Integrating the Healthcare Enterprise

IHE Cardiology
Technical Framework Supplement

Registry Content Submission – Electrophysiology (RCS-EP)

Trial Implementation

Date: July 14, 2015
Author: IHE Cardiology Technical Committee
Email: cardio@ihe.net

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

This is a supplement to the IHE Cardiology Technical Framework 5.0. Each supplement undergoes a process of public comment and trial implementation before incorporated into the volumes of the Technical Framework.

This supplement is published on July 14, 2015 for trial implementation and may be available for testing at subsequent IHE Connectathons. The supplement may be amended based on the results of testing. Following successful testing it will be incorporated into the Cardiology Technical Framework. Comments are invited and can be submitted at http://www.ihe.net/Cardiology_Public_Comments.

This supplement describes the data content to support submissions to Cardiology Registries supporting the Electrophysiology Procedures: implantable cardioverter defibrillators (ICD) and atrial fibrillation ablation (AFA). As the document progresses, we will show amended text by addition (**bold underline**) or removal (~~**bold strikethrough**~~). The addition of new sections are prefaced by editor's instructions to "add new text" or similar, which for readability are not bolded or underlined.

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

Amend Section X.X by the following:

General information about IHE can be found at www.ihe.net.

Information about the IHE Cardiology domain can be found at 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 and http://ihe.net/Profiles.

The current version of the IHE Cardiology Technical Framework can be found at http://ihe.net/Technical_Frameworks.

CONTENTS

Introduction to this Supplement

This supplement introduces a new content profile to the IHE Cardiology Technical Framework – the Registry Content Submission – Electrophysiology (RCS-EP) Profile. The overall context is provided in Volume 1. The specific content is detailed in Volume 3. This content model addresses the information needs of the NCDR® EP Registry™ Suite supporting Electrophysiology procedures related to implantable cardioverter defibrillator (ICD) and Atrial Fibrillation Ablation (AFA). The NCDR® EP Registry™ Suite is one such registry.

This content profile serves as an industry standard content specification based on the Health Level Seven (HL7) Clinical Document Architecture (CDA) ® standard use by participating healthcare organizations to submit content to the NCDR® EP Registry™ Suite.

Today, data submitted to a NCDR registry is structured using a custom data format designed by the American College of Cardiology Foundation (ACCF). Creating a replacement for the custom format using the HL7 CDA standard as its foundation facilitates the reuse of other document specifications based upon that same standard, such as the HL7 Implementation Guide for CDA Release 2: IHE Health Story Consolidation, DSTU Release 1.1 and the IHE Electrophysiology Implant/Explant Report (EPRC-IE). Systems, which implement one or more of these specifications, may harvest document instances created in these formats as a source for data required for creation of the RCS-EP document. All of the templates specified in this profile are open templates and many specialize or adapt previous IHE published templates. The goal in adopting this pattern of reuse and openness is to maximize the ability to leverage prior work in this area.

Open Issues and Questions

#	Open Issue Description
3	Why is the ISO/IEEE 11073- 10103 nomenclature, which is specially designed for implantable cardiac devices such as ICDs, not used so far? Answer: Use of the ISO/IEEE nomenclature will be considered for future release of this profile. Analysis of the potential implications of its adoption is underway but is not complete as of the time of this publication.
5	It would be useful to demonstrate how other cardiology related profiles, such as RCS-C and EPRC-IE, might be used in creating information content for this profile. Answer: The IHE Cardiology workgroup will consider taking on future work efforts designed to harmonize and provide a crosswalk between all of its related content profile specifications.

260

Closed Issues

#	Closed Issue Description / Resolution
1	How is a UDI conveyed within this profile? Answer: Each device instance is assigned a unique UDI, which serves as an identifier for the device. Therefore, the UDI is recorded as a device Id within the procedure device organizer template. The sample XML document provided along with the content profile shows how the UDI is supported. Specifically, for V3 CDA the UDI is provided in the participantRole.id element (II data type) with the FDA Unique Device Identifier (UDI) OID as the default root.
2	How will conditional constraints (those that apply to AFA vs. ICD) be handled? Answer: Conditional constraints are handled through entries within the Scope column as specified in the value list tables.
4	Is the UDI required for submission? Answer: The UDI is not required for submission. NCDR device ID + serial number could be sent in place or in addition to the UDI.
6	The General Introduction needs to make it clear whether the content profile is intended to meet the general needs of electrophysiology registry reporting, or whether it is focused exclusively on supporting the NCDR. Answer: The introduction notes that the content profile is limited to the needs of the NCDR.
7	Dynamic list URLs, e.g., Medication, Ablation Strategies, still need to be provided. Answer: Value lists containing the word “Dynamic List” is sourced from NCDR and the URL to download them will be updated in a future release.
8	ACC NCDR codes prefixed as “Temp” are still under review by ACC for the assignment of standardized code/codesystem. Answer: After receiving public comment, all code values have been assigned to a standard code system, such as SNOMED CT, or assigned proper values within an ACC NCDR defined code system.

General Introduction

The Registry Content Submission – Electrophysiology (RCS-EP) Profile specifies the data structure and vocabulary for a submission to the NCDR® EP Registry™ Suite, which includes ICD Registry™ v2.2 (ICD), and AFib Ablation Registry™ v1.0 (AFA). The specification is written for use within the US Realm, but can be utilized by participating entities outside the US. The RCS-EP Profile specifies the creation of two different CDA document types: an ICD v2.2 Registry document and an AFA v1.0 Registry document.

Participation in an Electrophysiology Registry allows a healthcare facility to compare its outcomes to national or regional aggregates and like groups of similar reporting entities. Helping facilities document compliance with ACCF/AHA Clinical Guidelines recommendations and performance measures is an important goal supported by the registry. Use of an industry standard will reduce the reporting burden on submitters in the United Status by using the same standard that is mandated for hospital reporting within the context of Meaningful Use. Over a longer term, additional content profiles will be developed to support reporting to the full range of registries, such as the NCDR registries.

The RCS-EP Content Profile specifies the use of the HL7 Clinical Document Architecture (CDA) for the report.

Supporting Documents

1. ICD Registry v2.2 and AFib Ablation Registry v1.0 Data collection form marked to match the document instance examples.
2. XML examples of RCS-EP Profile documents containing the information provided within the sample ICD Registry v2.2 and AFib Ablation Registry v1.0 data collection forms.

Copyright Information

CHA_2DS_2-VASc and HAS-BLED are used with the permission of Gregory YH Lip MD, FRCP (London, Edinburgh, Glasgow), DFM, FACC, FESC

2009 Birmingham Schema, CHA_2DS_2-VASc Scoring System

Source: Adapted from Table 1(b), Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor based approach: The Euro Heart Survey on Atrial Fibrillation, CHEST / 138 / 5 / NOVEMBER, 2010

2014 AHA/ACC/HRS Guideline for the Management of Patients With Atrial Fibrillation: Executive Summary, Am Coll Cardiol. 2014;64(21):2246-2280. doi:10.1016/j.jacc.2014.03.021

Pisters R, Lane DA, Nieuwlaat R, de Vos CB, Crijns HJ, Lip GY. "A novel user-friendly score (HAS-BLED) to assess one-year risk of major bleeding in atrial fibrillation patients: The Euro Heart Survey." Chest. 2010 Mar 18.

Glossary

No glossary items.

Volume 1 – Profiles

14 Registry Content Submission – Electrophysiology v1.0 Profile (RCS-EP)

The Registry Content Submission-Electrophysiology v1.0 (RCS-EP) Profile specifies the template structure and value sets for reporting the data elements collected during an implantable cardioverter defibrillator (ICD) or an atrial fibrillation ablation (AFA) procedure. The scope of the RCS-EP Content Profile is consistent with the NCDR specifications for providing data and required value sets as separate harvests to the EP Registry Suite, ICD Registry v2.2, and AFib Ablation Registry v1.0.

14.1 RCS-EP Actors, Transactions, and Content Modules

Figure 14.1-1 shows the actors directly involved in the RCS-EP Profile and the relevant transactions between them. There are two actors in this profile, the Content Creator and the Content Consumer. Content is created by a Content Creator and is to be consumed by a Content Consumer. The sharing or transmission of content from one actor to the other is addressed by the appropriate use of other IHE profiles, and is out of scope of this profile; hence, there is no transaction per se defined for this profile.

Figure 14.1-1: RCS-EP Profile Actor Diagram

14.1.1 Actor Descriptions and Actor Profile Requirements

14.1.1.1 Content Creator

A Content Creator shall be able to create a Registry Content Submission – Electrophysiology v1.0 document for submission to the NCDR EP Registry Suite v1.0, according to the specifications presented within this document. The role of content creator may be filled by a healthcare facility system that documents the cardiac electrophysiology procedures.

14.1.1.2 Content Consumer

A Content Consumer shall be able to consume (receive and process) a RCS-EP document, as discussed within PCC-TF 2: 3.1.4. The reader should note that the PCC Technical framework, in the applicable section, suggests that a content consumer be able to “support the storage of the

structured content of one or more sections of the document." For RCS-EP, it is intended that storage of all sections of the document be supported. A Content Consumer shall provide discrete data import functionality.

1. A Content Consumer shall:
   a. Receive and validate the document in accordance with the document entry constraints specified in this profile.
   b. Store the document and parse the discrete data elements found in its entries.
   c. Demonstrate the ability to access the document as a whole and any of the discrete elements contained within the document from storage.

14.2 RCS-EP Actor Options

Options that may be selected for this content profile are listed in Table 14.2-1 along with the actors to which they apply. Dependencies between options when applicable are specified in notes.

Table 14.2-1: RCS-EP Profile Options

Actor	Option Name	Optionality	Section
Content Consumer	No option defined		
Content Creator	AFA Content Creator	Supports AFA document type only	
Content Creator	ICD Content Creator	Supports ICD document type only	
Content Creator	EP Content Creator	Supports both AFA and ICD document types	

Options have been specified for Content Creator based upon which of the two document types the Content Creator is able to produce. A conformant Content Consumer must be able to consume both document types. The Content Creator options vary only by document type supported. Content requirements and constraints apply to both document types unless explicitly stated otherwise. Within this specification the variation in content requirements are expressed in three ways:

1. **Template Containment**: Section 6.6.2 RCS-EP Document Template Containment includes "Table 6.6.2-1: RCS-EP Document Template Containment". The table includes an indication as to which document type a template applies: AFA, ICD or "All".

2. **Conditional Constraint**: Constraints which are particular to one document type are preceded by the phrase “If Document.code=” followed by the code for the document type to which the conditional constraint applies AFA or ICD.
3. **Value-set Member Scope**: Each member of a value set includes an indication as to which document type it applies AFA or ICD. If “All” is specified then the value set member applies to both AFA and ICD.

14.3 RCS-EP Required Actor Groupings

The Content Creator shall be grouped with the Time Client Actor of the IHE IT Infrastructure Consistent Time Profile, as specified in ITI TF-1:7. This allows the Legal Authentication timestamp to be accurate. Content modules describe the content of a payload found in an IHE transaction. Content profiles are transaction neutral; they are in no way dependent upon the transactions in which they appear.

14.4 RCS-EP Overview

The Registry Content Submission – Electrophysiology V1.0 (RCS-EP) Profile specifies the content structure for reporting the findings of an ICD or AFib Ablation to cardiology registries supporting Electrophysiology procedures. This profile specifies the use of an HL7 Clinical Document Architecture (CDA) format for the RCS-EP Profile content.

This profile does not provide all of the details necessary to construct a CDA compliant document. Refer to the HL7 CDA Release 2 Standard http://www.hl7.org/implement/standards/product_brief.cfm?product_id=7

for complete instructions. Additional details may also be found within the HL7 Implementation Guide for CDA Release 2: IHE Health Story Consolidation, DSTU Release 1.1 http://www.hl7.org/implement/standards/product_brief.cfm?product_id=258.

14.4.1 Concepts

Not applicable

14.4.2 Use Cases

14.4.2.1 Use Case #1: Compile and Transfer RCS-EP content

The RCS-EP Content Profile supports a single use case: Compile and Transfer RCS-EP content (i.e., submission to an Electrophysiology Registry). In this use case, the data required to create the RCS-EP document instance for the Registry is gathered by the Content Creator. The completed document instance is sent from the Content Creator to a Content Consumer, the Content Consumer parses the content and extracts the discrete data.

14.4.2.1.1 Compile and Transfer RCS-EP Content Description

An Electrophysiology Registry collects data for patients who have received an electrophysiology procedure. The current RCS-EP Profile supports the submission of data collected during an implantable cardioverter defibrillator (ICD) or an atrial fibrillation ablation (AFA) procedure to be used for quality assessment and reporting purposes. Other electrophysiology procedures may be added in future versions of this profile.

Data that has been defined for collection must be retrieved from the patient's record and formatted for transmission to a registry. The formatted submission data is transmitted to a registry, and uploaded to a registry database to support reporting and analysis.

Data collected for the registry submission includes the following principal categories:

- Basic demographic information on the patient.
- Relevant information and indications from the patient's medical history.
- Medications that the patient may be taking prior to the procedure.
- Relevant information from the electrophysiology laboratory visit – each visit is discussed as a “procedure session” within the content profile.
- Information needed to evaluate the patient's condition prior to the procedure. This includes clinical findings that inform the reason for the procedure, results of electrocardiogram and imaging studies, vital signs etc. drawn from a specified period of time prior to each electrophysiology laboratory visit. It also includes the absence or presence of clinical disorders.
- Additional procedures performed during the Electrophysiology procedure session.
- Identifying information and observations collected about devices used during the procedure.
- Medications that may have been administered during the procedure.
- Diagnostic procedures which are relevant components of the primary procedures performed e.g., Electrocardiogram, Revascularization, Coronary Angiography.
- Events experienced during and after the electrophysiology laboratory visit through patient discharge.
- Discharge information including mortality, discharge location and prescribed medications.

14.4.2.1.2 Compile and Transfer RCS-EP Content Process Flow

Pre-conditions

The electrophysiology procedure is performed and data is collected for the procedures in a clinical procedure report, possibly in an Electrophysiology Implant/Explant Report (EPRC-IE) document. This includes data for the period immediately prior and post the procedure.

At the point the patient is discharged from the facility, relevant data for the encounter is made available for registry reporting.

The trigger for this use case main flow is when the healthcare organization initiates transmission of data to the registry to meet the periodic submission deadlines.

Main Flow

1. The relevant data for all eligible patients during a submission period is assembled and organized into a submission package. Each submission package is comprised of a single document type, AFA or ICD. Each document instance shall contain data for all eligible encounters during the submission period for a given patient..
    - Each healthcare facility supports one or more systems that aggregate the relevant data for populating the RCS-EP Content Profile. Information may be directly available by accessing the facilities electronic health record system or a departmental cardiovascular imaging and information system.
    - Information may also be extracted from the underlying paper or electronic records by trained staff. In many cases, some data will be drawn from an electronic system and some from the paper record to be entered into a specialized registry reporting system by trained staff.
    - Systems that implement the IHE Electrophysiology Implant/Explant Report (EPRC-IE) Content Profile for the ICD procedure report may use that report content to populate the RCS-EP since there is a considerable overlap in the data elements being captured. This should enable reuse and reduce the amount of data entry required to support the registry reporting.
2. The transaction or transactions for a submission period are transmitted to the consuming Registry.
3. The registry is the primary content consumer. It receives the RCS-EP document for import and processing of the data. The discrete data elements may be extracted by the content consumer for use by downstream data analysis and quality reporting. The content consumer shall extract the discrete data elements and store them for use by downstream data analysis and quality reporting.

Post conditions

RCS-EP data is added to the Registry.

14.5 RCS-EP Security Considerations

Security considerations are dealt with by the transport mechanism and are outside the scope of this content profile.

14.6 RCS-EP Cross Profile Considerations

The RCS-EP does not define behavior of Content Creators or Content Consumers within the context of workflow profiles.

Appendices

Appendix A – Actor Summary Definitions

None

Appendix B – Transaction Summary Definition

None

Volume 2 – Transactions

Not applicable

Volume 3 – Content Modules

5 Namespaces and Vocabularies

Code systems that have already been defined within the Technical Framework for this domain are included to support the supplement review.

Table 5-1: Referenced Code Systems

Code System Identifier (OID)	Code System Name	Description
2.16.840.1.113883.1.3	HL7 Model	The identifier for HL7 Registered models
2.16.840.1.113883.3.3478.6.1	ACC NCDR	An ACCF defined set of codes used to support concepts not properly supported within standard code systems
2.16.840.1.113883.3.3478.6.1.20	ACC NCDR Lead Devices	An ACC defined set of codes used to support the class of lead device types
2.16.840.1.113883.3.3478.6.1.21	ACC NCDR Defibrillator Devices	An ACC defined set of codes used to support the class of defibrillator device types
2.16.840.1.113883.3.3478.6.1.22	ACC NCDR Catheter Ablation Devices	An ACC defined set of codes used to support the class of catheter ablation device types
2.16.840.1.113883.3.3719	US FDA UDI	A defined code system standard for Unique Device Identification (UDI) authorized by the U.S. Food and Drug Administration (FDA)
2.16.840.1.113883.5.4	HL7 ActCode	An HL7 code system specifying the particular kind of Act that an Act-instance represents within its class
2.16.840.1.113883.5.1	HL7 Administrative Gender	An HL7 code system specifying the gender of a person used for administrative purposes (as opposed to clinical gender)
2.16.840.1.113883.12.112	HL7 Discharge disposition	An HL7 code system indicating patient status as of the encounter end date
2.16.840.1.113883.5.50	HL7 Ethnicity	An HL7 code system specifying two minimum ethnicity categories: Hispanic or Latino, and Not Hispanic or Latino
2.16.840.1.113883.5.104	HL7 Race	An HL7 code system specifying five minimum race categories
2.16.840.1.113883.5.147	HL7 Realm of Use	An HL7 code system specifying the jurisdiction within which specific constraints are applied, most particularly to the vocabulary defined for a specification
2.16.840.1.113883.5.1008	HL7NullFlavor	An HL7 code system specifying why a valid value is not present for an element in an instance

Code System Identifier (OID)	Code System Name	Description
1.0.639.1	ISO 639-1 Language Code	An ISO code system providing two-characters for identifying human languages
2.16.840.1.113883.6.1	LOINC	Logical Observation Identifiers Names and Codes (LOINC)
2.16.840.1.113883.221.5	PHDSC Source of Payment Typology	A specification approved by the Accredited Standards Committee X12 (ASC X12) as a reference external code source for reporting payor type information
2.16.840.1.113883.6.88	RxNorm	A US -specific terminology in medicine that contains all medications available on US market maintained by National Library of Medicine
2.16.840.1.113883.6.96	SNOMED CT	The Systematized Nomenclature of Medicine (SNOMED)
2.16.840.1.113883.6.231	US Postal Codes	A US-specific standard for representing postal codes

The content profile does not include additional IHE Format codes, nor does it define additions to the HL7 ActCode or RoleCode Vocabularies.

The content profile includes OIDs used as the root portion of various identifier types. The OID assigned to each identifier type is summarized in the following table:

Table 5-2: Identifier Namespaces

Identifier Type OID	Identifier Type Name	Description
2.16.840.1.113883.3.3478.4.836	Participant Identifier, NCDR Registry Participant Identifier	Identifier of the participating Hospital assigned by NCDR
2.16.840.1.113883.4.6	Participant and procedure performer Identifier, National Provider Identifier	Identifier of the participating Healthcare organization and Healthcare practitioner assigned by Centers for Medicare & Medicaid Services (CMS)
2.16.840.1.113883.3.3478.4.839	Registry Submission Identifier	Identifier of the registry submission document as assigned by the Participating Hospital
2.16.840.1.113883.3.3478.4.840	Source System Provider Identifier	Identifier of the NCDR registry content report authoring system vendor as assigned by NCDR
2.16.840.1.113883.3.3478.4.841	Registry Identifier	Identifier of the receiving NCDR registry information system

Identifier Type OID	Identifier Type Name	Description
2.16.840.1.113883.3.3478.4.842	Patient Identifier, NCDR	Identifier of the Patient as assigned by the authoring information system
2.16.840.1.113883.3.3478.4.843	Patient Identifier, Other	Identifier of the Patient as assigned by the participating hospital
2.16.840.1.113883.3.3478.4.844	Patient Identifier, HIC#	Identifier of the Patient as assigned by CMS
2.16.840.1.113883.4.1	Patient Identifier, SSN	Identifier of the Patient as assigned by the Social Security Administration
2.16.840.1.113883.3.3478.4.847	Source System Identifier	Identifier of the NCDR registry content report authoring information system as assigned by NCDR
2.16.840.1.113883.3.3478.4.850	Device, Serial Number	Identifier of the Device as assigned by the authoring information system
2.16.840.1.113883.3.3478.4.851	Device, Lead Counter	Identifier of the Lead counter as assigned by the authoring information system
2.16.840.1.113883.3.3719	Device, UDI	Identifier of the Device as assigned by the FDA authoring system
2.16.840.1.113883.3.3478.4.852	Patient ID, Research Study	Identifier assigned to a patient who is a subject within a Research Study as assigned by the trial management information system

6 Content Modules

6.6 Registry Content Submission

6.6.1 RCS-EP Content Specification

This is the template (OID 1.3.6.1.4.1.19376.1.4.1.6.1.1) to be used in submitting data to an electrophysiology registry related to the rendering of procedures. The data element requirements are drawn from the NCDR® ICD Registry™ v2.2 Coder's Data Dictionary and NCDR® AFA Registry™ v1.0 Coder's Data Dictionary.

6.6.1.1 Format Code

Not Applicable

6.6.1.2 Relationship to other IHE Cardiology Profiles

This RCS-EP document reuses templates from the EPRC-IE and RCS-C IHE Cardiology Profiles and the HL7 C-CDA Release 2 implementation guide. Two methods of template reuse are utilized:

- **Specialization**: this method of reuse inherits constraints from the source template and extends the source template to include additional constraints. Document instances that conform to a RCS-EP template will also conform to the source template that it specializes.
- **Adaptation:** this method of reuse makes use of the design of the source template; however, constraints inherited from the source may be overridden or ignored. As a consequence, document instances that conform to the RCS-EP template will not conform to the source template from which it is an adaptation.

Regardless of the reuse method, RCS-EP assigns its own constraint identifiers and, where applicable, includes a reference to the equivalent constraint identifier from the source template.

- RCS-EP reuses templates from C-CDA R2, also known as the “HL7 Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes”[1]

[1] http://www.hl7.org/implement/standards/product_brief.cfm?product_id=379

published in November 2014. ERPC-IE reuses templates from C-CDA R1.1, also known as the "HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation"[2] published in July 2012.

6.6.1.2.1 IHE Cardiology Profile Source

The source document for C-CDA and IHE published templates:

- C-CDA – based on HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation for release 1.1 and based on HL7 Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes for release 2.0
- RCS-C - based on IHE Cardiology Technical Framework Supplement Registry Content Submission – CathPCI V4.4 (RCS-C)[3]
- EPRC-IE – based on IHE Cardiology Technical Framework Supplement Electrophysiology Implant/Explant Report Content (EPRC-IE) Trial Implementation[4]

6.6.1.3 Conventions

The following are the conventions used in this profile.

6.6.1.3.1 Conformance Terms

The definitions of the conformance verbs, the terms optional and required and the cardinality indicator are as defined in C-CDA Section 1.8 – Conformance Conventions.

6.6.1.3.2 Template Element Constraint Specifications

Conformance to the RCS-EP with regard to usage of mandatory, required, and optional elements is determined by adherence to constraints specified in the templates. Each template is a collection of constraint statements that impose restrictions to the use of elements in the CDA Refined Message Information Model (RMIM).

