

Integrating the Healthcare Enterprise



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**IHE Patient Care Coordination (PCC)
Technical Framework Supplement
2008-2009**

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**Emergency Department Encounter Record
(EDES)**

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**Draft for Trial Implementation
December 05, 2008**

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1 Foreword

Integrating the Healthcare Enterprise (IHE) is an initiative designed to stimulate the integration of the information systems that support modern healthcare institutions. Its fundamental objective is to ensure that in the care of patients all required information for medical decisions is both correct and available to healthcare professionals. The IHE initiative is both a process and a forum for encouraging integration efforts. It defines a technical framework for the implementation of established messaging standards to achieve specific clinical goals. It includes a rigorous testing process for the implementation of this framework. And it organizes educational sessions and exhibits at major meetings of medical professionals to demonstrate the benefits of this framework and encourage its adoption by industry and users.

The approach employed in the IHE initiative is not to define new integration standards, but rather to support the use of existing standards, HL7, DICOM, IETF, and others, as appropriate in their respective domains in an integrated manner, defining configuration choices when necessary. IHE maintain formal relationships with several standards bodies including HL7, DICOM and refers recommendations to them when clarifications or extensions to existing standards are necessary.

This initiative has numerous sponsors and supporting organizations in different medical specialty domains and geographical regions. In North America the primary sponsors are the Healthcare Information and Management Systems Society (HIMSS) and the Radiological Society of North America (RSNA). IHE Canada has also been formed. IHE Europe (IHE-EUR) is supported by a large coalition of organizations including the European Association of Radiology (EAR) and European Congress of Radiologists (ECR), the Coordination Committee of the Radiological and Electromedical Industries (COCIR), Deutsche Röntgengesellschaft (DRG), the EuroPACS Association, Groupement pour la Modernisation du Système d'Information Hospitalier (GMSIH), Société Francaise de Radiologie ([www.sfr-radiologie.asso.fr SFR]), and Società Italiana di Radiologia Medica (SIRM). In Japan IHE-J is sponsored by the Ministry of Economy, Trade, and Industry (METI); the Ministry of Health, Labor, and Welfare; and [www.medis.or.jp MEDIS-DC]; cooperating organizations include the Japan Industries Association of Radiological Systems (JIRA), the Japan Association of Healthcare Information Systems Industry (JAHIS), Japan Radiological Society (JRS), Japan Society of Radiological Technology (JSRT), and the Japan Association of Medical Informatics (JAMI). Other organizations representing healthcare professionals are actively involved and others are invited to join in the expansion of the IHE process across disciplinary and geographic boundaries.

The IHE Technical Frameworks for the various domains (Patient Care Coordination, IT Infrastructure, Cardiology, Laboratory, Radiology, etc.) define specific implementations of established standards to achieve integration goals that promote appropriate sharing of medical information to support optimal patient care. It is expanded annually, after a period of public review, and maintained regularly through the identification and correction of errata. The current version for these Technical Frameworks may be found at www.ihe.net/Technical_Framework.

The IHE Technical Framework identifies a subset of the functional components of the healthcare enterprise, called IHE Actors, and specifies their interactions in terms of a set of coordinated, standards-based transactions. It describes this body of transactions in progressively greater

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(EDES)

depth. The volume I provides a high-level view of IHE functionality, showing the transactions organized into functional units called Integration Profiles that highlight their capacity to address specific clinical needs. The subsequent volumes provide detailed technical descriptions of each IHE transaction.

65 This IHE Patient Care Coordination (PCC) Technical Framework Supplement is issued for Trial Implementation through May 2009.

70 Comments and change proposals arising from Trial Implementation may be submitted to
<http://forums.rsna.org> under the forum:
“*Integrating the Healthcare Enterprise*”
Select the sub-forum:
“*IHE Patient Care Coordination 2008 Supplements for Trial Implementation*”

75 The IHE IT Infrastructure Technical Committee will address these comments resulting from implementation, Connectathon testing, and demonstrations. Final text is expected to be published in June 2009, dependent upon results of IHE validation process.

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130 **Content of the Technical Framework**

This technical framework defines relevant standards and constraints on those standards in order to implement a specific use cases for the transfer of information between systems. This document is organized into 2 volumes as follows:

Volume 1 - Overview

135 This volume is provided as a high level overview of the profiles including descriptions of the use case, the actors involved, the process flow, and dependencies on other standards and IHE profiles. It is of interest to care providers, vendors' management and technical architects and to all users of the profile

Volume 2 – Transactions and Content Profiles

140 This volume is intended as a technical reference for the implementation of specific transactions in the use case including references to the relevant standards, constraints, and interaction diagrams. It is intended for the technical implementers of the profile.

How to Contact Us

145 IHE Sponsors welcome comments on this document and the IHE initiative. They should be directed to the discussion server at <http://forums.rsna.org> or to:

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1.1 Preface to Volume 1 of the PCC Technical Framework

1.1.1 Intended Audience

The intended audience of this document is:

- 155
- Healthcare professionals involved in informatics
 - IT departments of healthcare institutions
 - Technical staff of vendors participating in the IHE initiative
 - Experts involved in standards development
 - Those interested in integrating healthcare information systems and workflows

160 **1.1.2 Related Information for the Reader**

The reader of volume 1 should read or be familiar with the following documents:

- Volume 1 of the Cross-Enterprise Document Sharing (XDS) Integration Profile documented in the ITI Infrastructure Technical Framework

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- 165 • Volume 1 of the Notification of Document Availability (NAV) Integration Profile documented in the ITI Infrastructure Technical Framework
- Volume 1 of the Audit Trail and Node Authentication (ATNA) Integration Profile documented in the ITI Infrastructure Technical Framework
- (See http://www.ihe.net/Technical_Framework/index.cfm).
- 170 • HL7 Clinical Document Architecture Release 2: Section 1, CDA Overview.
- Care Record Summary – Implementation Guide for CDA Release 2 (US Realm): Section 1
- Presentations from IHE Workshop: Effective Integration of the Enterprise and the Health System - June 28–29, 2005
http://www.ihe.net/Participation/workshop_2005.cfm, June 2005
- 175 • Leveraging IHE to Build RHIO Interoperability
- Cross-Enterprise Document Sharing (XDS)
- Notification of Document Availability (NAV)
- Patient Care Coordination
- Use Cases for Medical Summaries
- 180 • Patient Care Coordination - Overview of Profiles

1.1.3 How this Volume is Organized

Section 2 describes the general nature, structure, purpose and function of the Technical Framework. Section 3 and the subsequent sections of this volume provide detailed documentation on each integration profile, including the Patient Care Coordination problem it is intended to address and the IHE actors and transactions it comprises.

The appendices following the main body of the document provide a summary list of the actors and transactions, detailed discussion of specific issues related to the integration profiles and a glossary of terms and acronyms used.

1.1.4 Conventions Used in this Document

- 190 This document has adopted the following conventions for representing the framework concepts and specifying how the standards upon which the IHE Technical Framework is based should be applied.

1.1.5 Technical Framework Cross-references

When references are made to another section within a Technical Framework volume, a section number is used by itself. When references are made to other volumes or to a Technical Framework in another domain, the following format is used:

<domain designator> TF-<volume number>: <section number>

where:

<domain designator>

-
- 200 is a short designator for the IHE domain (PCC= Patient Care Coordination, ITI = IT Infrastructure, RAD = Radiology)
 <volume number>
 is the applicable volume within the given Domain Technical Framework (e.g., 1, 2, 3), and
 <section number>
205 is the applicable section number.
For example: PCC TF-1: 3.1 refers to Section 3.1 in volume 1 of the IHE Patient Care Coordination Technical Framework, ITI TF-2: 4.33 refers to Section 4.33 in volume 2 of the IHE IT Infrastructure Technical Framework.

1.1.6 IHE Actor and Transaction Diagrams and Tables

- 210 Each integration profile is a representation of a real-world capability that is supported by a set of actors that interact through transactions. Actors are information systems or components of information systems that produce, manage, or act on categories of information required by operational activities in the enterprise. Transactions are interactions between actors that communicate the required information through standards-based messages.
- 215 The diagrams and tables of actors and transactions in subsequent sections indicate which transactions each actor in a given profile must support.
The transactions shown on the diagrams are identified both by their name and the transaction number as defined in PCC TF-2 (Volume 2 of the PCC Technical framework). The transaction numbers are shown on the diagrams as bracketed numbers prefixed with the specific Technical Framework domain.
- 220 In some cases, a profile is dependent on a prerequisite profile in order to function properly and be useful. For example, Cross-Enterprise Sharing of Medical Summaries depends on Audit Trail and Node Authentication (ATNA). These dependencies can be found by locating the desired profile in the dependencies section of this document to determine which profile(s) are listed as prerequisites. An actor must implement all required transactions in the prerequisite profiles in addition to those in the desired profile.

1.1.7 Process Flow Diagrams

- The descriptions of integration profiles that follow include process flow diagrams that illustrate how the profile functions as a sequence of transactions between relevant actors.
- 230 These diagrams are intended to provide an overview so the transactions can be seen in the context of an institution's or cross-institutions' workflow. Certain transactions and activities not defined in detail by IHE are shown in these diagrams in italics to provide additional context on where the relevant IHE transactions fit into the broader scheme of healthcare information systems. These diagrams are not intended to present the only possible scenario. Often other actor groupings are possible, and transactions from other profiles may be interspersed.
- 235 In some cases the sequence of transactions may be flexible. Where this is the case there will generally be a note pointing out the possibility of variations. Transactions are shown as arrows

oriented according to the flow of the primary information handled by the transaction and not necessarily the initiator.

240 **1.1.8 Copyright Permissions**

Health Level Seven, Inc., has granted permission to the IHE to reproduce tables from the HL7 standard. The HL7 tables in this document are copyrighted by Health Level Seven, Inc. All rights reserved. Material drawn from these documents is credited where used.

245 IHE has been very fortunate in having the American College of Obstetricians and Gynecologists (ACOG) help us in the definition of the data found in the Antepartum Summary Profile (APS).

The Antepartum Record Profile (APR) describes the content structures and specifications the American College of Obstetricians and Gynecologists (ACOG) views are necessary in an antepartum record. ACOG encourages the use of the content structures contained in the Antepartum Record Profile of the Patient Care Coordination Technical Framework. ACOG does 250 not endorse any EMR products. Companies or individuals that use these content structures in EMR product or service are prohibited from using ACOG's name and/or its logo on any promotional material, packaging, advertisement, website or in any other context related to the EMR product or service.

255 Braden Scale For Predicting Pressure Sore Risk, Copyright © Barbara Braden and Nancy Bergstrom, 1988. Reprinted with permission. Barabara Braden and Nancy Bergstrom have granted permission to use the Braden Scale in the IHE Functional Status Assessment Integration Profile to be provided to vendors for demonstration purposes only. Should a vendor chose to include the Braden Scale in their product, they must seek permission to do so from the copyright holders. More information is available from <http://www.bradenscale.com/>

260 **2 Introduction**

This document, the IHE Patient Care Coordination Technical Framework (PCC TF), defines specific implementations of established standards. These are intended to achieve integration goals that promote appropriate exchange of medical information to coordinate the optimal patient care among care providers in different care settings. It is expanded annually, after a period of 265 public review, and maintained regularly through the identification and correction of errata. The latest version of the document is always available via the Internet at http://www.ihe.net/Technical_Framework/, where the technical framework volumes specific to the various healthcare domains addressed by IHE may be found.

The IHE Patient Care Coordination Technical Framework identifies a subset of the functional components of the healthcare enterprises and health information networks, called IHE actors, and specifies their interactions in terms of a set of coordinated, standards-based transactions. The other domains within the IHE initiative also produce Technical Frameworks within their respective areas that together form the IHE Technical Framework. Currently, the following IHE 270 Technical Framework(s) are available:

- 275
- IHE IT Infrastructure Technical Framework
 - IHE Cardiology Technical Framework
 - IHE Laboratory Technical framework
 - IHE Radiology Technical Framework
 - IHE Patient Care Coordination Technical Framework

280 Where applicable, references are made to other technical frameworks. For the conventions on referencing other frameworks, see the preface of this volume.

2.1 Relationship to Standards

The IHE Technical Framework identifies functional components of a distributed healthcare environment (referred to as IHE actors), solely from the point of view of their interactions in the 285 healthcare enterprise. It further defines a coordinated set of transactions based on standards (such as HL7, IETF, ASTM, DICOM, ISO, OASIS, etc.) in order to accomplish a particular use case. As the scope of the IHE initiative expands, transactions based on other standards may be included as required.

At its current level of development, IHE has also created Content Integration Profiles to further 290 specify the payloads of these transactions, again based on standards. This has become necessary as the healthcare industry moves towards the use of transaction standards that have been used in more traditional computing environments.

In some cases, IHE recommends selection of specific options supported by these standards. However, IHE does not introduce technical choices that contradict conformance to these 295 standards. If errors in or extensions to existing standards are identified, IHE's policy is to report them to the appropriate standards bodies for resolution within their conformance and standards evolution strategy.

IHE is therefore an implementation framework, not a standard. Conformance claims for products must still be made in direct reference to specific standards. In addition, vendors who have implemented IHE integration capabilities in their products may publish IHE Integration Statements to communicate their products' capabilities. Vendors publishing IHE Integration Statements accept full responsibility for their content. By comparing the IHE Integration Statements from different products, a user familiar with the IHE concepts of actors and integration profiles can determine the level of integration between them. See PCC TF-1: Appendix C for the format of IHE Integration Statements.

2.2 Relationship to Product Implementations

The IHE actors and transactions described in the IHE Technical Framework are abstractions of the real-world healthcare information system environment. While some of the transactions are traditionally performed by specific product categories (e.g. HIS, Clinical Data Repository, Electronic Health record systems, Radiology Information Systems, Clinical Information Systems or Cardiology Information Systems), the IHE Technical Framework intentionally avoids associating functions or actors with such product categories. For each actor, the IHE Technical Framework defines only those functions associated with integrating information systems. The IHE definition of an actor should therefore not be taken as the complete definition of any product that might implement it, nor should the framework itself be taken to comprehensively describe the architecture of a healthcare information system.

The reason for defining actors and transactions is to provide a basis for defining the interactions among functional components of the healthcare information system environment. In situations where a single physical product implements multiple functions, only the interfaces between the product and external functions in the environment are considered to be significant by the IHE initiative. Therefore, the IHE initiative takes no position as to the relative merits of an integrated environment based on a single, all-encompassing information system versus one based on multiple systems that together achieve the same end.

2.3 Framework Development and Maintenance

The IHE Patient Care Coordination Technical Framework is continuously maintained and expanded on an annual basis by the IHE Patient Care Coordination Technical Committee. The development and maintenance process of the Framework follows a number of principles to ensure stability of the specification so that both vendors and users may use it reliably in specifying, developing and acquiring systems with IHE integration capabilities.

The first of these principles is that any extensions or clarifications to the Technical Framework must maintain backward compatibility with previous versions of the framework (except in rare cases for corrections) in order to maintain interoperability with systems that have implemented IHE Actors and Integration Profiles defined there. The IHE Patient Care Coordination Technical Framework is developed and re-published annually following a three-step process:

1. The Patient Care Coordination Technical Committee develops supplements to the current stable version of the Technical Framework to support new functionality identified by the IHE Strategic and PCC Planning Committees and issues them for public comment.

- 340 2. The Committee addresses all comments received during the public comment period and publishes an updated version of the Technical Framework for “Trial Implementation.” This version contains both the stable body of the Technical Framework from the preceding cycle and the newly developed supplements. It is this version of the Technical Framework that is used by vendors in developing trial implementation software for the IHE Connectathons.
- 345 3. The Committee regularly considers change proposals to the Trial Implementation version of the Technical Framework, including those from implementers who participate in the Connectathon. After resolution of all change proposals received within 60 days of the Connectathon, the Technical Framework version is published as “Final Text”.
- 350 As part of the Technical Framework maintenance the Committee will consider change proposals received after the publication to the “Final Text”.

2.4 About the Patient Care Coordination Integration Profiles

IHE Integration Profiles offer a common language that healthcare professionals and vendors can use to discuss integration needs of healthcare enterprises and the integration capabilities of information systems in precise terms. Integration Profiles specify implementations of standards that are designed to meet identified clinical needs. They enable users and vendors to state which IHE capabilities they require or provide, by reference to the detailed specifications of the IHE Patient Care Coordination Technical Framework.

360 Integration profiles are defined in terms of IHE Actors, transactions and their content. Actors (listed in PCC TF-1: Appendix A) are information systems or components of information systems that produce, manage, or act on information associated with clinical and operational activities. Transactions (listed in PCC TF-1: Appendix B) are interactions between actors that communicate the required information through standards-based messages. Content is what is exchanged in these transactions, and are defined by Content Profiles.

365 Vendor products support an Integration Profile by implementing the appropriate actor(s) and transactions. A given product may implement more than one actor and more than one integration profile.

370 Content Profiles define how the content used in a transaction is structured. Each transaction is viewed as having two components, a payload, which is the bulk of the information being carried, and metadata that describes that payload. The binding of the Content to an IHE transaction specifies how this payload influences the metadata of the transaction. Content modules within the Content Profile then define the payloads. Content modules are transaction neutral, in that what they describe is independent of the transaction in which they are used, whereas content bindings explain how the payload influences the transaction metadata.

375 The figure below shows the relations between the Content Integration Profiles of the Patient Care Coordination Domain.

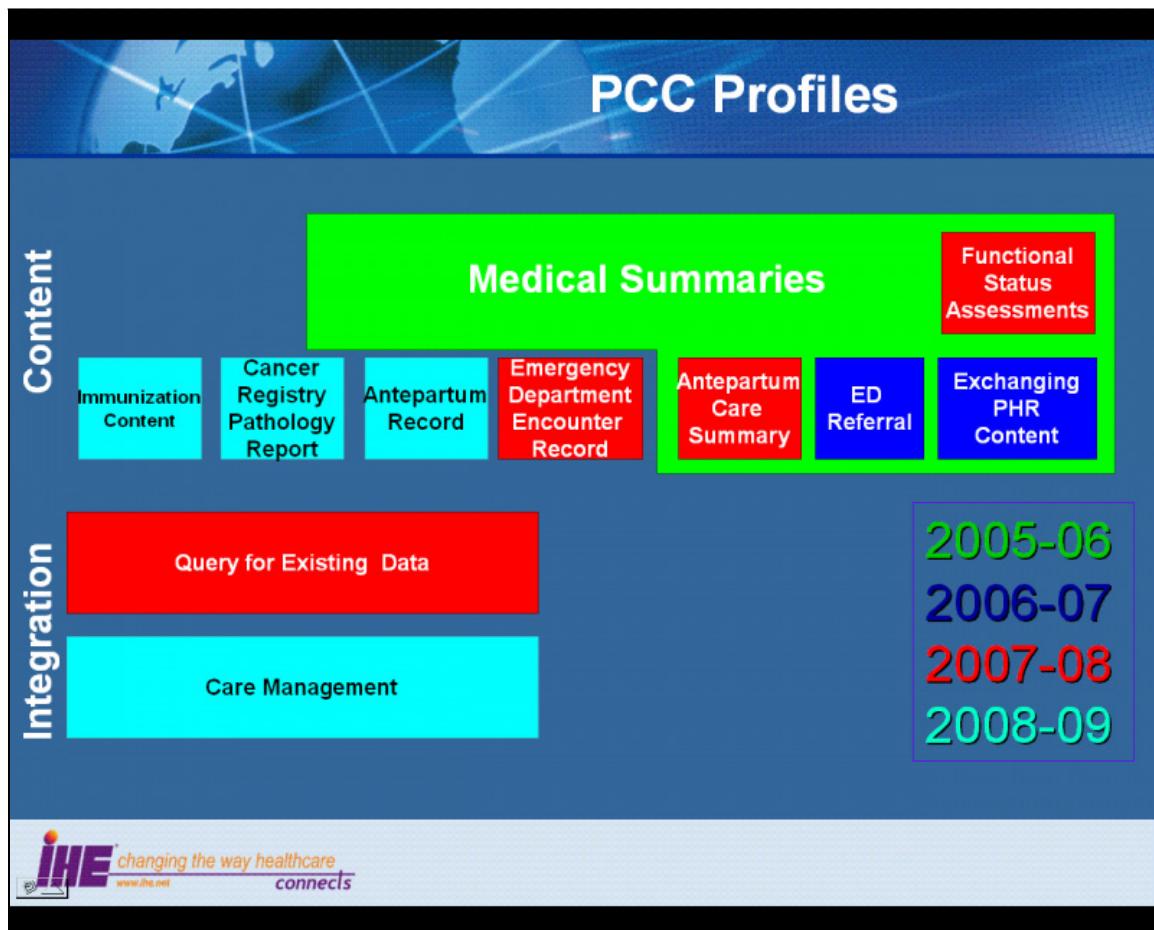


Figure 2.4-1 IHE Patient Care Coordination Content Integration Profiles

2.5 Dependencies of the PCC Integration Profiles

380 Dependencies among IHE Integration Profiles exist when implementation of one integration profile is a prerequisite for achieving the functionality defined in another integration profile. The table below defines these dependencies. Some dependencies require that an actor supporting one profile be grouped with one or more actors supporting other integration profiles. For example, Cross-Enterprise Sharing of Medical Summaries (XDS-MS) requires that its actors be grouped with a Secured Node Actor of the Audit Trail and Node Authentication (ATNA) Integration Profile. The dependency exists because XDS-MS and XDS actors must support a secured communication channel with proper auditing of the exchange of patient identified information in order to function properly in an environment where protection of patient privacy is critical.

385

Integration Profile	Depends on	Dependency Type	Purpose
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All PCC Content Profiles	<i>Audit Trail and Node Authentication (ATNA)</i>	Each Content Creator and Content Consumer actor shall be grouped with the ATNA Secured Node Actor	Required to manage audit trail of exported PHI, node authentication, and transport encryption.
	<i>Consistent Time (CT)</i>	Each Content Creator and Content Consumer actor shall be grouped with the Time Client Actor	Required to manage and resolve conflicts in multiple updates.
Functional Status Assessments (FSA)	<i>Cross Enterprise Document Exchange of Medical Summaries (XDS-MS)</i> OR <i>Exchange of Personal Health Record Content (XPHR)</i> OR <i>Emergency Department Referral (EDR)</i>	Content Consumers implementing the Functional Status Assessments profile shall be grouped with either the XDS-MS, XPHR or EDR Content Consumer. Content Creators implementing the Functional Status Assessments profile shall be grouped with either the XDS-MS, XPHR or EDR Content Creator.	Ensures that the Functional Status Assessment is communicated as part of an exchange of medical summary information.
Functional Status Assessments (QED)	<i>Audit Trail and Node Authentication (ATNA)</i>	Each actor in this profile shall be grouped with the ATNA Secure Node or Secure Application actor.	Required to manage audit trail of exported PHI, node authentication, and transport encryption.
	<i>Consistent Time (CT)</i>	Each actor in this profile shall be grouped with the Time Client Actor	Required to manage and resolve conflicts in multiple updates.

390

Table 1.1.8-1 PCC Profile Dependencies

To support a dependent profile, an actor must implement all required transactions in the prerequisite profiles in addition to those in the dependent profile. In some cases, the prerequisite is that the actor selects any one of a given set of profiles.

