</title>
        <text>
          Text as described above
        </text>
770 </section>
</component>

```

**Figure 6.3.3.10.S3.1-1: Specification for IHE Active/Planned Medication Summary Section**

### 6.3.3.10.S4 Document Summary Section Content Module

**Table 6.3.3.10.S4-1: Document Summary Section**

<b>Template Name</b>		Document Summary Section			
<b>Template ID</b>		1.3.6.1.4.1.19376.1.4.1.2.16			
<b>Parent Template</b>		CDA Section Template 2.16.840.1.113883.10.12.201			
<b>General Description</b>		Provide pertinent information about the document.			
<b>Section Code</b>		55112-7, LOINC, “Document Summary”			
<b>Opt and Card</b>	<b>Condition</b>	<b>Data Element or Section Name</b>	<b>Template ID</b>	<b>Specification Document</b>	<b>Vocabulary Constraint</b>
<b>Text only section</b>					

775 **6.3.3.10.S4.1 Document Summary Section**

Text only section. The Document Summary Section template conforms to [IHE Cardiology Document Summary Section](#) template.

780

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.4.1.2.16' />
    <id root=' ' extension=' ' />
    <code code='55112-7' displayName='DOCUMENT SUMMARY'
785     codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
790 </component>
    
```

**Figure 6.3.3.10.S4.1-1: Specification for IHE Document Summary Section**



**6.3.3.10.S5 Notes Section Content Module****Table 6.3.3.10.S5-1: Notes Section**

<b>Template Name</b>		Notes Section			
<b>Template ID</b>		2.16.840.1.113883.10.20.22.2.65:2016-11-01			
<b>Parent Template</b>		CDA Section Template 2.16.840.1.113883.10.12.201			
<b>General Description</b>		The Notes Section allow for inclusion of clinical documentation which does not fit precisely within any other C-CDA section.			
<b>Section Code</b>		LOINC (Note Types)			
<b>Opt and Card</b>	<b>Condition</b>	<b>Data Element or Section Name</b>	<b>Template ID</b>	<b>Specification Document</b>	<b>Vocabulary Constraint</b>
<b>Note Activity Entry (See 6.3.4.E1)</b>					
1..*		Note Activity Entry	2.16.840.1.113883.10.20.22.4.202:2016-11-01		

795 Notes Section template referenced by

Health Level Seven (HL7) CDA® R2 IG: C-CDA Templates for Clinical Notes STU [Release 2.1](#).

The Notes Section SHOULD NOT be used in place of a more specific CDA section.

Notes Section LOINC code can be one of all LOINC codes where the scale = document.

800

```

<section>
  <!-- Notes Section -->
  <templateId root="2.16.840.1.113883.10.20.22.2.65" extension="2016-11-01"/>
  <code code="11488-4" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Consultation note"/>
  <title>Consultation Notes</title>
  <text>
    <list>
      <item ID="ConsultNote1">
        <paragraph>Dr. Specialist - September 8, 2016</paragraph>
        <paragraph>Evaluated patient due to symptoms of...</paragraph>
      </item>
    </list>
  </text>
  <!-- Note Activity entry -->
  <entry>
    <act classCode="ACT" moodCode="EVN">
      <templateId root="2.16.840.1.113883.10.20.22.4.202" extension="2016-11-01"/>
      <code code="34109-9" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"
displayName="Note">
        <!-- Code must match or be equivalent to section code -->
        <translation code="11488-4" codeSystem="2.16.840.1.113883.6.1"
codeSystemName="LOINC" displayName="Consultation note" />
      </code>
      <text>
        <reference value="#ConsultNote1" />
      </text>
      <statusCode code="completed"/>
      <!-- Clinically-relevant time of the note -->
      <effectiveTime value="20160908" />
      <!--...-->
    </act>
  </entry>
</section>

```

### 6.3.3.10.S6 Care Team Summary Section Content Module

**Table 6.3.3.10.S6-1: Care Team Summary Section**

<b>Template Name</b>	Care Team Summary Section				
<b>Template ID</b>	1.3.6.1.4.1.19376.1.5.3.1.1.26.1.11				
<b>Parent Template</b>	CDA Section Template 2.16.840.1.113883.10.12.201				
<b>General Description</b>	Provide pertinent information about the patient’s care team.				
<b>Section Code</b>	86744-0, LOINC, “Care Team”				
<b>Opt and Card</b>	<b>Condition</b>	<b>Data Element or Section Name</b>	<b>Template ID</b>	<b>Specification Document</b>	<b>Vocabulary Constraint</b>
<b>Text only section</b>					

#### 6.3.3.10.S6.1 Care Team Summary Section

810 Provides the ability to capture a patient’s care team members.

```

<component>
  <section>
    <templateId root=' 1.3.6.1.4.1.19376.1.5.3.1.1.26.1.11' />
    <id root=' ' extension=' ' />
    <code code='86744-0' displayName='Care Team'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

825 **Figure 6.3.3.10.S6.1-1: Specification for IHE Care Team Summary Section**

### 6.3.4 CDA Entry Content Modules

*Add to section 6.3.4.E Entry Content Modules*

None

830

## Appendices

None.

835

## Volume 4 – National Extensions

*Add appropriate Country section*

### **4 National Extensions**

NA