[2] http://www.hl7.org/implement/standards/product_brief.cfm?product_id=258

[3] RCS-C: http://www.ihe.net/uploadedFiles/Documents/Cardiology/IHE_CARD_Suppl_RCS-C.pdf

[4] EPRC-IE: http://www.ihe.net/uploadedFiles/Documents/Cardiology/IHE_CARD_Suppl_EPRC-IE.pdf

Each constraint includes a conformance verb. The conformance verbs SHALL, SHOULD, MAY, NEED NOT, SHOULD NOT, and SHALL NOT are to be interpreted as described in the HL7 Version 3 Publishing Facilitator's Guide.

Table 6.6.1.3.2-1: HL7 V3 Verb Descriptions

Verb	Description
SHALL	An absolute requirement
SHALL NOT	An absolute prohibition against inclusion
SHOULD/SHOULD NOT	Best practice or recommendation There may be valid reasons to ignore an item, but the full implications must be understood and carefully weighed before choosing a different course
MAY/NEED NOT	Truly optional can be included or omitted as the author decides with no implications

Each constraint also includes a cardinality expression:

- exactly one [1..1]
- one or more [1..*]
- zero or one [0..1]
- zero or more [0..*]

Each constraint targets a single CDA model element (i.e., attribute, attribute component, or traversal). The entry RIM class for a template is declared at the head of the template definition along with the template identifier and open/close designation.

The convention used in this specification with regard to use of conformance verbs is further influenced by the applicability of constraints by document type (i.e., ICD or AFA). The constraint verb SHALL is used for absolute requirements applicable to both document types. The constraint verb SHOULD is used for requirements that are applicable to one or more document types but for which exceptions to its usage is expected. In some cases, the SHOULD constraint is also followed by an allowable nullFlavor which can be used to document the reason for absence of a value for the specified element. The “SHOULD” conformance constraint is also used when a particular constraint is applicable to only one of the two document types; in this case a conditional clause, the value of Document.code, is provided to indicate which document type the constraint pertains, e.g., If Document.code=ICD. See example:

If Document.code="ICD", this serviceEvent **SHALL** contain one [1..1] **code** (CONF:1166-91770).

1. The code, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Patient Population**

`urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.207` **STATIC** (CONF:1166-91781).

2. The code, if present, **SHALL** contain exactly one [1..1] **`@codeSystem`** (CONF:1166-91782).

565 Note: The population of patients and procedures.

6.6.1.3.3 Standards

The following table identifies the standards upon which this specification is based.

Table 6.6.1.3.3-1: Reference Standards

Standard Name (short)	Standard Name (full)	Reference to Published Standard
CDA R2	HL7 CDA Release 2.0	http://www.hl7.org/documentcenter/private/standards/cda/r2/cda_r2_normativewebedition2010.zip
HL7 C-CDA R1.1	HL7 Implementation Guide for CDA® Release 2: IHE Health Story Consolidation	http://www.hl7.org/implement/standards/product_brief.cfm?product_id=258
HL7 C-CDA R2	HL7 Implementation Guide for CDA® Release 2: Consolidated CDA Templates for Clinical Notes	http://www.hl7.org/implement/standards/product_brief.cfm?product_id=379
ICD v2.2 Coder's Data Dictionary	NCDR® ICD Registry™ v2.2 Coder's Data Dictionary	http://cvquality.acc.org/NCDR-Home/Data-Collection/What-Each-Registry-Collects.aspx
AFA v1.0 Coder's Data Dictionary	NCDR® AFA Registry™ v1.0 Coder's Data Dictionary	http://cvquality.acc.org/NCDR-Home/Data-Collection/What-Each-Registry-Collects.aspx
Datatypes R1	HL7 Version 3 Standard: Data types - Abstract Specification, Release 1	http://www.hl7.org/implement/standards/product_brief.cfm?product_id=264
SNOMED CT	Systematized Nomenclature of Medicine – Clinical Terms	http://www.ihtsdo.org/snomed-ct/
LOINC	Logical Observation Identifiers Names and Codes	http://loinc.org/

Standard Name (short)	Standard Name (full)	Reference to Published Standard
RxNorm	RxNorm - normalized naming system for generic and branded drugs	http://www.nlm.nih.gov/research/umls/rxnorm/
UCUM	Units of Measure – codesystem for all units of measure	http://unitsofmeasure.org/trac/

6.6.1.3.4 Data types

The data types used throughout this specification are taken from the HL7 Version 3 Standard: Data types - Abstract Specification, Release 1. A full explanation of the data types can be found at http://www.hl7.org/implement/standards/product_brief.cfm?product_id=264. The table below provides a brief description for each of the data types referenced in this specification.

Table 6.6.1.3.4-1: Data types

Data Type	Name	Description
ANY	Any	A data type value that is included when the actual data type to be used is not known. The type is used for observation value, and, when it is used, the value set for the accompanying observation code indicates the data type to be used for observation value.
BL	Boolean	An element whose allowable values are limited to True or False
CD	Concept Descriptor	An element whose allowable values are taken from an associated value set. The Code data type includes a Code, Display Name, Code System Name, and Code System OID.
II	Instance Identifier	An element used to uniquely define an instance of an entity. The II data type includes a name space identified by @root and a unique value within the name space identified by @extension.
ON	Organization Name	An element used to provide a reference to an organization.
PQ	Physical Quantity	An element whose allowable values include a numeric quantity and a unit of measure
ST	Character String	An element whose allowable values consist of unstructured character data
TS	Point in Time	An element whose allowable values represents a points in time
IVL<TS>	Interval of point in time	An element whose allowable values represent an interval of time. The IVL<TS> data type includes @Low – start of time range; @Center – midpoint of time range; @Width – duration of time range, @high properties – end of time range.

6.6.1.3.5 Profile Template Documentation

The template description will include the template OID and its associated HL7 Reference Information Model CDA class as follows:

<Template name>

[<Class name>: templateId <template OID> (closed)]

6.6.1.3.6 Vocabulary Constraints

Vocabulary Constraints define the set of permitted code values and their preferred display names for coded elements specified within the content module portion of the profile. The Value set bound by a vocabulary constraint is given a name and is assigned a unique identifying OID. For example:

SHALL contain exactly one [1..1] `code` (CONF:1166-33740).

a. This code **SHALL** contain exactly one [1..1] `@code`, which **SHALL** be selected from ValueSet `Pre-procedure Test Result` `urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.174` **STATIC** (CONF:1166-33745).

b. This code **SHALL** contain exactly one [1..1] `@codeSystem` (CONF:1166-33746).

Figure 6.6.1.3.6-1: Vocabulary Constraints

In this example, the Value Set Name is “Pre-procedure Test Result” and the Value Set OID is “1.3.6.1.4.1.19376.1.4.1.6.5.174”. The value set OID is globally unique. When a value set is reused from other content profiles or implementation guides, the same OID is used in this content profile. The vocabulary constraint is listed alphabetically by value set name.

6.6.1.3.7 Static and Dynamic Value Sets

Vocabulary constraints are expressed in the form of a value set table or a URL reference to a location from which the value set can be obtained. A vocabulary constraint for which a value set table is provided is a static list, while vocabulary constraints for which a URL is provided is a dynamic list.

A static list is used for value sets whose members are relatively stable. Changes to members of a static list require an update to the content profile specification. A dynamic list is used for value sets whose members are relatively volatile. Changes to members of a dynamic list do not require an update to the content profile. Content creators and content consumers are required to use the provided URL to obtain the most current version of the dynamic value set.

6.6.1.3.8 Static Value Set Tables

Each static value set is represented in the form of a two-dimensional table having the code values as rows and metadata concerning each code value as columns. For example:

Table 6.6.1.3.8-1: Pre-procedure Test Result 1.3.6.1.4.1.19376.1.4.1.6.5.174

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
4554005	SNOMED CT	Abnormal Intraventricular conduction	BL		ALL
106068003	SNOMED CT	Atrial Rhythm	CD	VS: Atrial Rhythm	ICD
164854000	SNOMED CT	Electrocardiogram normal	BL		ICD
100001142	ACC NCDR	Intraventricular Conduction Type	CD	VS: Intraventricular Conduction Types	ICD
100001229	ACC NCDR	LA Size	CD	VS: Enlargement of Atrium	ALL
100001026	ACC NCDR	Left Atrial Thrombus			ALL
10230-1	LOINC	Left ventricular ejection fraction	PQ	UOM: %	ALL

6.6.1.3.9 Static Value Set Metadata

Static value set metadata provides defining and descriptive information about each member of the value set. Some metadata are provided for all value sets, some metadata are provided for Late binding values sets only, and scope is provided for mixed scope value sets only.

6.6.1.3.9.1 Metadata provided for all Value Sets

The following metadata columns are present for the members of all static value sets:

- **Code:** a character string assigned within a code system to uniquely encode a concept. The format of this string may vary from code system to code system. Code is unique within code system but may be coincidently duplicated across code systems.

- **Code System:** the name of the code system from which the code value is drawn. The ACC Internal code system (ACC NCDR) is a code system maintained by the ACCF to encode concepts not readily found in standard clinical terminologies.
- **Preferred Name:** the name of the encoded concept. In some cases, the source code system provides a choice of concept names. The preferred name is that name from among the choices that is preferred for use in this content profile.

6.6.1.3.9.2 Metadata provided for Late Binding Value Sets

The following metadata columns are present for Late Binding Value Sets only. A late binding value set is used when the binding of a value set to a template element is conditioned by the value of one or more other template elements. The general case for this is the binding to Observation.value that is conditioned by the value of Observation.code.

- **Value Datatype:** the short name of the HL7 datatype to be used for Observation.value. The HL7 datatype used in this content profile include:
  - **BL:** Boolean
  - **CD:** Concept Descriptor (coded value)
  - **II:** Instance Identifier
  - **PQ:** Physical Quantity
  - **ST:** String
  - **TS:** Timing Specification

  A full explanation of the HL7 data types can be found at http://www.hl7.org/implement/standards/product_brief.cfm?product_id=264.
- **Value Set Name:** the name of the value set associated with a coded Observation.value. The late binding value set can be static or dynamic.
- **Unit of Measure:** the Unified Code for Units of Measure (UCUM) value used for a physical quantity Observation.value. A full explanation of UCUM can be found at http://unitsofmeasure.org/trac/.

6.6.1.3.9.3 Metadata provided for Mixed Scope Value Sets

The scope column is used to indicate if members of a value set are appropriate for use in only one of the two document types (ICD or AFA). For example, if the scope column displays "AFA", the value set is only applicable to the AFA Registry. If the scope column is omitted then all members of the value set are appropriate for both document types.

6.6.2 RCS-EP Document Template Containment

The following structure shows the RCS-EP document template containment. The table contains the title, type, identifier, and scope for each template in this specification. If a template is restricted for use in a single document type then scope contains the identifier for that document type, e.g., “ICD”. A scope set as “All” indicates that the template is appropriate for use in both document types, e.g., “RCS Document Header”.

Table 6.6.2-1: RCS-EP Document Template Containment

Template Title	Template Type	TemplateId	Scope
RCS Document Header	document	urn:oid:2.16.840.1.113883.3.3478.1.1	All
RCS Document Author	document participant	urn:oid:2.16.840.1.113883.3.3478.1.3	All
RCS Document Custodian	document participant	urn:oid:2.16.840.1.113883.3.3478.1.4	All
RCS Document Information Recipient	document participant	urn:oid:2.16.840.1.113883.3.3478.1.5	All
RCS Document Record Target	document participant	urn:oid:2.16.840.1.113883.3.3478.1.2	All
RCS-EP Document Structured Body	document	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.3.16000	All
RCS-EP Patient Demographic Section	section	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.20000	All
RCS-EP Patient Demographic Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.21000	All
RCS-EP Encounter Section	section	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.30000	All
RCS-EP Encounter	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.31000	All
RCS-EP Encounter Procedure	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.31100	ICD
RCS-EP Encounter Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.31200	All
RCS-EP Pre-procedure Activity Organizer	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41000	All
RCS-EP Pre-procedure Test Result Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41100	All
RCS-EP Pre-procedure Laboratory Result Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41200	All
RCS-EP Pre-procedure Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41300	All
RCS-EP Pre-procedure Vital Sign Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41500	AFA
RCS-EP Pre-procedure Procedure	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41600	All
RCS-EP Pre-procedure Medication	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41700	AFA
RCS-EP Pre-procedure Quality of Life Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41800	AFA

Template Title	Template Type	TemplateId	Scope
RCS-EP Procedure Session Section	section	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.40000	All
RCS-EP Procedure Session Event	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.44000	All
RCS-EP Procedure Organizer	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43000	All
RCS-EP Procedure	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43100	All
RCS-EP Procedure Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43110	All
RCS-EP Procedure Device Organizer	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43120	All
RCS-EP Procedure Device Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43121	ICD
RCS-EP Procedure Medication	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43130	AFA
RCS-EP Procedure Session Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.42000	All
RCS-EP Discharge Section	section	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.50000	All
RCS-EP Discharge Observation	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.51000	All
RCS-EP Discharge Medication	entry	urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.52000	All

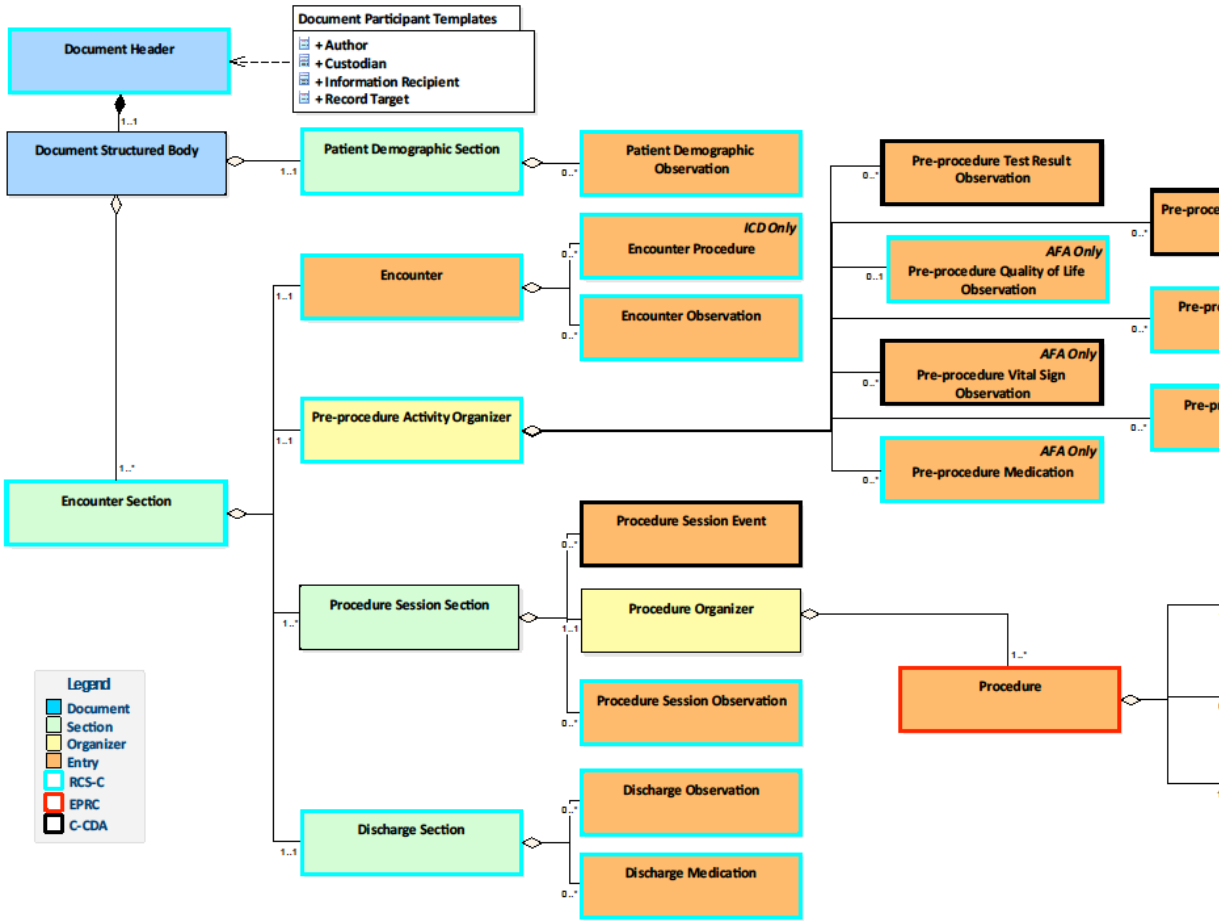

Figure 6.6.2-1: RCS-EP Document Template Containment

6.6.3 RCS–EP Profile Templates

6.6.3.1 RCS Document Header

`[ClinicalDocument: identifier urn:oid:2.16.840.1.113883.3.3478.1.1 (open)]`

Table 6.6.3.1-1: RCS Document Header Contexts

Contained By:	Contains:
	RCS Document Author RCS Document Custodian RCS Document Information Recipient RCS Document Record Target RCS-EP Document Structured Body

The Registry Content Submission Document Header records information related to the treatment provided to a single patient within a reference time period. The document header includes information needed for:

- the clinical document,
- the associated patient,
- the software processing the registry information - the document author,
- the facility that manages and is the steward for the content - the document custodian,
- and the primary recipient of the document – the information recipient.
  1. **SHALL** contain exactly one [1..1] **@classCode**="DOCCLIN" (CONF:1166-305).
  2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-215).
  3. **MAY** contain zero or more [0..*] **realmCode** (CONF:1166-306) such that it
     a. **SHALL** contain exactly one [1..1] **@code**="US" (CONF:1166-307).
     b. **SHOULD** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.147" (CodeSystem: HL7 RealmOfUse urn:oid:2.16.840.1.113883.5.147) **STATIC** (CONF:1166-308).
  4. **SHALL** contain exactly one [1..1] **typeId** (CONF:1166-222).
     a. This typeId **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.1.3" (CONF:1166-223).
     b. This typeId **SHALL** contain exactly one [1..1] **@extension**="POCD_HD000040" (CONF:1166-224).

5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-287) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.3478.1.1" (CONF:1166-289).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-290).
6. **SHALL** contain exactly one [1..1] **id** (CONF:1166-5).
   a. This id **SHALL** contain exactly one [1..1] **@root** (CONF:1166-291).
   b. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:1166-309). Note: Submitting Facility Document Instance Identifier
7. **SHALL** contain exactly one [1..1] **code** (CONF:1166-310).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Clinical Document Type** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.159 **STATIC** (CONF:1166-313).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1"(CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) **STATIC** (CONF:1166-314).

   Note: The registry clinical document type.
8. **SHALL** contain exactly one [1..1] **title** (CONF:1166-7).
9. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1166-8).

   Note: Date of submission of the clinical document.
10. **SHALL** contain exactly one [1..1] **confidentialityCode** (CONF:1166-299).
    a. This confidentialityCode **SHALL** contain exactly one [1..1] **@code**="N" (CONF:1166-300).
    b. This confidentialityCode **SHOULD** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.5.25" (CodeSystem: ConfidentialityCode urn:oid:2.16.840.1.113883.5.25) (CONF:1166-301).
11. **MAY** contain zero or one [0..1] **languageCode** (CONF:1166-311).
    a. The languageCode, if present, **SHALL** contain exactly one [1..1] **@code**="EN" (CONF:1166-315).
    b. The languageCode, if present, **SHOULD** contain exactly one [1..1] **@codeSystem**="1.0.639.1" (CodeSystem: ISO 639-1 Language Code urn:oid:1.0.639.1) **STATIC** (CONF:1166-316).
12. **SHALL** contain exactly one [1..1] **RCS Document Record Target** (identifier: urn:oid:2.16.840.1.113883.3.3478.1.2) (CONF:1166-91772).
13. **SHALL** contain exactly one [1..1] **RCS Document Author** (identifier: urn:oid:2.16.840.1.113883.3.3478.1.3) (CONF:1166-91773).
14. **SHALL** contain exactly one [1..1] **RCS Document Custodian** (identifier: urn:oid:2.16.840.1.113883.3.3478.1.4) (CONF:1166-91774).

15. **SHALL** contain exactly one [1..1] **RCS Document Information Recipient** (identifier: urn:oid:2.16.840.1.113883.3.3478.1.5) (CONF:1166-91775).
16. **SHALL** contain exactly one [1..1] **documentationOf** (CONF:1166-91767).
    a. This documentationOf **SHALL** contain exactly one [1..1] **@typeCode**="DOC" (CONF:1166-91776).
    b. This documentationOf **SHALL** contain exactly one [1..1] **serviceEvent** (CONF:1166-91768).
        vi. This serviceEvent **SHALL** contain exactly one [1..1] **@classCode**="PCPR" (CONF:1166-91777).
        vii. This serviceEvent **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91778).
        viii. This serviceEvent **SHALL** contain exactly one [1..1] **id** (CONF:1166-91769).
            1. This id **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.6.5.45" (CONF:1166-91779).
            2. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:1166-91780).

            Note: The transmission number (unique).
        ix. If Document.code="ICD", this serviceEvent **SHALL** contain one [1..1] **code** (CONF:1166-91770).
            1. The code, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Patient Population** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.207 **STATIC** (CONF:1166-91781).
            2. The code, if present, **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91782).

            Note: The population of patients and procedures.
        x. This serviceEvent **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1166-91771).
            1. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1166-91783).
            2. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:1166-91784).

            Note: The submission timeframe for the clinical document.
17. **SHALL** contain exactly one [1..1] **component** (CONF:1166-91785).
    a. This component **SHALL** contain exactly one [1..1] **@typeCode** (CONF:1166-91786).
    b. This component **SHALL** contain exactly one [1..1] **@contextConductionInd="true"** (CONF:1166-91787).

c. This component **SHALL** contain exactly one [1..1] **RCS-EP Document Structured Body** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.3.16000) (CONF:1166-91788).

6.6.3.2 RCS-EP Document Structured Body

[structuredBody: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.3.16000 (open)]

Table 6.6.3.2-1: RCS-EP Document Structured Body Contexts

Contained By:	Contains:
RCS Document Header (required)	RCS-EP Patient Demographic Section RCS-EP Encounter Section

1. **SHALL** contain exactly one [1..1] **@classCode**="DOCBODY" (CONF:1166-33698).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-33699).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-33697) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.3.16000" (CONF:1166-33700).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-33701).
4. **SHALL** contain exactly one [1..1] **component** (CONF:1166-33702).
   a. This component **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33704).
   b. This component **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33705).
   c. This component **SHALL** contain exactly one [1..1] **RCS-EP Patient Demographic Section** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.20000) (CONF:1166-33706).
5. **SHALL** contain at least one [1..*] **component** (CONF:1166-33703).
   a. Such components **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33707).
   b. Such components **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33708).
   c. Such components **SHALL** contain exactly one [1..1] **RCS-EP Encounter Section** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.30000) (CONF:1166-33709).

6.6.3.3 RCS-EP Patient Demographic Section

`[section: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.20000 (open)]`

Table 6.6.3.3-1: RCS-EP 20000 Patient Demographic Section Contexts

Contained By:	Contains:
RCS-EP Document Structured Body (required)	RCS-EP Patient Demographic Observation

The Patient Demographic Section captures patient information that is not contained within the document header. This information is stable across encounters within a reporting period, e.g., race, ethnicity.

This template was created by adapting *RCS-C: Patient Demographic Section* (1.3.6.1.4.1.19376.1.4.1.6.2.33).