2.6 PCC Integration Profiles Overview

395 In this document, each IHE Integration Profile is defined by:

- The IHE actors involved
- The specific set of IHE transactions exchanged by each IHE actor.
- The content of the IHE transactions

400 These requirements are presented in the form of a table of transactions required for each actor supporting the Integration Profile. Actors supporting multiple Integration Profiles are required to support all the required transactions of each Integration Profile supported. When an Integration Profile depends upon another Integration Profile, the transactions required for the dependent Integration Profile have not been included in the table.

405 The content of the transactions are presented as Content Integration Profiles. These are specification of the content to be exchange, along with explanations (called bindings) of how the content affects the transactions in which it is exchanged. It is expected that Content Integration Profiles will be used environments where the physician offices and hospitals have a coordinated infrastructure that serves the information sharing needs of this community of care. Several mechanisms are supported by IHE profiles:

- 410
- A registry/repository-based infrastructure is defined by the IHE Cross-Enterprise Document Sharing (XDS) and other IHE Integration Profiles such as patient identification (PIX & PDQ), and notification of availability of documents (NAV).
 - A media-based infrastructure is defined by the IHE Cross-Enterprise Document Media Interchange (XDM) profile.
 - A reliable messaging-based infrastructure is defined by the IHE Cross-Enterprise Document Reliable Interchange (XDR) profile.
 - All of these infrastructures support Security and privacy through the use of the Consistent Time (CT) and Audit Trail and Node Authentication (ATNA) profiles.

420 For more details on these profiles, see the IHE IT Infrastructure Technical Framework, found here: http://www.ihe.net/Technical_Framework/.

425 Such an infrastructure is assumed by the use cases that focus on the context for defining the specific clinical information content for this profile. These content integration profiles use similar transactions and differ only in the content exchanged. A process flow for these use cases using Cross Enterprise Document Sharing (XDS) and Notification of Document Availability (NAV) is shown in the figure below. Other process flows are possible using XDM and/or XDR.

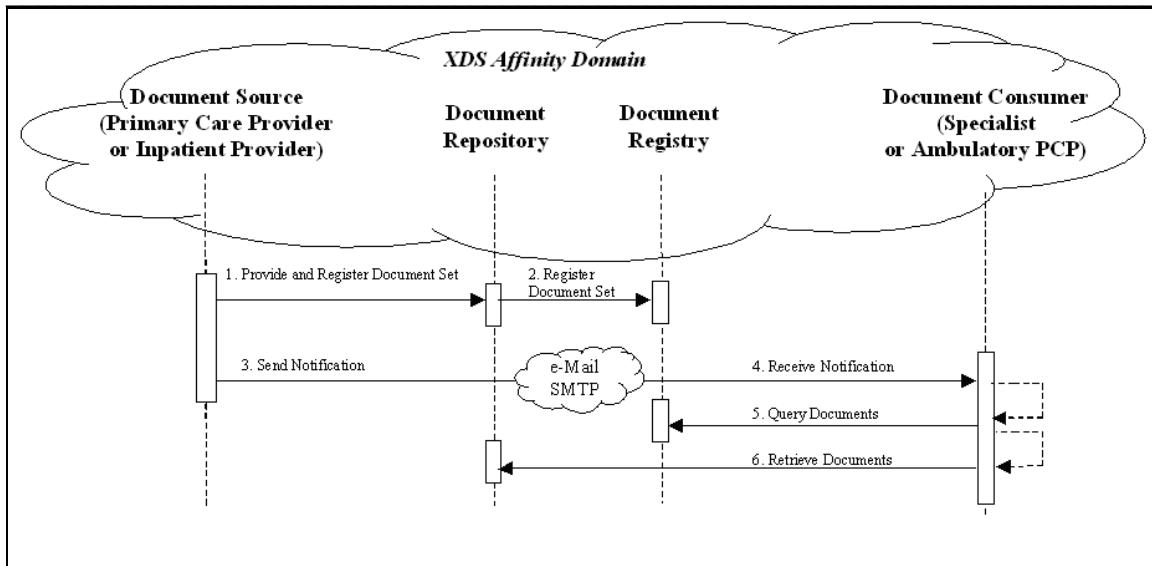


Figure 2.6-1 Use Case Process Flow Diagram

These steps are:

- Extract/capture a collection of records into a set of documents packaged as an XDS Submission Set. This submission contains at least one clinical document, and may contain a number of other related clinical documents. For example, Medical Summaries are clinical documents (already known in the paper world), which often serve the dual purpose of documenting an encounter and providing the rationale for sending the information to another provider. This step utilizes the transactions provided by the ITI XDS profile to place the records in an XDS Repository (local or shared).
- The Repository ensures that the documents of the submission set are registered with the XDS Registry of the Affinity Domain (set of cooperating care delivery institutions).
- Notify the other provider that documents are now available for review. This step utilizes the transactions provided by the ITI NAV profile to perform the e-mail notification.
- The e-mail notification that contains no patient identified information is received by the specialist EMR system.
- The receiving provider can then utilize existing query transactions from the XDS profile to find the URL of the Documents.
- Finally, the receiving provider may choose to display the document, or import relevant information from these records into their own EMR system.

2.6.1 Unplanned Access to past Content

- 450 In many cases, a provider may need to assess information from the patient care history, and patients may have content in the XDS repository from prior visits to other providers. For example, Medical Summaries, as well as other documents such as laboratory and radiology reports are critical for emergency physicians and nurses to provide the best care to patient in acute conditions. The figure below shows the transactions required for this use case, again, using XDS. Other process flows are possible using XDM and/or XDR.
- 455

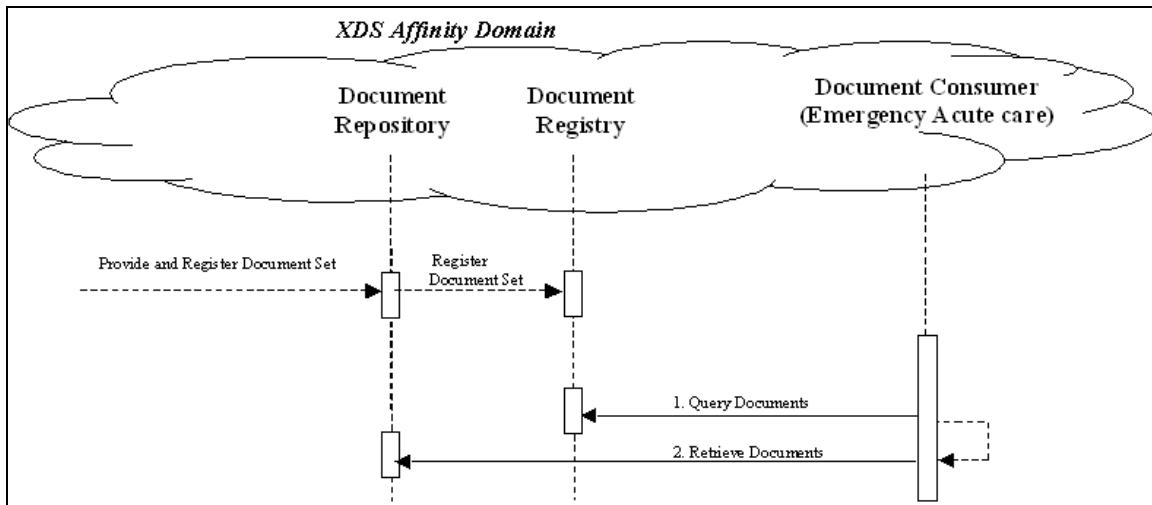


Figure 2.6-2 Unplanned Access Process Flow Diagram

- 460 Note that IHE Integration Profiles are not statements of conformance to standards, and IHE is not a certifying body. Users should continue to request that vendors provide statements of their conformance to standards issued by relevant standards bodies, such as HL7 and DICOM. Standards conformance is a prerequisite for vendors adopting IHE Integration Profiles.
- 465 Also note that there are critical requirements for any successful integration project that IHE cannot address. Successfully integrating systems still requires a project plan that minimizes disruptions and describes fail-safe strategies, specific and mutually understood performance expectations, well-defined user interface requirements, clearly identified systems limitations, detailed cost objectives, plans for maintenance and support, etc.

2.7 History of Annual Changes

In the 2005-2006 cycle of the IHE Patient Care Coordination initiative, the first release of the

470 IHE PCC Technical Framework introduced the following integration profile:

- **Cross-Enterprise Sharing of Medical Summaries (XDS-MS)** – a mechanism to automate the sharing process between care providers of Medical Summaries, a class of clinical documents that contain the most relevant portions of information about the patient intended for a specific provider or a broad range of potential providers in different settings. Medical Summaries are commonly created and consumed at points in time of transfers of care such as referrals or discharge.

In the 2006-2007 cycle of the IHE Patient Care Coordination initiative, the following integration profiles were added to the technical framework.

- **Exchange of Personal Health Record Content (XPHR)** – provides a standards-based specification for managing the interchange of documents between a Personal Health Record used by a patient and systems used by other healthcare providers to enable better interoperability between these systems.

- **Basic Patient Privacy Consents (BPPC)** – enables XDS Affinity Domains to be more flexible in the privacy policies that they support, by providing mechanisms to record patient privacy consents, enforce these consents, and create Affinity Domain defined consent vocabularies that identify information sharing policies.

Please Note: This profile was transferred to the ITI Domain in the Fall of 2007, and can be found here http://www.ihe.net/Technical_Framework/index.cfm#IT

- **Pre-procedure History and Physical Content Profile (PPHP)** – supports the exchange of information allowing for the assessment and amelioration of risks related to a procedure. *Please Note: This profile has been withdrawn.*
- **Emergency Department Referral Profile (EDR)** – provides a means to communicate medical summary data from an EHR System to an EDIS System.

In the 2007-2008 cycle of the IHE Patient Care Coordination initiative, the following integration profiles were added to the technical framework.

- **Antepartum Care Summary (APS)** - describes the content and format of summary documents used during Antepartum care.
- **Emergency Department Encounter Summary (EDES)** - describes the content and format of records created during an emergency department visit.
- **Functional Status Assessment Profile (FSA)** - supports the handoff of assessment information between practitioners during transfers of care by defining the Functional Status Assessment option on the XDS-MS and XPHR profiles.
- **Query for Existing Data (QED)** - allows information systems to query data repositories for clinical information on vital signs, problems, medications, immunizations, and diagnostic results.
- **Public Health Laboratory Report (PHLAB)** - extends the XD*-LAB profile to support reporting from public health laboratories for disease surveillance activities.

Please Note: This profile has been subsequently moved to the XD-LAB specification, and can be found here http://www.ihe.net/Technical_Framework/index.cfm#LAB

- 510 In addition, all content within the technical framework was revised in the 2007-2008 cycle to encourage compatibility with the ASTM/HL7 Continuity of Care Document Implementation Guide.
- In the 2008-2009 cycle of the IHE Patient Care Coordination initiative, the following integration profiles were added to the technical framework.
- 515 • **Antepartum Record (APR)** - describes the content and format of summary documents used during Antepartum care.
- **Care Management (CM)** - provides a mechanism for EHR and other HIT systems to communicate information to Care Management systems in support of specialized care programs through the use of evidence based guidelines.
- 520 • **Immunization Content (IC)** - defines standard immunization data content for Immunization Information Systems (IISs), other public health systems, electronic medical records (EMR) systems, Health Information Exchanges, and others wishing to exchange immunization data electronically in a standard format.
- 525 • **Cancer Registry Pathology Report (CPR)** - describes the content used in PCC-11 to send a completed pathology report to a Cancer Registry using an HL7 Version 2.3.1 ORU message.

2.8 Product Implementations

Developers have a number of options in implementing IHE actors and transactions in product implementations. The decisions cover three classes of optionality:

- 530 • For a system, select which actors it will incorporate (multiple actors per system are acceptable).
- For each actor, select the integration profiles in which it will participate.
- For each actor and profile, select which options will be implemented.
- 535 All required transactions must be implemented for the profile to be supported (for XDS-MS, refer to the transaction descriptions for XDS in ITI TF-2).
- Implementers should provide a statement describing which IHE actors, IHE integration profiles and options are incorporated in a given product. The recommended form for such a statement is defined in PCC TF-1: Appendix C.
- 540 In general, a product implementation may incorporate any single actor or combination of actors. When two or more actors are grouped together, internal communication between actors is assumed to be sufficient to allow the necessary information flow to support their functionality; for example, the Document Source Actor of XDS-MS may use the Patient Identifier Cross-reference Consumer Actor to obtain the necessary patient identifier mapping information from its local patient id to that used in the document sharing domain. The exact mechanisms of such internal communication are outside the scope of the IHE Technical Framework.
- 545

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary
(EDES)

When multiple actors are grouped in a single product implementation, all transactions originating or terminating with each of the supported actors shall be supported (i.e., the IHE transactions shall be offered on an external product interface).

- 550 The following examples describe which actors typical systems might be expected to support.
This is not intended to be a requirement, but rather to provide illustrative examples.

An acute care EMR serving a hospital might include a Document Source Actor, Document Consumer Actor, a Document Repository Actor, a Patient Identification Consumer Actor, as well as a Secured Node Actor. An Ambulatory EMR serving a physician practice might include a Document Source Actor, Document Consumer Actor, a Patient Demographics Client Actor, as 555 well as a Secured Node Actor.

3 Emergency Department Encounter Summary (EDES)

Emergency Department Encounter Summary (EDES) is a summary of the patient's current health status and a summary of care rendered in the ED between arrival and ED departure. The EDES is not (yet) intended to replace the ED Chart as a complete, legal document of care, but is intended as a collection of medical summaries with focused scope that can be used to fulfill a number of collaborative transfers of care. The Emergency Department Encounter Summary may include links to diagnostic tests performed during the ED encounter, as well as documentation of an initial Emergency Department Referral (a 2006 IHE work product), prehospital (EMS) records (IHE roadmap 2008), and the consultations of other providers.

Data released by the Centers for Disease Control and Prevention (CDC) estimates that there were over 110 million emergency department visits in 2004, making the emergency department (ED) chart (hereafter called Encounter Summary) one of the most common medical summaries in use today. Currently, the Emergency Department Encounter Summary remains largely a paper based artifact, and when produced by an Emergency Department information system (EDIS) is almost exclusively delivered as unstructured or loosely structured text.

The ED chart is used to communicate the details of an emergency department visit in a variety of ways. The chart is most frequently faxed or mailed to primary care providers, and is increasingly archived electronically to hospital clinical data repositories. The original (or a copy) must accompany the patient to the ward upon hospital admission where it can be reviewed by hospital providers, or a copy may be sent with the patient on transfer from ED to ED or from ED to other medical treatment facilities. Unfortunately, these frequently become lost or misplaced.

Emergency Department Encounter Summaries have no standardized format, and may be frequently be difficult to read by users unfamiliar with their formatting. None yet carry any semantic meaning that could be consumed by a receiving EHR system (EHR-S).

The production and delivery of the Emergency Department Encounter Summary solves a number of problems, including:

- Communication with and transfer of care back to the patient's primary care physician.
- Communication with care providers in the inpatient setting for patients admitted to the hospital from the emergency department.

The Emergency Department Encounter Summary could also be employed in:

- Transfer of information to hospital and provider billing systems.
- Transfer of information to regulatory and public health agencies requesting data from emergency department encounters.

3.1.1 Technical Approach

The Emergency Department Encounter Summary is a folder in XDS that defines a collection of documents. Several content profiles must be included to represent the various kinds of documents that might be found in the EDES Folder.

These content profiles include:

- 595
 - ED Triage Note – this document contains data compiled during the ED triage process.
 - ED Nursing Note – this document contains data compiled during the on-going care (after initial triage) of the ED patient.
 - Composite ED Triage and ED Nursing Note – this document can be used in lieu of individual triage and ED Nursing notes by implementers where both above documents may be consolidated into a single document.
- 600
 - ED Physician Note – this document is a summary view of ED physician documentation.
 - Pre-hospital Care Report – this document has been identified as a future work product and is on the PCC Roadmap for 2008.
- 605
 - EDR (Emergency Department Referral) – this document was developed in the 2006 IHE cycle to support referral of a patient to the emergency department.
 - Diagnostic Imaging Reports – shall be shared using XDS-I.
 - Lab Reports – Laboratory reports shall be shared using XD*-LAB.
 - Consultations – future document type specification.
- 610
 - Transfer Summary – future document type specification.
 - Summary of Death – future document type specification.

3.1.2 Authorship and Attestation

615 Each of the documents described above may have different authors. In some cases a single document can have multiple authors. Local policies may require certain documents to be attested to (signed) by the responsible provider, which may again be different from the author or authors. The content profiles allow for multiple authors to be recorded, and for the attestation (signature) to be provided according to the local policy.

3.1.3 Use Case - Emergency Department Visit

620 This use case presumes the patient is cared for at a hospital facility with an EDIS as well as a hospital information system. Additionally, the patient's primary care provider is also assumed to possess an interoperable EHR system.

This use case begins upon the arrival of the patient to the emergency department. Data including mode of arrival, chief complaint, and other arrival data are manually entered into the EDIS. Additional data including past medical problems, medications and allergies, are obtained in one 625 of the following ways:

1. Entered manually into the EDIS by the triage nurse
2. Imported from a legacy ED encounter within the EDIS
3. Imported from the hospital information system or CDR, perhaps using [[PCC TF-1/QED|Query for Existing Data]].
4. Imported from an Emergency Department Referral (IHE 2006-2007).
5. Imported using PHR Extract from portable media (IHE 2006-2007).

-
- 6. Imported from a prehospital EMS report (Emergency Medical Services (EMS) to Emergency Dept Data Transfer, PCC Roadmap 2008-2009)

635 The patient undergoes assessments by a triage nurse, is assigned a triage category (i.e. emergent, urgent, non-urgent). The patient is then registered and demographic data is obtained. One taken to the treatment area, the patient undergoes additional assessments by a primary RN, and seen by an ED physician who performs a history and physical, orders various diagnostic tests, determines a course of therapy, orders medications to be administered in the ED and performs procedures on the patient. Upon completion of ED care, the patient is either admitted to the hospital, discharged 640 from the ED, or transferred to another facility. Hence, the use case can take one of three branches:

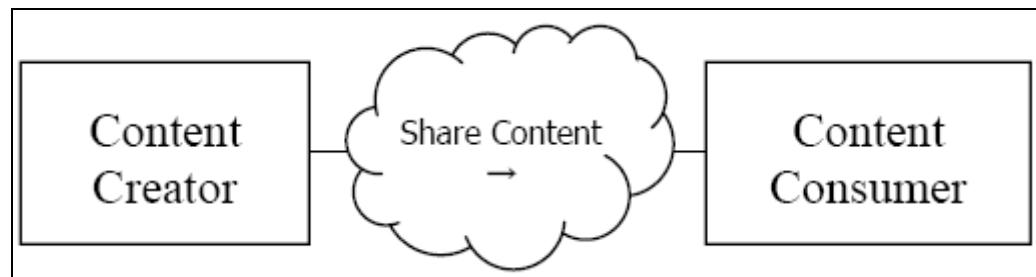
- 1. If admitted, the EDES is sent to the hospital information system where it can be viewed by providers, or read by the EHR system so that medical summary data and details of care rendered in the ED available to inpatient providers.
- 2. If the patient is discharged the EDES is sent to the patients primary care physician as a summary of care rendered during the ED encounter.
- 3. If the patient is transferred to another facility, the EDES is posted to the RHIO and made available for providers at the receiving facility.

3.1.4 Example

650 Mr. John Smith, a longstanding patient of Dr. Mark Klein, is 62 year old man with hypertension and diabetes who awoke with acute onset of fever, right-sided chest pain and cough. He presents to the IHE ED via EMS where he is triaged by nurse Karen Ross who collects his past medical history, medications, allergies, mode of arrival, and inputs this data into the EDIS. Mr. Smith is taken directly to the treatment area where he is assigned to nurse Barbara Reiter who obtains 655 vital signs, baseline pulse oximetry, places the patient on oxygen, and obtains IV access. She documents her assessments and interventions in the EDIS. The patient is seen by Dr. William Reed who performs and records a history and physical examination, orders an ECG, chest radiograph, CBC, electrolytes, and blood cultures. The chest radiograph reveals bi-lobar pneumonia and the ECG is slightly abnormal. Ceftriaxone 1gm IV plus Azythromycin 500mg 660 PO are administered. After multiple attempts by Dr. Reed to contact Dr. Klein, Mr. Smith is admitted to a intermediate care bed under the care of Dr. Herman Edwards the IHE hospitalist. Upon hospital admission, Dr. Reed completes the record and, as the responsible attending physician, electronically signs the ED chart authenticating the EDES. In this institution, the initial ED attending physician to see the patient is the legal authenticator for all documents, and 665 may only delegate this responsibility to another provider through a formal transfer of care. The EDES is posted to the RHIO and also sent to the hospital information system. Using the HIS, the nurse on the intermediate care ward accesses the record and notes the time and administration of antibiotics. When Dr. Klein reaches the office in the morning, his office EHR-S notifies him that his patient was seen in the IHE ED the previous night, and displays the ED Encounter Summary.

670 **3.2 Actors/Transaction**

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 IHE profiles described below, and is out of scope of this profile. A Document Source or a Portable Media Creator may embody the Content Creator Actor. A Document Consumer, a Document Recipient or a Portable Media Importer may embody the Content Consumer Actor. The sharing or transmission of content or updates from one actor to the other is addressed by the use of appropriate IHE profiles described by section 3.7 Content Bindings with XDS, XDM and XDR found in the Patient Care Coordination Technical Framework



680 **Figure 3.2-1 Emergency Department Encounter Summary Actor Diagram**

3.3 Options

Actor	Option	Section
Content Consumer	View Option (See Note 1)	PCC TF-1: 3.4.1.1
	Document Import Option (See Note 1)	PCC TF-1: 3.4.1.2
	Section Import Option (See Note 1)	PCC TF-1: 3.4.1.3
	Discrete Data Import Option (See Note 1)	PCC TF-1: 3.4.1.4

Note 1: The Actor shall support at least one of these options.

3.3.1 Coded Terminologies

685 This profile supports the capability to record entries beyond the IHE required coding associated with structured data. Actors from this profile may choose to utilize coded data, but interoperability at this level requires an agreement between the communicating parties that is beyond the scope of this Profile.

690 To facilitate this level of interoperability, the applications that implement actors within this profile shall provide a link to their HL7 conformance profile within their IHE Integration statement. The conformance profile describes the structure of the information which they are capable of creating or consuming. The conformance profile shall state which templates are supported by the application implementing the profile Actors, and which vocabularies and/or data types are used within those templates. It should also indicate the optional components of the entry that are supported.

An Example HL7 Conformance Profile is available to show how to construct such a statement. See the [HL7 Refinement Constraint and Localization](#) for more details on HL7 conformance profiles.

3.4 EDES Content Modules

700 **3.4.1 Triage Note**

The triage note is a CDA document that may be submitted to an ED Folder in order to record the act of triaging a patient upon presentation to the emergency department. The triage note is designed to support a comprehensive triage assessment, although it is recognized that providers may not capture the entire list of sections, owing to patient presentation, acuity or time constraints.

705

3.4.2 Nursing Note

710

The nursing note is a CDA document that may be submitted to an ED Folder in order to record the act of nursing care delivered to a patient in the emergency department. The ED nursing note is designed to support documentation sufficient to support transfer of care. It is recognized that the ED Nursing Note specification is not sufficient to document all medicolegal facets of care, and conversely that providers may not capture the entire list of sections, owing to patient presentation, acuity or time constraints.