1. **SHALL** contain exactly one [1..1] **@classCode**="DOCSECT" (CONF:1166-32413).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-32414).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32415) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.2.20000" (CONF:1166-33687).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-32579).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1166-32404).
   a. This code **SHALL** contain exactly one [1..1] **@code**="45970-1" (CONF:1166-32607).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) **STATIC** (CONF:1166-32608).
5. **SHALL** contain exactly one [1..1] **title**="Patient Demographic Section" (CONF:1166-91429).
6. **SHOULD** contain zero or more [0..*] **entry** (CONF:1166-32409).
   a. The entry, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-32469).
   b. The entry, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-32470).
   c. The entry, if present, **SHALL** contain exactly one [1..1] **RCS-EP Patient Demographic Observation** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.21000) (CONF:1166-33688).

6.6.3.4 RCS-EP Encounter Section

`[section: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.30000 (open)]`

Table 6.6.3.4-1: RCS-EP 30000 Encounter Section Contexts

Contained By:	Contains:
RCS-EP Document Structured Body (required)	RCS-EP Encounter RCS-EP Procedure Session Section RCS-EP Pre-procedure Activity Organizer RCS-EP Discharge Section

The Encounter Section captures an "episode of care" (encounter) for the patient. The episode may include an inpatient stay or an outpatient visit – in some cases, an electrophysiology procedure is performed during an outpatient visit.

Each episode is initiated by an admission or registration of the patient to the facility and is ended by a discharge from the facility. (Note: for outpatient visits, the "discharge" date is the same as the date of arrival.) In addition, there may be multiple encounter sections within the clinical document when there are multiple patient encounters during the defined time period (e.g., quarter 1 or quarter 2). All encounters whose discharge date falls within a submission period will be included within the clinical document. Each encounter that is included within a submission represents a single "episode of care" during which the patient may have one or more visits to the electrophysiology lab where the procedure is performed. The lab visit may also involve one or more procedures.

The Encounter Section includes an encounter entry that records the admission/discharge information and other summary level information about the encounter. This section also includes component sections to capture information about patient history and risk factors, a procedure session, in which one or more relevant procedures are performed, and patient discharge information.

This template is an adaption of the *RCS-C: Encounter Section* template (1.3.6.1.4.1.19376.1.4.1.6.2.2).

1. **SHALL** contain exactly one [1..1] **@classCode**="DOCSECT" (CONF:1166-33671).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-33672).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-33667) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.2.30000" (CONF:1166-33673).
    b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-33674).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1166-91647).

   a. This code **SHALL** contain exactly one [1..1] **@code**="46240-8" (CONF:1166-91648).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) **STATIC** (CONF:1166-91649).
5. **SHALL** contain exactly one [1..1] **title**="Encounter Section" (CONF:1166-91430).
6. **SHALL** contain exactly one [1..1] **entry** (CONF:1166-33668).
   a. This entry **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33675).
   b. This entry **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33676).
   c. This entry **SHALL** contain exactly one [1..1] **RCS-EP Encounter** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.31000) (CONF:1166-91650).
7. **SHALL** contain at least one [1..*] **entry** (CONF:1166-91490).
   a. Such entries **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-91491).
   b. Such entries **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-91492).
   c. Such entries **SHALL** contain exactly one [1..1] **RCS-EP Pre-procedure Activity Organizer** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41000) (CONF:1166-91651).
8. **SHALL** contain at least one [1..*] **component** (CONF:1166-33669).
   a. Such components **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33678).
   b. Such components **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33679).
   c. Such components **SHALL** contain exactly one [1..1] **RCS-EP Procedure Session Section** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.40000) (CONF:1166-33680).
9. **SHALL** contain exactly one [1..1] **component** (CONF:1166-33670).
   a. This component **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33681).
   b. This component **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33682).
   c. This component **SHALL** contain exactly one [1..1] **RCS-EP Discharge Section** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.50000) (CONF:1166-33683).

6.6.3.5 RCS-EP Procedure Session Section

`[section: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.40000 (open)]`

Table 6.6.3.5-1: RCS-EP 40000 Procedure Session Section Contexts

Contained By:	Contains:
RCS-EP Encounter Section (required)	RCS-EP Procedure Session Observation RCS-EP Procedure Organizer RCS-EP Procedure Session Event

The Procedure Session Section focuses on the relevant information for patients who undergo an ICD or AFA Ablation procedure. The information that is collected includes data elements that are directly related to the procedure and includes the indications and the operator(s) for the procedure.

The Procedure Session Section captures information from a single session within the electrophysiology laboratory. A patient may have multiple procedure sessions within a single encounter.

1. **SHALL** contain exactly one [1..1] **@classCode**="DOCSECT" (CONF:1166-91550).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91551).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91549) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.2.40000" (CONF:1166-91556).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91557).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1166-91548).
   a. This code **SHALL** contain exactly one [1..1] **@code**="29554-3" (CONF:1166-91554).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) **STATIC** (CONF:1166-91555).
5. **SHALL** contain exactly one [1..1] **title**="Procedure Session Section" (CONF:1166-91431).
6. **MAY** contain zero or more [0..*] **entry** (CONF:1166-33643).
   a. The entry, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33651).
   b. The entry, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33652).
   c. The entry, if present, **SHALL** contain exactly one [1..1] **RCS-EP Procedure Session Event** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.44000) (CONF:1166-33653).

7. **SHALL** contain exactly one [1..1] **entry** (CONF:1166-33644).
    a. This entry **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33654).
    b. This entry **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33655).
    c. This entry **SHALL** contain exactly one [1..1] **RCS-EP Procedure Organizer** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43000) (CONF:1166-33656).
8. **SHALL** contain zero or more [0..*] **entry** (CONF:1166-91700).
    a. The entry, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-91808).
    b. The entry, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-91809).
    c. The entry, if present, **SHALL** contain exactly one [1..1] **RCS-EP Procedure Session Observation** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.42000) (CONF:1166-91717).

6.6.3.6 RCS-EP Discharge Section

[section: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.2.50000 (open)]

Table 6.6.3.6-1: RCS-EP Discharge Section Contexts

Contained By:	Contains:
RCS-EP Encounter Section (required)	RCS-EP Discharge Observation RCS-EP Discharge Medication

The Discharge Section captures information that is associated with the patient's discharge or departure from the provider site.

This template is an adaption of the *RCS-C: Discharge Section* template (1.3.6.1.4.1.19376.1.4.1.6.2.44).

1. **SHALL** contain exactly one [1..1] **@classCode**="DOCSECT" (CONF:1166-32679).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-32680).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32681) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.2.50000" (CONF:1166-33640).
    b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-33155).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1166-33006).
    a. This code **SHALL** contain exactly one [1..1] **@code**="8652-0" (CONF:1166-33007).

b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) **STATIC** (CONF:1166-33008).

5. **SHALL** contain exactly one [1..1] **title**="Discharge Section" (CONF:1166-33812).
6. **SHOULD** contain zero or more [0..*] **entry** (CONF:1166-32855).
   a. Such entries **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-32856).
   b. Such entries **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-32857).
   c. Such entries **SHALL** contain exactly one [1..1] **RCS-EP Discharge Observation** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.51000) (CONF:1166-91645).
7. **SHOULD** contain zero or more [0..*] **entry** (CONF:1166-32870).
   a. The entry, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33637).
   b. The entry, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33638).
   c. The entry, if present, **SHALL** contain exactly one [1..1] **RCS-EP Discharge Medication** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.52000) (CONF:1166-91646).

6.6.3.7 RCS-EP Patient Demographic Observation

[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.21000 (open)]

Table 6.6.3.7-1: RCS-EP Patient Demographic Observation Contexts

Contained By:	Contains:
RCS-EP Patient Demographic Section (optional)	

The Patient Demographic Observation captures the patient's race and ethnicity.

The response "No" is not an expected observation.

This template is an adaption of the *RCS-C: Patient Demographic Observation Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.34).

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-32416).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-32417).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32418) such that it

a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.21000" (CONF:1166-33684).
b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-32574).

4. **SHALL** contain exactly one [1..1] **code** (CONF:1166-32407).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Patient Demographic Observation** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.172 **STATIC** (CONF:1166-32516).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-32517).
5. **SHALL** contain exactly one [1..1] **value** (CONF:1166-32408).
   Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.

6.6.3.8 RCS-EP Encounter

[encounter: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.31000 (open)]

Table 6.6.3.8-1: RCS-EP Encounter Contexts

Contained By:	Contains:
RCS-EP Encounter Section (required)	RCS-EP Encounter Procedure RCS-EP Encounter Observation

The Encounter includes the arrival to the healthcare facility date and time and the discharge date associated with the patient encounter during which the electrophysiology procedure occurred.

The response “No” is not an expected observation.

This template is an adaption of the *RCS-C: Encounter Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.12).

1. **SHALL** contain exactly one [1..1] **@classCode**="ENC" (CONF:1166-91658).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91659).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-33662) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.31000" (CONF:1166-33665).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-33666).
4. **SHALL** contain exactly one [1..1] **id** (CONF:1166-91736) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.3478.4.855" (CONF:1166-91790).

b. **SHALL** contain exactly one [1..1] **@extension** (CONF:1166-91791).

Note: The episode unique key for the patient encounter.

5. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1166-91657).
   a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1166-91660).
   b. This effectiveTime **SHALL** contain exactly one [1..1] **high** (CONF:1166-91661).

   Note: Arrival and Discharge dates.
6. If Document.code="ICD", **SHOULD** contain zero or more [0..*] **entryRelationship** (CONF:1166-33721) such that it
   a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33727).
   b. **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33728).
   c. **SHALL** contain exactly one [1..1] **RCS-EP Encounter Procedure** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.31100) (CONF:1166-33729).
7. **SHOULD** contain zero or more [0..*] **entryRelationship** (CONF:1166-91434) such that it
   a. **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-91435).
   b. **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-91436).
   c. **SHALL** contain exactly one [1..1] **RCS-EP Encounter Observation** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.31200) (CONF:1166-91437).

6.6.3.9 RCS-EP Encounter Procedure

[procedure: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.31100 (open)]

Table 6.6.3.9-1: RCS-EP Encounter Procedure Contexts

Contained By:	Contains:
RCS-EP Encounter (optional)	

The Encounter Procedure is used to record ancillary procedures that are directly associated with the patient encounter but are not linked to a procedure session or to an individual procedure.

To specify the occurrence or non-occurrence of the procedure, e.g., ‘CABG during admission?’, the negation indicator is used.

This template is an adaption of the *RCS-C: Encounter Procedure Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.53).

1. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CONF:1166-33029).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-33030).
3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:1166-33032).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-33024) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.31100" (CONF:1166-33661).
    b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-33028).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1166-33023).
    a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Encounter Procedure Type** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.160 **STATIC** (CONF:1166-33732).
    b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-33733).
6. **SHALL** contain one [1..1] **effectiveTime** (CONF:1166-33031).

6.6.3.10 RCS-EP Encounter Observation

[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.31200 (open)]

Table 6.6.3.10-1: RCS-EP Encounter Observation Contexts

Contained By:	Contains:
RCS-EP Encounter (optional)	

The Encounter Observation is used to record administrative information related to the encounter such as the reason for the patient's admission, insurance payor, and relevant research study information.

To specify the absence or occurrence of the observation, e.g., 'Research Participant?', the Boolean (True/False) is used.

This template is an adaption of the *RCS-C: Encounter Administrative Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.61).

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-33492).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-33493).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-33491) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.31200" (CONF:1166-33660).

b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-33498).

4. **SHALL** contain exactly one [1..1] **code** (CONF:1166-33489).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Encounter Observation** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.173 **STATIC** (CONF:1166-33730).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-33731).
5. **SHALL** contain exactly one [1..1] **value** (CONF:1166-33490).
   Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.
6. If code@code="100001096" and value@value="True", **SHALL** contain exactly one [1..1] **participant** (CONF:1166-91794).
   Note: The identifying patient information for the research study.
   a. The participant, if present, **SHALL** contain exactly one [1..1] **@typeCode**="SBJ" (CONF:1166-91797).
   b. The participant, if present, **SHALL** contain exactly one [1..1] **@contextControlCode**="OP" (CONF:1166-91798).
   c. The participant, if present, **SHALL** contain exactly one [1..1] **participantRole** (CONF:1166-91795).
      i. This participantRole **SHALL** contain exactly one [1..1] **@classCode**="RESBJ" (CONF:1166-91799).
      ii. This participantRole **SHALL** contain exactly one [1..1] **id** (CONF:1166-91796).
         1. This id **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.3478.4.852" (CONF:1166-91800).
         2. This id **SHALL** contain exactly one [1..1] **@extension** (CONF:1166-91801).
      iii. This participantRole **SHALL** contain exactly one [1..1] **playingEntity** (CONF:1166-91847).
         1. This playingEntity **SHALL** contain exactly one [1..1] **@classCode**="PSN" (CONF:1166-91848).
         2. This playingEntity **SHALL** contain exactly one [1..1] **@determinerCode**="INSTANCE" (CONF:1166-91849).

6.6.3.11 RCS-EP Pre-procedure Activity Organizer

`[organizer: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41000 (open)]`

Table 6.6.3.11-1: RCS-EP Pre-procedure Activity Organizer Contexts

Contained By:	Contains:
RCS-EP Encounter Section (required)	RCS-EP Pre-procedure Test Result Observation RCS-EP Pre-procedure Laboratory Result Observation RCS-EP Pre-procedure Observation RCS-EP Pre-procedure Vital Sign Observation RCS-EP Pre-procedure Procedure RCS-EP Pre-procedure Medication RCS-EP Pre-procedure Quality of Life Observation

The Pre-procedure Activity Organizer encompasses all elements of care that occur during a defined time period prior to the procedure. Included in the organizer are the pre-procedure observations, history and risk factors, procedures, lab results, test results and medications leading up to the procedure session.

This template is an adaption of the *RCS-C: Pre-procedure Activity Organizer* template (1.3.6.1.4.1.19376.1.4.1.6.4.67).

1. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CONF:1166-33552).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-33553).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-33554) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.41000" (CONF:1166-33608).
    b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-33571).
4. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1166-33601).
    a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1166-91532).
5. **SHOULD** contain zero or more [0..*] **component** (CONF:1166-33603).
    a. The component, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33609).
    b. The component, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33610).
    c. The component, if present, **SHALL** contain exactly one [1..1] **RCS-EP Pre-procedure Test Result Observation** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41100) (CONF:1166-33611).
6. **SHOULD** contain zero or more [0..*] **component** (CONF:1166-33736).

a. The component, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33844).
b. The component, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33845).
c. The component, if present, **SHALL** contain exactly one [1..1] **RCS-EP Pre-procedure Procedure** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41600) (CONF:1166-33841).

7. **SHOULD** contain zero or more [0..*] **component** (CONF:1166-33604).
   a. The component, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33612).
   b. The component, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33613).
   c. The component, if present, **SHALL** contain exactly one [1..1] **RCS-EP Pre-procedure Laboratory Result Observation** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41200) (CONF:1166-33614).
8. If Document.code="AFA", **SHOULD** contain zero or more [0..*] **component** (CONF:1166-33605).
   a. The component, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33615).
   b. The component, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33616).
   c. The component, if present, **SHALL** contain exactly one [1..1] **RCS-EP Pre-procedure Vital Sign Observation** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41500) (CONF:1166-33617).
9. **SHOULD** contain zero or more [0..*] **component** (CONF:1166-33607).
   a. The component, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33621).
   b. The component, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33622).
   c. The component, if present, **SHALL** contain exactly one [1..1] **RCS-EP Pre-procedure Observation** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41300) (CONF:1166-33657).
10. If Document.code="AFA", **SHOULD** contain zero or more [0..*] **component** (CONF:1166-91425).
    a. The component, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-91426).
    b. The component, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd="true"** (CONF:1166-91427).

c. The component, if present, **SHALL** contain exactly one [1..1] **RCS-EP Pre-procedure Medication** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41700) (CONF:1166-91428).

11. If Document.code="AFA", **SHOULD** contain zero or more [0..*] **component** (CONF:1166-91840).
    a. The component, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-91841).
    b. The component, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd="true"** (2CONF:1166-91842).
    c. The component, if present, **SHALL** contain exactly one [1..1] **RCS-EP Pre-procedure Quality of Life Questionnaire** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41800) (CONF:1166-91843).

6.6.3.12 RCS-EP Pre-procedure Test Result Observation

[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41100 (open)]

Table 6.6.3.12-1: RCS-EP Pre-procedure Test Result Observation Contexts

Contained By:	Contains:
RCS-EP Pre-procedure Activity Organizer (optional)	

The Pre-procedure Test Result Observation captures relevant diagnostic test results performed during clinical evaluation and prior to the procedure (e.g., Atrial Rhythm type).

This template was created by implying *C-CDA: Procedure Activity Observation (V2)* template (2.16.840.1.113883.10.20.22.4.13:2014-06-09). Constraint IDs from C-CDA have been retained where possible.

To specify the absence or occurrence of the observation, e.g., 'Abnormal Intraventricular Conduction?', the Boolean (True/False) is used.

1. Conforms to Procedure Activity Observation (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.13:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-91620). Note: Equal to C-CDA r2, Constraint #: 1098-8282
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91621). Note: Equal to C-CDA r2, Constraint #: 1098-8237
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32930) such that it Note: Equal to C-CDA r2, Constraint #: 1098-8238

a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.13" (CONF:1166-32933).
b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1166-32934).

5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91618) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.41100" (CONF:1166-91622).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91623).
6. **SHALL** contain exactly one [1..1] **code** (CONF:1166-33740).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Pre-procedure Test Result** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.174 **STATIC** (CONF:1166-33745).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-33746).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1166-33747).
   a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1166-91535).
8. **SHALL** contain exactly one [1..1] **value** (CONF:1166-91470).

   Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.

6.6.3.13 RCS-EP Pre-procedure Laboratory Result Observation

[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41200 (open)]

Table 6.6.3.13-1: RCS-EP Pre-procedure Laboratory Result Observation Contexts

Contained By:	Contains:
RCS-EP Pre-procedure Activity Organizer (optional)	

The Pre-procedure Laboratory Result Observation captures relevant laboratory tests collected prior to a procedure (e.g., Sodium, Bilirubin).

To specify the absence of the observation, e.g., ‘Creatinine: Not Drawn’, the negation indicator is used and value should carry nullFlavor.

This template was created by implying *C-CDA: Result Observation (V2)* template (2.16.840.1.113883.10.20.22.4.2:2014-06-09). Constraint IDs from C-CDA have been retained where possible.

1. Conforms to Result Observation (V2) template (`identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2014-06-09`).
2. **SHALL** contain exactly one [1..1] **`@classCode`**="OBS" (CONF:1166-91611).
   Note: Equal to C-CDA r2, Constraint #: 1098-7130
3. **SHALL** contain exactly one [1..1] **`@moodCode`**="EVN" (CONF:1166-91612).
   Note: Equal to C-CDA r2, Constraint #: 1098-7131
4. **MAY** contain zero or one [0..1] **`@negationInd`** (CONF:1166-91735).
5. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:1166-32925) such that it
   Note: Equal to C-CDA r2, Constraint #: 1098-7136
   a. **SHALL** contain exactly one [1..1] **`@root`**="2.16.840.1.113883.10.20.22.4.2" (CONF:1166-32928).
   b. **SHALL** contain exactly one [1..1] **`@extension`**="2014-06-09" (CONF:1166-32929).
6. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:1166-91610) such that it
   a. **SHALL** contain exactly one [1..1] **`@root`**="1.3.6.1.4.1.19376.1.4.1.7.4.41200" (CONF:1166-91613).
   b. **MAY** contain zero or one [0..1] **`@extension`** (CONF:1166-91614).
7. **SHALL** contain exactly one [1..1] **`code`** (CONF:1166-33751).
   a. This code **SHALL** contain exactly one [1..1] **`@code`**, which **SHALL** be selected from ValueSet **`Pre-procedure Laboratory Result`** `urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.175` **STATIC** (CONF:1166-33753).
   b. This code **SHALL** contain exactly one [1..1] **`@codeSystem`** (CONF:1166-33754).
8. **SHALL** contain exactly one [1..1] **`statusCode`** (CONF:1166-33755).
   a. This statusCode **SHALL** contain exactly one [1..1] **`@code`**="completed" (CONF:1166-91615).
9. **SHALL** contain exactly one [1..1] **`value`** (CONF:1166-91464).
   a. If negationInd=”True”, this value **MAY** contain zero or one [0..1] **`@nullFlavor`**="NA", which **SHALL** be selected from CodeSystem `HL7NullFlavor (urn:oid:2.16.840.1.113883.5.1008)` **STATIC** (CONF:1166- 91845).
   Note: if the lab was not drawn the value will be NA.

Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.

6.6.3.14 RCS-EP Pre-procedure Observation

`[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41300 (open)]`

Table 6.6.3.14-1: RCS-EP Pre-procedure Observation Contexts

Contained By:	Contains:
RCS-EP Pre-procedure Activity Organizer (optional)	

The Pre-procedure Observation captures the presence or absence of clinical findings prior to the procedure (e.g., congestive heart failure, bleeding).

To specify the occurrence or absence of the clinical finding, e.g., 'Congestive Heart Failure?', the negation indicator is used.

This template was created by implying *C-CDA: Problem Observation (V2)* template (2.16.840.1.113883.10.20.22.4.4:2014-06-09). Constraint IDs from C-CDA have been retained where possible.

1. Conforms to Problem Observation (V2) template (`identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2014-06-09`).
2. **SHALL** contain exactly one [1..1] **`@classCode`**=`"OBS"` (CONF:1166-91637).
   Note: Equal to C-CDA r2, Constraint #: 1098-9041
3. **SHALL** contain exactly one [1..1] **`@moodCode`**=`"EVN"` (CONF:1166-91638).
   Note: Equal to C-CDA r2, Constraint #: 1098-9042
4. **MAY** contain zero or one [0..1] **`@negationInd`** (CONF:1166-91525).
   Note: Equal to C-CDA r2, Constraint #: 1098-10139
5. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:1166-32920) such that it
   a. **SHALL** contain exactly one [1..1] **`@root`**=`"2.16.840.1.113883.10.20.22.4.4"` (CONF:1166-32923).
      Note: Equal to C-CDA r2, Constraint #: 1098-14926
   b. **SHALL** contain exactly one [1..1] **`@extension`**=`"2014-06-09"` (CONF:1166-32924).
6. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:1166-91636) such that it
   a. **SHALL** contain exactly one [1..1] **`@root`**=`"1.3.6.1.4.1.19376.1.4.1.7.4.41300"` (CONF:1166-91639).
   b. **MAY** contain zero or one [0..1] **`@extension`** (CONF:1166-91640).
7. **SHALL** contain exactly one [1..1] **`code`** (CONF:1166-33710).
   a. This code **SHALL** contain exactly one [1..1] **`@code`**, which **SHALL** be selected from ValueSet **`Pre-procedure Observation`** `urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.176` **STATIC** (CONF:1166-33714).

b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-33715).

8. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:1166-9050).
9. **SHALL** contain exactly one [1..1] **value** (CONF:1166-33711).
    a. This value **MAY** contain zero or one [0..1] **@nullFlavor**, which **SHALL** be selected from CodeSystem HL7NullFlavor (urn:oid:2.16.840.1.113883.5.1008) **STATIC** (CONF:1166-91806).
    b.

Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.

6.6.3.15 RCS-EP Pre-procedure Vital Sign Observation

[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41500 (open)]

Table 6.6.3.15-1: RCS-EP Pre-procedure Vital Sign Observation Contexts

Contained By:	Contains:
RCS-EP Pre-procedure Activity Organizer (optional)	

The Vital Sign Observation captures relevant vital signs during the encounter, specifically height, weight and blood pressure.

The response “No” is not an expected observation.

This template was created by implying *C-CDA: Vital Sign Observation (V2)* (2.16.840.1.113883.10.20.22.4.27:2014-06-09). Constraint IDs from C-CDA have been retained where possible.

1. Conforms to Vital Sign Observation (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.27:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-91629). Note: Equal to C-CDA r2, Constraint #: 1098-7297
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91630). Note: Equal to C-CDA r2, Constraint #: 1098-7298
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32915) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.27" (CONF:1166-32918). Note: Equal to C-CDA r2, Constraint #: 1098-7299

b. **MAY** contain zero or one [0..1] **@extension**="2014-06-09" (CONF:1166-32919).

5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91627) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.41500" (CONF:1166-91631).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91632).
6. **SHALL** contain exactly one [1..1] **code** (CONF:1166-33758).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Pre-procedure Vital Sign** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.178 **STATIC** (CONF:1166-33761).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-33762).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1166-91628).
   a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1166-91633).
8. **SHALL** contain exactly one [1..1] **value** with @xsi:type="PQ" (CONF:1166-91544).

6.6.3.16 RCS-EP Pre-procedure Procedure

[procedure: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41600 (open)]

Table 6.6.3.16-1: RCS-EP Pre-procedure Procedure Contexts

Contained By:	Contains:
RCS-EP Pre-procedure Activity Organizer (optional)	

The Pre-procedure Procedure captures the occurrence of both non-invasive and invasive procedures that take place prior to the electrophysiology procedure session (e.g., Prior PCI, Electrophysiology, Coronary Angiography).

To specify the occurrence or non-occurrence of the procedure, e.g., 'Catheter Ablation?', the negation indicator is used.

This template is an adaption of the *RCS-C: Pre-procedure Procedure Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.36).

1. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CONF:1166-91446).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91447).
3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:1166-91448).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91443) such that it

   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.41600" (CONF:1166-91449).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91450).
5. **SHALL** contain exactly one [1..1] **code** (CONF:1166-91444).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Pre-procedure Procedure** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.161 **STATIC** (CONF:1166-91451).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91452).
6. **MAY** contain zero or one [0..1] **effectiveTime** (CONF:1166-91445).
   a. The effectiveTime, if present, **MAY** contain zero or one [0..1] **@nullFlavor**="UNK" (CONF:1166-91812).
7. If Document.code="AFA", **MAY** contain zero or more [0..*] **methodCode** (CONF:1166-91825).
   a. The methodCode, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Ablation Strategy** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.211 **DYNAMIC** (CONF:1166-91826).
   b. The methodCode, if present, **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91827).

   Note: Identifies the ablation strategy.

6.6.3.17 RCS-EP Pre-procedure Medication

[substanceAdministration: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41700 (open)]

Table 6.6.3.17-1: RCS-EP Pre-procedure Medication Contexts

Contained By:	Contains:
RCS-EP Pre-procedure Activity Organizer (optional)	

The Pre-procedure Medication provides information on medications taken by the patient prior to the procedure.

The answer “No” to specify the non-administration of a substance, e.g., ‘Beta-blocker Prescribed?’, is handled in the value list.

This template is an adaption of the *RCS-C: Pre-procedure Medication Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.23).

1. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CONF:1166-91412).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91413).

3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91408) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.41700" (CONF:1166-91415).
    b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91416).
4. **SHALL** contain exactly one [1..1] **consumable** (CONF:1166-91409).
    a. This consumable **SHALL** contain exactly one [1..1] **@typeCode**="CSM" (CONF:1166-91418).
    b. This consumable **SHALL** contain exactly one [1..1] **manufacturedProduct** (CONF:1166-91410).
        i. This manufacturedProduct **SHALL** contain exactly one [1..1] **@classCode**="MANU" (CONF:1166-91419).
        ii. This manufacturedProduct **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:1166-91411).
            1. This manufacturedMaterial **SHALL** contain exactly one [1..1] **@classCode**="MMAT" (CONF:1166-91420).
            2. This manufacturedMaterial **MAY** contain zero or one [0..1] **@determinerCode**="KIND" (CONF:1166-91421).
            3. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code** (CONF:1166-91422).
                a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Pre-procedure Medication** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.216 **DYNAMIC** (CONF:1166-91423).
                b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91424).
5. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:1166-91507).
    a. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-91509).
    b. This entryRelationship **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-91510).
    c. This entryRelationship **SHALL** contain exactly one [1..1] **observation** (CONF:1166-91508).
        i. This observation **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-91511).
        ii. This observation **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91512).
        iii. This observation **SHALL** contain exactly one [1..1] **code** (CONF:1166-91513).

1. This code **SHALL** contain exactly one [1..1] **@code**="432102000" Administration of substance (CONF:1166-91641).
2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) **STATIC** (CONF:1166-91642).

iv. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:1166-91514).

1. This value **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Pre-procedure Medication Administration** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.44 **STATIC** (CONF:1166-91720).

   This value **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91810).

6.6.3.18 RCS-EP Pre-procedure Quality of Life Questionnaire

[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.41800 (open)]

Table 6.6.3.18-1: RCS-EP Pre-procedure Quality of Life Questionnaire

Contained By:	Contains:
RCS-EP Pre-procedure Activity Organizer (optional)	

The Pre-procedure Quality of Life Questionnaire includes details captured as observations about the patient's quality of life.

The response "No" is not an expected observation.

This template is an adaption of the *RCS-C: History and Risk Factor Observation Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.14).

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-91830).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91831).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91828) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.41800" (CONF:1166-91833).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91834).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1166-91829).

a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **AFEQT Questionnaire** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.229 **STATIC** (CONF:1166-91835).
b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91836).

5. **SHALL** contain exactly one [1..1] **value** (CONF:1166-91837).

   Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.

6.6.3.19 RCS-EP Procedure Session Observation

[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.42000 (open)]

Table 6.6.3.19-1: RCS-EP Procedure Session Observation Contexts

Contained By:	Contains:
RCS-EP Procedure Session Section (optional)	

The Procedure Session Observation includes observations relevant to the entire procedure session but not to a specific procedure, such as indications for the procedure, patient involvement in a clinical trial.

To specify the occurrence or non-occurrence of the observation, e.g., 'Clinical Trial Participant?', the Boolean (Yes/No) is used.

This template is an adaption of the *RCS-C: History and Risk Factor Observation Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.14).

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-91715).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91716).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91709) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.42000" (CONF:1166-91714).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91713).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1166-91708).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Procedure Session Observation** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.180 **STATIC** (CONF:1166-91710).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91711).

5. **SHALL** contain exactly one [1..1] **value** (CONF:1166-91712).
   Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.

6.6.3.20 RCS-EP Procedure Organizer

```
[organizer: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43000
(open)]
```

Table 6.6.3.20-1: RCS-EP 43000 Procedure Organizer Contexts

Contained By:	Contains:
RCS-EP Procedure Session Section (required)	RCS-EP Procedure

The Procedure Organizer associates the procedure session with an organizer which groups information associated directly with the electrophysiology procedure session, but is not linked to a specific procedure. This includes the start and end time of the procedure session and the procedure type.

1. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CONF:1166-32899).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-32900).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32898) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.43000" (CONF:1166-32901).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-32902).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1166-91729).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Procedure Type** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.205.163 **STATIC** (CONF:1166-91730).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91731).
5. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1166-33767).
   a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1166-33818).
6. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1166-33768).
   a. This effectiveTime **SHALL** contain exactly one [1..1] **low** (CONF:1166-33855).
   b. This effectiveTime **MAY** contain zero or one [0..1] **high** (CONF:1166-91526).
   Note: Start and end time of the procedure session.
7. **SHALL** contain at least one [1..*] **component** (CONF:1166-32903).

a. Such components **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33857).
b. Such components **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33858).
c. Such components **SHALL** contain exactly one [1..1] **RCS-EP Procedure** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43100) (CONF:1166-32904).

6.6.3.21 RCS-EP Procedure

[procedure: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43100 (open)]

Table 6.6.3.21-1: RCS-EP Procedure Contexts

Contained By:	Contains:
RCS-EP Procedure Organizer (required)	RCS-EP Procedure Observation RCS-EP Procedure Device Organizer RCS-EP Procedure Medication

The Procedure captures information specific to a procedure and its operator (e.g., physician name, physician NPI, procedure strategy, the target site).

To specify the occurrence or non-occurrence of the procedure, e.g., 'Generator Explant?', the negation indicator is used.

This template was created by implying *EPRC-IE: Procedure Activity Procedure - Cardiac EPIE* template (1.3.6.1.4.1.19376.1.4.1.4.19). Constraint IDs from EPRC-IE have been retained where possible.

1. Conforms to Procedure Activity Procedure - Cardiac EPIE template (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.4.19).
2. **SHALL** contain exactly one [1..1] **@classCode**="PROC" (CONF:1166-91580).
   Note: Equal to EPRC-IE, Constraint #: 1160-7652
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91581).
   Note: Equal to EPRC-IE, Constraint #: 1160-7653
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32889) such that it
   Note: Equal to C-CDA r1.1, Constraint #: 1098-7654
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.14" (CONF:1166-32894).
   b. **MAY** contain zero or one [0..1] **@extension**="2014-06-09" (CONF:1166-32895).

5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91653) such that it
   Note: Equal to EPRC-IE, Constraint #: 1160-7654
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.4.19" (CONF:1166-91654).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91655).
6. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91579) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.43100" (CONF:1166-91583).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91584).
7. **SHALL** contain exactly one [1..1] **code** (CONF:1166-33771).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Procedure Type** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.163 **STATIC** (CONF:1166-33776).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-33777).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1166-33778).
   a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1166-33821).
9. If Document.code="AFA", **SHALL** contain at least one [1..*] **methodCode** (CONF:1166-91585).
   a. The methodCode, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Ablation Strategy** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.211 **DYNAMIC** (CONF:1166-91607).
   b. The methodCode, if present, **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91608).

   Note: Identifies the ablation strategy.
10. **SHOULD** contain zero or one [0..1] **performer** (CONF:1166-91498).
    a. The performer, if present, **SHALL** contain exactly one [1..1] **@typeCode** (CONF:1166-91606).
    b. The performer, if present, **SHALL** contain exactly one [1..1] **assignedEntity** (CONF:1166-91499).
       i. This assignedEntity **SHALL** contain exactly one [1..1] **@classCode**="ASSIGNED" (CONF:1166-91502).
       ii. This assignedEntity **SHOULD** contain zero or one [0..1] **id** (CONF:1166-91503).
           1. This id **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.4.6" NPI (CONF:1166-91540).

2. This id **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91541).

Note: The operator NPI who performed the procedure.

iii. This assignedEntity **SHALL** contain exactly one [1..1] **assignedPerson** (CONF:1166-91500).

1. This assignedPerson **SHALL** contain exactly one [1..1] **@classCode**="PSN" (CONF:1166-91504).
2. This assignedPerson **SHALL** contain exactly one [1..1] **name** (CONF:1166-91501).
   a. This name **MAY** contain zero or one [0..1] **@nullFlavor** (CONF:1166-91666).
   b. This name **SHOULD** contain zero or one [0..1] **family** (CONF:1166-91505).
   c. This name **SHOULD** contain zero or more [0..*] **given** (CONF:1166-91506).

Note: The operator name who performed the procedure.

11. **SHALL** contain one or more [1..*] **entryRelationship** (CONF:1166-32890).
    a. If Document.code="AFA", this value **MAY** contain zero or one [0..1] @nullFlavor="NA" (CONF:1166-91844).
    b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33624).
    c. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33625).
    d. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **RCS-EP Procedure Observation** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43110) (CONF:1166-32896).
12. If Document.code="AFA", **SHOULD** contain zero or more [0..*] **entryRelationship** (CONF:1166-91515).
    a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-91516).
    b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-91517).
    c. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **RCS-EP Procedure Medication** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43130) (CONF:1166-91518).
13. **SHOULD** contain at least one [1..*] **entryRelationship** (CONF:1166-32891).
    a. Such entryRelationships **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33860).
    b. Such entryRelationships **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33861).

c. If Document.code="ICD" and code@code="100001025" in the Procedure entry, Such entryRelationships **SHALL** contain exactly one [1..1] **sequenceNumber** (CONF:1166-91846).
   Note: ICD Lead Assessment uses sequence number as the lead counter.
d. Such entryRelationships **SHALL** contain exactly one [1..1] **RCS-EP Procedure Device Organizer** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43120) (CONF:1166-32897).

6.6.3.22 RCS-EP Procedure Observation

[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43110 (open)]

Table 6.6.3.22-1: RCS-EP Procedure Observation Contexts

Contained By:	Contains:
RCS-EP Procedure (optional)	

The Procedure Observation collects observations that are associated with, or are the result of, a particular procedure (e.g., lesions ablated, reimplant reason).

To specify the occurrence or absence of the observation, e.g., 'Phrenic Nerve Evaluation?', the Boolean (Yes/No) is used.

This template was created by implying *C-CDA: Result Observation (V2)* template (2.16.840.1.113883.10.20.22.4.2:2014-06-09). Constraint IDs from C-CDA have been retained where possible.

1. Conforms to Result Observation (V2) template (identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.2:2014-06-09).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-32883).
   Note: Equal to C-CDA r2, Constraint #: 1098-7130
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-32884).
   Note: Equal to C-CDA r2, Constraint #: 1098-7131
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32882) such that it
   Note: Equal to C-CDA r2, Constraint #: 1098-7136
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.22.4.2" (CONF:1166-32885).
   b. **SHALL** contain exactly one [1..1] **@extension**="2014-06-09" (CONF:1166-32886).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91574) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.43110" (CONF:1166-91576).

   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91577).
6. **SHALL** contain exactly one [1..1] **code** (CONF:1166-33862).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Procedure Observation** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.181 **STATIC** (CONF:1166-33864).
7. This code **SHOULD** contain exactly one [1..1] **@codeSystem** (CONF:1166-33865).
8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1166-91575).
   a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1166-91578).
9. **SHALL** contain exactly one [1..1] **value** (CONF:1166-91478).

   Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.
10. If Document.code="AFA", **SHOULD** contain zero or more [0..*] **targetSiteCode** (CONF:1166-91802).
    a. The targetSiteCode, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Adjunctive Ablation Lesion Location** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.201 **STATIC** (CONF:1166-91803).
    b. The targetSiteCode, if present, **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91804).

    Note: Indicates the site where the observation presented.

6.6.3.23 RCS-EP Procedure Device Organizer

[organizer: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43120 (open)]

Table 6.6.3.23-1: RCS-EP 43120 Procedure Device Organizer Contexts

Contained By:	Contains:
RCS-EP 43100 Procedure (optional)	RCS-EP 43121 Procedure Device Observation

The Procedure Device Organizer template records specific details about the device(s) used during the procedure including its UDI, serial number, device ID.

This template was created by implying *EPRC-IE: Procedure Device Organizer – Cardiac EPIE* (1.3.6.1.4.1.19376.1.4.1.4.20). Constraint IDs from EPRC have been retained where possible.

1. Conforms to Procedure Device Organizer - Cardiac EPIE template (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.4.20).
2. **SHALL** contain exactly one [1..1] **@classCode**="CLUSTER" (CONF:1166-91591). Note: Equal to EPRC-IE, Constraint #: 1160-19217

3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91592).
   Note: Equal to EPRC-IE, Constraint #: 1160-19218
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32871) such that it
   Note: Equal to EPRC-IE, Constraint #: 1160-91410
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.4.20" (CONF:1166-32874).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-32875).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91590) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.43120" (CONF:1166-91593).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91594).
6. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1166-33793).
   a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1166-91528).
7. **SHALL** contain exactly one [1..1] **participant** (CONF:1166-19213).
   a. This participant **SHALL** contain exactly one [1..1] **@typeCode**="DEV" (CONF:1166-91595).
   b. This participant **SHALL** contain one [1..1] **participantRole** (CONF:1166-19214).
      i. Such participantRoles **SHALL** contain exactly one [1..1] **@classCode**="ROL" (CONF:1166-91596).
      ii. Such participantRoles **SHOULD** contain zero or more [0..*] **id** (CONF:1166-91667).
         1. The id, if present, **SHALL** contain exactly one [1..1] **@root**, which **SHALL** be selected from ValueSet **Device Identifier Namespace** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.151 **STATIC** (CONF:1166-91718).
         2. The id, if present, **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91719).

         Note: The unique identifier of the device such as an assigned Counter, UDI, IEEE code, or manufacturer's serial number.
      iii. Such participantRoles **SHALL** contain exactly one [1..1] **playingDevice** (CONF:1166-19215).
         1. This playingDevice **SHALL** contain exactly one [1..1] **@classCode**="DEV" (CONF:1166-91597).
         2. This playingDevice **SHALL** contain exactly one [1..1] **@determinerCode**="INSTANCE" (CONF:1166-91598).
         3. This playingDevice **SHALL** contain exactly one [1..1] **code** (CONF:1166-33827).

a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Procedure Device List** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.164 **DYNAMIC** (CONF:1166-33828).
b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-33829).

Note: The assigned identifier for the device type.

8. If Document.code="ICD", **SHOULD** contain zero or more [0..*] **component** (CONF:1166-32887).
   a. The component, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-33626).
   b. The component, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-33627).
   c. The component, if present, **SHALL** contain exactly one [1..1] **RCS-EP Procedure Device Observation** (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43121) (CONF:1166-32888).

6.6.3.24 RCS-EP Procedure Device Observation

[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43121 (open)]

Table 6.6.3.24-1: RCS-EP Procedure Device Observation Contexts

Contained By:	Contains:
RCS-EP Procedure Device Organizer (optional)	

The Procedure Device Observation captures observations about any device(s) used during the procedure (e.g., status, implant date).

The response “No” is not an expected observation.

This template was created by implying *EPRC-IE: Device Observation EPIE* template (1.3.6.1.4.1.19376.1.4.1.4.18). Constraint IDs from EPRC have been retained where possible.

1. Conforms to Device Observation EPIE template (identifier: urn:oid:1.3.6.1.4.1.19376.1.4.1.4.18).
2. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-91601). Note: Equal to EPRC-IE, Constraint #: 1160-91397
3. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91602). Note: Equal to EPRC-IE, Constraint #: 1160-91398

4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32877) such that it
   Note: Equal to EPRC-IE, Constraint #: 1160-91394
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.4.18" (CONF:1166-32880).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-32881).
5. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-91599) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.43121" (CONF:1166-91603).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-91604).
6. **SHALL** contain exactly one [1..1] **code** (CONF:1166-33795).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Procedure Device Observation** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.136 **STATIC** (CONF:1166-33799).
   b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-33800).
7. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1166-91600).
   a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1166-91605).
8. **SHALL** contain exactly one [1..1] **value** (CONF:1166-91456).

Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.

6.6.3.25 RCS-EP Procedure Medication

[substanceAdministration: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.43130 (open)]

Table 6.6.3.25-1: RCS-EP Procedure Medication Contexts

Contained By:	Contains:
RCS-EP Procedure (optional)	

The Procedure Medication template captures medications administered during the procedure (e.g., Anticoagulants).

This template is an adaption of the *RCS-C: Procedure Medication Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.45).

1. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CONF:1166-32736).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-32737).
3. **SHALL** contain exactly one [1..1] **@negationInd** (CONF:1166-91656).
4. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32974) such that it

a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.43130" (CONF:1166-91521).
b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-32976).

5. If Document.code="AFA", **MAY** contain zero or one [0..1] **routeCode** (CONF:1166-91586).
   a. The routeCode, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Medication Administration Route** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.169 **STATIC** (CONF:1166-91587).
   b. The routeCode, if present, **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91588).

   Note: Indicates the route of administration.
6. **SHALL** contain exactly one [1..1] **consumable** (CONF:1166-32742).
   a. This consumable **SHALL** contain exactly one [1..1] **@typeCode**="CSM" (CONF:1166-32743).
   b. This consumable **SHALL** contain exactly one [1..1] **manufacturedProduct** (CONF:1166-32744).
      i. This manufacturedProduct **SHALL** contain exactly one [1..1] **@classCode**="MANU" (CONF:1166-91589).
      ii. This manufacturedProduct **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:1166-32745).
         1. This manufacturedMaterial **SHALL** contain exactly one [1..1] **@classCode**="MMAT" (CONF:1166-33391).
         2. This manufacturedMaterial **SHALL** contain exactly one [1..1] **@determinerCode**="KIND" (CONF:1166-33392).
         3. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code** (CONF:1166-32746).
            Note: The code value identifies the medication provided to the patient during or prior to the procedure.
            a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Procedure Medication** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.214 **DYNAMIC** (CONF:1166-32748).
            b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-32747).

6.6.3.26 RCS-EP Procedure Session Event

`[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.44000 (open)]`

Table 6.6.3.26-1: RCS-EP Procedure Session Event Contexts

Contained By:	Contains:
RCS-EP Procedure Session Section (optional)	

The Procedure Session Event template captures the presence or absence of events that may have occurred during or after the procedure (e.g., stroke, cardiac arrest, cardiac perforation).

To specify the occurrence or absence of the event, e.g., 'Cardiac Arrest?', the negation indicator is used.

This template was created by implying *C-CDA: Problem Observation (V2)* template (2.16.840.1.113883.10.20.22.2.22.1:2014-06-09). Constraint IDs from C-CDA have been retained where possible.

1. Conforms to Problem Observation (V2) template (`identifier: urn:hl7ii:2.16.840.1.113883.10.20.22.4.4:2014-06-09`).
2. **SHALL** contain exactly one [1..1] **`@classCode`**`="OBS"` (CONF:1166-91560).
   Note: Equal to C-CDA r2, Constraint #: 1098-9041
3. **SHALL** contain exactly one [1..1] **`@moodCode`**`="EVN"` (CONF:1166-91561).
   Note: Equal to C-CDA r2, Constraint #: 1098-9042
4. **SHALL** contain exactly one [1..1] **`@negationInd`** (CONF:1166-91539).
   Note: Equal to C-CDA r2, Constraint #: 1098-10139
5. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:1166-32910) such that it
   Note: Equal to C-CDA r2, Constraint #: 1098-14926
   a. **SHALL** contain exactly one [1..1] **`@root`**`="2.16.840.1.113883.10.20.22.4.4"` (CONF:1166-32913).
   b. **SHALL** contain exactly one [1..1] **`@extension`**`="2014-06-09"` (CONF:1166-32914).
6. **SHALL** contain exactly one [1..1] **`templateId`** (CONF:1166-91563) such that it
   a. **SHALL** contain exactly one [1..1] **`@root`**`="1.3.6.1.4.1.19376.1.4.1.7.4.44000"` (CONF:1166-91564).
   b. **MAY** contain zero or one [0..1] **`@extension`** (CONF:1166-91565).
7. **SHALL** contain exactly one [1..1] **`code`** (CONF:1166-33804).
   a. This code **SHALL** contain exactly one [1..1] **`@code`**`="100001085"` Procedure Session Event (CONF:1166-33807).

b. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.3.3478.6.1" (CodeSystem: ACC NCDR urn:oid:2.16.840.1.113883.3.3478.6.1) (CONF:1166-33808).

8. **SHALL** contain exactly one [1..1] **statusCode** (CONF:1166-91559).
   Note: Equal to C-CDA r2, Constraint #: 1098-9049
   a. This statusCode **SHALL** contain exactly one [1..1] **@code**="completed" (CONF:1166-91562).
9. **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:1166-33810).
   a. This value **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Procedure Session Event Observation** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.158 **STATIC** (CONF:1166-91480).
   b. This value **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91481).
10. If Document.code="ICD", **MAY** contain zero or one [0..1] **targetSiteCode** (CONF:1166-91705).
    a. The targetSiteCode, if present, **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Lead Location (Target Site)** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.171.167 **STATIC** (CONF:1166-91706).
    b. The targetSiteCode, if present, **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91707).