3.4.3 Composite Triage and Nursing Note

715

The composite triage and nursing note is a CDA document that may be submitted to an ED Folder in order to record the act of both triage and nursing care delivered to a patient in the emergency department. The ED nursing note is designed to support documentation sufficient to support transfer of care. It is recognized that the specification is not sufficient to document all medicolegal facets of care, and conversely that providers may not capture the entire list of sections, owing to patient presentation, acuity or time constraints.

720

3.4.4 ED Physician Note

725

The ED Physician Note is a CDA document that may be submitted to an ED Folder in order to record the care delivered to a patient in the emergency department. The ED physician note is designed to support documentation sufficient to support transfer of care. It is recognized that the specification is not sufficient to document all medicolegal facets of care, and conversely that providers may not capture the entire list of sections, owing to patient presentation, acuity or time constraints.

3.5 Grouping

3.5.1 Content Bindings with XDS, XDM and XDR

- 730 It is expected that the transfers of care will occur in an environment where the physician offices and hospitals have a coordinated infrastructure that serves the information sharing needs of this community of care. Several mechanisms are supported by IHE profiles:
- 735
 - A registry/repository-based infrastructure is defined by the IHE Cross Enterprise Document Sharing (XDS) and other IHE Integration Profiles such as patient identification (PIX & PDQ) and notification of availability of documents (NAV).
 - A media-based infrastructure is defined by the IHE Cross Enterprise Document Media Interchange (XDM) profile.
 - A reliable messaging-based infrastructure is defined by the IHE Cross Enterprise Document Reliable Interchange (XDR) profile.
- 740
 - All of these infrastructures support Security and privacy through the use of the Consistent Time (CT) and Audit Trail and Node Authentication (ATNA) profiles.

For more details on these profiles, see the IHE IT Infrastructure Technical Framework. Content profiles may impose additional requirements on the transactions used when grouped with actors from other IHE Profiles.

745 **3.5.2 Cross Enterprise Document Sharing, Media Interchange and Reliable Messages**

750 Actors from the ITI XDS, XDM and XDR profiles embody the Content Creator and Content Consumer sharing function of this profile. A Content Creator or Content Consumer must be grouped with appropriate actors from the XDS, XDM or XDR profiles, and the metadata sent in the document sharing or interchange messages has specific relationships to the content of the clinical document described in the content profile.

3.5.3 Notification of Document Availability (NAV)

755 A Document Source should provide the capability to issue a Send Notification Transaction per the ITI Notification of Document Availability (NAV) Integration Profile in order to notify one or more Document Consumer(s) of the availability of one or more documents for retrieval. One of the Acknowledgement Request options may be used to request from a Document Consumer that an acknowledgement should be returned when it has received and processed the notification. A Document Consumer should provide the capability to receive a Receive Notification Transaction per the NAV Integration Profile in order to be notified by Document Sources of the availability of one or more documents for retrieval. The Send Acknowledgement option may be used to issue a Send Acknowledgement to a Document Source that the notification was received and processed.

3.5.4 Document Digital Signature (DSG)

765 When a Content Creator Actor needs to digitally sign a document in a submission set, it may support the Digital Signature (DSG) Content Profile as a Document Source. When a Content

Consumer Actor needs to verify a Digital Signature, it may retrieve the digital signature document and may perform the verification against the signed document content.

3.6 Requirements of EDES Actors

This section describes the specific requirements for each Actor defined within this profile.
770 Specific details can be found in Volume 1 and Volume 2 of the technical framework.

3.6.1 Content Creator

1. A Content Creator shall be able to create
 - a. a Triage Note, Nursing Note and an ED Physician Note, OR
 - b. a Composite Triage and Nursing Note and an ED Physician Note according to the specifications for those content profiles found in PCC TF-2.
2. A Content Creator shall be grouped with the Time Client Actor, and shall synchronize its clock with a Time Server.
3. A Content Creator shall be grouped with the Secure Node or Secure Application Actor of the ATNA profile.
- 780 4. All activity initiated by the application implementing the Content Creator shall generate the appropriate audit trail messages as specified by the ATNA Profile. The bare minimum requirements of a Content Creator are that it be able to log creation and export of clinical content.
- 785 5. A Content Creator shall use secure communications for any document exchanges, according to the specifications of the ATNA profile.

3.6.2 Content Consumer

1. A Content Consumer shall be able to consume a Triage Note, Nursing Note, Composite Triage and Nursing Note and an ED Physician Note.
2. A Content Consumer shall implement the View Option or Discrete Data import option, or both.
- 790 3. A Content Consumer that implements the Document Import or Section Import Option shall implement the View Option as well.
4. A Content Consumer that implements the View option shall be able to:
 - a. Demonstrate rendering of the document for display.
 - b. Print the document.
 - c. Display the document with its original style sheet.
 - d. Support traversal of any links contained within the document.
- 795 5. A Content Consumer that implements the Document Import Option shall:
 - a. Store the document.

- 800 b. Demonstrate the ability to access the document again from local storage.
6. A Content Consumer that implements the Section Import Option shall offer a means to import one or more document sections into the patient record as free text.
7. A Content Consumer that implements the Discrete Data Import Option shall offer a means to import structured data from one or more sections of the document.
- 805 8. A Content Consumer Actor shall be grouped with the Time Client Actor, and shall synchronize its clock with a Time Server.
9. All activity initiated by the application implementing the Content Consumer shall generate the appropriate audit trail messages as specified by the ATNA Profile. The bare minimum requirements of a Content Consumer are that it be able to log views or imports of clinical content.
- 810 10. A Content Consumer shall log events for any views of stored clinical content.
11. A Content Consumer shall use secure communications for any document exchanges, according to the specifications of the ATNA profile.

Actor Descriptions

815 Actors are information systems or components of information systems that produce, manage, or act on information associated with operational activities in the enterprise.

Content Creator

The Content Creator Actor is responsible for the creation of content and transmission to a Content Consumer.

820 Content Consumer

A Content Consumer Actor is responsible for viewing, import, or other processing of content created by a Content Creator Actor.

Transaction Descriptions

Transactions are interactions between actors that transfer the required information through standards-based messages.

How to Prepare an IHE Integration Statement

IHE Integration Statements are documents prepared and published by vendors to describe the conformance of their products with the IHE Technical Framework. They identify the specific IHE capabilities a given product supports in terms of IHE actors and integration profiles described in the technical frameworks of each domain.

830 Users familiar with these concepts can use Integration Statements to determine what level of integration a vendor asserts a product supports with complementary systems and what clinical and operational benefits such integration might provide. Integration Statements are intended to be used in conjunction with statements of conformance to specific standards (e.g. HL7, IETF, DICOM, W3C, etc.).

IHE provides a process for vendors to test their implementations of IHE actors and integration profiles. The IHE testing process, culminating in a multi-party interactive testing event called the Connect-a-thon, provides vendors with valuable feedback and provides a baseline indication of the conformance of their implementations. The process is not intended to independently evaluate, or ensure, product compliance. In publishing the results of the Connect-a-thon and facilitating access to vendors' IHE Integration Statements, IHE and its sponsoring organizations are in no way attesting to the accuracy or validity of any vendor's IHE Integration Statements or any other claims by vendors regarding their products.

IMPORTANT -- PLEASE NOTE: Vendors have sole responsibility for the accuracy and

validity of their IHE Integration Statements. Vendors' Integration Statements are made available through IHE simply for consideration by parties seeking information about the integration capabilities of particular products. IHE and its sponsoring organizations have not evaluated or approved any IHE Integration Statement or any related product, and IHE and its sponsoring organizations shall have no liability or responsibility to any party for any claims or damages, whether direct, indirect, incidental or consequential, including but not limited to business interruption and loss of revenue, arising from any use of, or reliance upon, any IHE Integration Statement.

A.1 Structure and Content of an IHE Integration Statement

An IHE Integration Statement for a product shall include:

- 855 1. The Vendor Name
2. The Product Name (as used in the commercial context) to which the IHE Integration Statement applies.
3. The Product Version to which the IHE Integration Statement applies.
- 860 4. A publication date and optionally a revision designation for the IHE Integration Statement.
5. The following statement: "This product implements all transactions required in the IHE Technical Framework to support the IHE Integration Profiles, Actors and Options listed below:"
- 865 6. A list of IHE Integration Profiles supported by the product and, for each Integration Profile, a list of IHE Actors supported. For each integration profile/actor combination, one or more of the options defined in the IHE Technical Framework may also be stated. Profiles, Actors and Options shall use the names defined by the IHE Technical Framework Volume I. (Note: The vendor may also elect to indicate the version number of the Technical Framework referenced for each Integration Profile.)
- 870 Note that implementation of the integration profile implies implementation of all required transactions for an actor as well as selected options. The statement shall also include references and/or internet links to the following information:
1. Specific internet address (or universal resource locator [URL]) where the vendor's Integration Statements are posted
- 875 2. URL where the vendor's standards conformance statements (e.g., HL7, DICOM, etc.) relevant to the IHE transactions implemented by the product are posted.
3. URL of the IHE Initiative's web page for general IHE information www.himss.org/ihe.

An IHE Integration Statement is not intended to promote or advertise aspects of a product not directly related to its implementation of IHE capabilities.

880 **A.2 Format of an IHE Integration Statement**

Each Integration Statement shall follow the format shown below. Vendors may add a cover page and any necessary additional information in accordance with their product documentation policies.

IHE Integration Statement	Date	12 Oct 2005
Vendor	Product Name	Version
Any Medical Systems Co.	IntegrateRecord	V2.3
This product implements all transactions required in the IHE Technical Framework to support the IHE Integration Profiles, Actors and Options listed below:		
Integration Profiles Implemented	Actors Implemented	Options Implemented
Cross-Enterprise Sharing of Medical Summaries	Document Consumer	View Option
Audit Trail and Node Authentication	Secure Node	none
Patient Identity Cross-referencing	Patient Identifier Cross-reference Consumer	PIX Update Notification
<u>Internet address for vendor's IHE information:</u> www.anymedicalsystemsco.com/ihe		
Links to Standards Conformance Statements for the Implementation		
HL7	www.anymedicalsystemsco.com/hl7	
Links to general information on IHE		
In North America: www.ihe.het	In Europe: www.ihe-europe.org	In Japan: www.jira-net.or.jp/ihe-j

885 The assumption of an integration statement is that all actors listed are functionally grouped and conform to any profile specifications for such groupings. In case of exceptions the vendor must explicitly describe the functional groupings.

Glossary

The following terms are used in various places within this technical framework, and are defined below. The complete IHE Glossary is available on the IHE Wiki at
http://wiki.ihe.net/index.php/IHE_Glossary.

890 Actor

An entity within a use case diagram that can perform an action within a use case diagram.
Possible actions are creation or consumption of a message

Acuity Assessment

895 Also known as triage category, this is the acuity of the patient assigned during the process of ED triage. A number of evidenced based triage scales exist, including the [Emergency Severity Index \(ESI\)](#), [Canadian Triage and Acuity Scale \(CTAS\)](#), the [Australasian Triage Scale \(ATS\)](#), and the Manchester Triage System. In many emergency departments, patients may simply be classified as *emergent, urgent* or *non-urgent*.

900 ADT

Admit, Discharge & Transfer.

Affinity Domain Policy

905 Affinity Domain Policy that clearly defines the appropriate uses of the XDS Affinity Domain. Within this policy is a defined set of acceptable use Privacy Consent Policies that are published and understood.

ASTM

Formerly the American Society of Testing and Materials, now ASTM International. An SDO that develops a number of standards across a wide variety of industries, including healthcare.

910 ATNA

Audit Trail and Node Authentication. An IHE ITI profile.

Care Context

The participations surrounding the care provision act, and the attributes of that act.
Everything in the document header. Data history, links to clinical reasoning.

915 CDA

Clinical Document Architecture. An HL7 standard for the exchange for clinical documents.

Content Binding

920 A content binding describe how the payload used in an IHE transaction is related to and/or constrained by the data elements contained within the content sent or received in those transactions.

CRS

Care Record Summary. An implementation guide that constrains CDA Release 2 for Care Record Summary documents.

925 CT

Consistent Time Integration Profile.

DICOM

Digital Imaging and Communication in Medicine

DSG

930 Digital Signatures. An IHE ITI Profile.

EDIS

An Emergency Department Information System (EDIS) is an extended EHR system used to manage data in support of Emergency Department patient care and operations. The functions of an EDIS may be provided by a single application or multiple applications.

935 eMPI

Enterprise Master Patient Index.

EMR

Electronic Medical Record, an Electronic Health Record system used within an enterprise to deliver care (also called EHR-CR by IHE-XDS).

940 Estimated Time of Arrival

the time the patient being referred can be expected to arrive in the emergency department.

EUA

Enterprise User Authentication Integration Profile.

Expected Actions

945 Actions which should occur as the result of a trigger event.

Functional Role

Role an individual is acting under when they are executing a function. See ISO 21298

HIMSS

Healthcare Information and Management Systems Society.

950 HL7

Health Level Seven

HIS

Hospital Information System.

IHE

955 Integrating the Healthcare Enterprise.

Interaction Diagram

A diagram that depicts data flow and sequencing of events.

IT

Information Technology.

960 Mode of Arrival

The method of transportation used to transport the patient to the Emergency Department.

MPI

Master Patient Index.

MRN

965 Medical Record Number.

NAV

Notification of Document Availability

OID

Object Identifier. (See also 'Globally Unique Identifier').

970 Patient Privacy Consent

The act of a patient consenting to a specific Privacy Consent Policy.

Patient Privacy Consent Document

A document that follows the BPPC profile and captures the act of the patient consenting to a specific XDS Affinity Domain defined Privacy Consent Policy.

975 Patient Identifier Cross-reference Domain

Consists of a set of Patient Identifier Domains known and managed by a Patient Identifier Cross-reference Manager Actor. The Patient Identifier Cross-reference Manager Actor is responsible for providing lists of "alias" identifiers from different Patient Identifier Domains.

980 Patient Identifier Domain

A single system or a set of interconnected systems that all share a common identification scheme for patients. Such a scheme includes: (1) a single identifier-issuing authority, (2) an assignment process of an identifier to a patient, (3) a permanent record of issued

	patient identifiers with associated traits, and (4) a maintenance process over time. The goal of Patient Identification is to reduce errors.
985	PDF Portable Document Format.
	PIX Patient Identifier Cross Referencing. An IHE ITI Profile.
990	PDQ Patient Demographics Query. An IHE ITI Profile.
	PHR Personal Health Record
	Privacy Consent Policy
995	One of the acceptable-use Privacy Consent Policies that are agreed to and understood in the Affinity Domain.
	Privacy Consent Policy Act Identifier An Affinity Domain assigned identifier that uniquely defines the act of a patient consenting to a specific Affinity Domain: Privacy Consent Policy.
1000	Privacy Consent Policy Identifier An Affinity Domain assigned identifier (OID) that uniquely identifies the Affinity Domain: Privacy Consent Policy. There is one unique identifier (OID) for each Privacy Consent Policy within the Affinity Domain.
	Procedure
1005	In the context of a "Pre-procedure History and Physical," the "procedure" is a surgery or an invasive examination of a patient that is required by quality review organizations to be preceded by a pre-procedure assessment of procedure risk and anesthesia risk. This assessment is typically referred to as a "Pre-operative" or "Pre-procedure History and Physical."
1010	Process Flow Diagram A graphical illustration of the flow of processes and interactions among the actors involved in a particular example.
	Proposed disposition
1015	the intended disposition (i.e. admission to ICU, discharge to home, transfer to psychiatric hospital), if known, that the referring provider expects the patient will end up after the emergency department intervention.

Referral Source

1020 An individual, group, or agency that determined the patient should seek care at the ED. Referral source may be used to determine appropriate discharge referrals and services, or to provide surveillance data for program and service planning, or to examine referral patterns.

Role The actions of an actor in a use case.

RSNA

Radiological Society of North America.

1025 sig. A Latin abbreviation for signature used to represent the instruction following the medication name.

Scope

A brief description of the transaction.

1030 Structural Role

Role of an individual within an organization. See ISO 21298

Transport Mode

the method the patient employs, or is provided to get to the emergency department.

Trigger Event

1035 An event such as the reception of a message or completion of a process, which causes another action to occur.

UID

Unique Identifier (See also Globally Unique Identifier).

Universal ID

1040 Unique identifier over time within the UID type. Each UID must belong to one of specifically enumerated species. Universal ID must follow syntactic rules of its scheme.

Use Case

A graphical depiction of the actors and operation of a system.

Wet Signature

1045 Ink on paper signature.

XUA

Cross Enterprise User Authentication

XDS

Cross Enterprise Document Sharing

1050

Volume 2

1 Preface to Volume 2

1.1 Intended Audience

The intended audience of this document is:

- Technical staff of vendors planning to participate in the IHE initiative
- IT departments of healthcare institutions
- Experts involved in standards development
- Anyone interested in the technical aspects of integrating healthcare information systems

1.2 Related Information for the Reader

1060 The reader of volume 2 should read or be familiar with the following documents:

- Volume 1 of the Cross-Enterprise Document Sharing (XDS) Integration Profile documented in the ITI Infrastructure Technical Framework (See http://www.ihe.net/Technical_Framework/index.cfm).
- Volume 1 of the Notification of Document Availability (NAV) Integration Profile documented in the ITI Infrastructure Technical Framework (See http://www.ihe.net/Technical_Framework/index.cfm).
- Volume 1 of the Audit Trail and Node Authentication (ATNA) Integration Profile documented in the ITI Infrastructure Technical Framework (See http://www.ihe.net/Technical_Framework/index.cfm).
- HL7 Clinical Document Architecture Release 2: Section 1, CDA Overview.
- Care Record Summary – Implementation Guide for CDA Release 2 (US Realm): Section 1
- Presentations from IHE Workshop: Effective Integration of the Enterprise and the Health System - June 28–29, 2005:
http://www.ihe.net/Participation/workshop_2005.cfm, June 2005:
 - [For a RHIO-3.ppt Leveraging IHE to Build RHIO Interoperability](#)
 - [Cross-Enterprise Document Sharing \(XDS\)](#)
 - [Notification of Document Availability \(NAV\)](#)
 - [Educ.ppt Patient Care Coordination](#)
 - [Use Cases for Medical Summaries](#)
 - [Ovrw.ppt Patient Care Coordination - Overview of Profiles](#)

1.2.1 How this Document is Organized

Section 1 is the preface, describing the intended audience, related resources, and organizations and conventions used within this document.

1085 Section 2 provides an overview of the concepts of IHE actors and transactions used in IHE to define the functional components of a distributed healthcare environment.

Section 3 defines transactions in detail, specifying the roles for each actor, the standards employed, the information exchanged, and in some cases, implementation options for the transaction.

1090 Section 4 defines a set of payload bindings with transactions.

Section 5 defines the content modules that may be used in transactions.

1.2.2 Conventions Used in this Volume

This document has adopted the following conventions for representing the framework concepts and specifying how the standards upon which the IHE Technical Framework is based should be applied.

1.2.3 The Generic IHE Transaction Model

Transaction descriptions are provided in section 4. In each transaction description, the actors, the roles they play, and the transactions between them are presented as use cases.

The generic IHE transaction description includes the following components:

1100 • Scope: a brief description of the transaction.

- Use case roles: textual definitions of the actors and their roles, with a simple diagram relating them, e.g.:

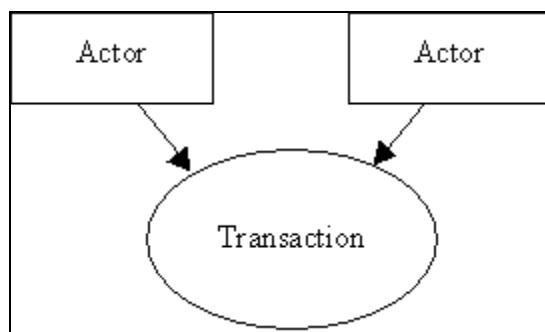
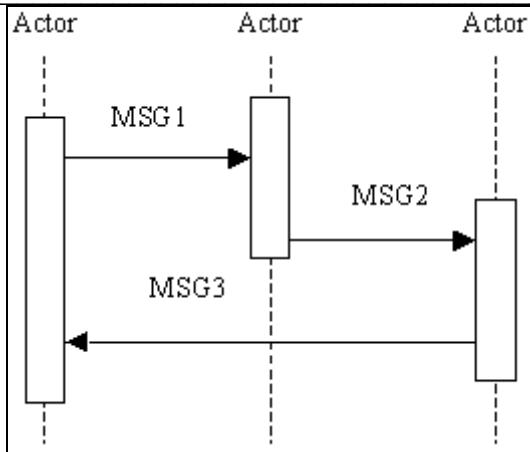


Figure 1.2-1 Use Case Role Diagram

- 1105 • *Referenced Standards*: the standards (stating the specific parts, chapters or sections thereof) to be used for the transaction.
- *Interaction Diagram*: a graphical depiction of the actors and transactions, with related processing within an actor shown as a rectangle and time progressing downward, similar to:

1110



1115

Figure 1.2-2 Interaction Diagram

1120 The interaction diagrams used in the IHE Technical Framework are modeled after those described in Grady Booch, James Rumbaugh, and Ivar Jacobson, *The Unified Modeling Language User Guide*, ISBN 0-201-57168-4. Simple acknowledgment messages are omitted from the diagrams for brevity.

- *Message definitions:* descriptions of each message involved in the transaction, the events that trigger the message, its semantics, and the actions that the message triggers in the receiver.

1125 **1.3 Copyright Permissions**

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1130 **1.4 How to Contact Us**

IHE Sponsors welcome comments on this document and the IHE initiative. They should be directed to the discussion server at <http://forums.rsna.org> or to:

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2 Introduction

1140 This document, the IHE Patient Care Coordination Technical Framework (PCC TF), defines specific implementations of established standards. These are intended to achieve integration goals that promote appropriate exchange of medical information to coordinate the optimal patient care among care providers in different care settings. It is expanded annually, after a period of public review, and maintained regularly through the identification and correction of errata. The 1145 latest version of the document is always available via the Internet at http://www.ihe.net/Technical_Framework/index.cfm, where the technical framework volumes specific to the various healthcare domains addressed by IHE may be found.

1150 The IHE Patient Care Coordination Technical Framework identifies a subset of the functional components of the healthcare enterprises and health information networks, called IHE actors, and specifies their interactions in terms of a set of coordinated, standards-based transactions.

The other domains within the IHE initiative also produce Technical Frameworks within their respective areas that together form the IHE Technical Framework. Currently, the following IHE Technical Framework(s) are available:

- IHE IT Infrastructure Technical Framework
- IHE Cardiology Technical Framework
- IHE Laboratory Technical framework
- IHE Radiology Technical Framework
- IHE Patient Care Coordination Technical Framework

1160 Where applicable, references are made to other technical frameworks. For the conventions on referencing other frameworks, see the preface of this volume.

2.1 Relationship to Standards

1165 The IHE Technical Framework identifies functional components of a distributed healthcare environment (referred to as IHE actors), solely from the point of view of their interactions in the healthcare enterprise. At its current level of development, it defines a coordinated set of transactions based on standards (such as HL7, IETF, ASTM, DICOM, ISO, OASIS, etc.) in order to accomplish a particular use case. As the scope of the IHE initiative expands, transactions based on other standards may be included as required.