    Note: The site where the observation presented.
11. If Document.code="AFA", **MAY** contain zero or more [0..*] **entryRelationship** (CONF:1166-91814).
    a. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-91817).
    b. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-91818).
    c. The entryRelationship, if present, **SHALL** contain exactly one [1..1] **observation** (CONF:1166-91815).
       i. This observation **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-91819).
       ii. This observation **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-91820).
       iii. This observation **SHALL** contain exactly one [1..1] **code** (CONF:1166-91816).
            1. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Procedure Session Event Finding** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.224 (CONF:1166-91821).

2. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91822).

iv. This observation **SHALL** contain exactly one [1..1] **value** (CONF:1166-91823).

1. This value **MAY** contain zero or one [0..1] @ zero or one [0..1] **@nullFlavor**="NA", which **SHALL** be selected from ValueSet **Null Flavor** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.30 **STATIC** (CONF:1166-91824).

Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.

Note: Additional information about the specific event.

6.6.3.27 RCS-EP Discharge Observation

[observation: identifier urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.51000 (open)]

Table 6.6.3.27-1: RCS-EP Discharge Observation Contexts

Contained By:	Contains:
RCS-EP Discharge Section (required)	

The Discharge Observation captures details relevant to the patient's discharge or departure from the healthcare facility (e.g., Discharge Status, Cause of Death).

To specify the occurrence or absence of the observation, e.g., 'Hospice Care?', the Boolean (True/False) is used.

This template is an adaption of the *RCS-C: Discharge Observation Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.48).

1. **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-32866).
2. **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-32867).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32861) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.51000" (CONF:1166-32876).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-32869).
4. **SHALL** contain exactly one [1..1] **code** (CONF:1166-32859).
   a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Discharge Observation** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.184 **STATIC** (CONF:1166-33813).

b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-33814).

5. **SHALL** contain exactly one [1..1] **value** (CONF:1166-32860).

Note: the data type for observation value depends on the value of the observation code. The data type, value set and unit of measure for observation value are identified in the value set specification for observation code.

6.6.3.28 RCS-EP Discharge Medication

```
[substanceAdministration: identifier
urn:oid:1.3.6.1.4.1.19376.1.4.1.7.4.52000 (open)]
```

Table 6.6.3.28-1: RCS-EP Discharge Medication Contexts

Contained By:	Contains:
RCS-EP Discharge Section (optional)	

The Discharge Medication captures the patient medications that may be prescribed at discharge (e.g., Anticoagulants, Rhythm Control Therapy, others).

The answer "No" to specify the non-administration of a substance, e.g., 'Beta-blocker Prescribed?', is handled by in the value list.

This template is an adaption of the *RCS-C: Discharge Medication Entry* template (1.3.6.1.4.1.19376.1.4.1.6.4.49).

1. **SHALL** contain exactly one [1..1] **@classCode**="SBADM" (CONF:1166-32832).
2. **SHALL** contain exactly one [1..1] **@moodCode**="RQO" (CONF:1166-32833).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-32824) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="1.3.6.1.4.1.19376.1.4.1.7.4.52000" (CONF:1166-33636).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-32841).
4. **SHALL** contain exactly one [1..1] **consumable** (CONF:1166-32820).
   a. This consumable **SHALL** contain exactly one [1..1] **@typeCode**="CSM" (CONF:1166-32835).
   b. This consumable **SHALL** contain exactly one [1..1] **manufacturedProduct** (CONF:1166-32821).
      i. This manufacturedProduct **SHALL** contain exactly one [1..1] **@classCode**="MANU" (CONF:1166-32836).
      ii. This manufacturedProduct **SHALL** contain exactly one [1..1] **manufacturedMaterial** (CONF:1166-32822).

1. This manufacturedMaterial **SHALL** contain exactly one [1..1] **@classCode**="MMAT" (CONF:1166-32837).
2. This manufacturedMaterial **SHALL** contain exactly one [1..1] **@determinerCode**="KIND" (CONF:1166-32838).
3. This manufacturedMaterial **SHALL** contain exactly one [1..1] **code** (CONF:1166-32823).
    a. This code **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Discharge Medication** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.165 **DYNAMIC** (CONF:1166-33830).
    b. This code **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-33831).

5. **SHALL** contain exactly one [1..1] **entryRelationship** (CONF:1166-32964).
    a. This entryRelationship **SHALL** contain exactly one [1..1] **@typeCode**="COMP" (CONF:1166-32965).
    b. This entryRelationship **SHALL** contain exactly one [1..1] **@contextConductionInd**="true" (CONF:1166-32966).
    c. This entryRelationship **SHALL** contain exactly one [1..1] **observation** (CONF:1166-32967).
        i. This observation **SHALL** contain exactly one [1..1] **@classCode**="OBS" (CONF:1166-32968).
        ii. This observation **SHALL** contain exactly one [1..1] **@moodCode**="EVN" (CONF:1166-32969).
        iii. This observation **SHALL** contain exactly one [1..1] **code** (CONF:1166-32970).
        Note: The code value indicates the administration of substance activity.
            1. This code **SHALL** contain exactly one [1..1] **@code**="432102000" Administration of substance (CONF:1166-32971).
            2. This code **SHALL** contain exactly one [1..1] **@codeSystem**="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) **STATIC** (CONF:1166-32972).
        iv. This observation **SHALL** contain exactly one [1..1] **value** with @xsi:type="CD" (CONF:1166-33832).
            1. This value **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet Discharge Medication Administration

urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.86 **STATIC** (CONF:1166-91723).

2. This value **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-91724).

6.6.4 Document Participant

6.6.4.1 RCS Document Author

[author: identifier urn:oid:2.16.840.1.113883.3.3478.1.3 (open)]

Table 6.6.4.1-1: RCS Document Author Contexts

Contained By:	Contains:
RCS Document Header (required)	

This template contains constraints for information related to the document author. For registry content submission, the document author is the software product (Device) which originates the document and the represented organization is the vendor of the software product.

1. **SHALL** contain exactly one [1..1] **@typeCode**="AUT" (CONF:1166-208).
2. **SHALL** contain exactly one [1..1] **@contextControlCode**="OP" (CONF:1166-209).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-253) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.3478.1.3" (CONF:1166-254).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-255).
4. **SHALL** contain exactly one [1..1] **time** (CONF:1166-33420).
   a. This time **MAY** contain zero or one [0..1] **@nullFlavor** (CONF:1166-33421).
5. **SHALL** contain exactly one [1..1] **assignedAuthor** (CONF:1166-44).
   a. This assignedAuthor **SHALL** contain exactly one [1..1] **@classCode**="ASSIGNED" (CONF:1166-210).
   b. This assignedAuthor **SHALL** contain exactly one [1..1] **id** (CONF:1166-45).
      i. This id **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.3478.4.847" Source System Identifier (CONF:1166-52).
      ii. This id **SHALL** contain exactly one [1..1] **@extension,** which **SHALL** be selected from (CodeSystem ACC NCDR urn:oid:2.16.840.1.113883.3.3478.6.1) (CONF:1166-53).

      Note: An identifier for the authoring device: the product name and version number identifying the software that created the clinical document.

c. This assignedAuthor **SHALL** contain exactly one [1..1] **representedOrganization** (CONF:1166-46).
   i. This representedOrganization **SHALL** contain exactly one [1..1] **@classCode**="ORG" (CONF:1166-211).
   ii. This representedOrganization **SHALL** contain exactly one [1..1] **@determinerCode**="INSTANCE" (CONF:1166-212).
   iii. This representedOrganization **SHALL** contain exactly one [1..1] **id** (CONF:1166-47).
      1. This id **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.3478.4.840" Source System Provider Identifier (CONF:1166-56).
      2. This id **SHALL** contain exactly one [1..1] **@extension**, which **SHALL** be selected from (CodeSystem ACC NCDR urn:oid:2.16.840.1.113883.3.3478.6.1) (CONF:1166-57).

      Note: Identifies the vendor responsible for the software authoring the clinical document.

6.6.4.2 RCS Document Custodian

[custodian: identifier urn:oid:2.16.840.1.113883.3.3478.1.4 (open)]

Table 6.6.4.2-1: RCS Document Custodian Contexts

Contained By:	Contains:
RCS Document Header (required)	

This template contains constraints related to a document custodian. A document custodian is the organization that is accountable for the information content of the registry content submission. The document custodian is the responsible organization for the service delivery location at which the patient encounter(s) occurred.

1. **SHALL** contain exactly one [1..1] **@typeCode**="CST" (CONF:1166-62).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-256) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.3478.1.4" (CONF:1166-257).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-258).
3. **SHALL** contain exactly one [1..1] **assignedCustodian** (CONF:1166-58).
   a. This assignedCustodian **SHALL** contain exactly one [1..1] **@classCode**="ASSIGNED" (CONF:1166-63).

b. This assignedCustodian **SHALL** contain exactly one [1..1] **representedCustodianOrganization** (CONF:1166-59).
   i. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **@classCode**="ORG" (CONF:1166-64).
   ii. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **@determinerCode**="INSTANCE" (CONF:1166-65).
   iii. This representedCustodianOrganization **SHALL** contain at least one [1..*] **id** (CONF:1166-60).
      1. Such ids **SHALL** contain exactly one [1..1] **@root**, which **SHALL** be selected from ValueSet **Registry Participant Identifier Namespace** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.145 **STATIC** (CONF:1166-66).
      2. Such ids **SHALL** contain exactly one [1..1] **@extension** (CONF:1166-67).

      Note: Participant identifier of the submitting facility.
   iv. This representedCustodianOrganization **SHALL** contain exactly one [1..1] **name** (CONF:1166-70).

      Note: The full name of the submitting facility (without abbreviations).

6.6.4.3 RCS Document Information Recipient

[informationRecipient: identifier urn:oid:2.16.840.1.113883.3.3478.1.5 (open)]

Table 6.6.4.3-1: RCS Document Information Recipient Contexts

Contained By:	Contains:
RCS Document Header (required)	

This template contains constraints related to the document information recipient. For the registry content submission document, the document information recipient is the registry to which the registry content submission is targeted.

1. **SHALL** contain exactly one [1..1] **@typeCode**="PRCP" (CONF:1166-73).
2. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-259) such that it
   a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.3478.1.5" (CONF:1166-260).
   b. **MAY** contain zero or one [0..1] **@extension** (CONF:1166-261).
3. **SHALL** contain exactly one [1..1] **intendedRecipient** (CONF:1166-71).

a. This intendedRecipient **SHALL** contain exactly one [1..1] **@classCode**="ASSIGNED" (CONF:1166-74).
b. This intendedRecipient **SHALL** contain exactly one [1..1] **id** (CONF:1166-72).
    i. This id **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.3478.4.841" Registry Identifier (CONF:1166-75).
    ii. This id **SHALL** contain exactly one [1..1] **@extension**, which **SHALL** be selected from ValueSet **Registry Identifier** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.156 (CONF:1166-76).

    Note: Identifies the data registry to which the clinical document will be submitted (including version).

6.6.4.4 RCS Document Record Target

[recordTarget: identifier urn:oid:2.16.840.1.113883.3.3478.1.2 (open)]

Table 6.6.4.4-1: RCS Document Record Target Contexts

Contained By:	Contains:
RCS Document Header (required)	

This template contains the set of constraints pertaining to the Patient that is the record target for the registry content submission document, i.e., the most recent patient information for the referenced time period; excluding race and ethnicity that is collected in Patient Demographic Section (information that may change for different encounters). Some submissions may require that patient identifying information be hidden for which nullFlavor "MSK" is to be used.

1. **SHALL** contain exactly one [1..1] **@typeCode**="RCT" (CONF:1166-26).
2. **SHALL** contain exactly one [1..1] **@contextControlCode**="OP" (CONF:1166-27).
3. **SHALL** contain exactly one [1..1] **templateId** (CONF:1166-262) such that it
    a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.3.3478.1.2" (CONF:1166-263).
    b. **MAY** contain zero or more [0..*] **@extension** (CONF:1166-264).
4. **SHALL** contain exactly one [1..1] **patientRole** (CONF:1166-28).
    a. This patientRole **SHALL** contain exactly one [1..1] **@classCode**="PAT" (CONF:1166-29).
    b. This patientRole **SHALL** contain at least one [1..*] **id** (CONF:1166-30).
        i. Such ids **MAY** contain zero or one [0..1] **@nullFlavor** (ValueSet: **Null Flavor** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.30) (CONF:1166-331).
        ii. Such ids **SHALL** contain exactly one [1..1] **@root**, which **SHALL** be selected from ValueSet **Patient Identifier Namespace**

`urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.7` **STATIC** (CONF:1166-31).

Such ids **MAY** contain zero or one [0..1] **@extension** (CONF:1166-32).
Note: The patient Identifiers, i.e., social security number, registry identifier, etc. To mask patient identifiers use "MSK".

c. This patientRole **SHOULD** contain exactly one [1..1] **addr** (CONF:1166-91725).
   i. This addr **SHALL** contain exactly one [1..1] **postalCode**, which **SHALL** be selected from CodeSystem `USPostalCodes (urn:oid:2.16.840.1.113883.6.231)` (CONF:1166-91726).
      1. This postalCode **MAY** contain zero or one [0..1] **@nullFlavor** (CONF:1166-91727).

d. This patientRole **SHALL** contain exactly one [1..1] **patient** (CONF:1166-33).
   i. This patient **SHALL** contain exactly one [1..1] **@classCode**="PSN" (CONF:1166-34).
   ii. This patient **SHALL** contain exactly one [1..1] **@determinerCode**="INSTANCE" (CONF:1166-35).
   iii. This patient **SHOULD** contain exactly one [1..1] **name** (CONF:1166-36).
      1. This name **MAY** contain zero or one [0..1] **@nullFlavor**="MSK" Masked, which **SHALL** be selected from CodeSystem `HL7NullFlavor (urn:oid:2.16.840.1.113883.5.1008)` **STATIC** (CONF:1166-38).
      2. This name **SHOULD** contain exactly one [1..1] **family** (CONF:1166-39).
         a. This family **MAY** contain zero or one [0..1] **@nullFlavor**="MSK" Masked (CodeSystem: `HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008` **STATIC**) (CONF:1166-250).
      3. This name **SHOULD** contain zero or more [0..*] **given** (CONF:1166-37).
         a. The given, if present, **MAY** contain zero or one [0..1] **@nullFlavor**="MSK" Masked (CodeSystem: `HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008` **STATIC**) (CONF:1166-40).

         Note: Use "MSK" to mask patient name.
   iv. This patient **SHOULD** contain exactly one [1..1] **administrativeGenderCode** (CONF:1166-330).
      1. This administrativeGenderCode **MAY** contain zero or one [0..1] **@nullFlavor** (ValueSet: **Null Flavor**

urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.30) (CONF:1166-332).

2. This administrativeGenderCode **SHALL** contain exactly one [1..1] **@code**, which **SHALL** be selected from ValueSet **Person Sex** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.19 **STATIC** (CONF:1166-333).
3. This administrativeGenderCode **SHALL** contain exactly one [1..1] **@codeSystem** (CONF:1166-334).

v. This patient **SHOULD** contain exactly one [1..1] **birthTime** (CONF:1166-43).

1. This birthTime **MAY** contain zero or one [0..1] **@nullFlavor**, which **SHALL** be selected from ValueSet **Null Flavor** urn:oid:1.3.6.1.4.1.19376.1.4.1.6.5.30 **STATIC** (CONF:1166-251).

6.6.5 Value List Appendix

6.6.5.1 Ablation Strategy (DYNAMIC) - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Ablation Strategy selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.211, listed or referenced below. The ablation strategy vocabulary list is dynamic; the participant can obtain the up-to-date list from the following URL: https://services.ncdr.com/registries/AFA/DataDictionaryServices.asmx.

There is an effective and expiration date associated with each ablation strategy and only those in effect at the time of the patient's date of admission should be collected and/or available for selection.

Table 6.6.5.1-1:Ablation Strategy (SAMPLE) 1.3.6.1.4.1.19376.1.4.1.6.5.211

Code	Code System	Preferred Name	Scope
100000910	ACC NCDR	Complex Fractionated Atrial Electrogram	AFA
100000911	ACC NCDR	Convergent Procedure	AFA
233161001	SNOMED CT	Cryoablation	AFA
100000912	ACC NCDR	Empiric LA Linear Lesions	AFA
100000913	ACC NCDR	Focal Ablation	AFA
100000914	ACC NCDR	Ganglion Plexus Ablation	AFA
100000915	ACC NCDR	Pulmonary Vein Isolation	AFA
100000917	ACC NCDR	Rotor Based Mapping	AFA
100000916	ACC NCDR	Segmental PV Ablation	AFA

Code	Code System	Preferred Name	Scope
100000918	ACC NCDR	Wide Area Circumferential Ablation	AFA

6.6.5.2 Adjunctive Ablation Lesion Location - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Adjunctive Ablation Lesion Location selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.201, listed or referenced below.

Table 6.6.5.2-1:Adjunctive Ablation Lesion Location 1.3.6.1.4.1.19376.1.4.1.6.5.201

Code	Code System	Preferred Name	Scope
100000943	ACC NCDR	Atypical Atrial Flutter	AFA
Cavotricuspid Isthmus	ACC NCDR	Cavotricuspid Isthmus	AFA
90219004	SNOMED CT	Coronary sinus structure	AFA
100001063	ACC NCDR	Other Adjunctive Lesions Ablated Location	AFA
5208200	SNOMED CT	Structure of ligament	AFA
48345005	SNOMED CT	Superior vena cava structure	AFA

6.6.5.3 Admission Reason - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Admission Reason selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.4, listed or referenced below.

Table 6.6.5.3-1: Admission Reason 1.3.6.1.4.1.19376.1.4.1.6.5.4

Code	Code System	Preferred Name	Scope
100001134	ACC NCDR	Admitted for Cardiac / Heart Failure	ICD
100001133	ACC NCDR	Admitted for procedure	ICD
100001227	ACC NCDR	Other Reason	ICD

6.6.5.4 AFEQT Questionnaire - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming AFEQT Questionnaire selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.229, listed or referenced below.

Table 6.6.5.4-1: AFEQT Questionnaire 1.3.6.1.4.1.19376.1.4.1.6.5.229

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001146	ACC NCDR	Currently in atrial fibrillation	BL		AFA
100001154	ACC NCDR	Q1: As a result of your atrial fibrillation, how much were you bothered by: Palpitations: Heart fluttering, skipping or racing	CD	VS: AFEQT Response - Bothered Scale	AFA
100001177	ACC NCDR	Q10: As a result of your atrial fibrillation, how much difficulty have you had in: Walking briskly	CD	VS: AFEQT Response - Difficulty Scale	AFA
100001178	ACC NCDR	Q11: As a result of your atrial fibrillation, how much difficulty have you had in: Walking briskly uphill or carrying groceries or other items, up a flight of stairs without stopping	CD	VS: AFEQT Response - Difficulty Scale	AFA
100001179	ACC NCDR	Q12: As a result of your atrial fibrillation, how much difficulty have you had in: Doing vigorous activities such as lifting or moving heavy furniture, running, or participating	CD	VS: AFEQT Response - Difficulty Scale	AFA

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001187	ACC NCDR	Q13: As a result of your atrial fibrillation, how much did the feelings below bother you? Feeling worried or anxious that your atrial fibrillation can start anytime	CD	VS: AFEQT Response - Bothered Scale	AFA
100001188	ACC NCDR	Q14: As a result of your atrial fibrillation, how much did the feelings below bother you? Feeling worried that atrial fibrillation may worsen other medical conditions in the long run	CD	VS: AFEQT Response - Bothered Scale	AFA
100001189	ACC NCDR	Q15: As a result of your atrial fibrillation treatment, how much were you bothered by: Worrying about the treatment side effects from medications	CD	VS: AFEQT Response - Bothered Scale	AFA

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001190	ACC NCDR	Q16: As a result of your atrial fibrillation treatment, how much were you bothered by: Worrying about complications or side effects from procedures like catheter ablation, surgery, or pacemakers therapy	CD	VS: AFEQT Response - Bothered Scale	AFA
100001191	ACC NCDR	Q17: As a result of your atrial fibrillation treatment, how much were you bothered by: Worrying about side effects of blood thinners such as nosebleeds, bleeding gums when brushing teeth, heavy bleeding from cuts, or bruising.	CD	VS: AFEQT Response - Bothered Scale	AFA
100001192	ACC NCDR	Q18: As a result of your atrial fibrillation treatment, how much were you bothered by: Worrying or feeling anxious that your treatment interferes with your daily activities	CD	VS: AFEQT Response - Bothered Scale	AFA

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001193	ACC NCDR	Q19: Overall, how satisfied are you with: How well your current treatment controls your atrial fibrillation?	CD	VS: AFEQT Response - Satisfaction Scale	AFA
100001155	ACC NCDR	Q2: As a result of your atrial fibrillation, how much were you bothered by: Irregular heart beat	CD	VS: AFEQT Response - Bothered Scale	AFA
100001194	ACC NCDR	Q20: Overall, how satisfied are you with: The extent to which treatment has relieved your symptoms of atrial fibrillation?	CD	VS: AFEQT Response - Satisfaction Scale	AFA
100001156	ACC NCDR	Q3: As a result of your atrial fibrillation, how much were you bothered by: A pause in heart activity	CD	VS: AFEQT Response - Bothered Scale	AFA
100001157	ACC NCDR	Q4: As a result of your atrial fibrillation, how much were you bothered by: Lightheadedness or dizziness	CD	VS: AFEQT Response - Bothered Scale	AFA
100001165	ACC NCDR	Q5: Have you been limited by your atrial fibrillation in your: Ability to have recreational pastimes, sports, and hobbies	CD	VS: AFEQT Response - Limitation Scale	AFA

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001166	ACC NCDR	Q6: Have you been limited by your atrial fibrillation in your: Ability to have a relationship and do things with friends and family	CD	VS: AFEQT Response - Limitation Scale	AFA
100001174	ACC NCDR	Q7: As a result of your atrial fibrillation, how much difficulty have you had in: Doing any activity because you felt tired, fatigued, or low on energy	CD	VS: AFEQT Response - Difficulty Scale	AFA
100001175	ACC NCDR	Q8: As a result of your atrial fibrillation, how much difficulty have you had in: Doing physical activity because of shortness of breath	CD	VS: AFEQT Response - Difficulty Scale	AFA
100001176	ACC NCDR	Q9: As a result of your atrial fibrillation, how much difficulty have you had in: Exercising	CD	VS: AFEQT Response - Difficulty Scale	AFA
100001147	ACC NCDR	Timing of the episode of atrial fibrillation	CD	VS: AFEQT Response - Timing of Episode of atrial fibrillation	AFA

6.6.5.5 AFEQT Response - Bothered Scale - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming AFEQT Response - Bothered Scale selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.230, listed or referenced below.

Table 6.6.5.5-1: AFEQT Response - Bothered Scale 1.3.6.1.4.1.19376.1.4.1.6.5.230

Code	Code System	Preferred Name	Scope
100001160	ACC NCDR	A little bothered	AFA
100001164	ACC NCDR	Extremely bothered	AFA
100001159	ACC NCDR	Hardly bothered	AFA
100001161	ACC NCDR	Moderately bothered	AFA
100001158	ACC NCDR	Not at all bothered or I did not have this symptom	AFA
100001162	ACC NCDR	Quite a bit bothered	AFA
100001163	ACC NCDR	Very bothered	AFA

6.6.5.6 AFEQT Response - Difficulty Scale - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming AFEQT Response - Difficulty Scale selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.232, listed or referenced below.