1170 Each transaction may have as its payload one or more forms of content, as well as specific metadata describing that content within the transaction. The specification of the payload and metadata about it are the components of a Content Integration Profile. The payload is specified in a Content Module, and the impacts of any particular payload on a transaction are described within a content binding. The payloads of each transaction are also based on standards (such as HL7, IETF, ASTM, DICOM, ISO, OASIS, etc.), again, in order to meet the needs of a specific use case.

1175 In some cases, IHE recommends selection of specific options supported by these standards. However, IHE does not introduce technical choices that contradict conformance to these standards. If errors in or extensions to existing standards are identified, IHE's policy is to report

them to the appropriate standards bodies for resolution within their conformance and standards evolution strategy.

- 1180 IHE is therefore an implementation framework, not a standard. Conformance claims for products must still be made in direct reference to specific standards. In addition, vendors who have implemented IHE integration capabilities in their products may publish IHE Integration Statements to communicate their products' capabilities. Vendors publishing IHE Integration Statements accept full responsibility for their content. By comparing the IHE Integration Statements from different products, a user familiar with the IHE concepts of actors and integration profiles can determine the level of integration between them. See PCC TF-1: Appendix C for the format of IHE Integration Statements.
- 1185

2.2 Relationship to Product Implementations

- 1190 The IHE actors and transactions described in the IHE Technical Framework are abstractions of the real-world healthcare information system environment. While some of the transactions are traditionally performed by specific product categories (e.g. HIS, Clinical Data Repository, Electronic Health record systems, Radiology Information Systems, Clinical Information Systems or Cardiology Information Systems), the IHE Technical Framework intentionally avoids associating functions or actors with such product categories. For each actor, the IHE Technical Framework defines only those functions associated with integrating information systems. The IHE definition of an actor should therefore not be taken as the complete definition of any product that might implement it, nor should the framework itself be taken to comprehensively describe the architecture of a healthcare information system.
- 1195

- 1200 The reason for defining actors and transactions is to provide a basis for defining the interactions among functional components of the healthcare information system environment. In situations where a single physical product implements multiple functions, only the interfaces between the product and external functions in the environment are considered to be significant by the IHE initiative. Therefore, the IHE initiative takes no position as to the relative merits of an integrated environment based on a single, all-encompassing information system versus one based on multiple systems that together achieve the same end.
- 1205

2.3 Relation of this Volume to the Technical Framework

The IHE Technical Framework is based on actors that interact through transactions using some form of content. Actors are information systems or components of information systems that produce, manage, or act on information associated with operational activities in the enterprise.

- 1210 Transactions are interactions between actors that transfer the required information through standards-based messages.
- The implementation of the transactions described in this PCC TF-2 support the specification of Integration Profiles defined in PCC TF-1. The role and implementation of these transactions require the understanding of the Integration profile they support.
- 1215 There is often a very clear distinction between the transactions in a messaging framework used to package and transmit information, and the information content actually transmitted in those messages. This is especially true when the messaging framework begins to move towards

mainstream computing infrastructures being adopted by the healthcare industry. In these cases, the same transactions may be used to support a wide variety of use cases in healthcare, and so more and more the content and use of the message also needs to be profiled, sometimes separately from the transaction itself. Towards this end IHE has developed the concept of a Content Integration Profile.

Content Integration Profiles specify how the payload of a transaction fits into a specific use of that transaction. A content integration profile has three main parts. The first part describes the use case. The second part is binding to a specific IHE transaction, which describes how the content affects the transaction. The third part is a Content Module, which describes the payload of the transaction. A content module is specified so as to be independent of the transaction in which it appears.

2.3.1 Content Modules

The Patient Care Coordination Technical Framework organizes content modules categorically by the base standard. At present, the PCC Technical Framework uses only one base standard, CDA Release 2.0, but this is expected to change over time. Underneath each standard, the content modules are organized using a very coarse hierarchy inherent to the standard. So for CDA Release 2.0 the modules are organized by document, section, entry, and header elements.

Each content module can be viewed as the definition of a "class" in software design terms, and has associated with it a name. Like "class" definitions in software design, a content module is a "contract", and the PCC Technical Framework defines that contract in terms of constraints that must be obeyed by instances of that content module. Each content module has a name, also known as its template identifier. The template identifiers are used to identify the contract agreed to by the content module. The PCC Technical Committee is responsible for assigning the template identifiers to each content module.

Like classes, content modules may inherit features of other content modules of the same type (Document, Section or Entry) by defining the parent content module that they inherit from. They may not inherit features from a different type. Although information in the CDA Header is in a different location than information in a CDA Entry, these two content modules are considered to be of the same type, and so may inherit from each other when necessary.

The PCC Technical Framework uses the convention that a content module cannot have more than one parent (although it may have several ancestors). This is similar to the constraint in the Java™ programming language, where classes can derive from only one parent. This convention is not due to any specific technical limitation of the technical framework, but does make it easier for software developers to implement content modules.

Each content module has a list of data elements that are required (R), required if known (R2), and optional (O). The presentation of this information varies with the type of content module, and is described in more detail below. Additional data elements may be provided by the sender that are not defined by a specific content module, but the receiver is not required to interpret them.

Required data elements must always be sent. Data elements that are required may under exceptional circumstances have an unknown value (e.g., the name of an unconscious patient). In these cases the sending application is required to indicate the reason that the data is not available.

1260 Data elements that are marked required if known (R2) must be sent when the sending application has that data available. The sending application must be able to demonstrate that it can send all required if known elements, unless it does not in fact gather that data. When the information is not available, the sending application may indicate the reason that the data is not available.

1265 Data elements that are marked optional (O) may be sent at the choice of the sending application. Since a content module may include data elements not specified by the profile, some might ask why these are specified in a content module. The reason for specifying the optional data elements is to ensure that both sender and receiver use the appropriate semantic interpretation of these elements. Thus, an optional element need not be sent, but when it is sent, the content module defines the meaning of that data element, and a receiver can always be assured of what that data element represents when it is present. Senders should not send an optional data element with an unknown value. If the value is not known, simply do not send the data element.

1270 Other data elements may be included in an instance of a content module over what is defined by the PCC Technical Framework. Receivers are not required to process these elements, and if they do not understand them, must ignore them. Thus, it is not an error to include more than is asked for, but it is an error to reject a content module because it contains more than is defined by the framework. This allows value to be added to the content modules delivered in this framework, through extensions to it that are not defined or profiled by IHE. It further allows content modules to be defined later by IHE that are refinements or improvements over previous content modules.

1275 1280 For example, there is a Referral Summary content module defined in this framework. In later years an ED Referral content module can be created that inherits the constraints of the Referral Summary content module, with a few more use case specific constraints added. Systems that do not understand the ED Referral content module but do understand the Referral Summary content module will be able to interoperate with systems that send instances of documents that conform to the ED Referral content module. This interoperability, albeit at a reduced level of functionality, is by virtue of the fact that ED Referrals are simply a refinement of the Referral Summary.

1285 1290 1295 In order to retain this capability, there are a few rules about how the PCC Technical Committee creates constraints. Constraints that apply to any content module will always apply to any content modules that inherit from it. Thus, the "contracts" are always valid down the inheritance hierarchy. Secondly, data elements of a content module will rarely be deprecated. This will usually occur only in the cases where they have been deprecated by the base standard. While any specific content module has a limited scope and set of use cases, deprecating the data element prevents any future content module from taking advantage of what has already been defined when a particular data element has been deprecated simply because it was not necessary in the original use case.

2.3.2 Document Content Module Constraints

Each document content module will define the appropriate codes used to classify the document, and will also describe the specific data elements that are included. The code used to classify it is specified using an external vocabulary, typically LOINC in the case of CDA Release 2.0 documents. The set of data elements that make up the document are defined, including the whether these data elements must, should or may be included in the document. Each data element is typically a section within the document, but may also describe information that is contained elsewhere within of the document (e.g., in the header). Each data element is mapped into a content module via a template identifier, and the document content module will further indicate whether these are data elements are required, required if known or optional. Thus, a document content module shall contain as constraints:

- The template identifier of the parent content module when there is one.
- The LOINC code or codes that shall be used to classify the document.
- A possibly empty set of required, required if known, and optional section content modules, and their template identifiers.
- A possibly empty set of required, required if known, and optional header content modules, and their template identifiers.
- Other constraints as necessary.

The template identifier for the document will be provided in the narrative, as will the legal LOINC document type codes and if present, any parent template identifier.

The remaining constraints are presented in two tables. The first table identifies the relevant data elements as determined during the technical analysis, and maps these data elements to one or more standards. The second table actually provides the constraints, wherein each data element identified in the first table is repeated, along with whether it is required, required if known, or optional. Following this column is a reference to the specification for the content module that encodes that data element, and the template identifier assigned to it. The simple example below completes the content specification described above. A simplified example is shown below.

Sample Document Specification SampleDocumentOID
Sample Document has one required section, and one entry that is required if known

2.3.2.1.1 Specification

Data Element Name	Opt	Template ID
Sample Section Comment on section	R	SampleSectionOID
Sample Entry Comment on entry	R2	SampleEntryOID

Table 2.3.2-1

2.3.2.1.2 Conformance

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below.

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
<typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
<templateId root='SampleDocumentOID'/>
<id root=' ' extension=' '/>
<code code=' ' displayName=' '
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
<title>Sample Document</title>
<effectiveTime value='20080601012005' />
<confidentialityCode code='N' displayName='Normal'
      codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
<languageCode code='en-US' />
  :
<component><structuredBody>
<component>
  <section>
    <templateId root='SampleSectionOID' />
    <!-- Required Sample Section content -->
  </section>
</component>

</structuredBody></component>
</ClinicalDocument>
```

2.3.2.1.3 Schematron

```
<pattern name='Template_SampleDocumentOID'>
<rule context="*[cda:templateId/@root='SampleDocumentOID']">
  <!-- Verify that the template id is used on the appropriate type of object -->
```

```
<assert test='..../cda:ClinicalDocument'>
    Error: The Sample Document can only be used on Clinical Documents.
</assert>
<!-- Verify the document type code -->
<assert test='cda:code[@code = "{$LOINC}"]'>
    Error: The document type code of a Sample Document must be {$LOINC}
</assert>
<assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
    Error: The document type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
</assert>
<assert test='//cda:templateId[@root = "SampleSectionOID"]'>
    <!-- Verify that all required data elements are present -->
    Error: A(n) Sample Document must contain Sample Section.
    See http://wiki.ihe.net/index.php?title=SampleDocumentOID
</assert>
<assert test='//cda:templateId[@root = "SampleEntryOID"]'>
    <!-- Alert on any missing required if known elements -->
    Warning: A(n) Sample Document should contain Sample Entry.
    See http://wiki.ihe.net/index.php?title=SampleDocumentOID
</assert>
</rule>
</pattern>
```

1325 **2.3.3 Section Content Module Constraints**

Section content modules will define the content of a section of a clinical document. Sections will usually contain narrative text, and so this definition will often describe the information present in the narrative, although sections may be wholly comprised of subsections. Sections may contain various subsections, and these may be required, required if known or optional. Sections may also contain various entries, and again, these may be required, required if known, or optional. A section may not contain just entries; it must have at least some narrative text or subsections to be considered to be valid content.

1330 1335 Again, sections can inherit features from other section content modules. Once again, sections are classified using an external vocabulary (again typically this would be LOINC), and so the list of possible section codes is also specified. Sections that inherit from other sections will not specify a LOINC code unless it is to restrict the type of section to smaller set of LOINC codes specified by one of its ancestors.

Thus, a section content module will contain as constraints:

- The template identifier of the parent content module when there is one.
- The LOINC code or codes that shall be used to classify the section.
- A possibly empty set of required, required if known, and optional section content modules, and their template identifiers for the subsections of this section.
- A possibly empty set of required, required if known, and optional entry content modules, and their template identifiers.

1345

- Other constraints as necessary.

These constraints are presented in this document using a table for each section content module, as shown below.

Sample Section		
Template ID		SampleSectionOID
Parent Template		foo (SampleParentOID)
General Description		Description of this section
LOINC Codes	Opt	Description
XXXXX-X	R	SECTION NAME
Entries	Opt	Description
OID	R	Sample Entry
Subsections	Opt	Description
OID	R	Sample Subsection

Parent Template
The parent of this template is [foo](#).

```
<component>
<section>
<templateId root='SampleParentOID'/>
<templateId root='SampleSectionOID'/>
<id root=' ' extension=' '/>
<code code=' ' displayName=' '
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'/>
<text>
  Text as described above
</text>
<entry>
  Required and optional entries as described above
</entry>

<component>
  Required and optional subsections as described above
</component>

</section>
```

2.3.4 Entry and Header Content Modules Constraints

1350

Entry and Header content modules are the lowest level of content for which content modules are defined. These content modules are associated with classes from the HL7 Reference Information Model (RIM). These "RIM" content modules will constrain a single RIM class. Entry content modules typically constrain an "Act" class or one of its subtypes, while header content modules will normally constrain "Participation", "Role" or "Entity" classes, but may also constrain an "Act" class.

- 1355 Entry and Header content modules will describe the required, required if known, and optional XML elements and attributes that are present in the CDA Release 2.0 instance. Header and Entry content modules may also be built up using other Header and Entry content modules.
- An entry or header content module may also specify constraints on the vocabularies used for codes found in the entry, or data types for the values found in the entry.
- 1360 Thus, an entry or header content module will contain as constraints:
- The template identifier of the parent content module when there is one.
 - A description of the XML elements and attributes used in the entry, along with explanations of their meaning.
 - An indication of those XML elements or attributes that are required, required if known, or optional.
 - Vocabulary domains to use when coding the entry.
 - Data types used to specify the value of the entry.
 - Other constraints as necessary.
- 1365

An example is shown below:

1370 Sample Entry

Some text describing the entry.

1375

```
<observation classCode='OBS' moodCode='EVN'>
  <templateId root='foo' />
</observation>
```

2.3.4.1.1 <observation classCode='OBS' moodCode='EVN'>

Some details about the observation element

2.3.4.1.2 <templateId root='foo' />

Some details about the template id element

3 IHE Transactions

This section defines each IHE transaction in detail, specifying the standards used, and the information transferred.

4 IHE Patient Care Coordination Bindings

1385 This section describes how the payload used in a transaction of an IHE profile is related to and/or constrains the data elements sent or received in those transactions. This section is where any specific dependencies between the content and transaction are defined.

1390 A content integration profile can define multiple bindings. Each binding should identify the transactions and content to which it applies. The source for all required and optional attributes have been defined in the bindings below. Three tables describe the three main XDS object types: XDSDocumentEntry, XDSSubmissionSet, and XDSFolder. XDSSubmissionSet and XDSDocumentEntry are required. Use of XDSFolder is optional. These concepts are universal to XDS, XDR and XDM.

The columns of the following tables are:

- 1395
- **<XXX> attribute** – name of an XDS attribute, followed by any discussion of the binding detail.
 - **Optional?** - Indicates the required status of the XDS attribute, and is one of R, R2, or O (optional). This column is filled with the values specified in the XDS Profile as a convenience.
 - **Source Type** – Will contain one of the following values:
- 1400

Source Type	Description
SA	Source document Attribute – value is copied directly from source document. The Source/Value column identifies where in the source document this attribute comes from. Specify the location in XPath when possible.
SAT	Source document Attribute with Transformation – value is copied from source document and transformed. The Source/Value column identifies where in the source document this attribute comes from. Specify the location in XPath when possible. Extended Discussion column must not be empty and the transform must be defined in the extended discussion
FM	Fixed (constant) by Mapping - for all source documents. Source/Value column contains the value to be used in all documents.
FAD	Fixed by Affinity Domain – value configured into Affinity Domain, all documents will use this value.
CAD	Coded in Affinity Domain – a list of acceptable codes are to be configured into Affinity Domain. The value for this attribute shall be taken from this list.
CADT	Coded in Affinity Domain with Transform - a list of acceptable codes are to be configured into Affinity Domain. The value for this attribute shall be taken from this list.
n/a	Not Applicable – may be used with an optionality R2 or O attribute to indicate it is not to be used.
DS	Document Source – value comes from the Document Source actor. Use Source/Value column or Extended Discussion to give details.
O	Other – Extended Discussion must be 'yes' and details given in an Extended Discussion.

- **Source/Value** – This column indicates the source or the value used.

The following tables are intended to be summaries of the mapping and transforms. The accompanying sections labeled 'Extended Discussion' are to contain the details as necessary.

4.1 Medical Document Binding to XDS, XDM and XDR

- 1405 This binding defines a transformation that generates metadata for the XDSDocumentEntry element of appropriate transactions from the XDS, XDM and XDR profiles given a medical document and information from other sources. The medical document refers to the document being stored in a repository that will be referenced in the registry. The other sources of information include the configuration of the Document Source actor, the Affinity Domain, the site or facility, local agreements, other documents in the registry/repository, and this Content Profile.
- 1410 In many cases, the CDA document is created for the purposes of sharing within an affinity domain. In these cases the context of the CDA and the context of the affinity domain are the same, in which case the following mappings shall apply.
In other cases, the CDA document may have been created for internal use, and are subsequently being shared. In these cases the context of the CDA document would not necessarily coincide with that of the affinity domain, and the mappings below would not necessarily apply.
- 1415 Please note the specifics given in the table below.

4.1.1 XDSDocumentEntry Metadata

XDSDocumentEntry Attribute	Optional?	Source Type	Source/ Value
availabilityStatus	R	DS	
authorInstitution	R2	SAT	\$inst <= /ClinicalDocument/author /assignedAuthor /representedOrganization The authorInstitution can be formatted using the following XPath expression, where \$inst in the expression below represents concat(\$inst/name)
authorPerson	R2	SAT	\$person <= /ClinicalDocument/author The author can be formatted using the following XPath expression, where \$person

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			<pre>the author. concat(\$person/id/@extension,"^", \$person/assignedPerson/name/family,"^", \$person/assignedPerson/name/given[1],"^", \$person/assignedPerson/name/given[2],"^", \$person/assignedPerson/name/suffix,"^", \$person/assignedPerson/name/prefix,"^", "^^& ", \$person/id/@root,"&ISO")</pre>
authorRole	R2	SAT	<p>This metadata element should be based on a mapping of the participation function to the set of author roles configured for the affinity domain. If the context of the CDA is the Clinical Document, then the following x-path may be appropriate:</p> <p>/ClinicalDocument/author/participationFunction</p>
authorSpecialty	R2	SAT	<p>This metadata element should be based on a mapping of the code associated with the defined classification system for healthcare providers such configured in the affinity domain. If the context of the CDA is the Clinical Document, then the following x-path may be appropriate:</p> <p>/ClinicalDocument/author/assignedAuthor/code</p>
classCode	R	CADT	<p>Derived from a mapping of /ClinicalDocument/code/@code to an Affinity Domain coding system. Affinity Domains are encouraged to use the appropriate value for The LOINC Type of Service (see Page 53 of the LOINC User's Manual). Must be consistent with /ClinicalDocument/code/@code</p>
classCodeDisplayName	R	CADT	<p>Display Name of the classCode derived. Derived from a mapping of /ClinicalDocument/code to an appropriate Display Name based on the Type of Service. Must be Consistent with /ClinicalDocument/code</p>
confidentialityCode	R	CADT	<p>Derived from a mapping of /ClinicalDocument/confidentialityCode/@code to an Affinity Domain value and coding system. When using the BPPC profile, the confidentialityCode maps to the <authorization> element.</p> <p>/ClinicalDocument/confidentialityCode/@code -AND/OR- /ClinicalDocument/authorization/consent[templateId/@root='1.3.6.1.4.1.19376.1.5.3.1.2.5']</p>

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] <code>/code/@code</code>
comments	O	DS	
creationTime	R	SAT	/ClinicalDocument/effectiveTime Times specified in clinical documents may be specified with a precision in fraction zone offset. In the XDS Metadata, it can be precise to the second, and is always given if present must be added to the current time to obtain the UTC time.
entryUUID	R	DS	
eventCodeList	O	CADT	These values express a collection of keywords that may be relevant to the consumer. They may come from anywhere in the CDA document, according to its purpose.
eventCodeDisplayNameList	R (if event Code is valued)	CADT	These are the display names for the collection of keywords described above.
formatCode	R	FM	The format code for each PCC Document content profile is provided within the document.
healthcareFacilityTypeCode	R	CAD	A fixed value assigned to the Document Source and configured form a set of Affinities. Must be concistent with /clinicalDocument/code
healthcareFacilityTypeCodeDisplayName	R	CAD	Must be concistent with /clinicalDocument/code
intendedRecipient (for XDR, XDM)	O	SAT	\$person <= /ClinicalDocument/intendedRecipient and/or \$inst <= /ClinicalDocument/intendedRecipient/receivedOrganization The intendedRecipient can be formed using the following XPath expression, where \$inst in the expression below represents the intendedRecipient. concat(\$person/id/@extension,"^", \$person/informationRecipient/name/family,"^", \$person/informationRecipient/name/given[1],"^", \$person/informationRecipient/name/given[2],"^", \$person/informationRecipient/name/suffix,"^", \$person/informationRecipient/name/prefix,"^",

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			"^^^&", \$person/id/@root,"&ISO", " " \$inst/name) "^^^^^&", \$inst/id/@root, "&ISO", "^^^^", \$inst/id/@extension) -->
languageCode	R	SA	/ClinicalDocument/languageCode
legalAuthenticator	O	SAT	\$person <= /ClinicalDocument/legalAuthenticator The legalAuthenticator can be formatted using the following XPath expression, which below represents the legalAuthenticator. concat(\$person/id/@extension,"^", \$person/assignedPerson/name/family,"^", \$person/assignedPerson/name/given[1],"^", \$person/assignedPerson/name/given[2],"^", \$person/assignedPerson/name/suffix,"^", \$person/assignedPerson/name/prefix,"^", "^^^&", \$person/id/@root,"&ISO")
mimeType	R	FM	text/xml
parentDocumentRelationship	R (when applicable)	DS	Local document versions need not always be published, and so no exact mapping of the CDA document. The parentDocumentRelationship may be determined in some configurations from present in the CDA document. If the context of the CDA coincides with that of the following x-path may be appropriate: /ClinicalDocument/relatedDocument/@typeCode
parentDocumentId	R (when parent Document Relationship is present)	DS	Local document versions need not always be published, and so no exact mapping of the CDA document. The parentDocumentId may be determined in some configurations from the related CDA document. If the context of the CDA coincides with that of the affinity domain be appropriate: \$docID <= /ClinicalDocument/relatedDocument/parentDocument/id The parentDocumentId can be formatted using the following XPath expression, which below represents the identifier.

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			concat(\$docID/@root,"^", \$docID/@extension)
patientId	R	DS	The XDS Affinity Domain patient ID can be mapped from the patientRole/id element in the PIX or PDQ profiles. See sourcePatientId below. If the context of the CDA coincides with the XDS Affinity Domain, then the following x-path may be appropriate: \$patID <= /ClinicalDocument/recordTarget/patientRole/id
practiceSettingCode	R	CAD	This elements should be based on a coarse classification system for the class of practice setting. This element shall contain the display names associated with the codes described above.
practiceSettingCodeDisplayName	R	CAD	This element shall contain the display names associated with the codes described above.
serviceStartTime	R2	SAT	/ClinicalDocument/documentationOf/serviceEvent/effectiveTime/low/@value Times specified in clinical documents may be specified with a precision in fractions of a second. The zone offset. In the XDS Metadata, it can be precise to the second, and is always given in UTC time. The value if present must be added to the current time to obtain the UTC time.
serviceStopTime	R2	SAT	/ClinicalDocument/documentationOf/serviceEvent/effectiveTime/high/@value Times specified in clinical documents may be specified with a precision in fractions of a second. The zone offset. In the XDS Metadata, it can be precise to the second, and is always given in UTC time. The value if present must be added to the current time to obtain the UTC time.
sourcePatientId	R	SAT	\$patID <= /ClinicalDocument/recordTarget/patientRole/id The patientId can be formatted using the following XPath expression, where \$patID represents the appropriate identifier. concat(\$patID/@extension, "^^^&", \$patID/@root, "&ISO")
sourcePatientInfo	R	SAT	/ClinicalDocument/recordTarget/patientRole The sourcePatientInfo metadata element can be assembled from various components.

			clinical document.
title	O	SA	/ClinicalDocument/title
typeCode	R	CADT	/ClinicalDocument/code/@code The typeCode should be mapped from the ClinicalDocument/code element to a set configured in the affinity domain. One suggested coding system to use for typeCode mapping step can be omitted.
typeCodeDisplayName	R	CADT	/ClinicalDocument/code/@displayName
uniqueId	R	SAT	\$docID <= /ClinicalDocument/id The uniqueId can be formatted using the following XPath expression, where \$doc represents the identifier. concat(\$docID/@root,"^", \$docID/@extension)

4.1.2 XDSSubmissionSet Metadata

The submission set metadata is as defined for XDS, and is not necessarily affected by the content of the clinical document. Metadata values in an XDSSubmissionSet with names identical to those in the XDSDocumentEntry may be inherited from XDSDocumentEntry metadata, but this is left to affinity domain policy and/or application configuration.

1420

4.1.3 Use of XDS Submission Set

This content format uses the XDS Submission Set to create a package of information to send from one provider to another. All documents referenced by the Medical Summary in this Package must be in the submission set.

4.1.4 Use of XDS Folders

1425

No specific requirements identified.

4.1.5 Configuration

IHE Content Profiles using this binding require that Content Creators and Content Consumers be configurable with institution and other specific attributes or parameters. Implementers should be aware of these requirements to make such attributes easily configurable. There shall be a mechanism for the publishing and distribution of style sheets used to view clinical documents.

1430

4.2 Extensions from other Domains

4.2.1 Scanned Documents (XDS-SD)

4.2.2 Basic Patient Privacy Consents (BPPC)

4.2.3 Laboratory Reports (XD-LAB)

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(EDES)

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5 Namespaces and Vocabularies

This section lists the namespaces and identifiers defined or referenced by the IHE PCC Technical Framework, and the vocabularies defined or referenced herein.

The following vocabularies are referenced in this document. An extensive list of registered vocabularies can be found at <http://hl7.amg-hq.net/oid/frames.cfm>.

codeSystem	codeSystemName	Description
1.3.6.1.4.1.19376.1.5.3.1	IHE PCC Template Identifiers	This is the root OID for all IHE PCC Templates. A list of PCC templates can be found below in CDA Release 2.0 Content Modules .
1.3.6.1.4.1.19376.1.5.3.2	IHEActCode	See IHEActCode Vocabulary below
1.3.6.1.4.1.19376.1.5.3.3	IHE PCC RoleCode	See IHERoleCode Vocabulary below
1.3.6.1.4.1.19376.1.5.3.4		Namespace OID used for IHE Extensions to CDA Release 2.0
2.16.840.1.113883.10.20.1	CCD Root OID	Root OID used for by ASTM/HL7 Continuity of Care Document
2.16.840.1.113883.5.112	RouteOfAdministration	See the HL7 RouteOfAdministration Vocabulary
2.16.840.1.113883.5.1063	SeverityObservation	See the HL7 SeverityObservation Vocabulary
2.16.840.1.113883.6.1	LOINC	Logical Observation Identifier Names and Codes
2.16.840.1.113883.6.96	SNOMED-CT	SNOMED Controlled Terminology
2.16.840.1.113883.6.103	ICD-9CM (diagnosis codes)	International Classification of Diseases, Clinical Modifiers, Version 9
2.16.840.1.113883.6.104	ICD-9CM (procedure codes)	International Classification of Diseases, Clinical Modifiers, Version 9
2.16.840.1.113883.6.26	MEDCIN	A classification system from MEDICOMP Systems.
2.16.840.1.113883.6.88	RxNorm	RxNorm
2.16.840.1.113883.6.63	FDDC	First DataBank Drug Codes
2.16.840.1.113883.6.12	C4	Current Procedure Terminology 4 (CPT-4) codes.
2.16.840.1.113883.6.257	Minimum Data Set for Long Term Care	The root OID for Minimum Data Set Answer Lists

1440

5.1 IHE Format Codes

The table below lists the format codes, template identifiers and media types used by the IHE Profiles specified in the PCC Technical Framework, and also lists, for reference purposes the same values for other selected IHE Profiles from other committees.

Note that the code system for these codes is **1.3.6.1.4.1.19376.1.2.3** as assigned by the ITI

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- 1445 Domain for codes used for the purposes of cross-enterprise document sharing (XDS). For more information see [XDS Coding System \(1.3.6.1.4.1.19376.1.2.3\)](#).

Profile	Format Code	Media Type	Template ID
2006 Profiles			
Medical Summaries (XDS-MS)	urn:ihe:pcc:xds-ms:2007	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.3 (Referral) 1.3.6.1.4.1.19376.1.5.3.1.1.4 (Discharge Summary)
2007 Profiles			
Exchange of Personal Health Records (XPHR)	urn:ihe:pcc:xphr:2007	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.5 (Extract) 1.3.6.1.4.1.19376.1.5.3.1.1.6 (Update)
Emergency Department Referral (EDR)	urn:ihe:pcc:edr:2007	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.10
2008 Profiles			
Antepartum Summary (APS)	urn:ihe:pcc:aps:2007	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.11.2
Emergency Department Encounter Summary (EDES)	urn:ihe:pcc:edes:2007	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1 (Triage Note) 1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2 (Nursing Note) 1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3 (Composite Triage and Nursing Note) 1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4 (Physician Note)
2009 Profiles			
Antepartum Record (APR) - History and Physical	urn:ihe:pcc:apr:handp:2008	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.16.1.1 (Antepartum History and Physical)
Antepartum Record (APR) - Laboratory	urn:ihe:pcc:apr:lab:2008	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.16.1.2 (Antepartum Laboratory)
Antepartum Record (APR) - Education	urn:ihe:pcc:apr:edu:2008	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.16.1.3 (Antepartum Education)
Immunization Registry Content (IRC)	urn:ihe:pcc:irc:2008	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.18.1.2 (Immunization Detail)
Cancer Registry Content (CRC)	urn:ihe:pcc:crc:2008	text/xml	
Care Management (CM)	urn:ihe:pcc:cm:2008	text/xml	
ITI Profiles			
Scanned Documents (PDF)	urn:ihe:iti:xds-ss:pdf:2008	text/xml	1.3.6.1.4.1.19376.1.2.20 (Scanned Document)

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Scanned Documents (text)	rn:ihe:iti:xds-sd:text:2008	text/xml	1.3.6.1.4.1.19376.1.2.20 (Scanned Document)
Basic Patient Privacy Consents	urn:ihe:iti:bppc:2007	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.7 (BPPC with <i>no</i> scanned part)
Basic Patient Privacy Consents with Scanned Document	urn:ihe:iti:bppc-sd:2007	text/xml	1.3.6.1.4.1.19376.1.5.3.1.1.7.1 (BPPC with scanned part)
LAB Profiles			
CDA Laboratory Report	urn:ihe:lab:xd-lab:2008	text/xml	1.3.6.1.4.1.19376.1.3.3 (Laboratory Report)

5.2 IHEActCode Vocabulary

CCD ASTM/HL7 Continuity of Care Document

CCR ASTM CCR Implementation Guide

The IHEActCode vocabulary is a small vocabulary of clinical acts that are not presently supported by the HL7 ActCode vocabulary. The root namespace (OID) for this vocabulary is 1450 1.3.5.1.4.1.19376.1.5.3.2. These vocabulary terms are based on the vocabulary and concepts used in the CCR and CCD standards listed above.

Code	Description
COMMENT	This is the act of commenting on another act.
PINSTRUCT	This is the act of providing instructions to a patient regarding the use of medication.
FINSTRUCT	This is the act of providing instructions to the supplier regarding the fulfillment of the medication order.
IMMUNIZ	The act of immunization of a patient using a particular substance or class of substances identified using a specified vocabulary. Use of this vocabulary term requires the use of either the SUBSTANCE or SUBSTCLASS qualifier described below, along with an identified substance or class of substances.
DRUG	The act of treating a patient with a particular substance or class of substances identified using a specified vocabulary. Use of this vocabulary term requires the use of either the SUBSTANCE or SUBSTCLASS qualifier described below, along with an identified substance or class of substances.
INTOL	An observation that a patient is somehow intollerant of (e.g., allergic to) a particular substance or class of substances using a specified vocabulary. Use of this vocabulary term requires the use of either the SUBSTANCE or SUBSTCLASS qualifier described below, along with an identified substance or class of substances.
SUBSTANCE	A qualifier that identifies the substance used to treat a patient in an immunization or drug treatment act. The substance is expected to be identified using a vocabulary such as RxNORM, SNOMED CT or other similar vocabulary and should be specific enough to identify the ingredients of the substance used.
SUBSTCLASS	A qualifier that identifies the class of substance used to treat a patient in an immunization or drug treatment act. The class of substances is expected to be identified using a vocabulary such as NDF-RT, SNOMED CT or other similar vocabulary, and should be broad enough to classify substances by mechanism of action (e.g., Beta Blocker), intended effect (Diuretic, antibiotic) or ...

5.3 IHERoleCode Vocabulary

The IHERoleCode vocabulary is a small vocabulary of role codes that are not presently supported by the HL7 Role Code vocabulary. The root namespace (OID) for this vocabulary is 1.3.5.1.4.1.19376.1.5.3.3.

Code	Description
EMPLOYER	The employer of a person.
SCHOOL	The school in which a person is enrolled.
AFFILIATED	An organization with which a person is affiliated (e.g., a volunteer organization).
PHARMACY	The pharmacy a person uses.

6 HL7 Version 3.0 Content Modules

This section contains content modules based upon the HL7 CDA Release 2.0 Standard, and related standards and/or implementation guides.

6.1 CDA Document Content Modules

1460 6.1.1 Medical Documents Specification 1.3.6.1.4.1.19376.1.5.3.1.1.1

This section defines the base set of constraints used by almost all medical document profiles described the PCC Technical Framework.

6.1.1.1 Standards

CDAR2 [HL7 CDA Release 2.0](#)

CDTHP [CDA for Common Document Types History and Physical Notes \(DSTU\)](#)

XMLXSL [Associating Style Sheets with XML documents](#)

6.1.1.2 Conformance

1465 CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below.

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.1' />
  <id root=' ' extension=' '/>
  <code code=' ' displayName=' ' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <title>Medical Documents</title>
  <effectiveTime value='20081110012005' />
  <confidentialityCode code='N' displayName='Normal' codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US' />
  :
  <component><structuredBody>
    </structuredBody></component>
  </ClinicalDocument>
```

Figure 6.1-1 Sample Medical Documents Document

```

1485    <!-- Verify the document type code -->
<assert test='cda:code[@code = "{{{LOINC}}}}"]'>
    Error: The document type code of a Medical Documents must be {{{LOINC}}}}
</assert>
1490    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
    Error: The document type code must come from the LOINC code
    system (2.16.840.1.113883.6.1).
</assert>

```

6.1.1.3 Specification

The constraints for encoding of the CDA Header (Level 1) can be found in the CDA for Common Document Types History and Physical Implementation Guide, in the section 2. CDA Header -- General Constraints.

- IHE Medical Documents **SHALL** follow all constraints found in that section with the exception of the constraint on realmcode found in **CONF-HP-15**.
- IHE Medical Documents which are implemented for the US Realm **SHALL** follow ALL constraints found in that section, and **SHALL** use both the IHE Medical Document templateId (1.3.6.1.4.1.19376.1.5.3.1.1.1) and the HL7 General Header Constraints templateId (2.16.840.1.113883.10.20.3).}}

Realm	Constraints	Template IDs Required
Universal	CONF-HP-1 through CONF-HP-14 CONF-HP-16 through CONF-HP-52	1.3.6.1.4.1.19376.1.5.3.1.1.1
US	CONF-HP-1 through CONF-HP-52	1.3.6.1.4.1.19376.1.5.3.1.1.1 2.16.840.1.113883.10.20.3

6.1.1.4 Style Sheets

Document sources **SHOULD** provide an XML style sheet to render the content of the Medical Summary document. The output of this style sheet **SHALL** be an XHTML Basic (see <http://www.w3.org/TR/xhtml-basic/>) document that renders the clinical content of a Medical Summary Document as closely as possible as the sending provider viewed the completed document. When a style sheet is provided, at least one processing instruction **SHALL** be included in the document that including a link to the URL for the XML style sheet. To ensure that the style sheet is available to all receivers, more than one stylesheet link **MAY** be included.

When a stylesheet is used within an XDS Affinity domain, the link to it **SHALL** be provided using an HTTPS or HTTP URL.

```
<?xmlstylesheet href='https://foobar:8080/mystylesheet.xsl' type='text/xsl'?>
```

When using XDM or XDR to exchange documents, the stylesheet **SHALL** also be exchanged on the media. The link to the stylesheet **SHALL** be recorded as a relative URL.

```
<?xmlstylesheet href='../../../../stylesheets/mystylesheet.xsl' type='text/xsl'?>
```

Style sheets **SHOULD NOT** rely on graphic or other media resources. If graphics other media

- 1520 resources are used, these **SHALL** be accessible in the same way as the stylesheet. The Content Creator **NEED NOT** be the provider of the resources (stylesheet or graphics).
When a Content Creator provides a style sheet, Content Consumers **MUST** provide a mechanism to render the document with that style sheet. Content Consumers **MAY** view the document with their own style sheet.
- 1525 To record the stylesheet within a CDA Document that might be used in both an XDS and XDM environment, more than one stylesheet processing instruction is required. In this case, all style sheet processing instructions included **MUST** include the alternate='yes' attribute.

```
<?xml-stylesheet href='https://foobar:8080/mystylesheet.xsl' type='text/xsl' alternate='yes'?>
<?xml-stylesheet href='.../stylesheets/mystylesheet.xsl' type='text/xsl' alternate='yes'?>
```
- 1530 A Content Consumer that is attempting to render a document using the document supplied stylesheet **MAY** use the first style sheet processing instruction for which it is able to obtain the style sheet content, and **SHALL NOT** report any errors if it is able to find at least one stylesheet to render with.
- #### 6.1.1.5 Distinctions of None
- 1535 Information that is sent **MUST** clearly identify distinctions between
None
It is known with complete confidence that there are none. Used in the context of problem and medication lists, this indicates that the sender knows that there is no relevant information that can be sent.
- 1540 None Known
None are known at this time, but it is not known with complete confidence than none exist. Used in the context of allergy lists, where essentially, it is impossible to prove the negative that no allergies exist, it is only possible to assert that none have been found to date.
- 1545 None Known Did Ask
None are known at this time, and it is not known with complete confidence than none exist, but the information was requested. Also used in the context of allergy lists, where essentially, it is impossible to prove the negative that no allergies exist, it is only possible to assert that none have been found to date.
- 1550 Unknown
The information is not known, or is otherwise unavailable.
In the context of CDA, sections that are required to be present but have no information should use one of the above phrases where appropriate.
An appropriate machine readable entry shall be present for problems, medications and allergies to indicate the reason that no information. Codes for recording unknown or no information are provided in the section on the [Problem](#), [Allergy](#) and [Medications](#) Entry.

6.1.2 Medical Summary Specification 1.3.6.1.4.1.19376.1.5.3.1.1.2

A medical summary contains a snapshot of the patient's medical information, including at the very least, a list of the patients problems, medications and allergies. A Medical Summary is an abstract template that is expected to be further refined by additional document templates.

6.1.2.1 Parent Template

This document is an instance of the [Medical Document](#) template.

6.1.2.2 Standards

CDAR2 [HL7 CDA Release 2.0](#)

6.1.2.3 Specification

Data Element Name	Opt	Template ID
Problem Concern Entry	R	1.3.6.1.4.1.19376.1.5.3.1.4.5.2
Allergy Concern Entry	R	1.3.6.1.4.1.19376.1.5.3.1.4.5.3
Medications	R	1.3.6.1.4.1.19376.1.5.3.1.4.7

6.1.2.4 Conformance

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the [Medical Document](#) content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.1' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.2' />
  <id root=' ' extension=' '/>
  <code code=' ' displayName=' '
    codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <title>Medical Summary</title>
  <effectiveTime value='20081110012005' />
  <confidentialityCode code='N' displayName='Normal'
    codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US' />
  :
  <component><structuredBody>
    </structuredBody></component>
  </ClinicalDocument>
```

Figure 6.1-2 Sample Medical Summary Document

1590 **6.1.2.5 Schematron**

```
<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.2'>
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.2"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:ClinicalDocument'>
        Error: The Medical Summary can only be used on Clinical Documents.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.1"]'>
        Error: The parent template identifier for Medical Summary is not present.
    </assert>
    <!-- Verify the document type code -->
    <assert test='cda:code[@code = "{{{LOINC}}}}]"'>
        Error: The document type code of a Medical Summary must be {{{LOINC}}}
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The document type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.5.2"]'>
        <!-- Verify that all required data elements are present -->
        Error: The Medical Summary Document must contain a(n) Problem Concern Entry Entry.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.2
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.5.3"]'>
        <!-- Verify that all required data elements are present -->
        Error: The Medical Summary Document must contain a(n) Allergy Concern Entry Entry.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.2
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.7"]'>
        <!-- Verify that all required data elements are present -->
        Error: The Medical Summary Document must contain a(n) Medications Entry.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.2
    </assert>
</rule>
</pattern>
```

6.1.2.6 Document Specification

A medical summary is a type of medical document, and incorporates the constraints defined for [Medical Documents](#), and requires the recording of Problems, Allergies and Medications.

6.1.3 Triage Note Specification 1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1

1630 The triage note specification includes sections for data commonly captured during the initial triage assessment of the patient. It includes arrival data, historical information about the patient, vital signs, assessments, and interventions.

6.1.3.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:edes:2007**

1635 **6.1.3.2 Parent Template**

This document is an instance of the [Medical Document](#) template.

6.1.3.3 LOINC Code

The LOINC code for this document is **X-TRIAGE** Triage Note

6.1.3.4 Data Element Index

Data Element	LOINC
Chief Complaint	10154-3 CHIEF COMPLAINT
Reason for Visit	29299-6 REASON FOR VISIT
Mode of Arrival	11459-5 TRANSPORT MODE
History of Present Illness	10164-2 HISTORY OF PRESENT ILLNESS
History of Past Illness	11348-0 HISTORY OF PAST ILLNESS
List of Surgeries	47519-4 HISTORY OF PRIOR SURGERIES
Immunizations	11369-6 HISTORY OF IMMUNIZATIONS
Family History	10157-6 HISTORY OF FAMILY ILLNESS
Social History	29762-2 SOCIAL HISTORY
History of Pregnancies	10162-6 HISTORY OF PREGNANCIES
Current Medications	10160-0 CURRENT MEDICATIONS
Allergies	48765-2 ALLERGIES, ADVERSE REACTIONS, ALERTS
Acuity Assessment	11283-9 ACUITY ASSESSMENT
Vital Signs	8716-3 VITAL SIGNS
Assessments	X-ASSESS ASSESSMENTS
Procedures and Interventions	X-PROC
Medications Administered	18610-6 MEDICATION ADMINISTERED (COMPOSITE)
Intravenous Fluids Administered	X-IVFLU INTRAVENOUS FLUID ADMINISTERED (COMPOSITE)

1640

6.1.3.5 Specification

Data Element Name	Opt	Template ID
Chief Complaint	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1
Reason for Visit	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1
Mode of Arrival	R	1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2
History of Present Illness	R	1.3.6.1.4.1.19376.1.5.3.1.3.4
History of Past Illness	R2	1.3.6.1.4.1.19376.1.5.3.1.3.8
List of Surgeries	R2	1.3.6.1.4.1.19376.1.5.3.1.3.11
Immunizations	R2	1.3.6.1.4.1.19376.1.5.3.1.3.23
Family History	R2	1.3.6.1.4.1.19376.1.5.3.1.3.14

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

Social History	R2	1.3.6.1.4.1.19376.1.5.3.1.3.16
History of Pregnancies This section should contain one entry containing the date (TS) of last menstrual period for women of childbearing age, using LOINC Code 8665-2 DATE LAST MENSTRUAL PERIOD	R2	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4
Current Medications	R	1.3.6.1.4.1.19376.1.5.3.1.3.19
Allergies	R	1.3.6.1.4.1.19376.1.5.3.1.3.13
Acuity Assessment	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2
Vital Signs	R	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2
Assessments	R2	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4
Procedures and Interventions	R2	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11
Medications Administered	R2	1.3.6.1.4.1.19376.1.5.3.1.3.21
Intravenous Fluids Administered	R2	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6

6.1.3.6 Conformance

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the [Medical Document](#) content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.

1645

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.1' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1' />
  <id root=' ' extension=' '/>
  <code code='X-TRIAGE' displayName='Triage Note'
    codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <title>Triage Note</title>
  <effectiveTime value='20081110012005' />
  <confidentialityCode code='N' displayName='Normal'
    codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US' />
  :
  <component><structuredBody>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1' />
        <!-- Required Chief Complaint Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1' />
        <!-- Required Reason for Visit Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2' />
        <!-- Required Mode of Arrival Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.4' />
        <!-- Required History of Present Illness Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.8' />
        <!-- Required if known History of Past Illness Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.11' />
        <!-- Required if known List of Surgeries Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.23' />
        <!-- Required if known Immunizations Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.14' />
        <!-- Required if known Family History Section content -->
      </section>
    </component>
  </structuredBody>
</component>
```

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.16'>
      <!-- Required if known Social History Section content -->
    </section>
  </component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4'>
      <!-- Required if known History of Pregnancies Section content -->
    </section>
  </component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.19'>
      <!-- Required Current Medications Section content -->
    </section>
  </component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.13'>
      <!-- Required Allergies Section content -->
    </section>
  </component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2'>
      <!-- Required Acuity Assessment Section content -->
    </section>
  </component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2'>
      <!-- Required Vital Signs Section content -->
    </section>
  </component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4'>
      <!-- Required if known Assessments Section content -->
    </section>
  </component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11'>
      <!-- Required if known Procedures and Interventions Section content -->
    </section>
  </component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.21'>
      <!-- Required if known Medications Administered Section content -->
    </section>
  </component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6'>
```

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(EDES)

1785

```
<!-- Required if known Intravenous Fluids Administered Section content -->
</section>
</component>
```

1790