Table 6.6.5.6-1: AFEQT Response - Difficulty Scale 1.3.6.1.4.1.19376.1.4.1.6.5.232

Code	Code System	Preferred Name	Scope
100001182	ACC NCDR	A little difficulty	AFA
100001185	ACC NCDR	A lot of difficulty	AFA
100001186	ACC NCDR	Extreme Difficulty	AFA
100001181	ACC NCDR	Hardly any difficulty	AFA
100001183	ACC NCDR	Moderate Difficulty	AFA
100001180	ACC NCDR	No difficulty at all	AFA
100001184	ACC NCDR	Quite a bit of difficulty	AFA

6.6.5.7 AFEQT Response - Limitation Scale - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming AFEQT Response - Limitation Scale selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.231, listed or referenced below.

Table 6.6.5.7-1: AFEQT Response - Limitation Scale 1.3.6.1.4.1.19376.1.4.1.6.5.231

Code	Code System	Preferred Name	Scope
100001169	ACC NCDR	A little limited	AFA
100001173	ACC NCDR	Extremely limited	AFA
100001168	ACC NCDR	Hardly limited	AFA
100001170	ACC NCDR	Moderately limited	AFA
100001167	ACC NCDR	Not at all limited	AFA
100001171	ACC NCDR	Quite a bit limited	AFA
100001172	ACC NCDR	Very limited	AFA

6.6.5.8 AFEQT Response - Satisfaction Scale - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming AFEQT Response - Satisfaction Scale selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.233, listed or referenced below.

Table 6.6.5.8-1: AFEQT Response - Satisfaction Scale 1.3.6.1.4.1.19376.1.4.1.6.5.233

Code	Code System	Preferred Name	Scope
100001200	ACC NCDR	Extremely dissatisfied	AFA
100001195	ACC NCDR	Extremely satisfied	AFA
100001198	ACC NCDR	Mixed with satisfied and dissatisfied	AFA
100001199	ACC NCDR	Somewhat dissatisfied	AFA
100001197	ACC NCDR	Somewhat satisfied	AFA
100001228	ACC NCDR	Very Dissatisfied	AFA
100001196	ACC NCDR	Very satisfied	AFA

6.6.5.9 AFEQT Response - Timing of Episode of atrial fibrillation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming AFEQT Response - Timing of Episode of atrial fibrillation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.234, listed or referenced below.

Table 6.6.5.9-1: AFEQT Response - Timing of Episode of atrial fibrillation 1.3.6.1.4.1.19376.1.4.1.6.5.234

Code	Code System	Preferred Name	Scope

Code	Code System	Preferred Name	Scope
100001151	ACC NCDR	1 month to 1 year ago	AFA
100001148	ACC NCDR	Earlier today	AFA
100001152	ACC NCDR	More than 1 year ago	AFA
100001153	ACC NCDR	Never aware of having atrial fibrillation	AFA
100001150	ACC NCDR	Within the past month	AFA
100001149	ACC NCDR	Within the past week	AFA

6.6.5.10 AFib/AFlutter Symptoms - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming AFib/AFlutter Symptoms selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.218, listed or referenced below.

Table 6.6.5.10-1: AFib/AFlutter Symptoms 1.3.6.1.4.1.19376.1.4.1.6.5.218

Code	Code System	Preferred Name	Scope
100000932	ACC NCDR	Asymptomatic during the atrial fibrillation episode	ALL
418799008 + 106063007: = 195080001	SNOMED CT	Symptoms Experienced During AFib/Aflutter	ALL

6.6.5.11 Angiography Results - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Angiography Results selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.239, listed or referenced below.

Table 6.6.5.11-1: Angiography Results 1.3.6.1.4.1.19376.1.4.1.6.5.239

Code	Code System	Preferred Name	Scope
100000641	ACC NCDR	No significant disease	ALL
100001220	ACC NCDR	Non-revascularizable significant disease	ALL
100001223	ACC NCDR	Significant disease	ALL

6.6.5.12 Atrial Fibrillation Classification - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Atrial Fibrillation Classification selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.17, listed or referenced below.

Table 6.6.5.12-1: Atrial Fibrillation Classification 1.3.6.1.4.1.19376.1.4.1.6.5.17

Code	Code System	Preferred Name	Scope
62459000	SNOMED CT	Chronic persistent	ALL
100001029	ACC NCDR	Long-standing Persistent	ALL
26593000	SNOMED CT	Paroxysmal	ALL
6934004	SNOMED CT	Permanent	ALL

6.6.5.13 Atrial Flutter Classification - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Atrial Flutter Classification selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.191, listed or referenced below.

Table 6.6.5.13-1: Atrial Flutter Classification 1.3.6.1.4.1.19376.1.4.1.6.5.191

Code	Code System	Preferred Name	Scope
112231000	SNOMED CT	Atypical	AFA
100000982	ACC NCDR	Cavotricuspid Isthmus (CTI) Dependent	AFA

6.6.5.14 Atrial Rhythm - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Atrial Rhythm selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.187, listed or referenced below.

Table 6.6.5.14-1: Atrial Rhythm 1.3.6.1.4.1.19376.1.4.1.6.5.187

Code	Code System	Preferred Name	Scope
49436004	SNOMED CT	Atrial Fibrillation	ALL
5370000	SNOMED CT	Atrial flutter	ALL
251268003	SNOMED CT	Atrial Pacing	ALL
276796006	SNOMED CT	Atrial tachycardia	ALL
106067008	SNOMED CT	Sinus	ALL

Code	Code System	Preferred Name	Scope
5609005	SNOMED CT	Sinus arrest	ICD
100001116	ACC NCDR	Undocumented Atrial Rhythm	ICD

6.6.5.15 Cardiac Structural Abnormality Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Cardiac Structural Abnormality Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.219, listed or referenced below.

Table 6.6.5.15-1: Cardiac Structural Abnormality Type 1.3.6.1.4.1.19376.1.4.1.6.5.219

Code	Code System	Preferred Name	Scope
281170005	SNOMED CT	Arrhythmogenic right ventricular cardiomyopathy	ALL
13213009	SNOMED CT	Congenital heart disease	ALL
233873004	SNOMED CT	Hypertrophic cardiomyopathy	ALL
100001018	ACC NCDR	Infiltrative	ALL
87878005	SNOMED CT	Left ventricular structure	ALL

6.6.5.16 Cardiomyopathy Timeframe - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Cardiomyopathy Timeframe selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.190, listed or referenced below.

Table 6.6.5.16-1: Cardiomyopathy Timeframe 1.3.6.1.4.1.19376.1.4.1.6.5.190

Code	Code System	Preferred Name	Scope
100000924	ACC NCDR	3 months or more	ICD
100001028	ACC NCDR	less than 3 months	ICD

6.6.5.17 Cardiomyopathy Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Cardiomyopathy Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.193, listed or referenced below.

Table 6.6.5.17-1: Cardiomyopathy Type 1.3.6.1.4.1.19376.1.4.1.6.5.193

Code	Code System	Preferred Name	Scope
233873004	SNOMED CT	Hypertrophic cardiomyopathy	AFA
426856002	SNOMED CT	Ischemic cardiomyopathy	AFA
111000119104	SNOMED CT	Non-ischemic cardiomyopathy	AFA
100001065	ACC NCDR	Other Cardiomyopathy Type	AFA
415295002	SNOMED CT	Restrictive cardiomyopathy	AFA

6.6.5.18 Catheter Manipulation Method - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Catheter Manipulation Method selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.200, listed or referenced below.

Table 6.6.5.18-1: Catheter Manipulation Method 1.3.6.1.4.1.19376.1.4.1.6.5.200

Code	Code System	Preferred Name	Scope
100000957	ACC NCDR	Catheter Manipulation - Magnetic	AFA
100000958	ACC NCDR	Catheter Manipulation - Manual	AFA
100000959	ACC NCDR	Catheter Manipulation - Robotic	AFA

6.6.5.19 Cause of death Clinical Finding - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Cause of death Clinical Finding selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.88, listed or referenced below.

Table 6.6.5.19-1: Cause of death Clinical Finding 1.3.6.1.4.1.19376.1.4.1.6.5.88

Code	Code System	Preferred Name	Scope
100000960	ACC NCDR	Cause of Death: Acute myocardial infarction	ALL
100000961	ACC NCDR	Cause of Death: Cardiovascular hemorrhage	ALL
100000962	ACC NCDR	Cause of Death: Cardiovascular procedure	ALL
100000963	ACC NCDR	Cause of Death: Gastrointestinal	ALL

Code	Code System	Preferred Name	Scope
100000964	ACC NCDR	Cause of Death: Heart failure	ALL
100000965	ACC NCDR	Cause of Death: Hemorrhage	ALL
100000966	ACC NCDR	Cause of Death: Hepatobiliary	ALL
100000967	ACC NCDR	Cause of Death: Infection	ALL
100000968	ACC NCDR	Cause of Death: Inflammatory/Immunologic	ALL
100000969	ACC NCDR	Cause of Death: Malignancy	ALL
100000970	ACC NCDR	Cause of Death: Neurological	ALL
100000971	ACC NCDR	Cause of Death: Non-cardiovascular procedure or surgery	ALL
100000972	ACC NCDR	Cause of Death: Other cardiovascular reason	ALL
100000973	ACC NCDR	Cause of Death: Other non-cardiovascular reason	ALL
100000974	ACC NCDR	Cause of Death: Pancreatic	ALL
100000975	ACC NCDR	Cause of Death: Pulmonary	ALL
100000976	ACC NCDR	Cause of Death: Renal	ALL
100000977	ACC NCDR	Cause of Death: Stroke	ALL
100000978	ACC NCDR	Cause of Death: Sudden cardiac death	ALL
100000979	ACC NCDR	Cause of Death: Suicide	ALL
100000980	ACC NCDR	Cause of Death: Trauma	ALL

6.6.5.20 CHA2DS2-VASc Clinical Finding - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming CHA2DS2-VASc Clinical Finding selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.228, listed or referenced below.

Table 6.6.5.20-1: CHA2DS2-VASc Clinical Finding 1.3.6.1.4.1.19376.1.4.1.6.5.228

Code	Code System	Preferred Name	Scope
100001203	ACC NCDR	CHA2DS2-VASc Congestive Heart Failure	AFA
100001206	ACC NCDR	CHA2DS2-VASc Diabetes Mellitus	AFA
100001205	ACC NCDR	CHA2DS2-VASc Hypertension	AFA

Code	Code System	Preferred Name	Scope
100001204	ACC NCDR	CHA2DS2-VASc LV Dysfunction	AFA
100001207	ACC NCDR	CHA2DS2-VASc Stroke	AFA
100001209	ACC NCDR	CHA2DS2-VASc Thromboembolic Event	AFA
100001208	ACC NCDR	CHA2DS2-VASc TIA	AFA
100001210	ACC NCDR	CHA2DS2-VASc Vascular Disease	AFA

6.6.5.21 Clinical Document Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Clinical Document Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.159, listed or referenced below.

Table 6.6.5.21-1: Clinical Document Type 1.3.6.1.4.1.19376.1.4.1.6.5.159

Code	Code System	Preferred Name	Scope
ACC-NCDR-AFA	ACC NCDR	AFA	AFA
ACC-NCDR-ICD	ACC NCDR	ICD	ICD

6.6.5.22 Device Identifier Namespace - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Device Identifier Namespace selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.151, listed or referenced below.

Table 6.6.5.22-1: Device Identifier Namespace 1.3.6.1.4.1.19376.1.4.1.6.5.151

Code	Code System	Preferred Name	Scope
2.16.840.1.113883.3.3478.4.850	ACC NCDR	Device Serial Number	ICD
2.16.840.1.113883.3.3719	ACC NCDR	FDA Unique Device Identifier (UDI)	ALL

6.6.5.23 Discharge Life Status - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Discharge Life Status selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.42, listed or referenced below.

Table 6.6.5.23-1: Discharge Life Status 1.3.6.1.4.1.19376.1.4.1.6.5.42

Code	Code System	Preferred Name	Scope
438949009	SNOMED CT	Alive	ALL
20	HL7 Discharge disposition	Expired	ALL

6.6.5.24 Discharge Location - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Discharge Location selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.41, listed or referenced below.

Table 6.6.5.24-1: Discharge Location 1.3.6.1.4.1.19376.1.4.1.6.5.41

Code	Code System	Preferred Name	Scope
01	HL7 Discharge disposition	Discharged to home or Self-care (routine discharge)	ALL
64	HL7 Discharge disposition	Discharged/transferred to a nursing facility certified under Medicaid	ALL
02	HL7 Discharge disposition	Discharged/transferred to a short-term general hospital for inpatient care	ALL
62	HL7 Discharge disposition	Discharged/transferred to an inpatient rehabilitation facility (IRF)	ALL
385763009	SNOMED CT	Hospice Care	ALL
07	HL7 Discharge disposition	Left against medical advice or discontinued care	ALL

6.6.5.25 Discharge Medication (DYNAMIC) - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Discharge Medication selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.165, listed or referenced below. The discharge medication vocabulary list is dynamic; the participant can obtain the up-to-date list from the following URL: https://services.ncdr.com/registries/AFA/DataDictionaryServices.asmx or https://services.ncdr.com/registries/ICD/DataDictionaryServices.asmx.

There is an effective and expiration date associated with each discharge medication and only those in effect at the time of the patient's date of admission should be collected and/or available for selection.

Table 6.6.5.25-1: Discharge Medication (SAMPLE) 1.3.6.1.4.1.19376.1.4.1.6.5.165

Code	Code System	Preferred Name	Scope
41549009	SNOMED CT	ACE Inhibitor	ALL
372603003	SNOMED CT	Aldosterone Antagonist	ICD
703	RxNorm	Amiodarone	AFA
67507000	SNOMED CT	Antiarrhythmic Drug	ICD
372560006	SNOMED CT	Antiplatelet Agent	ICD
1364430	RxNorm	Apixaban	ALL
372913009	SNOMED CT	ARB	ALL
1191	RxNorm	ASA	ALL
33252009	SNOMED CT	Beta Blocker	ALL
32968	RxNorm	Clopidogrel	AFA
1546356	RxNorm	Dabigatran	ALL
3407	RxNorm	Digoxin	AFA
3443	RxNorm	Diltiazem	AFA
3541	RxNorm	Disopyramide	AFA
49247	RxNorm	Dofetilide	AFA
233698	RxNorm	Dronedarone	AFA
1599538	RxNorm	Edoxaban	ALL
4441	RxNorm	Flecainide	AFA
321208	RxNorm	Fondaparinux	AFA
100000921	ACC NCDR	Heparin Derivative	AFA
373294004	SNOMED CT	Low Molecular Weight Heparin	AFA
100000920	ACC NCDR	Mineralocortcoid Receptor Antagonist	ICD
613391	RxNorm	Prasugrel	AFA
8700	RxNorm	Procainamide	AFA
8754	RxNorm	Propafenone	AFA
9068	RxNorm	Quinidine	AFA
1114195	RxNorm	Rivaroxaban	ALL
9947	RxNorm	Sotalol	AFA
96302009	SNOMED CT	Statin	ALL
1116632	RxNorm	Ticagrelor	AFA

Code	Code System	Preferred Name	Scope
10594	RxNorm	Ticlopidine	AFA
96382006	SNOMED CT	Unfractionated Heparin	AFA
11170	RxNorm	Verapamil	AFA
11289	RxNorm	Warfarin	ALL

6.6.5.26 Discharge Medication Administration - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Discharge Medication Administration selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.86, listed or referenced below.

Table 6.6.5.26-1: Discharge Medication Administration 1.3.6.1.4.1.19376.1.4.1.6.5.86

Code	Code System	Preferred Name	Scope
100001034	ACC NCDR	Not Prescribed - Medical Reason	ALL
100001048	ACC NCDR	Not Prescribed - No Reason	ALL
100001071	ACC NCDR	Not Prescribed - Patient Reason	ALL
100001247	ACC NCDR	Yes - Prescribed	ALL

6.6.5.27 Discharge Observation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Discharge Observation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.184, listed or referenced below.

Table 6.6.5.27-1: Discharge Observation 1.3.6.1.4.1.19376.1.4.1.6.5.184

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
106068003	SNOMED CT	Atrial Rhythm	CD	VS: Atrial Rhythm	AFA
184305005	SNOMED CT	Cause of death	CD	VS: Cause of death Clinical Finding	ALL
75527-2	LOINC	Discharge Life Status	CD	VS: Discharge Life Status	ALL

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
75528-0	LOINC	Discharge Location	CD	VS: Discharge Location	ALL
385763009	SNOMED CT	Hospice Care	BL		AFA

6.6.5.28 Encounter Observation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Encounter Observation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.173, listed or referenced below.

Table 6.6.5.28-1: Encounter Observation 1.3.6.1.4.1.19376.1.4.1.6.5.173

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001132	ACC NCDR	Admission Reason	CD	VS: Admission Reason	ICD
100001145	ACC NCDR	AFEQT performed?	BL		ALL
63513-6	LOINC	Covered by Health Insurance	BL		ALL
100000517	ACC NCDR	Medicare Health Insurance Claim Number (HIC)	ST		ALL
100000922	ACC NCDR	Patient Restriction	BL		ALL
100001072	ACC NCDR	Payor Category	CD	VS: Payor Category	ALL
100001095	ACC NCDR	Research Participant	BL		ALL
100001096	ACC NCDR	Research Study Name	ST		ALL

6.6.5.29 Encounter Procedure Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Encounter Procedure Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.160, listed or referenced below.

Table 6.6.5.29-1: Encounter Procedure Type 1.3.6.1.4.1.19376.1.4.1.6.5.160

Code	Code System	Preferred Name	Scope
232717009	SNOMED CT	Coronary artery bypass grafting	ICD
415070008	SNOMED CT	Percutaneous coronary intervention	ICD

6.6.5.30 Enlargement of Left Atrium - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Enlargement of Left Atrium selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.245, listed or referenced below.

Table 6.6.5.30-1: Enlargement of Left Atrium 1.3.6.1.4.1.19376.1.4.1.6.5.245

Code	Code System	Preferred Name	Scope
253352002:116676008= 442021009, 2556040	SNOMED CT	Mild	ALL
253352002:116676008= 442021009,6736007	SNOMED CT	Moderate	ALL
25335200:116676008= 442021009,17621005	SNOMED CT	Normal	ALL
253352002:116676008= 442021009, 24484000	SNOMED CT	Severe	ALL

6.6.5.31 Enlargement of Right Atrium - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Enlargement of Right Atrium selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.186, listed or referenced below.

Table 6.6.5.31-1: Enlargement of Right Atrium 1.3.6.1.4.1.19376.1.4.1.6.5.186

Code	Code System	Preferred Name	Scope
253339007:116676008= 442021009, 2556040	SNOMED CT	Mild	AFA
253339007:116676008= 442021009,6736007	SNOMED CT	Moderate	AFA
253339007:116676008= 442021009,17621005	SNOMED CT	Normal	AFA
253339007:116676008= 442021009, 24484000	SNOMED CT	Severe	AFA

6.6.5.32 Existing Lead Status - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Existing Lead Status selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.183, listed or referenced below.

Table 6.6.5.32-1: Existing Lead Status 1.3.6.1.4.1.19376.1.4.1.6.5.183

Code	Code System	Preferred Name	Scope
100000925	ACC NCDR	Abandoned	ICD
100001004	ACC NCDR	Extracted	ICD
100001099	ACC NCDR	Reused	ICD

6.6.5.33 Explant Treatment Recommendation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Explant Treatment Recommendation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.38, listed or referenced below.

Table 6.6.5.33-1: Explant Treatment Recommendation 1.3.6.1.4.1.19376.1.4.1.6.5.38

Code	Code System	Preferred Name	Scope
100000995	ACC NCDR	Downgrade	ICD
100001049	ACC NCDR	No Re-implant	ICD

6.6.5.34 Generator Explant Response - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Generator Explant Response selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.217, listed or referenced below.

Table 6.6.5.34-1: Generator Explant Response 1.3.6.1.4.1.19376.1.4.1.6.5.217

Code	Code System	Preferred Name	Scope
100001141	ACC NCDR	Device explanted	ICD
100001140	ACC NCDR	Device not explanted	ICD
100001083	ACC NCDR	Device previously explanted	ICD

6.6.5.35 Guidance Method (DYNAMIC) - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Guidance Method selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.212, listed or

referenced below. The guidance method vocabulary list is dynamic; the participant can obtain the up-to-date list from the following URL: https://services.ncdr.com/registries/AFA/DataDictionaryServices.asmx.

There is an effective and expiration date associated with each guidance method and only those in effect at the time of the patient's date of admission should be collected and/or available for selection.

Table 6.6.5.35-1: Guidance Method (SAMPLE) 1.3.6.1.4.1.19376.1.4.1.6.5.212

Code	Code System	Preferred Name	Scope
82327001	SNOMED CT	Cardiac Fluoroscopy	AFA
100000908	ACC NCDR	Electro Anatomic Mapping	AFA
448761005	SNOMED CT	Intracardiac three dimensional echocardiography	AFA

6.6.5.36 HAS-BLED Clinical Finding - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming HAS-BLED Clinical Finding selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.227, listed or referenced below.

Table 6.6.5.36-1: HAS-BLED Clinical Finding 1.3.6.1.4.1.19376.1.4.1.6.5.227

Code	Code System	Preferred Name	Scope
100001245	ACC NCDR	HAS-BLED - Abnormal liver function	AFA
100001244	ACC NCDR	HAS-BLED - Abnormal renal function	AFA
100001243	ACC NCDR	HAS-BLED - Uncontrolled Hypertension	AFA
100001213	ACC NCDR	HAS-BLED Alcohol	AFA
100001212	ACC NCDR	HAS-BLED Bleeding	AFA
100001242	ACC NCDR	HAS-BLED Drugs - Antiplatelet	AFA
100001241	ACC NCDR	HAS-BLED Drugs - NSAIDS	AFA
100001024	ACC NCDR	HAS-BLED Labile International Normalized Ratio (INR)	AFA
100001211	ACC NCDR	HAS-BLED Stroke	AFA

6.6.5.37 Implantation Device Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Implantation Device Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.34, listed or referenced below.

Table 6.6.5.37-1: Implantation Device Type 1.3.6.1.4.1.19376.1.4.1.6.5.34

Code	Code System	Preferred Name	Scope
100001216	ACC NCDR	Cardiac resynchronization therapy device and defibrillator (CRT-D)	ICD
100001215	ACC NCDR	Implantable Defibrillator Dual chamber	ICD
100001214	ACC NCDR	Implantable Defibrillator Single chamber	ICD
100001217	ACC NCDR	Subcutaneous Implantable Defibrillator	ICD

6.6.5.38 Intraventricular Conduction Types - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Intraventricular Conduction Types selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.117, listed or referenced below.

Table 6.6.5.38-1: Intraventricular Conduction Types 1.3.6.1.4.1.19376.1.4.1.6.5.117

Code	Code System	Preferred Name	Scope
32758004	SNOMED CT	Electrocardiogram: Alternating RBBB and LBBB	ICD
164909002	SNOMED CT	Electrocardiogram: left bundle branch block	ICD
164907000	SNOMED CT	Electrocardiogram: right bundle branch block	ICD
698252002	SNOMED CT	Non-specific intraventricular conduction delay	ICD

6.6.5.39 Isolation confirmation type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Isolation confirmation type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.195, listed or referenced below.

Table 6.6.5.39-1: Isolation confirmation type 1.3.6.1.4.1.19376.1.4.1.6.5.195

Code	Code System	Preferred Name	Scope
100000945	ACC NCDR	Bidirectional Block	AFA
100000999	ACC NCDR	Entrance Block	AFA
100001002	ACC NCDR	Exit Block	AFA

6.6.5.40 Lead Implantation Outcome - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Lead Implantation Outcome selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.35, listed or referenced below.

Table 6.6.5.40-1: Lead Implantation Outcome 1.3.6.1.4.1.19376.1.4.1.6.5.35

Code	Code System	Preferred Name	Scope
100001057	ACC NCDR	Implant Not Attempted	ICD
100001143	ACC NCDR	Implant unsuccessful	ICD
100001084	ACC NCDR	Previously Implanted	ICD
100001107	ACC NCDR	Successfully Implanted	ICD

6.6.5.41 Lead Location (Target Site) - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Lead Location (Target Site) selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.167, listed or referenced below.

Table 6.6.5.41-1: Lead Location (Target Site) 1.3.6.1.4.1.19376.1.4.1.6.5.167

Code	Code System	Preferred Name	Scope
100001135	ACC NCDR	LV epicardial	ICD
100001136	ACC NCDR	LV via coronary venous system	ICD
100001066	ACC NCDR	Other Lead Location	ICD
3194006	SNOMED CT	RA endocardial	ICD
304059001	SNOMED CT	RV endocardial	ICD
100001106	ACC NCDR	Subcutaneous array	ICD
100001138	ACC NCDR	Subcutaneous ICD	ALL
100001137	ACC NCDR	Superior Vena Cava/subclavian	ALL

6.6.5.42 Medication Administration Route - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Medication Administration Route selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.169, listed or referenced below.

Table 6.6.5.42-1: Medication Administration Route 1.3.6.1.4.1.19376.1.4.1.6.5.169

Code	Code System	Preferred Name	Scope
100001081	ACC NCDR	Post-transseptal	AFA
100001082	ACC NCDR	Pre-transseptal	AFA

6.6.5.43 Mitral Regurgitation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Mitral Regurgitation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.215, listed or referenced below.

Table 6.6.5.43-1: Mitral Regurgitation 1.3.6.1.4.1.19376.1.4.1.6.5.215

Code	Code System	Preferred Name	Scope
100001041	ACC NCDR	Mild left ventricle hypertrophy	AFA
100001042	ACC NCDR	Moderate left ventricle hypertrophy	AFA
100001045	ACC NCDR	Moderate-Severe	AFA
100001139	ACC NCDR	None (LV hypertrophy)	AFA
100001100	ACC NCDR	Severe left ventricle hypertrophy	AFA
100001111	ACC NCDR	Trace	AFA

6.6.5.44 New or Existing Lead - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming New or Existing Lead selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.182, listed or referenced below.

Table 6.6.5.44-1: New or Existing Lead 1.3.6.1.4.1.19376.1.4.1.6.5.182

Code	Code System	Preferred Name	Scope
100001001	ACC NCDR	Existing	ICD
100001047	ACC NCDR	New	ICD

6.6.5.45 Null Flavor - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Null Flavor selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.30, listed or referenced below.

Table 6.6.5.45-1: Null Flavor 1.3.6.1.4.1.19376.1.4.1.6.5.30

Code	Code System	Preferred Name	Scope
MSK	HL7NullFlavor	Masked	ALL
NA	HL7NullFlavor	Not Applicable	ALL
UNK	HL7NullFlavor	Unknown	ALL

6.6.5.46 Number of Veins - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Number of Veins selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.194, listed or referenced below.

Table 6.6.5.46-1: Number of Veins 1.3.6.1.4.1.19376.1.4.1.6.5.194

Code	Code System	Preferred Name	Scope
100001008	ACC NCDR	Five Vein	AFA
100001009	ACC NCDR	Four Vein	AFA
100001062	ACC NCDR	One Vein	AFA
100001103	ACC NCDR	Six Vein	AFA
100001110	ACC NCDR	Three Vein	AFA
100001113	ACC NCDR	Two Vein	AFA

6.6.5.47 NYHA Functional Classification - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming NYHA Functional Classification selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.8, listed or referenced below.

Table 6.6.5.47-1: NYHA Functional Classification 1.3.6.1.4.1.19376.1.4.1.6.5.8

Code	Code System	Preferred Name	Scope
420300004	SNOMED CT	NYHA - class I	ALL
421704003	SNOMED CT	NYHA - class II	ALL

Code	Code System	Preferred Name	Scope
420913000	SNOMED CT	NYHA - class III	ALL
422293003	SNOMED CT	NYHA - class IV	ALL

6.6.5.48 Pacemaker Pacing Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Pacemaker Pacing Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.15, listed or referenced below.

Table 6.6.5.48-1: Pacemaker Pacing Type 1.3.6.1.4.1.19376.1.4.1.6.5.15

Code	Code System	Preferred Name	Scope
251267008	SNOMED CT	Atrial and Ventricular Pacing	ICD
251268003	SNOMED CT	Atrial Pacing	ICD
251266004	SNOMED CT	Ventricular Pacing	ICD

6.6.5.49 Patient Demographic Observation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Patient Demographic Observation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.172, listed or referenced below.

Table 6.6.5.49-1: Patient Demographic Observation 1.3.6.1.4.1.19376.1.4.1.6.5.172

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001000	ACC NCDR	Ethnic Category	CD	VS: Person Ethnic Category	ALL
364699009	SNOMED CT	Ethnic group	CD	VS: Person Ethnicity	ALL
103579009	SNOMED CT	Person Race	CD	VS: Person Racial Category	ALL

6.6.5.50 Patient Identifier Namespace - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Patient Identifier Namespace selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.7, listed or referenced below.

Table 6.6.5.50-1: Patient Identifier Namespace 1.3.6.1.4.1.19376.1.4.1.6.5.7

Code	Code System	Preferred Name	Scope
2.16.840.1.113883.3.3478.4.842	ACC NCDR	Patient Identifier, NCDR	ALL
2.16.840.1.113883.3.3478.4.843	ACC NCDR	Patient Identifier, Other	ALL
2.16.840.1.113883.4.1	ACC NCDR	Patient Identifier, SSN	ALL

6.6.5.51 Patient Population - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Patient Population selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.207, listed or referenced below.

Table 6.6.5.51-1: Patient Population 1.3.6.1.4.1.19376.1.4.1.6.5.207

Code	Code System	Preferred Name	Scope
100000930	ACC NCDR	All Patients	ICD
100001040	ACC NCDR	Medicare ICD Primary Prevention Patients Only	ICD

6.6.5.52 Patient Population - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Patient Population selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.241, listed or referenced below.

Table 6.6.5.52-1: Patient Population 1.3.6.1.4.1.19376.1.4.1.6.5.241

Code	Code System	Preferred Name	Scope
100000930	ACC NCDR	All Patients	ALL
100001239	ACC NCDR	Medicare Primary Prevention Patients	ALL

6.6.5.53 Payor Category - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Payor Category selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.5, listed or referenced below.

Table 6.6.5.53-1: Payor Category 1.3.6.1.4.1.19376.1.4.1.6.5.5

Code	Code System	Preferred Name	Scope
33	PHDSC	Indian Health Service	ALL
2	PHDSC	Medicaid	ALL
1	PHDSC	Medicare	ALL
31	PHDSC	Military Health Care	ALL
100000812	ACC NCDR	Non-US Insurance	ALL
5	PHDSC	Private Health Insurance	ALL
36	PHDSC	State-Specific Plan (non-Medicaid)	ALL

6.6.5.54 Person Ethnic Category - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Person Ethnic Category selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.3, listed or referenced below.

Table 6.6.5.54-1: Person Ethnic Category 1.3.6.1.4.1.19376.1.4.1.6.5.3

Code	Code System	Preferred Name	Scope
2182-4	HL7 Ethnicity	Cuban	ALL
2148-5	HL7 Ethnicity	Mexican, Mexican-American, Chicano	ALL
100001131	ACC NCDR	Other Hispanic or Latino or Spanish Origin	ALL
2180-8	HL7 Ethnicity	Puerto Rican	ALL

6.6.5.55 Person Ethnicity - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Person Ethnicity selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.6, listed or referenced below.

Table 6.6.5.55-1: Person Ethnicity 1.3.6.1.4.1.19376.1.4.1.6.5.6

Code	Code System	Preferred Name	Scope
2135-2	HL7 Ethnicity	Hispanic or Latino Ethnicity	ALL
2186-5	HL7 Ethnicity	Not Hispanic or Latino	ALL

6.6.5.56 Person Racial Category - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Person Racial Category selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.2, listed or referenced below.

Table 6.6.5.56-1: Person Racial Category 1.3.6.1.4.1.19376.1.4.1.6.5.2

Code	Code System	Preferred Name	Scope
1002-5	HL7 Race	American Indian/Alaskan Native	ALL
2028-9	HL7 Race	Asian	ALL
2029-7	HL7 Race	Asian-Indian	ALL
2054-5	HL7 Race	Black/African American	ALL
2034-7	HL7 Race	Chinese	ALL
2036-2	HL7 Race	Filipino	ALL
2086-7	HL7 Race	Guamanian or Chamorro	ALL
2039-6	HL7 Race	Japanese	ALL
2040-4	HL7 Race	Korean	ALL
2079-2	HL7 Race	Native Hawaiian	ALL
2076-8	HL7 Race	Native Hawaiian/Pacific Islander	ALL
100001130	ACC NCDR	Other Asian	ALL
2500-7	HL7 Race	Other Pacific Islander	ALL
2080-0	HL7 Race	Samoan	ALL
2047-9	HL7 Race	Vietnamese	ALL
2106-3	HL7 Race	White	ALL

6.6.5.57 Person Sex - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Person Sex selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.19, listed or referenced below.

Table 6.6.5.57-1: Person Sex 1.3.6.1.4.1.19376.1.4.1.6.5.19

Code	Code System	Preferred Name	Scope
F	HL7 Administrative Gender	Female	ALL
M	HL7 Administrative Gender	Male	ALL

6.6.5.58 Phrenic Nerve Damage Confirmation Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Phrenic Nerve Damage Confirmation Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.141, listed or referenced below.

Table 6.6.5.58-1: Phrenic Nerve Damage Confirmation Type 1.3.6.1.4.1.19376.1.4.1.6.5.141

Code	Code System	Preferred Name	Scope
413815006	SNOMED CT	Chest imaging	AFA
44491008	SNOMED CT	Fluoroscopy	AFA

6.6.5.59 Pre-procedure Clinical Finding - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Pre-procedure Clinical Finding selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.189, listed or referenced below.

Table 6.6.5.59-1: Pre-procedure Clinical Finding 1.3.6.1.4.1.19376.1.4.1.6.5.189

Code	Code System	Preferred Name	Scope
100000931	ACC NCDR	Anticipated Requirement of > 40% RV Pacing	ICD
49436004	SNOMED CT	Atrial Fibrillation	ALL
100000934	ACC NCDR	Atrial Fibrillation Cardioversion Planned	ICD
5370000	SNOMED CT	Atrial flutter	AFA
100000946	ACC NCDR	Bradycardia Dependent Ventricular Tachycardia	ICD
100000947	ACC NCDR	Candidate for Left Ventricular Assist Device (LVAD)	ICD
410429000	SNOMED CT	Cardiac arrest	ICD
410429000:42752001=48867003	SNOMED CT	Cardiac arrest Due to Bradycardia	ICD
410429000:42752001=71908006	SNOMED CT	Cardiac arrest Due to Ventricular fibrillation	ICD
410429000:42752001=25569003	SNOMED CT	Cardiac arrest Due to Ventricular tachycardia	ICD
100000949	ACC NCDR	Cardiac Structural Abnormality	ICD

Code	Code System	Preferred Name	Scope
100000821	ACC NCDR	Cardiac transplant candidate	ICD
85898001	SNOMED CT	Cardiomyopathy	AFA
100000951	ACC NCDR	Cardiomyopathy Pre-Existing to CABG	ICD
100000952	ACC NCDR	Cardiomyopathy Pre-Existing to PCI	ICD
230690007	SNOMED CT	Cerebrovascular accident	ALL
62914000	SNOMED CT	Cerebrovascular disease	ICD
413839001	SNOMED CT	Chronic lung disease	ALL
100000983	ACC NCDR	Class 1 or Class 2 Guideline Bradycardiac Pacemaker Indication Present	ICD
404684003	SNOMED CT	Clinical finding	ALL
100001201	ACC NCDR	Coronary Angiography performed after most recent cardiac arrest	ICD
53741008	SNOMED CT	Coronary artery disease	ALL
108241001	SNOMED CT	Currently On Dialysis	ALL
100000988	ACC NCDR	Currently on Left Ventricular Assist Device (LVAD)	ICD
73211009	SNOMED CT	Diabetes Mellitus	ALL
100000996	ACC NCDR	Elective Prior CABG	ICD
100000997	ACC NCDR	Elective Prior PCI	ICD
281666001:246090004=399020009	SNOMED CT	Familial History of Non Ischemic Cardiomyopathy	ICD
100001006	ACC NCDR	Familial syndrome with risk of sudden death	ICD
84114007	SNOMED CT	Heart failure	ALL
368009	SNOMED CT	Heart valve disorder	ALL
53059001	SNOMED CT	History of Mitral Valve Replacement	AFA
100001016	ACC NCDR	Indications for Permanent Pacemaker	ICD

Code	Code System	Preferred Name	Scope
426856002	SNOMED CT	Ischemic cardiomyopathy	ICD
100001027	ACC NCDR	Left ventricular ejection fraction assessed	ICD
431339008	SNOMED CT	Mechanical valve in mitral position	AFA
22298006	SNOMED CT	Myocardial infarction	ALL
111000119104	SNOMED CT	Non-ischemic cardiomyopathy	ICD
100001061	ACC NCDR	On Inotropic Support	ICD
471300007	SNOMED CT	On waiting list for organ transplant	ICD
67198005	SNOMED CT	Paroxysmal supraventricular tachycardia	ICD
100000954	ACC NCDR	Prior Cardiovascular Implantable Electronic Device	ICD
384641003	SNOMED CT	Repair of mitral valve	AFA
73430006	SNOMED CT	Sleep apnea	AFA
271594007	SNOMED CT	Syncope	ICD
100001105	ACC NCDR	Syndrome Type for Risk of Sudden Death	ICD
100001202	ACC NCDR	Syndromes with risk of sudden death	ICD
100001098	ACC NCDR	Treatment followed for Sleep Apnea	AFA
100001118	ACC NCDR	Valvular Atrial Fibrillation	AFA
25569003	SNOMED CT	Ventricular Tachycardia	ICD
100001123	ACC NCDR	Ventricular Tachycardia Post Cardiac Surgery	ICD
100001125	ACC NCDR	Ventricular Tachycardia with Hemodynamic Instability	ICD
100001126	ACC NCDR	Ventricular Tachycardia with reversible cause	ICD

6.6.5.60 Pre-procedure Laboratory Result - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Pre-procedure Laboratory Result selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.175, listed or referenced below.

Table 6.6.5.60-1: Pre-procedure Laboratory Result 1.3.6.1.4.1.19376.1.4.1.6.5.175

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
1742-6	LOINC	Alanine aminotransferase [Enzymatic activity/volume] in Serum or Plasma	PQ	UOM: U/dL	AFA
1783-0	LOINC	Alkaline phosphatase in Blood	PQ	UOM: IU/dL	AFA
1920-8	LOINC	Aspartate aminotransferase [Enzymatic activity/volume] in Serum or Plasma	PQ	UOM: U/dL	AFA
42719-5	LOINC	Bilirubin. Total [Mass/volume] in Blood	PQ	UOM: mg/dL	AFA
2160-0	LOINC	Creatinine [Mass/volume] in Serum or Plasma	PQ	UOM: mg/dL	AFA
718-7	LOINC	Hemoglobin [Mass/volume] in Blood	PQ	UOM: g/dL	ICD
34714-6	LOINC	International Normalized Ratio (INR)	INT		AFA
5902-2	LOINC	Prothrombin time	PQ	UOM: sec	AFA
2950-4	LOINC	Sodium [Moles/ volume] in Body fluid (mmol/L)	PQ	UOM: mEq/L	ICD
6299-2	LOINC	Urea nitrogen [Mass/volume] in Blood	PQ	UOM: mg/dL	ICD

6.6.5.61 Pre-Procedure Medication (DYNAMIC) - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Pre-Procedure Medication selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.216, listed or referenced below. The pre-procedure medication vocabulary list is dynamic; the participant can obtain the up-to-date list from the following URL: https://services.ncdr.com/registries/AFA/DataDictionaryServices.asmx.

There is an effective and expiration date associated with each pre-procedure medication and only those in effect at the time of the patient's date of admission should be collected and/or available for selection.

Table 6.6.5.61-1: Pre-Procedure Medication (SAMPLE) 1.3.6.1.4.1.19376.1.4.1.6.5.216

Code	Code System	Preferred Name	Scope
41549009	SNOMED CT	ACE Inhibitor	AFA
703	RxNorm	Amiodarone	AFA
1364430	RxNorm	Apixaban	AFA
372913009	SNOMED CT	ARB	AFA
1191	RxNorm	ASA	AFA
33252009	SNOMED CT	Beta Blocker	AFA
32968	RxNorm	Clopidogrel	AFA
1546356	RxNorm	Dabigatran	AFA
3407	RxNorm	Digoxin	AFA
3443	RxNorm	Diltiazem	AFA
3541	RxNorm	Disopyramide	AFA
49247	RxNorm	Dofetilide	AFA
233698	RxNorm	Dronedarone	AFA
1599538	RxNorm	Edoxaban	AFA
4441	RxNorm	Flecainide	AFA
321208	RxNorm	Fondaparinux	AFA
100000921	ACC NCDR	Heparin Derivative	AFA
373294004	SNOMED CT	Low Molecular Weight Heparin	AFA
613391	RxNorm	Prasugrel	AFA
8700	RxNorm	Procainamide	AFA
8754	RxNorm	Propafenone	AFA

Code	Code System	Preferred Name	Scope
9068	RxNorm	Quinidine	AFA
1114195	RxNorm	Rivaroxaban	AFA
9947	RxNorm	Sotalol	AFA
96302009	SNOMED CT	Statin	AFA
1116632	RxNorm	Ticagrelor	AFA
10594	RxNorm	Ticlopidine	AFA
96382006	SNOMED CT	Unfractionated Heparin	AFA
11170	RxNorm	Verapamil	AFA
11289	RxNorm	Warfarin	AFA

6.6.5.62 Pre-procedure Medication Administration - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Pre-procedure Medication Administration selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.44, listed or referenced below.

Table 6.6.5.62-1: Pre-procedure Medication Administration 1.3.6.1.4.1.19376.1.4.1.6.5.44

Code	Code System	Preferred Name	Scope
100000987	ACC NCDR	Current	AFA
100001010	ACC NCDR	Held	AFA
100001046	ACC NCDR	Never	AFA
100001070	ACC NCDR	Past	AFA

6.6.5.63 Pre-procedure Observation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Pre-procedure Observation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.176, listed or referenced below.

Table 6.6.5.63-1: Pre-procedure Observation 1.3.6.1.4.1.19376.1.4.1.6.5.176

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100000927	ACC NCDR	Ablation Strategy	CD	VS: Ablation Strategy	AFA

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100000929	ACC NCDR	AFA Symptoms Experienced	CD	VS: AFib/AFlutter Symptoms	AFA
365853002:418775008=77343006	SNOMED CT	Angiography Result	CD	VS: Angiography Results	ICD
100000935	ACC NCDR	Atrial fibrillation Classification	CD	VS: Atrial Fibrillation Classification	ALL
100000938	ACC NCDR	Atrial Flutter Classification	CD	VS: Atrial Flutter Classification	ALL
100000949	ACC NCDR	Cardiac Structural Abnormality	CD	VS: Cardiac Structural Abnormality Type	ALL
100000953	ACC NCDR	Cardiomyopathy Type	CD	VS: Cardiomyopathy Type	ALL
100000215	ACC NCDR	CHAD2DS2-VASc Clinical Finding	CD	VS: CHA2DS2-VASc Clinical Finding	AFA
404684003	SNOMED CT	Clinical finding	CD	VS: Pre-procedure Clinical Finding	ALL
100000214	ACC NCDR	HAS-BLED Clinical Finding	CD	VS: HAS-BLED Clinical Finding	AFA
100001021	ACC NCDR	Ischemic Cardiomyopathy Guideline Directed Maximum Dose Medical Therapy	CD	VS: Therapy Status	ICD
100001022	ACC NCDR	Ischemic Cardiomyopathy Timeframe	CD	VS: Cardiomyopathy Timeframe	ICD
10230-1	LOINC	Left ventricular ejection fraction	PQ	UOM: %	ICD
420816009	SNOMED CT	New York Heart Association Classification	CD	VS: NYHA Functional Classification	ALL

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001055	ACC NCDR	Non-Ischemic Cardiomyopathy Guideline Directed Maximum Dose Medical Therapy	CD	VS: Therapy Status	ICD
100001054	ACC NCDR	Non-Ischemic Cardiomyopathy Timeframe	CD	VS: Cardiomyopathy Timeframe	ICD
366167000	SNOMED CT	Pacemaker Pacing Type	CD	VS: Pacemaker Pacing Type	ICD
100001097	ACC NCDR	Reason Pacing Indicated	CD	VS: Reason Pacing Indicated	ICD
100001224	ACC NCDR	Revascularization outcome	CD	VS: Revascularization Outcome	ICD
100001105	ACC NCDR	Syndrome Type for Risk of Sudden Death	CD	VS: Syndrome Type	ALL
27550009	SNOMED CT	Vascular Disease	CD	VS: Vascular Disease Type	ALL
100001124	ACC NCDR	Ventricular Tachycardia Type	CD	VS: Ventricular Tachycardia Type	ICD

6.6.5.64 Pre-procedure Procedure - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Pre-procedure Procedure selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.161, listed or referenced below.

Table 6.6.5.64-1: Pre-procedure Procedure 1.3.6.1.4.1.19376.1.4.1.6.5.161

Code	Code System	Preferred Name	Scope
18286008:363702006=49436004	SNOMED CT	Afib - Catheter Ablation	AFA
180325003:363702006=49436004	SNOMED CT	Afib - DC Cardioversion	AFA
440142000:363702006=49436004	SNOMED CT	Afib - Pharmacologic Cardioversion	AFA
233163003:363702006=49436004	SNOMED CT	Afib - Surgical Ablation	AFA

Code	Code System	Preferred Name	Scope
100000936	ACC NCDR	Atrial Fibrillation Termination	AFA
18286008:363702006=5370000	SNOMED CT	Atrial Flutter - Catheter Ablation	AFA
440142000:363702006=5370000	SNOMED CT	Atrial Flutter - Pharmacologic Cardioversion	AFA
180325003:363702006=5370000	SNOMED CT	Atrial Flutter - DC Cardioversion	AFA
100000937	ACC NCDR	Atrial Flutter Termination	AFA
428663009+307280005	SNOMED CT	AV node ablation with pacemaker implantation	AFA
252425004	SNOMED CT	Cardiac electrophysiological study	ICD
58744-4	LOINC	Computed tomography (CT) imaging	AFA
33367005	SNOMED CT	Coronary angiography	ICD
232717009	SNOMED CT	Coronary artery bypass grafting	ICD
36482-8	LOINC	Heart MRI WO contrast	AFA
363679005	SNOMED CT	Imaging	AFA
415070008	SNOMED CT	Percutaneous coronary intervention	ICD
275227003	SNOMED CT	Revascularization performed	ICD
164847006	SNOMED CT	Standard electrocardiogram	ICD
105376000	SNOMED CT	Transesophageal echocardiography	AFA
433236007	SNOMED CT	Transthoracic echocardiography	AFA

6.6.5.65 Pre-procedure Test Result - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Pre-procedure Test Result selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.174, listed or referenced below.