```
</structuredBody></component>
</ClinicalDocument>
```

Figure 6.1-3 Sample Triage Note Document

6.1.3.7 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:ClinicalDocument'>
      Error: The Triage Note can only be used on Clinical Documents.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1"]'>
      Error: The parent template identifier for Triage Note is not present.
    </assert>
    <!-- Verify the document type code -->
    <assert test='cda:code[@code = "X-TRIAGE"]'>
      Error: The document type code of a Triage Note must be X-TRIAGE
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The document type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Triage Note Document must contain a(n) Chief Complaint Section.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Triage Note Document must contain a(n) Reason for Visit Section.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Triage Note Document must contain a(n) Mode of Arrival Section.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.4"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Triage Note Document must contain a(n) History of Present Illness Section.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.8"]'>
      <!-- Alert on any missing required if known elements -->
      Warning: The Triage Note Document should contain a(n) History of Past Illness Section.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.11"]'>
      <!-- Alert on any missing required if known elements -->
      Warning: The Triage Note Document should contain a(n) List of Surgeries Section.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.23"]'>
      <!-- Alert on any missing required if known elements -->
      Warning: The Triage Note Document should contain a(n) Immunizations Section.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.14"]'>
      <!-- Alert on any missing required if known elements -->
      Warning: The Triage Note Document should contain a(n) Family History Section.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.16"]'>
      <!-- Alert on any missing required if known elements -->
      Warning: The Triage Note Document should contain a(n) Social History Section.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4"]'>
      <!-- Alert on any missing required if known elements -->
      Warning: The Triage Note Document should contain a(n) History of Pregnancies Section.
    </assert>

```

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
1860      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
</assert>
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.19"]'>
  <!-- Verify that all required data elements are present -->
  Error: The Triage Note Document must contain a(n) Current Medications Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
</assert>
1865      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.13
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.13"]'>
  <!-- Verify that all required data elements are present -->
  Error: The Triage Note Document must contain a(n) Allergies Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
</assert>
1870      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2"]'>
  <!-- Verify that all required data elements are present -->
  Error: The Triage Note Document must contain a(n) Acuity Assessment Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
</assert>
1875      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2"]'>
  <!-- Verify that all required data elements are present -->
  Error: The Triage Note Document must contain a(n) Vital Signs Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
</assert>
1880      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The Triage Note Document should contain a(n) Assessments Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
</assert>
1885      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The Triage Note Document should contain a(n) Procedures and Interventions Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
</assert>
1890      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.21
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.21"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The Triage Note Document should contain a(n) Medications Administered Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
</assert>
1895      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The Triage Note Document should contain a(n) Intravenous Fluids Administered
Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
</assert>
1900      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.1
</rule>
</pattern>
```

6.1.4 ED Nursing Note Specification 1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2

1905 The ED Nursing Note specification includes sections for data commonly captured during the ongoing care of the ED patient. It includes vital signs, ongoing assessments, and interventions.

6.1.4.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:edes:2007**

6.1.4.2 Parent Template

1910 This document is an instance of the [Medical Document](#) template.

6.1.4.3 LOINC Code

The LOINC code for this document is **X-NN Nursing Note**

6.1.4.4 Data Element Index

Data Element	LOINC
Vital Signs	8716-3 VITAL SIGNS
Assessments	X-ASSESS ASSESSMENTS
Procedures and Interventions	X-PROC PROCEDURES PERFORMED
Medications Administered	18610-6 MEDICATION ADMINISTERED (COMPOSITE)
Intravenous Fluids Administered	X-IVFLU INTRAVENOUS FLUID ADMINISTERED (COMPOSITE)
ED Disposition	11302-7 ED DISPOSITION

6.1.4.5 Specification

Data Element Name	Opt	Template ID
Vital Signs	R	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2
Assessments Record of assessments of the patient's condition	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4
Functional Status Assessments Record of assessments of patient's functional status	O	1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1
Procedures and Interventions This section is used to record interventions or nursing procedures performed	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11
Medications Administered	R	1.3.6.1.4.1.19376.1.5.3.1.3.21
Intravenous Fluids Administered	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6
ED Disposition	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10

1915 **6.1.4.6 Conformance**

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the [Medical Document](#) content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.

1920

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.1' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2' />
  <id root=' ' extension=' '/>
  <code code='X-NN' displayName='Nursing Note'
    codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <title>ED Nursing Note</title>
  <effectiveTime value='20081110012005' />
  <confidentialityCode code='N' displayName='Normal'
    codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US' />
  :
  <component><structuredBody>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.25' />
        <!-- Required Vital Signs Section content -->
      </section>
    </component>
  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4' />
      <!-- Required Assessments Section content -->
    </section>
  </component>
  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1' />
      <!-- Optional Functional Status Assessments Section content -->
    </section>
  </component>
  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11' />
      <!-- Required Procedures and Interventions Section content -->
    </section>
  </component>
  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.21' />
      <!-- Required Medications Administered Section content -->
    </section>
  </component>
  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6' />
      <!-- Required Intravenous Fluids Administered Section content -->
    </section>
  </component>
  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10' />
      <!-- Required ED Disposition Section content -->
    </section>
  </component>
  </structuredBody></component>
</ClinicalDocument>
```

Figure 6.1-4 Sample Triage Note Document

6.1.4.7 Schematron

1990	<pre><pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2'> <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2"]'> <!-- Verify that the template id is used on the appropriate type of object --> <assert test='../../cda:ClinicalDocument'> Error: The ED Nursing Note can only be used on Clinical Documents. </assert> <!-- Verify that the parent templateId is also present. --> <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1"]'> Error: The parent template identifier for ED Nursing Note is not present. </assert> <!-- Verify the document type code --> <assert test='cda:code[@code = "X-NN"]'> Error: The document type code of a ED Nursing Note must be X-NN </assert> <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'> Error: The document type code must come from the LOINC code system (2.16.840.1.113883.6.1). </assert> <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.25"]'> <!-- Verify that all required data elements are present --> Error: The ED Nursing Note Document must contain a(n) Vital Signs Section. See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2 </assert> <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4"]'> <!-- Verify that all required data elements are present --> Error: The ED Nursing Note Document must contain a(n) Assessments Section. See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2 </assert> <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1"]'> <!-- Note any missing optional elements --> Note: This ED Nursing Note Document does not contain a(n) Functional Status Assessments Section. See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2 </assert> <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11"]'> <!-- Verify that all required data elements are present --> Error: The ED Nursing Note Document must contain a(n) Procedures and Interventions Section. See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2 </assert> <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.21"]'> <!-- Verify that all required data elements are present --> Error: The ED Nursing Note Document must contain a(n) Medications Administered Section. See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2 </assert> <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6"]'> <!-- Verify that all required data elements are present --> Error: The ED Nursing Note Document must contain a(n) Intravenous Fluids Administered Section. See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2 </assert> <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10"]'> <!-- Verify that all required data elements are present --> Error: The ED Nursing Note Document must contain a(n) ED Disposition Section. See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.2 </assert> </rule> </pattern></pre>
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6.1.5 Composite Triage and Nursing Note Specification

1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3

The Composite Triage and ED Nursing Note specification may be employed where the ED Triage Note and ED Nursing Notes exist within a single document. The elements below are an

exact composite of the elements from the Triage Note specification and the ED Nursing Note specification.

6.1.5.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:edes:2007**

2055

6.1.5.2 Parent Template

This document is an instance of the [Medical Document](#) template.

6.1.5.3 LOINC Code

The LOINC code for this document is **X-TRIAGE** Triage Note

6.1.5.4 Data Element Index

Data Element	LOINC
Chief Complaint	10154-3 CHIEF COMPLAINT
Reason for Visit	29299-6 REASON FOR VISIT
Mode of Arrival	11459-5 TRANSPORT MODE
History of Present Illness	10164-2 HISTORY OF PRESENT ILLNESS
Past Medical History	11348-0 HISTORY OF PAST ILLNESS
List of Surgeries	47519-4 HISTORY OF PRIOR SURGERIES
Immunizations	11369-6 HISTORY OF IMMUNIZATIONS
Family History	10157-6 HISTORY OF FAMILY ILLNESS
Social History	29762-2 SOCIAL HISTORY
History of Pregnancies	10162-6 HISTORY OF PREGNANCIES
Current Medications	10160-0 CURRENT MEDICATIONS
Allergies	48765-2 ALLERGIES, ADVERSE REACTIONS, ALERTS
Acuity Assessment	11283-9 ACUITY ASSESSMENT
Vital Signs	8716-3 VITAL SIGNS
Assessments	X-ASSESS ASSESSMENTS Template:O
Procedures and Interventions	X-PROC PROCEDURES PERFORMED
Medications Administered	18610-6 MEDICATION ADMINISTERED (COMPOSITE)
Intravenous Fluids Administered	X-IVFLU INTRAVENOUS FLUID ADMINISTERED (COMPOSITE)

ED Disposition	11302-7 ED DISPOSITION
----------------	------------------------

2060

6.1.5.5 Specification

Data Element Name	Opt	Template ID
Chief Complaint	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1
Reason for Visit	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1
Mode of Arrival	R	1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2
History of Present Illness	R	1.3.6.1.4.1.19376.1.5.3.1.3.4
Past Medical History	R2	1.3.6.1.4.1.19376.1.5.3.1.3.8
List of Surgeries	R2	1.3.6.1.4.1.19376.1.5.3.1.3.11
Immunizations	R2	1.3.6.1.4.1.19376.1.5.3.1.3.23
Family History	R2	1.3.6.1.4.1.19376.1.5.3.1.3.14
Social History	R2	1.3.6.1.4.1.19376.1.5.3.1.3.16
History of Pregnancies This section should contain one entry containing the date (TS) of last menstrual period for women of childbearing age, using LOINC Code 8665-2 DATE LAST MENSTRUAL PERIOD	R2	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4
Current Medications	R	1.3.6.1.4.1.19376.1.5.3.1.3.19
Allergies	R	1.3.6.1.4.1.19376.1.5.3.1.3.13
Acuity Assessment	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2
Vital Signs	R	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2
Assessments	R2	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4
Functional Status Assessments Record of assessments of patient's functional status	O	1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1
Procedures and Interventions This section is used to record interventions or nursing procedures performed	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11
Medications Administered	R2	1.3.6.1.4.1.19376.1.5.3.1.3.21
IV Fluids Administered	R2	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6
ED Disposition The ED Disposition shall have a Mode of Transport entry describing how the patient departed.	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10

6.1.5.6 Conformance

2065

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the [Medical Document](#) content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```

2070 <ClinicalDocument xmlns='urn:hl7-org:v3'>
    <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.1' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3' />
    <id root=' ' extension=' '/>
    <code code='X-TRIAGE' displayName='Triage Note'
        codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <title>Composite Triage and Nursing Note</title>
    <effectiveTime value='20081110012005' />
    <confidentialityCode code='N' displayName='Normal'
        codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
    <languageCode code='en-US' />
    :
    <component><structuredBody>
        <component>
            <section>
                <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1' />
                <!-- Required Chief Complaint Section content -->
            </section>
        </component>
    <component>
        <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1' />
            <!-- Required Reason for Visit Section content -->
        </section>
    </component>
    <component>
        <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2' />
            <!-- Required Mode of Arrival Section content -->
        </section>
    </component>
    <component>
        <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.4' />
            <!-- Required History of Present Illness Section content -->
        </section>
    </component>
    <component>
        <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.8' />
            <!-- Required if known Past Medical History Section content -->
        </section>
    </component>
    <component>
        <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.11' />
            <!-- Required if known List of Surgeries Section content -->
        </section>
    </component>
    <component>
        <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.23' />
            <!-- Required if known Immunizations Section content -->
        </section>
    </component>
    <component>
        <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.14' />
            <!-- Required if known Family History Section content -->
        </section>
    </component>

```

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
</component>

2140 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.16'>
<!-- Required if known Social History Section content -->
</section>
</component>

2145 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4'>
<!-- Required if known History of Pregnancies Section content -->
</section>
</component>

2150 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.19'>
<!-- Required Current Medications Section content -->
</section>
</component>

2155 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.13'>
<!-- Required Allergies Section content -->
</section>
</component>

2160 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.13'>
<!-- Required Allergies Section content -->
</section>
</component>

2165 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2'>
<!-- Required Acuity Assessment Section content -->
</section>
</component>

2170 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2'>
<!-- Required Vital Signs Section content -->
</section>
</component>

2175 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4'>
<!-- Required if known Assessments Section content -->
</section>
</component>

2180 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4'>
<!-- Required if known Assessments Section content -->
</section>
</component>

2185 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1'>
<!-- Optional Functional Status Assessments Section content -->
</section>
</component>

2190 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11'>
<!-- Required Procedures and Interventions Section content -->
</section>
</component>

2195 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11'>
<!-- Required Procedures and Interventions Section content -->
</section>
</component>

2200 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.21'>
```

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary
(EDES)

```
2205      <!-- Required if known Medications Administered Section content -->
      </section>
    </component>

2210      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6' />
          <!-- Required if known IV Fluids Administered Section content -->
        </section>
      </component>

2215      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10' />
          <!-- Required ED Disposition Section content -->
        </section>
      </component>

2220      </structuredBody></component>
</ClinicalDocument>
```

Figure 6.1-5 Sample Triage Note Document

6.1.5.7 Schematron

```

2230 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3'>
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3"]'>
  <!-- Verify that the template id is used on the appropriate type of object -->
  <assert test='../../cda:ClinicalDocument'>
    Error: The Composite Triage and Nursing Note can only be used on Clinical Documents.
  </assert>
2235  <!-- Verify that the parent templateId is also present. -->
  <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.1"]'>
    Error: The parent template identifier for Composite Triage and Nursing Note is not present.
  </assert>
2240  <!-- Verify the document type code -->
  <assert test='cda:code[@code = "X-TRIAGE"]'>
    Error: The document type code of a Composite Triage and Nursing Note must be X-TRIAGE
  </assert>
  <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
    Error: The document type code must come from the LOINC code
    system (2.16.840.1.113883.6.1).
  </assert>
2245  <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1"]'>
  <!-- Verify that all required data elements are present -->
  Error: The Composite Triage and Nursing Note Document must contain a(n) Chief Complaint
Section.
2250  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3
  </assert>
2255  <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1"]'>
  <!-- Verify that all required data elements are present -->
  Error: The Composite Triage and Nursing Note Document must contain a(n) Reason for Visit
Section.
2260  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3
  </assert>
2265  <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2"]'>
  <!-- Verify that all required data elements are present -->
  Error: The Composite Triage and Nursing Note Document must contain a(n) Mode of Arrival
Section.
2270  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3
  </assert>
2275  <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.3.8"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The Composite Triage and Nursing Note Document should contain a(n) Past Medical
History Section.
2280  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3
  </assert>
2285  <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.11"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The Composite Triage and Nursing Note Document should contain a(n) List of
Surgeries Section.
2290  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3
  </assert>
  <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.23"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The Composite Triage and Nursing Note Document should contain a(n) Immunizations
Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3
  </assert>
  <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.14"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The Composite Triage and Nursing Note Document should contain a(n) Family History
Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3
  </assert>

```

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

2295 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.16"]'>
 <!-- Alert on any missing required if known elements -->
 Warning: The Composite Triage and Nursing Note Document should contain a(n) Social History Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2300 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4"]'>
 <!-- Alert on any missing required if known elements -->
 Warning: The Composite Triage and Nursing Note Document should contain a(n) History of Pregnancies Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2305 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.19"]'>
 <!-- Verify that all required data elements are present -->
 Error: The Composite Triage and Nursing Note Document must contain a(n) Current Medications Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2310 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.13"]'>
 <!-- Verify that all required data elements are present -->
 Error: The Composite Triage and Nursing Note Document must contain a(n) Allergies Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2315 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2"]'>
 <!-- Verify that all required data elements are present -->
 Error: The Composite Triage and Nursing Note Document must contain a(n) Acuity Assessment Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2320 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2"]'>
 <!-- Verify that all required data elements are present -->
 Error: The Composite Triage and Nursing Note Document must contain a(n) Vital Signs Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2325 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4"]'>
 <!-- Alert on any missing required if known elements -->
 Warning: The Composite Triage and Nursing Note Document should contain a(n) Assessments Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2330 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1"]'>
 <!-- Note any missing optional elements -->
 Note: This Composite Triage and Nursing Note Document does not contain a(n) Functional Status Assessments Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2335 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11"]'>
 <!-- Verify that all required data elements are present -->
 Error: The Composite Triage and Nursing Note Document must contain a(n) Procedures and Interventions Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2340 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.21"]'>
 <!-- Verify that all required data elements are present -->
 Error: The Composite Triage and Nursing Note Document must contain a(n) Medications Administered Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2345 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.21"]'>
 <!-- Alert on any missing required if known elements -->
 Warning: The Composite Triage and Nursing Note Document should contain a(n) Medications Administered Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2350 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6"]'>
 <!-- Alert on any missing required if known elements -->
 Warning: The Composite Triage and Nursing Note Document should contain a(n) IV Fluids Administered Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2355 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10"]'>
 <!-- Verify that all required data elements are present -->
 Error: The Composite Triage and Nursing Note Document must contain a(n) ED Disposition Section.
 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
 </assert>

2360 <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10"]'>
 <!-- Verify that all required data elements are present -->
 Error: The Composite Triage and Nursing Note Document must contain a(n) ED Disposition Section.

2365 See <http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.3>
</assert>
</rule>
</pattern>

6.1.6 ED Physician Note Specification 1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4

The ED Physician note specification includes sections for data commonly reported by the physician as part of an ED encounter. It includes relevant historical information about the patient, pertinent arrival information, vital signs, history and physical examination findings, assessment and plan, interventions including medications, fluids and procedures, diagnosis and disposition.

6.1.6.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:edes:2007**

6.1.6.2 Parent Template

2375 This document is an instance of the [Medical Document](#) template.

6.1.6.3 LOINC Code

The LOINC code for this document is **28568-4** ED Visit Note

6.1.6.4 Data Element Index

Data Element	LOINC
Referral Source	11293-8 ED REFERRAL SOURCE
Mode of Arrival	11459-5 TRANSPORT MODE
Chief Complaint	10154-3 CHIEF COMPLAINT
Reason for Visit	29299-6 REASON FOR VISIT
History of Present Illness	10164-2 HISTORY OF PRESENT ILLNESS
Advance Directives	42348-3 ADVANCE DIRECTIVES
Active Problems	11450-4 PROBLEM LIST
Past Medical History	11348-0 HISTORY OF PAST ILLNESS
Current Medications	10160-0 CURRENT MEDICATIONS
Allergies	48765-2 ALLERGIES, ADVERSE REACTIONS, ALERTS
List of Surgeries	47519-4 History of procedures
Immunizations	11369-6 HISTORY OF IMMUNIZATIONS
Family History	10157-6 HISTORY OF FAMILY MEMBER DISEASES

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

Social History	29762-2 SOCIAL HISTORY
History of Pregnancies	10162-6 HISTORY OF PREGNANCIES
Pertinent ROS	10187-3 REVIEW OF SYSTEMS
Vital Signs	8716-3 VITAL SIGNS
Physical Examination	29545-1 PHYSICAL EXAMINATION
Assessment and Plan	X-AANDP ASSESSMENT AND PLAN X-ASSESS ASSESSMENT 18776-5 TREATMENT PLAN
Medications Administered	18610-6 MEDICATION ADMINISTERED (COMPOSITE)
Intravenous Fluids Administered	X-IVFLU INTRAVENOUS FLUID ADMINISTERED
Procedures Performed	PROC-X PROCEDURE PERFORMED
Test Results - Lab, ECG, Radiology	30954-2 STUDIES SUMMARY
Consultations	18693-2 ED CONSULTANT PRACTITIONER
Progress Note	18733-6 SUBSEQUENT EVALUATION NOTE (ATTENDING PHYSICIAN)
ED Diagnoses	11301-9 ED DIAGNOSIS
Medications at Discharge	10183-2 HOSPITAL DISCHARGE MEDICATIONS
ED Disposition	11302-7 ED DISPOSITION

6.1.6.5 Specification

Data Element Name	Opt	Template ID
Referral Source	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.3
Mode of Arrival	R	1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2
Chief Complaint	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1
Reason for Visit	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1
History of Present Illness	R	1.3.6.1.4.1.19376.1.5.3.1.3.4
Advanced Directives	R	1.3.6.1.4.1.19376.1.5.3.1.3.34
Active Problems	R2	1.3.6.1.4.1.19376.1.5.3.1.3.6
Past Medical History	R2	1.3.6.1.4.1.19376.1.5.3.1.3.8
Current Medications	R	1.3.6.1.4.1.19376.1.5.3.1.3.19
Allergies	R	1.3.6.1.4.1.19376.1.5.3.1.3.13
List of Surgeries	R	1.3.6.1.4.1.19376.1.5.3.1.3.11
Immunizations	R	1.3.6.1.4.1.19376.1.5.3.1.3.23
Family History	R	1.3.6.1.4.1.19376.1.5.3.1.3.14

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<u>Social History</u>	R	1.3.6.1.4.1.19376.1.5.3.1.3.16
<u>History of Pregnancies</u> This section should contain one entry containing the date (TS) of last menstrual period for women of childbearing age, using LOINC Code 8665-2 DATE LAST MENSTRUAL PERIOD	R2	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4
<u>Pertinent ROS</u>	R2	1.3.6.1.4.1.19376.1.5.3.1.3.18
<u>Vital Signs</u>	R	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2
<u>Physical Examination</u>	R	1.3.6.1.4.1.19376.1.5.3.1.1.9.15
<u>Assessemnts</u> This section shall be present when assessments and plans are recorded separately.	C	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4
<u>Care Plan</u> This section shall be present when assessments and plans are recorded separately.	C	1.3.6.1.4.1.19376.1.5.3.1.3.31
<u>Assessment and Plan</u> This section shall be present when assessments and plans are recorded together.	C	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5
<u>Medications Administered</u>	R2	1.3.6.1.4.1.19376.1.5.3.1.3.21
<u>Intravenous Fluids Administered</u>	R2	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6
<u>Procedures Performed</u>	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11
<u>Test Results Lab, ECG, Radiology</u>	R	1.3.6.1.4.1.19376.1.5.3.1.3.27
<u>Consultations</u>	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.8
<u>Progress Note</u>	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.7
<u>ED Diagnoses</u>	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.9
Medications at Discharge	R2	1.3.6.1.4.1.19376.1.5.3.1.3.22
<u>ED Disposition</u> The ED Disposition shall contain a mode of transport entry describing how the patient departed.	R	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10

2380

6.1.6.6 Conformance

CDA Release 2.0 documents that conform to the requirements of this content module shall indicate their conformance by the inclusion of the appropriate <templateId> elements in the header of the document. This is shown in the sample document below. A CDA Document may conform to more than one template. This content module inherits from the [Medical Document](#) content module, and so must conform to the requirements of that template as well, thus all <templateId> elements shown in the example below shall be included.