Table 6.6.5.65-1: Pre-procedure Test Result 1.3.6.1.4.1.19376.1.4.1.6.5.174

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
4554005	SNOMED CT	Abnormal Intraventricular conduction	BL		ALL
106068003	SNOMED CT	Atrial Rhythm	CD	VS: Atrial Rhythm	ICD
164854000	SNOMED CT	Electrocardiogram normal	BL		ICD
100001142	ACC NCDR	Intraventricular conduction type	CD	VS: Intraventricular Conduction Types	ICD
100001229	ACC NCDR	LA Size	CD	VS: Enlargement of Left Atrium	AFA
396339007:123005000=59652004	SNOMED CT	Atrial Thrombus Detected	BL		AFA
10230-1	LOINC	Left ventricular ejection fraction	PQ	UOM: %	ALL
100001027	ACC NCDR	Left ventricular ejection fraction assessed	BL		ALL
55827005	SNOMED CT	Left ventricular hypertrophy	CD	VS: Severity Scale	ALL
48724000	SNOMED CT	Mitral valve regurgitation	CD	VS: Mitral Regurgitation	AFA
79619009	SNOMED CT	Mitral valve stenosis	BL		AFA
251208001	SNOMED CT	Non-Ventricular Paced QRS duration	PQ	UOM: msec	ICD
100001230	ACC NCDR	RA Size	CD	VS: Enlargement of Right Atrium	AFA
100001119	ACC NCDR	Ventricular arrhythmia induced	BL		ALL

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001120	ACC NCDR	Ventricular Paced QRS Complexes Present	BL		ICD
100001121	ACC NCDR	Ventricular Paced QRS duration	PQ	UOM: msec	ALL
251266004	SNOMED CT	Ventricular Pacing	BL		ICD

6.6.5.66 Pre-procedure Test Result Target Site - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Pre-procedure Test Result Target Site selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.170, listed or referenced below.

Table 6.6.5.66-1: Pre-procedure Test Result Target Site 1.3.6.1.4.1.19376.1.4.1.6.5.170

Code	Code System	Preferred Name	Scope
82471001	SNOMED CT	Left atrial structure	AFA
73829009	SNOMED CT	Right atrial structure	AFA

6.6.5.67 Pre-procedure Vital Sign - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Pre-procedure Vital Sign selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.178, listed or referenced below.

Table 6.6.5.67-1: Pre-procedure Vital Sign 1.3.6.1.4.1.19376.1.4.1.6.5.178

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
8462-4	LOINC	Diastolic blood pressure	PQ	UOM: mm[Hg]	ALL
8302-2	LOINC	Height	PQ	UOM: cm	AFA
8867-4	LOINC	Pulse (Heart rate)	PQ	UOM: bpm	AFA
8480-6	LOINC	Systolic blood pressure	PQ	UOM: mm[Hg]	ALL

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
3141-9	LOINC	Weight	PQ	UOM: kg	AFA

6.6.5.68 Procedure Device List (DYNAMIC) - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Procedure Device List selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.164, listed or referenced below. Each procedure device vocabulary list is dynamic; the participant can obtain the up-to-date list from the following URL: https://services.ncdr.com/registries/AFA/DataDictionaryServices.asmx or https://services.ncdr.com/registries/ICD/DataDictionaryServices.asmx.

There is an effective and expiration date associated with each procedure device list and only those in effect at the time of the patient's date of admission should be collected and/or available for selection.

Table 6.6.5.68-1: Procedure Device List (Sample) 1.3.6.1.4.1.19376.1.4.1.6.5.164

Code	Code System	Preferred Name	Scope
100	ACC NCDR Catheter Ablation Devices	L999	AFA
100	ACC NCDR Defibrillator Devices	XYZ	ICD
1001	ACC NCDR Lead Devices	A001	ICD

6.6.5.69 Procedure Device Observation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Procedure Device Observation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.136, listed or referenced below.

Table 6.6.5.69-1: Procedure Device Observation 1.3.6.1.4.1.19376.1.4.1.6.5.136

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100000989	ACC NCDR	Existing Lead Status	CD	VS: Existing Lead Status	ICD

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001015	ACC NCDR	Lead Implant date	TS		ICD
100001246	ACC NCDR	Lead Location	CD	VS: Lead Location (Target Site)	ICD
100000990	ACC NCDR	New or Existing Lead (Lead Identification)	CD	VS: New or Existing Lead	ICD
416940007:363589002=233171004	SNOMED	Prior Generator Explant	TS		ICD

6.6.5.70 Procedure Indication - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Procedure Indication selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.33, listed or referenced below.

Table 6.6.5.70-1: Procedure Indication 1.3.6.1.4.1.19376.1.4.1.6.5.33

Code	Code System	Preferred Name	Scope
315233008	SNOMED CT	Primary prevention	ICD
315234002	SNOMED CT	Secondary prevention	ICD

6.6.5.71 Procedure Medication - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Procedure Medication selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.214, listed or referenced below.

Table 6.6.5.71-1: Procedure Medication 1.3.6.1.4.1.19376.1.4.1.6.5.214

Code	Code System	Preferred Name	Scope
81839001	SNOMED CT	Anticoagulant	AFA
400610005	SNOMED CT	Bivalirudin	AFA
84812008	SNOMED CT	Heparin	AFA
100001064	ACC NCDR	Other Anticoagulant	AFA

Code	Code System	Preferred Name	Scope
100001238	ACC NCDR	Uninterrupted Warfarin Therapy	ALL
11289	RxNorm	Warfarin	AFA

6.6.5.72 Procedure Observation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Procedure Observation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.181, listed or referenced below.

Table 6.6.5.72-1: Procedure Observation 1.3.6.1.4.1.19376.1.4.1.6.5.181

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100000926	ACC NCDR	Ablated Adjunctive Lesion	BL		AFA
72641008	SNOMED CT	Administration of sedative	CD	VS: Sedation Method	AFA
100000939	ACC NCDR	Atrial Flutter/Tachycardia Induced/Present	BL		AFA
250980009	SNOMED CT	Cardioversion	BL		AFA
440142000	SNOMED CT	Cardioversion using medication	BL		AFA
100000985	ACC NCDR	Coronary sinus/left ventricular lead	CD	VS: Lead Implantation Outcome	ICD
228850003	SNOMED CT	Cumulative Air Kerma	PQ	UOM: UOM Cumulative Air Kerma	AFA
100000991	ACC NCDR	Device reimplant reason	CD	VS: Reimplant Reason	ICD
100000992	ACC NCDR	Device Upgrade reason	CD	VS: Reimplant Upgrade Procedure Reason	ICD
180325003	SNOMED CT	Direct current cardioversion	BL		AFA
100000994	ACC NCDR	Dose Area Product	PQ	UOM: UOM Dose Area Product	AFA

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
100001003	ACC NCDR	Explant Treatment Recommendation	CD	VS: Explant Treatment Recommendation	ICD
233171004	SNOMED CT	Generator explant	CD	VS: Generator Explant Response	ICD
100000919	ACC NCDR	Guidance Method	CD	VS: Guidance Method	AFA
232965003	SNOMED CT	Implantation of ventricular assist device	BL		ICD
100001023	ACC NCDR	Isolation Confirmation	CD	VS: Isolation confirmation type	AFA
103712006	SNOMED CT	Manipulation of catheter	CD	VS: Catheter Manipulation Method	AFA
100001058	ACC NCDR	Number of Veins Isolated	CD	VS: Number of Veins	AFA
100001059	ACC NCDR	Number of Veins Present	CD	VS: Number of Veins	AFA
100001060	ACC NCDR	Number of Veins Targeted	CD	VS: Number of Veins	AFA
100001078	ACC NCDR	Phrenic Nerve Evaluation	BL		AFA
100001086	ACC NCDR	PVI Assessed with Circumferential Vein Catheter	BL		AFA
100001112	ACC NCDR	Transseptal Catheterization	CD	VS: Transseptal Catheterization	AFA
260846005	SNOMED CT	Type of device	CD	VS: Implantation Device Type	ICD

6.6.5.73 Procedure Session Event Finding - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Procedure Session Event Finding selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.224, listed or referenced below.

Table 6.6.5.73-1: Procedure Session Event Finding 1.3.6.1.4.1.19376.1.4.1.6.5.224

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
75859-9	LOINC	Modified rankin scale	CD	VS: Rankin Scale Assessment Finding	ALL
100001077	ACC NCDR	Phrenic Nerve Damage Confirmation Type	CD	VS: Phrenic Nerve Damage Confirmation Type	ALL

6.6.5.74 Procedure Session Event Observation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Procedure Session Event Observation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.158, listed or referenced below.

Table 6.6.5.74-1: Procedure Session Event Observation 1.3.6.1.4.1.19376.1.4.1.6.5.158

Code	Code System	Preferred Name	Scope
100001237	ACC NCDR	Access site bleeding requiring transfusion	ALL
36225005	SNOMED CT	Acute renal failure due to procedure (disorder)	ALL
271376002	SNOMED CT	Air embolism	AFA
39579001	SNOMED CT	Anaphylaxis	AFA
65198009	SNOMED CT	Arterial thrombosis	AFA
439470001	SNOMED CT	Arteriovenous fistula	AFA
131148009	SNOMED CT	Bleeding	ALL
48867003	SNOMED CT	Bradycardia	AFA
48867003:47429007=233182007	SNOMED CT	Bradycardia Requiring Permanent Pacemaker	AFA
410429000	SNOMED CT	Cardiac arrest	ALL
36191001:123005000=302509004	SNOMED CT	Cardiac Perforation	ICD
64915003	SNOMED CT	Cardiac Surgery	ALL
35304003	SNOMED CT	Cardiac tamponade	ICD
100001236	ACC NCDR	Cardio Thromboembolic Event	ALL

Code	Code System	Preferred Name	Scope
230690007	SNOMED CT	Cerebrovascular accident	ALL
100000029	ACC NCDR	Coronary Venous Dissection	ICD
LA10138-8	LOINC	Death	ALL
100000923	ACC NCDR	Death during procedure	ALL
128053003	SNOMED CT	Deep venous thrombosis	AFA
421807004	SNOMED CT	Gastrointestinal hypomotility	AFA
417941003	SNOMED CT	Genitourinary tract hemorrhage	AFA
84114007	SNOMED CT	Heart failure	ALL
368009	SNOMED CT	Heart valve disorder	ALL
385494008	SNOMED CT	Hematoma	ALL
50960005	SNOMED CT	Hemorrhage (morphologic abnormality)	AFA
31892009	SNOMED CT	Hemothorax	ALL
100001011	ACC NCDR	Hemothorax Requiring Drainage	AFA
234233007	SNOMED CT	Implanted defibrillator electrode lead displacement	ICD
100001017	ACC NCDR	infection requiring antibiotics	ICD
473360003	SNOMED CT	Left Atrial Thrombus	ALL
22298006	SNOMED CT	Myocardial infarction	ALL
100001073	ACC NCDR	Pericardial Effusion Requiring Intervention	AFA
100001074	ACC NCDR	Pericardial Effusion Resulting in Cardiac Tamponade	AFA
73590005	SNOMED CT	Peripheral Nerve Injury	AFA
100001076	ACC NCDR	Phrenic Nerve Damage	AFA
60046008	SNOMED CT	Pleural effusion	AFA
233604007	SNOMED CT	Pneumonia	AFA
36118008	SNOMED CT	Pneumothorax	ALL
100001079	ACC NCDR	Pneumothorax Requiring Drainage	ALL

Code	Code System	Preferred Name	Scope
443089001	SNOMED CT	Pseudoaneurysm	AFA
59282003	SNOMED CT	Pulmonary embolism	AFA
60366008	SNOMED CT	Pulmonary vein Damage/Dissection	AFA
409622000	SNOMED CT	Respiratory failure	AFA
91302008	SNOMED CT	Sepsis	AFA
100000038	ACC NCDR	Set Screw Problem	ICD
266257000	SNOMED CT	Transient ischemic attack	ALL
64915003:260870009=103391001	SNOMED CT	Urgent Cardiac Surgery	ICD
30904006:363702006=57662003	SNOMED CT	Vascular Injury requiring Surgical Intervention	ALL

6.6.5.75 Procedure Session Observation - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Procedure Session Observation selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.180, listed or referenced below.

Table 6.6.5.75-1: Procedure Session Observation 1.3.6.1.4.1.19376.1.4.1.6.5.180

Code	Code System	Preferred Name	Value Data Type	VS: Value Set Name / UOM: Unit of Measure	Scope
428024001	SNOMED CT	Clinical trial participant	BL		ICD
432678004	SNOMED CT	Indication for procedure	CD	VS: Procedure Indication	ICD
100001218	ACC NCDR	Procedure Status	CD	VS: Procedure Status	ALL

6.6.5.76 Procedure Status - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Procedure Status selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.226, listed or referenced below.

Table 6.6.5.76-1: Procedure Status 1.3.6.1.4.1.19376.1.4.1.6.5.226

Code	Code System	Preferred Name	Scope
71388002:260870009=103390000	SNOMED CT	Elective Procedure	AFA
71388002:260870009=103391001	SNOMED CT	Urgent Procedure	AFA

6.6.5.77 Procedure Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Procedure Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.163, listed or referenced below.

Table 6.6.5.77-1: Procedure Type 1.3.6.1.4.1.19376.1.4.1.6.5.163

Code	Code System	Preferred Name	Scope
233159005	SNOMED CT	Ablation operation for arrhythmia	AFA
428625001	SNOMED CT	Generator change	ICD
233171004	SNOMED CT	Generator explant	ICD
233170003	SNOMED CT	Initial Generator Implant	ICD
100001025	ACC NCDR	Lead Assessment	ICD

6.6.5.78 Rankin Scale Assessment Finding - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Rankin Scale Assessment Finding selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.139, listed or referenced below.

Table 6.6.5.78-1: Rankin Scale Assessment Finding 1.3.6.1.4.1.19376.1.4.1.6.5.139

Code	Code System	Preferred Name	Scope
LA10138-8	LOINC	Death	AFA
LA6114-8	LOINC	Moderate disability	AFA
LA6115-5	LOINC	Moderately severe disability	AFA
LA6112-2	LOINC	No significant disability despite symptoms	AFA
LA6111-4	LOINC	No symptoms	ALL
LA10137-0	LOINC	Severe disability	AFA
LA6113-0	LOINC	Slight disability	AFA

6.6.5.79 Reason Pacing Indicated - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Reason Pacing Indicated selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.16, listed or referenced below.

Table 6.6.5.79-1: Reason Pacing Indicated 1.3.6.1.4.1.19376.1.4.1.6.5.16

Code	Code System	Preferred Name	Scope
100000940	ACC NCDR	Atrial lead for SVT discrimination	ICD
427989008	SNOMED CT	Chronotropic incompetence	ICD
27885002	SNOMED CT	Complete atrioventricular block	ICD
54016002	SNOMED CT	Mobitz type I incomplete atrioventricular block	ICD
28189009	SNOMED CT	Mobitz type II atrioventricular block	ICD
36083008	SNOMED CT	Sick sinus syndrome	ICD

6.6.5.80 Registry Identifier - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Registry Identifier selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.156, listed or referenced below.

Table 6.6.5.80-1: Registry Identifier 1.3.6.1.4.1.19376.1.4.1.6.5.156

Code	Code System	Preferred Name	Scope
ACC-NCDR-AFA-1.0	ACC NCDR	AFA (Atrial Fibrillation Ablation) Registry Version 1.0	AFA
ACC-NCDR-ICD-2.2	ACC NCDR	ICD (implantable cardioverter defibrillators and leads) Registry Version 2.2	ICD

6.6.5.81 Registry Participant Identifier Namespace - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Registry Participant Identifier Namespace selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.145, listed or referenced below.

Table 6.6.5.81-1: Registry Participant Identifier Namespace 1.3.6.1.4.1.19376.1.4.1.6.5.145

Code	Code System	Preferred Name	Scope
2.16.840.1.113883.4.6	ACC NCDR	National Provider Identifier	ALL
2.16.840.1.113883.3.3478.4.836	ACC NCDR	Registry Participant Identifier, NCDR	ALL

6.6.5.82 Reimplant Reason - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Reimplant Reason selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.36, listed or referenced below.

Table 6.6.5.82-1: Reimplant Reason 1.3.6.1.4.1.19376.1.4.1.6.5.36

Code	Code System	Preferred Name	Scope
100001087	ACC NCDR	Reimplant Reason - Device Relocation	ICD
100001088	ACC NCDR	Reimplant Reason - End of Battery Life	ICD
100001089	ACC NCDR	Reimplant Reason - Faulty Connector/Header	ICD
100001090	ACC NCDR	Reimplant Reason - Generator Malfunction	ICD
100001091	ACC NCDR	Reimplant Reason - Infection	ICD
100001092	ACC NCDR	Reimplant Reason - Replaced At Time of Lead Revision	ICD
100001093	ACC NCDR	Reimplant Reason - Under Manufacturer Advisory/Recall	ICD
100001094	ACC NCDR	Reimplant Reason - Upgrade	ICD

6.6.5.83 Reimplant Upgrade Procedure Reason - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Reimplant Upgrade Procedure Reason selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.134, listed or referenced below.

Table 6.6.5.83-1: Reimplant Upgrade Procedure Reason 1.3.6.1.4.1.19376.1.4.1.6.5.134

Code	Code System	Preferred Name	Scope
100001013	ACC NCDR	ICD to CRT-D	ICD

Code	Code System	Preferred Name	Scope
100001102	ACC NCDR	Single ICD to Dual ICD	ICD

6.6.5.84 Revascularization Outcome - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Revascularization Outcome selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.240, listed or referenced below.

Table 6.6.5.84-1: Revascularization Outcome 1.3.6.1.4.1.19376.1.4.1.6.5.240

Code	Code System	Preferred Name	Scope
100001221	ACC NCDR	Complete revascularization	ICD
100001222	ACC NCDR	Incomplete revascularization	ICD

6.6.5.85 Section Template - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Section Template selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.208, listed or referenced below.

Table 6.6.5.85-1: Section Template 1.3.6.1.4.1.19376.1.4.1.6.5.208

Code	Code System	Preferred Name	Scope
8652-0	LOINC	Discharge Section	ALL
46240-8	LOINC	Encounter Section	ALL
45970-1	LOINC	Patient Demographic Section	ALL
29554-3	LOINC	Procedure Session Section	ALL

6.6.5.86 Sedation Method - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Sedation Method selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.199, listed or referenced below.

Table 6.6.5.86-1: Sedation Method 1.3.6.1.4.1.19376.1.4.1.6.5.199

Code	Code System	Preferred Name	Scope
314271007	SNOMED CT	Induction of conscious sedation	AFA
426155000	SNOMED CT	Induction of deep sedation	AFA

Code	Code System	Preferred Name	Scope
427255001	SNOMED CT	Induction of minimal sedation	AFA
420653000	SNOMED CT	Under general anesthesia	AFA

6.6.5.87 Severity Scale - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Severity Scale selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.238, listed or referenced below.

Table 6.6.5.87-1: Severity Scale 1.3.6.1.4.1.19376.1.4.1.6.5.238

Code	Code System	Preferred Name	Scope
255604002	SNOMED CT	Mild	AFA
6736007	SNOMED CT	Moderate	AFA
100001231	ACC NCDR	None	AFA
24484000	SNOMED CT	Severe	AFA

6.6.5.88 Syndrome Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Syndrome Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.10, listed or referenced below.

Table 6.6.5.88-1: Syndrome Type 1.3.6.1.4.1.19376.1.4.1.6.5.10

Code	Code System	Preferred Name	Scope
418818005	SNOMED CT	Brugada syndrome	ICD
100000956	ACC NCDR	Catecholaminergic polymorphic VT	ICD
100001014	ACC NCDR	Idiopathic/primary VT/VF	ICD
9651007	SNOMED CT	Long QT syndrome	ICD
698272007	SNOMED CT	Short QT syndrome	ICD

6.6.5.89 Therapy Status - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Therapy Status selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.12, listed or referenced below.

Table 6.6.5.89-1: Therapy Status 1.3.6.1.4.1.19376.1.4.1.6.5.12

Code	Code System	Preferred Name	Scope
100001035	ACC NCDR	Medical Therapy Not Attempted	ICD
100001036	ACC NCDR	Medical Therapy Not Documented	ICD
100001037	ACC NCDR	Medical Therapy Provided	ICD
100001038	ACC NCDR	Medical Therapy unable to complete	ICD

6.6.5.90 Transseptal Catheterization - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Transseptal Catheterization selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.196, listed or referenced below.

Table 6.6.5.90-1: Transseptal Catheterization 1.3.6.1.4.1.19376.1.4.1.6.5.196

Code	Code System	Preferred Name	Scope
1305003	SNOMED CT	Double	AFA
50607009	SNOMED CT	Singular	AFA

6.6.5.91 UOM Cumulative Air Kerma - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming UOM Cumulative Air Kerma selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.235, listed or referenced below.

Table 6.6.5.91-1: UOM Cumulative Air Kerma 1.3.6.1.4.1.19376.1.4.1.6.5.235

Code	Code System	Preferred Name	Scope
Gy	ACC NCDR	Gy	AFA
mGy	ACC NCDR	mGy	AFA

6.6.5.92 UOM Dose Area Product - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming UOM Dose Area Product selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.236, listed or referenced below.

Table 6.6.5.92-1: UOM Dose Area Product 1.3.6.1.4.1.19376.1.4.1.6.5.236

Code	Code System	Preferred Name	Scope
µGy/cm2	ACC NCDR	µGy/cm2	AFA
cGy/cm2	ACC NCDR	cGy/cm2	AFA
dGy/cm2	ACC NCDR	dGy/cm2	AFA
Gy/cm2	ACC NCDR	Gy/cm2	AFA
mGy/cm2	ACC NCDR	mGy/cm2	AFA

6.6.5.93 Vascular Disease Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Vascular Disease Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.221, listed or referenced below.

Table 6.6.5.93-1: Vascular Disease Type 1.3.6.1.4.1.19376.1.4.1.6.5.221

Code	Code System	Preferred Name	Scope
1522000|15825003	SNOMED CT	Known Aortic Plaque	AFA
22298006	SNOMED CT	Myocardial infarction	AFA
399957001	SNOMED CT	Peripheral arterial occlusive disease	AFA

6.6.5.94 Ventricular Tachycardia Type - Vocabulary Constraints

The content creator shall be capable of creating and the content consumer shall be capable of consuming Ventricular Tachycardia Type selected from Value Set 1.3.6.1.4.1.19376.1.4.1.6.5.13, listed or referenced below.

Table 6.6.5.94-1: Ventricular Tachycardia Type 1.3.6.1.4.1.19376.1.4.1.6.5.13

Code	Code System	Preferred Name	Scope
444658006	SNOMED CT	Non Sustained Ventricular tachycardia	ICD
251158004	SNOMED CT	Ventricular tachycardia, monomorphic	ICD
100001127	ACC NCDR	Ventricular tachycardia, monomorphic and polymorphic	ICD
251159007	SNOMED CT	Ventricular tachycardia, polymorphic	ICD