2385

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.1' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4' />
  <id root=' ' extension=' '/>
  <code code='28568-4' displayName='ED Visit Note'
    codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <title>ED Physician Note</title>
  <effectiveTime value='20081110012005' />
  <confidentialityCode code='N' displayName='Normal'
    codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality' />
  <languageCode code='en-US' />
  :
  <component><structuredBody>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.3' />
        <!-- Required Referral Source Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2' />
        <!-- Required Mode of Arrival Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1' />
        <!-- Required Chief Complaint Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1' />
        <!-- Required Reason for Visit Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.4' />
        <!-- Required History of Present Illness Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.34' />
        <!-- Required Advanced Directives Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.6' />
        <!-- Required if known Active Problems Section content -->
      </section>
    </component>

    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.8' />
        <!-- Required if known Past Medical History Section content -->
      </section>
    </component>
  </structuredBody>
</component>
```

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.19' />
    <!-- Required Current Medications Section content -->
  </section>
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.13' />
    <!-- Required Allergies Section content -->
  </section>
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.11' />
    <!-- Required List of Surgeries Section content -->
  </section>
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.23' />
    <!-- Required Immunizations Section content -->
  </section>
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.14' />
    <!-- Required Family History Section content -->
  </section>
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.16' />
    <!-- Required Social History Section content -->
  </section>
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4' />
    <!-- Required if known History of Pregnancies Section content -->
  </section>
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.18' />
    <!-- Required if known Pertinent ROS Section content -->
  </section>
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2' />
    <!-- Required Vital Signs Section content -->
  </section>
</component>

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.15' />
```

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
2525      <!-- Required Physical Examination Section content -->
      </section>
    </component>

2530      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4' />
          <!-- Conditional Assessments Section content -->
        </section>
      </component>

2535      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.31' />
          <!-- Conditional Care Plan Section content -->
        </section>
      </component>

2540      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5' />
          <!-- Conditional Assessment and Plan Section content -->
        </section>
      </component>

2545      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.21' />
          <!-- Required if known Medications Administered Section content -->
        </section>
      </component>

2550      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6' />
          <!-- Required if known Intravenous Fluids Administered Section content -->
        </section>
      </component>

2555      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11' />
          <!-- Required Procedures Performed Section content -->
        </section>
      </component>

2560      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.27' />
          <!-- Required Test Results Lab, ECG, Radiology Section content -->
        </section>
      </component>

2565      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.8' />
          <!-- Required Consultations Section content -->
        </section>
      </component>

2570      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.7' />
          <!-- Required Progress Note Section content -->
        </section>
      </component>

2575      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4' />
          <!-- Required Physical Examination Section content -->
        </section>
      </component>

2580      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.3' />
          <!-- Required Assessments Section content -->
        </section>
      </component>

2585      <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2' />
          <!-- Required Care Plan Section content -->
        </section>
      </component>

2590      <component>
```

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary
(EDES)

```
2595      <section>
2596        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.9' />
2597        <!-- Required ED Diagnoses Section content -->
2598      </section>
2599    </component>

2600    <component>
2601      <section>
2602        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.22' />
2603        <!-- Required if known Medications at Discharge Section content -->
2604      </section>
2605    </component>

2606    <component>
2607      <section>
2608        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10' />
2609        <!-- Required ED Disposition Section content -->
2610      </section>
2611    </component>

2612
2613  </structuredBody></component>
2614</ClinicalDocument>
```

Figure 6.1-6 Sample Triage Note Document

6.1.6.7 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4'>
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:ClinicalDocument'>
        Error: The ED Physician Note can only be used on Clinical Documents.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.1"]'>
        Error: The parent template identifier for ED Physician Note is not present.
    </assert>
    <!-- Verify the document type code -->
    <assert test='cda:code[@code = "28568-4"]'>
        Error: The document type code of a ED Physician Note must be 28568-4
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The document type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.3"]'>
        <!-- Verify that all required data elements are present -->
        Error: The ED Physician Note Document must contain a(n) Referral Source Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2"]'>
        <!-- Verify that all required data elements are present -->
        Error: The ED Physician Note Document must contain a(n) Mode of Arrival Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1"]'>
        <!-- Verify that all required data elements are present -->
        Error: The ED Physician Note Document must contain a(n) Chief Complaint Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1"]'>
        <!-- Verify that all required data elements are present -->
        Error: The ED Physician Note Document must contain a(n) Reason for Visit Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.4"]'>
        <!-- Verify that all required data elements are present -->
        Error: The ED Physician Note Document must contain a(n) History of Present Illness Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.34"]'>
        <!-- Verify that all required data elements are present -->
        Error: The ED Physician Note Document must contain a(n) Advanced Directives Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.6"]'>
        <!-- Alert on any missing required if known elements -->
        Warning: The ED Physician Note Document should contain a(n) Active Problems Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.8"]'>
        <!-- Alert on any missing required if known elements -->
        Warning: The ED Physician Note Document should contain a(n) Past Medical History Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.19"]'>
        <!-- Verify that all required data elements are present -->
        Error: The ED Physician Note Document must contain a(n) Current Medications Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.13"]'>
        <!-- Verify that all required data elements are present -->
        Error: The ED Physician Note Document must contain a(n) Allergies Section.
    </assert>

```

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```

See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.11"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) List of Surgeries Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2685
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.23"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) Immunizations Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2690
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.14"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) Family History Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2695
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.16"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) Social History Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2700
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The ED Physician Note Document should contain a(n) History of Pregnancies Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2705
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.18"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The ED Physician Note Document should contain a(n) Pertinent ROS Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2710
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) Vital Signs Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2715
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.15"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) Physical Examination Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2720
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.21"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The ED Physician Note Document should contain a(n) Medications Administered
Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2725
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The ED Physician Note Document should contain a(n) Intravenous Fluids Administered
Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2730
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) Procedures Performed Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2735
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.27"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) Test Results Lab, ECG, Radiology
Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2740
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.8"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) Consultations Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2745
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.9"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) Consultations Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
2750

```

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```
See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.7"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) Progress Note Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.9"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) ED Diagnoses Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.22"]'>
  <!-- Alert on any missing required if known elements -->
  Warning: The ED Physician Note Document should contain a(n) Medications at Discharge
Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
<assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10"]'>
  <!-- Verify that all required data elements are present -->
  Error: The ED Physician Note Document must contain a(n) ED Disposition Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
<assert test='((../../../cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4"])
  and (../../../cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.31"])
  or (../../../cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5"]))
and
  not((../../../cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4"])
  and (../../../cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.31"])
  and (../../../cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5"]))
and
  not((../../../cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5"])
  and (../../../cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4"]))
and
  not((../../../cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5"])
  and (../../../cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.31"]))'
Error: A(n) ED Physician Note shall contain either Assessments AND Care
Plan OR Assessment and Plan. See
  http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.1.4
</assert>
</rule>
</pattern>
```

6.2 CDA Section Content Modules

This list defines the sections that may appear in a medical document. It is intended to be a comprehensive list of all document sections that are used by any content profile defined in the Patient Care Coordination Technical Framework. All sections shall have a narrative component that may be freely formatted into normal text, lists, tables, or other appropriate human-readable presentations. Additional subsections or entry content modules may be required.

6.2.1 Reasons for Care

The sections described below describe various reasons why healthcare is being provided to the patient.

6.2.1.1 Chief Complaint Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1	
General Description	This contains a narrative description of the patient's chief complaint.	
LOINC Code	Opt	Description
10154-3	R	CHIEF COMPLAINT

```

2805 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1' />
        <id root=' ' extension=' '/>
        <code code='10154-3' displayName='CHIEF COMPLAINT'
          codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
      </section>
    </component>

```

Figure 6.2-1 Sample Triage Note Document

6.2.1.1.1 Schematron

```

2820 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Chief Complaint can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10154-3"]'>
      Error: The section type code of a Chief Complaint must be 10154-3
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

2835 6.2.1.2 Reason for Visit Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1	
General Description	This contains a narrative description of the patient's reason for visit.	
LOINC Code	Opt	Description
29299-6	R	REASON FOR VISIT

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```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1'>
      <id root=' ' extension=' '/>
      <code code='29299-6' displayName='REASON FOR VISIT'
        codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
      <text>
        Text as described above
      </text>
    </section>
  </component>

```

Figure 6.2-2 Sample Triage Note Document

6.2.1.2.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1.1"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Reason for Visit can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "29299-6"]'>
      Error: The section type code of a Reason for Visit must be 29299-6
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

6.2.1.3 Transport Mode Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2	
General Description	The transport mode section contains a description of the mode of transport and the time of departure or arrival of the patient to a facility.	
LOINC Code	Opt	Description
11459-5	R	TRANSPORT MODE
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1	R	Transport This entry provides coded values giving the mode and time of departure or arrival of the patient to a facility.

```

2870 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2' />
        <id root=' ' extension=' '/>
        <code code='11459-5' displayName='TRANSPORT MODE'
            codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
            Text as described above
        </text>
        <entry>
            :
            <!-- Required Transport element -->
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1' />
            :
        </entry>
    </section>
</component>
```

Figure 6.2-3 Sample Triage Note Document

6.2.1.3.1 Schematron

```

2890 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2'>
    <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
            Error: The Transport Mode can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "11459-5"]'>
            Error: The section type code of a Transport Mode must be 11459-5
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
            Error: The section type code must come from the LOINC code
            system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1"]'>
            <!-- Verify that all required data elements are present -->
            Error: The Transport Mode Section must contain a(n) Transport Entry.
            See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2
        </assert>
    </rule>
</pattern>
```

2910 6.2.2 Other Condition Histories

The sections defined below provide historical information about the patient's conditions.

6.2.2.1 History of Present Illness Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.4	
General Description	The history of present illness section shall contain a narrative description of the sequence of events preceding the patient's current complaints.	
LOINC Code	Opt	Description
10164-2	R	HISTORY OF PRESENT ILLNESS

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```

2915 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.4' />
<id root=' ' extension=' '/>
<code code='10164-2' displayName='HISTORY OF PRESENT ILLNESS'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
<text>
  Text as described above
</text>
</section>
</component>

```

2920 2925 **Figure 6.2-4 Sample Triage Note Document**

6.2.2.1.1 Schematron

```

2930 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.4'>
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.4"]'>
  <!-- Verify that the template id is used on the appropriate type of object -->
  <assert test='../../cda:section'>
    Error: The History of Present Illness can only be used on sections.
  </assert>
  <!-- Verify the section type code -->
  <assert test='cda:code[@code = "10164-2"]'>
    Error: The section type code of a History of Present Illness must be 10164-2
  </assert>
  <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
    Error: The section type code must come from the LOINC code
    system (2.16.840.1.113883.6.1).
  </assert>
</rule>
</pattern>

```

2935 2940

6.2.2.2 Active Problems Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.6	
Parent Template	CCD 3.5 (2.16.840.1.113883.10.20.1.11)	
General Description	The active problem section shall contain a narrative description of the conditions currently being monitored for the patient. It shall include entries for patient conditions as described in the Entry Content Module.	
LOINC Code	Opt	Description
11450-4	R	PROBLEM LIST
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.5.2	R	Problem Concern Entry

6.2.2.2.1 Parent Template

2945 2945 The parent of this template is CCD 3.5.

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```

<component>
  <section>
    <templateId root='2.16.840.1.113883.10.20.1.11' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.6' />
    <id root=' ' extension=' '/>
    <code code='11450-4' displayName='PROBLEM LIST'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required Problem Concern Entry element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.2' />
      :
    </entry>
  </section>
</component>

```

Figure 6.2-5 Sample Active Problems Section

6.2.2.2.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.6'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.6"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Active Problems can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.11"]'>
      Error: The parent template identifier for Active Problems is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "11450-4"]'>
      Error: The section type code of a Active Problems must be 11450-4
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.5.2"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Active Problems Section must contain a(n) Problem Concern Entry Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.6
    </assert>
  </rule>
</pattern>

```

6.2.2.3 History of Past Illness Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.8	
General Description	The History of Past Illness section shall contain a narrative description of the conditions the patient suffered in the past. It shall include entries for problems as described in the Entry Content Modules.	
LOINC Code	Opt	Description
11348-0	R	HISTORY OF PAST ILLNESS
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.5.2	R	Problem Concern Entry

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```

2995 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.8' />
        <id root=' ' extension=' '/>
        <code code='11348-0' displayName='HISTORY OF PAST ILLNESS'
          codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Required Problem Concern Entry element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.2' />
          :
        </entry>
      </section>
    </component>

```

Figure 6.2-6 Sample Triage Note Document

6.2.2.3.1 Schematron

```

3015 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.8'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.8"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The History of Past Illness can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "11348-0"]'>
          Error: The section type code of a History of Past Illness must be 11348-0
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.5.2"]'>
          <!-- Verify that all required data elements are present -->
          Error: The History of Past Illness Section must contain a(n) Problem Concern Entry Entry.
          See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.8
        </assert>
      </rule>
    </pattern>

```

6.2.2.4 List of Surgeries Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.11	
Parent Template	CCD 3.14 (2.16.840.1.113883.10.20.1.12)	
General Description	The list of surgeries section shall contain a narrative description of the diagnostic and therapeutic operative procedures and associated anesthetic techniques the patient received in the past.	
LOINC Code	Opt	Description
47519-4	R	HISTORY OF PROCEDURES

6.2.2.4.1 Parent Template

The parent of this template is CCD 3.14.

```

<component>
  <section>
    <templateId root='2.16.840.1.113883.10.20.1.12' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.11' />
    <id root=' ' extension=' '/>
    <code code='47519-4' displayName='HISTORY OF PROCEDURES'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

Figure 6.2-7 Sample Triage Note Document

6.2.2.4.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.11'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.11"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The List of Surgeries can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.12"]'>
      Error: The parent template identifier for List of Surgeries is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "47519-4"]'>
      Error: The section type code of a List of Surgeries must be 47519-4
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

6.2.2.5 Coded List of Surgeries Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.12	
Parent Template	List of Surgeries (1.3.6.1.4.1.19376.1.5.3.1.3.11)	
General Description	The list of surgeries section shall include entries for procedures and references to procedure reports when known as described in the Entry Content Modules.	
LOINC Code	Opt	Description
47519-4	R	HISTORY OF PROCEDURES
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.19	R	Procedure Entry
1.3.6.1.4.1.19376.1.5.3.1.4.4	R2	References Entry

6.2.2.5.1 Parent Template

3075 The parent of this template is [List of Surgeries](#).

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```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.11' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.12' />
    <id root=' ' extension=' '/>
    <code code='47519-4' displayName='HISTORY OF PROCEDURES'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required Procedure Entry element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.19' />
      :
    </entry>
    <entry>
      :
      <!-- Required if known References Entry element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4' />
      :
    </entry>
  </section>
</component>

```

Figure 6.2-8 Sample Triage Note Document

6.2.2.5.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.12'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.12"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../../cda:section'>
      Error: The Coded List of Surgeries can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.11"]'>
      Error: The parent template identifier for Coded List of Surgeries is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "47519-4"]'>
      Error: The section type code of a Coded List of Surgeries must be 47519-4
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.19"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Coded List of Surgeries Section must contain a(n) Procedure Entry Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.12
    </assert>
    <assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.4"]'>
      <!-- Alert on any missing required if known elements -->
      Warning: The Coded List of Surgeries Section should contain a(n) References Entry Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.12
    </assert>
  </rule>
</pattern>

```

6.2.2.6 Allergies and Other Adverse Reactions Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.13
Parent Template	CCD 3.8 (2.16.840.1.113883.10.20.1.2)

General Description	The adverse and other adverse reactions section shall contain a narrative description of the substance intolerances and the associated adverse reactions suffered by the patient. It shall include entries for intolerances and adverse reactions as described in the Entry Content Modules.	
LOINC Code	Opt	Description
48765-2	R	Allergies, adverse reactions, alerts

Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.5.3	R	Allergies and Intolerances Concern

6.2.2.6.1 Parent Template

3135 The parent of this template is CCD 3.8. This template is compatible with the ASTM/HL7 Continuity of Care Document template: 2.16.840.1.113883.10.20.1.2

```

3140 <component>
      <section>
        <templateId root='2.16.840.1.113883.10.20.1.2' />
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.13' />
        <id root=' ' extension=' '/>
        <code code='48765-2' displayName='Allergies, adverse reactions, alerts'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Required Allergies and Intolerances Concern element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.3' />
          :
        </entry>
      </section>
</component>
```

Figure 6.2-9 Sample Triage Note Document

6.2.2.6.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.13'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.13"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Allergies and Other Adverse Reactions can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.2"]'>
      Error: The parent template identifier for Allergies and Other Adverse Reactions is not
      present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "48765-2"]'>
      Error: The section type code of a Allergies and Other Adverse Reactions must be 48765-2
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='./cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.5.3"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Allergies and Other Adverse Reactions Section must contain a(n) Allergies and
      Intolerances Concern Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.13
    </assert>
  </rule>
</pattern>

```

6.2.2.7 Family Medical History Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.14	
Parent Template	CCD 3.6 (2.16.840.1.113883.10.20.1.4)	
General Description	The family history section shall contain a narrative description of the genetic family members, to the extent that they are known, the diseases they suffered from, their ages at death, and other relevant genetic information.	
LOINC Code	Opt	Description
10157-6	R	HISTORY OF FAMILY MEMBER DISEASES

6.2.2.7.1 Parent Template

The parent of this template is CCD 3.6.

```

<component>
  <section>
    <templateId root='2.16.840.1.113883.10.20.1.4'>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.14'>
    <id root=' ' extension=' '/>
    <code code='10157-6' displayName='HISTORY OF FAMILY MEMBER DISEASES'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'>
    <text>
      Text as described above
    </text>
  </section>
</component>

```

Figure 6.2-10 Sample Triage Note Document

6.2.2.7.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.14'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.14"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Family Medical History can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.4"]'>
      Error: The parent template identifier for Family Medical History is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10157-6"]'>
      Error: The section type code of a Family Medical History must be 10157-6
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

Figure 6.2-11 Coded Family Medical History Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.15	
Parent Template	Family Medical History (1.3.6.1.4.1.19376.1.5.3.1.3.14)	
General Description	The family history section shall include entries for family history as described in the Entry Content Modules.	
LOINC Code	Opt	Description
10157-6	R	HISTORY OF FAMILY MEMBER DISEASES
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.15	R	Family History Organizer

6.2.2.7.3 Parent Template

The parent of this template is [Family Medical History](#).

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.14' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.15' />
    <id root=' ' extension=' '/>
    <code code='10157-6' displayName='HISTORY OF FAMILY MEMBER DISEASES'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required Family History Organizer element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.15' />
      :
    </entry>
  </section>
</component>
```

Figure 6.2-12 Sample Triage Note Document

6.2.2.7.4 Schematron

```

3250 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.15'>
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.15"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
        Error: The Coded Family Medical History can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.14"]'>
        Error: The parent template identifier for Coded Family Medical History is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10157-6"]'>
        Error: The section type code of a Coded Family Medical History must be 10157-6
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The section type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.15"]'>
        <!-- Verify that all required data elements are present -->
        Error: The Coded Family Medical History Section must contain a(n) Family History Organizer
        Entry.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.15
    </assert>
</rule>
</pattern>
```

6.2.2.8 Social History Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.16	
Parent Template	CCD 3.7 (2.16.840.1.113883.10.20.1.15)	
General Description	The social history section shall contain a narrative description of the person's beliefs, home life, community life, work life, hobbies, and risky habits.	
LOINC Code	Opt	Description
29762-2	R	SOCIAL HISTORY

3275 6.2.2.8.1 Parent Template

The parent of this template is CCD 3.7.

```

3280 <component>
    <section>
        <templateId root='2.16.840.1.113883.10.20.1.15' />
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.16' />
        <id root=' ' extension=' '/>
        <code code='29762-2' displayName='SOCIAL HISTORY'
            codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
            Text as described above
        </text>
    </section>
</component>
```

3290

Figure 6.2-13 Sample Triage Note Document

6.2.2.8.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.16'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.16"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Social History can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.15"]'>
      Error: The parent template identifier for Social History is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "29762-2"]'>
      Error: The section type code of a Social History must be 29762-2
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

6.2.2.9 Functional Status Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.17	
Parent Template	CCD 3.4 (2.16.840.1.113883.10.20.1.5)	
General Description	The functional status section shall contain a narrative description of capability of the patient to perform acts of daily living.	
LOINC Code	Opt	Description
47420-5	R	FUNCTIONAL STATUS ASSESSMENT

6.2.2.9.1 Parent Template

The parent of this template is CCD 3.4.

```

<component>
  <section>
    <templateId root='2.16.840.1.113883.10.20.1.5' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.17' />
    <id root=' ' extension=' '/>
    <code code='47420-5' displayName='FUNCTIONAL STATUS ASSESSMENT'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

Figure 6.2-14 Sample Functional Status Section

6.2.2.9.2 Schematron

```

3330 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.17'>
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.17"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
        Error: The Functional Status can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.5"]'>
        Error: The parent template identifier for Functional Status is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "47420-5"]'>
        Error: The section type code of a Functional Status must be 47420-5
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The section type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
    </assert>
</rule>
</pattern>

```

3350 6.2.2.10 Coded Functional Status Assessment Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1	
Parent Template	Functional Status (1.3.6.1.4.1.19376.1.5.3.1.3.17)	
General Description	<p>The coded functional status assessment section provided a machine readable and narrative description of the patient's status of normal functioning at the time the document was created.</p> <p>Functional status includes information concerning:</p> <ul style="list-style-type: none"> Ambulatory ability Mental status or competency Activities of Daily Living (ADL's) including bathing, dressing, feeding, grooming Home/living situation having an effect on the health status of the patient Ability to care for self Social activity, including issues with social cognition, participation with friends and acquaintances other than family members Occupation activity, including activities partly or directly related to working, housework or volunteering, family and home responsibilities or activities related to home and family Communication ability, including issues with speech, writing or cognition required for communication Perception, including sight, hearing, taste, skin sensation, kinesthetic sense, proprioception, or balance 	
LOINC Code	Opt	Description
47420-5	R	Functional Status Assessment
Subsections	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.12.2.2	R	Pain Scale Assessment
1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3	O	Braden Score Assessment
1.3.6.1.4.1.19376.1.5.3.1.1.12.2.4	O	Geriatric Depression Scale
1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5	O	Minimum Data Set

Note: At least one of the above optional subsections shall be present

6.2.2.10.1 Standards

CDAR2 [HL7 CDA Release 2.0](#)

CRS [HL7 Care Record Summary](#)

CCD [ASTM/HL7 Continuity of Care Document](#)

LOINC [Logical Observation Identifier Names and Codes](#)

SNOMED [Systemitized Nomenclature of Medicine Clinical Terminology](#)

6.2.2.10.2 Parent Template

The parent of this template is [Functional Status](#).

```
3355 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.17' />
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1' />
        <id root=' ' extension=' '/>
        <code code='47420-5' displayName='Functional Status Assessment'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <component>
          <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.2' />
            <!-- Required Pain Scale Assessment Section content -->
          </section>
        </component>

        <component>
          <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3' />
            <!-- Optional Braden Score Assessment Section content -->
          </section>
        </component>

        <component>
          <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.4' />
            <!-- Optional Geriatric Depression Scale Section content -->
          </section>
        </component>

        <component>
          <section>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5' />
            <!-- Optional Minimum Data Set Section content -->
          </section>
        </component>

      </section>
    </component>
```

Figure 6.2-15 Sample Coded Functional Status Assessment Section

6.2.2.10.3 Schematron

```

3400 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1'>
3401   <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1"]'>
3402     <!-- Verify that the template id is used on the appropriate type of object -->
3403     <assert test='../../cda:section'>
3404       Error: The Coded Functional Status Assessment can only be used on sections.
3405     </assert>
3406     <!-- Verify that the parent templateId is also present. -->
3407     <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.17"]'>
3408       Error: The parent template identifier for Coded Functional Status Assessment is not present.
3409     </assert>
3410     <!-- Verify the section type code -->
3411     <assert test='cda:code[@code = "47420-5"]'>
3412       Error: The section type code of a Coded Functional Status Assessment must be 47420-5
3413     </assert>
3414     <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
3415       Error: The section type code must come from the LOINC code
3416       system (2.16.840.1.113883.6.1).
3417     </assert>
3418     <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.2.2"]'>
3419       <!-- Verify that all required data elements are present -->
3420       Error: The Coded Functional Status Assessment Section must contain a(n) Pain Scale
3421       Assessment Section.
3422       See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1
3423     </assert>
3424     <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3"]'>
3425       <!-- Note any missing optional elements -->
3426       Note: This Coded Functional Status Assessment Section does not contain a(n) Braden Score
3427       Assessment Section.
3428       See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1
3429     </assert>
3430     <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.2.4"]'>
3431       <!-- Note any missing optional elements -->
3432       Note: This Coded Functional Status Assessment Section does not contain a(n) Geriatric
3433       Depression Scale Section.
3434       See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1
3435     </assert>
3436     <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5"]'>
3437       <!-- Note any missing optional elements -->
3438       Note: This Coded Functional Status Assessment Section does not contain a(n) Minimum Data Set
3439       Section.
3440       See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1
3441     </assert>
3442     <assert test=".//cda:component/cda:section/cda:templateId[
3443       @root = '1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3' or
3444       @root = '1.3.6.1.4.1.19376.1.5.3.1.1.12.2.4' or
3445       @root = '1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5']">
3446       At least one of the optional subsections must be in a coded functional assessment.
3447       See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.12.2.1
3448     </assert>
3449   </rule>
3450 </pattern>
```

6.2.2.11 Pain Scale Assessment Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.12.2.2	
General Description	The Pain Scale Assessment contains a coded observation reflecting the patient's reported intensity of pain on a scale from 0 to 10.	
LOINC Code	Opt	Description
38208-5	R	Pain severity
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.12.3.1	R	Pain Score Observation

3450

```

3455 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.2' />
        <id root=' ' extension=' '/>
        <code code='38208-5' displayName='Pain severity'
          codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Required Pain Score Observation element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.3.1' />
          :
        </entry>
      </section>
    </component>
  
```

3470 **Figure 6.2-16 Sample Pain Scale Assessment Section**

6.2.2.11.1 Schematron

```

3475 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.12.2.2'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.12.2.2"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='..//cda:section'>
          Error: The Pain Scale Assessment can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "38208-5"]'>
          Error: The section type code of a Pain Scale Assessment must be 38208-5
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='..//cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.3.1"]'>
          <!-- Verify that all required data elements are present -->
          Error: The Pain Scale Assessment Section must contain a(n) Pain Score Observation Entry.
          See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.12.2.2
        </assert>
      </rule>
    </pattern>
  
```

6.2.2.12 Braden Score Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3	
General Description	This section reports the braden score and its related assessments in machine and human readable form.	
LOINC Code	Opt	Description
38228-3	R	BRADEN SCALE SKIN ASSESSMENT PANEL
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.12.3.2	R	Braden Score Observation

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```

3495 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3' />
        <id root=' ' extension=' '/>
        <code code='38228-3' displayName='BRADEN SCALE SKIN ASSESSMENT PANEL'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Required Braden Score Observation element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.3.2' />
          :
        </entry>
      </section>
    </component>

```

Figure 6.2-17 Sample Braden Score Section

6.2.2.12.1 Schematron

```

3515 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The Braden Score can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "38228-3"]'>
          Error: The section type code of a Braden Score must be 38228-3
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.3.2"]'>
        <!-- Verify that all required data elements are present -->
        Error: The Braden Score Section must contain a(n) Braden Score Observation Entry.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.12.2.3
      </assert>
    </rule>
  </pattern>

```

6.2.2.13 Geriatric Depression Scale Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.12.2.4	
General Description	This section reports the Geriatric Depression Scale score and its related assessments in machine and human readable form.	
LOINC Code	Opt	Description
48542-5	R	Geriatric Depression Scale (GDS) Panel
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.12.3.4	R	Geriatric Depression Score Observation

```

3540 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.4' />
        <id root=' ' extension=' '/>
        <code code='48542-5' displayName='Geriatric Depression Scale (GDS) Panel'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Required Geriatric Depression Score Observation element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.3.4' />
          :
        </entry>
      </section>
    </component>
  
```

Figure 6.2-18 Sample Geriatric Depression Scale Section

6.2.2.13.1 Schematron

```

3560 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.12.2.4'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.12.2.4"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The Geriatric Depression Scale can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "48542-5"]'>
          Error: The section type code of a Geriatric Depression Scale must be 48542-5
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.3.4"]'>
          <!-- Verify that all required data elements are present -->
          Error: The Geriatric Depression Scale Section must contain a(n) Geriatric Depression Score
          Observation Entry.
          See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.12.2.4
        </assert>
      </rule>
    </pattern>
  
```

3580 6.2.2.14 Physical Function Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5	
General Description	This section reports scores from section G of the Minimum Data Set.	
LOINC Code	Opt	Description
46006-3	R	Physical functioning and structural problems
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.12.3.7	O	Survey Panel At least one Survey Panel or Survey Observation shall be present.
1.3.6.1.4.1.19376.1.5.3.1.1.12.3.6	O	Survey Observations At least one Survey Panel or Survey Observation shall be present.

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```
<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5' />
    <id root=' ' extension=' '/>
    <code code='46006-3' displayName='Physical functioning and structural problems'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Optional Survey Panel element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.3.7' />
      :
    </entry>
    <entry>
      :
      <!-- Optional Survey Observations element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.12.3.6' />
      :
    </entry>
  </section>
</component>
```

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Figure 6.2-19 Sample Physical Function Section

6.2.2.15 Schematron

```
<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Physical Function can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "46006-3"]'>
      Error: The section type code of a Physical Function must be 46006-3
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.3.7"]'>
      <!-- Note any missing optional elements -->
      Note: This Physical Function Section does not contain a(n) Survey Panel Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.3.6"]'>
      <!-- Note any missing optional elements -->
      Note: This Physical Function Section does not contain a(n) Survey Observations Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.3.6"] or
      ../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.12.3.7"]'>
      At least one Survey Panel or Survey Observation shall be present.
      See http://www.ihe.net/index.php/1.3.6.1.4.1.19376.1.5.3.1.1.12.2.5
    </assert>
  </rule>
</pattern>
```

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6.2.2.16 Constraints

[Survey Panels](#) found in this section shall be identified using the panel codes found in the table below, and shall contain one or more survey observations from that panel.

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Survey Observations found in this section shall use the LOINC codes from the table below to express the answer to one or more questions from the Minimum Data Set Section G. The Survey Observations shall not contain a <methodCode> or <targetSiteCode> element, as these are not appropriate to the MDS Survey instrument.

Panel Code	Observation Code	Description	Data Type	Value Set
46007-1	Panel	ADL self performance or support		
	45588-1	Bed mobility - self-performance	CO	2.16.840.1.113883.6.257.755
	45589-9	Bed mobility - support provided	CO	2.16.840.1.113883.6.257.768
	45590-7	Transfer - self-performance	CO	2.16.840.1.113883.6.257.755
	45591-5	Transfer - support provided	CO	2.16.840.1.113883.6.257.768
	45592-3	Walk in room - self-performance	CO	2.16.840.1.113883.6.257.755
	45593-1	Walk in room - support provided	CO	2.16.840.1.113883.6.257.768
	45594-9	Walk in corridor - self-performance	CO	2.16.840.1.113883.6.257.755
	45595-6	Walk in corridor - support provided	CO	2.16.840.1.113883.6.257.768
	45596-4	Locomotion on unit - self-performance	CO	2.16.840.1.113883.6.257.755
	45597-2	Locomotion on unit - support provided	CO	2.16.840.1.113883.6.257.768
	45598-0	Locomotion off unit - self-performance	CO	2.16.840.1.113883.6.257.755
	45599-8	Locomotion off unit - support provided	CO	2.16.840.1.113883.6.257.768
	45600-4	Dressing - self-performance	CO	2.16.840.1.113883.6.257.755
	45601-2	Dressing - support provided	CO	2.16.840.1.113883.6.257.768
	45602-0	Eating - self-performance	CO	2.16.840.1.113883.6.257.755
	45603-8	Eating - support provided	CO	2.16.840.1.113883.6.257.768
	45604-6	Toilet use - self-performance	CO	2.16.840.1.113883.6.257.755
	45605-3	Toilet use - support provided	CO	2.16.840.1.113883.6.257.768
	45606-1	Personal hygiene - self-performance	CO	2.16.840.1.113883.6.257.755
	45607-9	Personal hygiene - support provided	CO	2.16.840.1.113883.6.257.768
46008-9	Panel	Bathing		
	45608-7	Bathing - self-performance	CO	2.16.840.1.113883.6.257.860
	45609-5	Bathing - support provided	CO	2.16.840.1.113883.6.257.768

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46009-7	Panel	Test for balance		
	45610-3	Balance while standing	CO	2.16.840.1.113883.6.257.876
	45523-8	Balance while sitting	CO	2.16.840.1.113883.6.257.876
46010-5	Panel	Functional limitation in range of motion		
	45524-6	Range of motion^Neck	CO	2.16.840.1.113883.6.257.889
	45525-3	Voluntary movement^Neck	CO	2.16.840.1.113883.6.257.898
	45526-1	Range of motion^Upper Extremity	CO	2.16.840.1.113883.6.257.889
	45527-9	Voluntary movement^Upper Extremity	CO	2.16.840.1.113883.6.257.898
	45528-7	Range of motion^Hand	CO	2.16.840.1.113883.6.257.889
	45529-5	Voluntary movement^Hand	CO	2.16.840.1.113883.6.257.898
	45530-3	Range of motion^Lower Extremity	CO	2.16.840.1.113883.6.257.889
	45531-1	Voluntary movement^Lower Extremity	CO	2.16.840.1.113883.6.257.898
	45532-9	Range of motion^Foot	CO	2.16.840.1.113883.6.257.889
	45533-7	Voluntary movement^Foot	CO	2.16.840.1.113883.6.257.898
	45534-5	Other - range of motion	CO	2.16.840.1.113883.6.257.889
	45535-2	Other - voluntary movement	CO	2.16.840.1.113883.6.257.898
46011-3	Panel	Modes of locomotion		
	45536-0	Uses cane, walker or crutch	CO	2.16.840.1.113883.6.257.117
	45537-8	Wheeled self	CO	2.16.840.1.113883.6.257.117
	45538-6	Other person wheeled	CO	2.16.840.1.113883.6.257.117
	45539-4	Uses wheelchair for primary locomotion	CO	2.16.840.1.113883.6.257.117
	45540-2	No modes of locomotion	CO	2.16.840.1.113883.6.257.117
46012-1	Panel	Modes of transfer		
	45541-0	Bedfast all or most of the time	CO	2.16.840.1.113883.6.257.117
	45542-8	Bed rails for bed mobility or transfer	CO	2.16.840.1.113883.6.257.117
	45543-6	Lifted manually	CO	2.16.840.1.113883.6.257.117
	45544-4	Lifted mechanically	CO	2.16.840.1.113883.6.257.117
	45545-1	Transfer aid	CO	2.16.840.1.113883.6.257.117

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	45546-9	No mode of transfer	CO	2.16.840.1.113883.6.257.117
No Panel	45611-1	Task segmentation	CO	2.16.840.1.113883.6.257.117
46013-9	Panel	ADL functional rehabilitation potential		
	45612-9	Resident sees increased independence capability	CO	2.16.840.1.113883.6.257.117
	45613-7	Staff sees increased independence capability	CO	2.16.840.1.113883.6.257.117
	45614-5	Resident slow performing tasks or activity	CO	2.16.840.1.113883.6.257.117
	45615-2	Difference in morning to evening activities of daily living	CO	2.16.840.1.113883.6.257.117
	45616-0	Activities of daily living rehabilitation potential - none of above	CO	2.16.840.1.113883.6.257.117
	45617-8	Change in activities of daily living function	CO	2.16.840.1.113883.6.257.464

3645 The coded orginal values used in the observations above are described in more detail in the table below.

Explanation	Coded Value
2.16.840.1.113883.6.257.755	
INDEPENDENT-No help or oversight -OR- Help/oversight provided only 1 or 2 times during last 7 days	0
SUPERVISION-Oversight, encouragement or cueing provided 3 or more times during last7 days -OR- Supervision (3 or more times) plus physical assistance provided only 1 or 2 times during last 7 days	1
LIMITED ASSISTANCE-Resident highly involved in activity; received physical help in guided maneuvering of limbs or other nonweight bearing assistance 3 or more times - OR-More help provided only 1 or 2 times during last 7 days	2
EXTENSIVE ASSISTANCE-While resident performed part of activity, over last 7-day period, help of following type(s) provided 3 or more times: - Weight-bearing support - Full staff performance during part (but not all) of last 7 days	3
TOTAL DEPENDENCE-Full staff performance of activity during entire 7 days	4
ACTIVITY DID NOT OCCUR during entire 7 days	8
2.16.840.1.113883.6.257.768	
No setup or physical help from staff	0
Setup help only	1

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One person physical assist	2
ADL activity itself did not occur during entire 7 days	8
2.16.840.1.113883.6.257.860	
Independent-No help provided	0
Supervision-Oversight help only	1
Physical help limited to transfer only	2
Physical help in part of bathing activity	3
Total dependence	4
Activity itself did not occur during entire 7 days	8
2.16.840.1.113883.6.257.876	
Maintained position as required in test	0
Unsteady, but able to rebalance self without physical support	1
Partial physical support during test; or stands (sits) but does not follow directions for test	2
Not able to attempt test without physical help	3
2.16.840.1.113883.6.257.889	
No limitation	0
Limitation on one side	1
Limitation on both sides	2
2.16.840.1.113883.6.257.898	
No loss	0
Partial loss	1
Full loss	2
2.16.840.1.113883.6.257.117	
No	0
Yes	1
UTD	-
2.16.840.1.113883.6.257.464	
No change	0

Improved	1
Deteriorated	2

6.2.2.17 Review of Systems Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.18	
General Description	The review of systems section shall contain a narrative description of the responses the patient gave to a set of routine questions on the functions of each anatomic body system.	
LOINC Code	Opt	Description
10187-3	R	REVIEW OF SYSTEMS

```

3650 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.18' />
        <id root=' ' extension=' '/>
        <code code='10187-3' displayName='REVIEW OF SYSTEMS'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
      </section>
    </component>

```

Figure 6.2-20 Sample Triage Note Document

6.2.2.17.1 Schematron

```

3665 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.18'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.18"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The Review of Systems can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "10187-3"]'>
          Error: The section type code of a Review of Systems must be 10187-3
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
      </rule>
    </pattern>

```

6.2.2.18 Pregnancy History Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4	
General Description	The pregnancy history section contains coded entries describing the patient history of pregnancies.	
LOINC Code	Opt	Description
10162-6	R	HISTORY OF PREGNANCIES

Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.13.5	R	Pregnancy Observation

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```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4' />
    <id root=' ' extension=' '/>
    <code code='10162-6' displayName='HISTORY OF PREGNANCIES'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required Pregnancy Observation element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.5' />
      :
    </entry>
  </section>
</component>
```

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Figure 6.2-21 Sample Triage Note Document

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6.2.2.18.1 Schematron

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```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Pregnancy History can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10162-6"]'>
      Error: The section type code of a Pregnancy History must be 10162-6
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.13.5"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Pregnancy History Section must contain a(n) Pregnancy Observation Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.4
    </assert>
  </rule>
</pattern>
```

6.2.3 Medications

This section contains section content modules that describe activities surrounding the use of medication.

3725

6.2.3.1 Medications Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.19	
Parent Template	CCD 3.9 (2.16.840.1.113883.10.20.1.8)	
General Description	The medications section shall contain a description of the relevant medications for the patient, e.g. an ambulatory prescription list. It shall include entries for medications as described in the Entry Content Module.	
LOINC Code	Opt	Description
10160-0	R	HISTORY OF MEDICATION USE

Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.7	R	Medications

6.2.3.1.1 Parent Template

The parent of this template is CCD 3.9.

```

3730 <component>
      <section>
        <templateId root='2.16.840.1.113883.10.20.1.8' />
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.19' />
        <id root=' ' extension=' ' />
        <code code='10160-0' displayName='HISTORY OF MEDICATION USE'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Required Medications element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7' />
          :
        </entry>
      </section>
</component>
```

Figure 6.2-22 Sample Triage Note Document

6.2.3.1.2 Schematron

```

3750 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.19'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.19"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The Medications can only be used on sections.
        </assert>
        <!-- Verify that the parent templateId is also present. -->
        <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.8"]'>
          Error: The parent template identifier for Medications is not present.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "10160-0"]'>
          Error: The section type code of a Medications must be 10160-0
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.7"]'>
          <!-- Verify that all required data elements are present -->
          Error: The Medications Section must contain a(n) Medications Entry.
          See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.19
        </assert>
      </rule>
    </pattern>
```

Note: this LOINC code is typically used to record the current medication list found in an EHR.

6.2.3.2 Medications Administered Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.21
-------------	--------------------------------

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

General Description	The medications administered section shall contain a narrative description of the relevant medications administered to a patient during the course of an encounter. It shall include entries for medication administration as described in the Entry Content Module.	
LOINC Code	Opt	Description
18610-6	R	MEDICATION ADMINISTERED

3775

<component>	
<section>	
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.21'>	
<id root=' ' extension=' '/>	
<code code='18610-6' displayName='MEDICATION ADMINISTERED'	
codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />	
<text>	
Text as described above	
</text>	
<entry>	
:	
<!-- Required Medications element -->	
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7'>	
:	
</entry>	
</section>	
</component>	

3780

3785

3790

Figure 6.2-23 Sample Triage Note Document

3795 6.2.3.2.1 Schematron

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.21'>	
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.21"]'>	
<!-- Verify that the template id is used on the appropriate type of object -->	
<assert test='../../cda:section'>	
Error: The Medications Administered can only be used on sections.	
</assert>	
<!-- Verify the section type code -->	
<assert test='cda:code[@code = "18610-6"]'>	
Error: The section type code of a Medications Administered must be 18610-6	
</assert>	
<assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>	
Error: The section type code must come from the LOINC code system (2.16.840.1.113883.6.1).	
</assert>	
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.7"]'>	
<!-- Verify that all required data elements are present -->	
Error: The Medications Administered Section must contain a(n) Medications Entry.	
See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.21	
</assert>	
</rule>	
</pattern>	

3800

3805

3810

3815

6.2.3.3 Immunizations Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.23
Parent Template	CCD 3.11 (2.16.840.1.113883.10.20.1.6)
General Description	The immunizations section shall contain a narrative description of the

	immunizations administered to the patient in the past. It shall include entries for medication administration as described in the Entry Content Modules.	
LOINC Code	Opt	Description
11369-6	R	HISTORY OF IMMUNIZATIONS
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.12	R	Immunization

6.2.3.3.1 Parent Template

3820 The parent of this template is CCD 3.11.

```

<component>
  <section>
    <templateId root='2.16.840.1.113883.10.20.1.6' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.23' />
    <id root=' ' extension=' '/>
    <code code='11369-6' displayName='HISTORY OF IMMUNIZATIONS'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required Immunization element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.12' />
      :
    </entry>
  </section>
</component>

```

Figure 6.2-24 Sample Triage Note Document

6.2.3.3.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.23'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.23"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Immunizations can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.6"]'>
      Error: The parent template identifier for Immunizations is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "11369-6"]'>
      Error: The section type code of a Immunizations must be 11369-6
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='./cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.12"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Immunizations Section must contain a(n) Immunization Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.23
    </assert>
  </rule>
</pattern>

```

6.2.4 Physical Exams

6.2.4.1 Physical Exam Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.24	
General Description	The physical exam section shall contain a narrative description of the patient's physical findings.	
LOINC Code	Opt	Description
29545-1	R	PHYSICAL EXAMINATION
<component> <section> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.24'> <id root=' ' extension=' '/> <code code='29545-1' displayName='PHYSICAL EXAMINATION' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' /> <text> Text as described above </text> </section> </component>		

Figure 6.2-25 Sample Triage Note Document

6.2.4.1.1 Schematron

```

3885 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.24'>
     <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.24"]'>
       <!-- Verify that the template id is used on the appropriate type of object -->
       <assert test='../../cda:section'>
         Error: The Physical Exam can only be used on sections.
       </assert>
       <!-- Verify the section type code -->
       <assert test='cda:code[@code = "29545-1"]'>
         Error: The section type code of a Physical Exam must be 29545-1
       </assert>
       <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
         Error: The section type code must come from the LOINC code
               system (2.16.840.1.113883.6.1).
       </assert>
     </rule>
   </pattern>

```

6.2.4.2 Physical Exam Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.15	
Parent Template	Physical Exam Section (1.3.6.1.4.1.19376.1.5.3.1.3.24)	
General Description	The physical exam section shall contain only the required and optional subsections performed.	
LOINC Code	Opt	Description
29545-1	R	PHYSICAL EXAMINATION
Subsections	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.3.25	O	Vital Signs Vital signs may be a subsection of the physical exam or they may stand alone
1.3.6.1.4.1.19376.1.5.3.1.1.9.16	O	General Appearance
1.3.6.1.4.1.19376.1.5.3.1.1.9.48	O	Visible Implanted Medical Devices
1.3.6.1.4.1.19376.1.5.3.1.1.9.17	O	Integumentary System
1.3.6.1.4.1.19376.1.5.3.1.1.9.18	O	Head
1.3.6.1.4.1.19376.1.5.3.1.1.9.19	O	Eyes
1.3.6.1.4.1.19376.1.5.3.1.1.9.20	O	Ears, Nose, Mouth and Throat
1.3.6.1.4.1.19376.1.5.3.1.1.9.21	O	Ears
1.3.6.1.4.1.19376.1.5.3.1.1.9.22	O	Nose
1.3.6.1.4.1.19376.1.5.3.1.1.9.23	O	Mouth, Throat, and Teeth
1.3.6.1.4.1.19376.1.5.3.1.1.9.24	O	Neck
1.3.6.1.4.1.19376.1.5.3.1.1.9.25	O	Endocrine System
1.3.6.1.4.1.19376.1.5.3.1.1.9.26	O	Thorax and Lungs
1.3.6.1.4.1.19376.1.5.3.1.1.9.27	O	Chest Wall
1.3.6.1.4.1.19376.1.5.3.1.1.9.28	O	Breasts
1.3.6.1.4.1.19376.1.5.3.1.1.9.29	O	Heart
1.3.6.1.4.1.19376.1.5.3.1.1.9.30	O	Respiratory System

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1.3.6.1.4.1.19376.1.5.3.1.1.9.31	O	Abdomen
1.3.6.1.4.1.19376.1.5.3.1.1.9.32	O	Lymphatic System
1.3.6.1.4.1.19376.1.5.3.1.1.9.33	O	Vessels
1.3.6.1.4.1.19376.1.5.3.1.1.9.34	O	Musculoskeletal System
1.3.6.1.4.1.19376.1.5.3.1.1.9.35	O	Neurologic System
1.3.6.1.4.1.19376.1.5.3.1.1.9.36	O	Genitalia
1.3.6.1.4.1.19376.1.5.3.1.1.9.37	O	Rectum
1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1	O	Extremities

3900

6.2.4.2.1 Parent Template

The parent of this template is [1.3.6.1.4.1.19376.1.5.3.1.3.24](#).

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(EDES)

```
<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.24' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.15' />
    <id root=' ' extension=' '/>
    <code code='29545-1' displayName='PHYSICAL EXAMINATION'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.25' />
        <!-- Optional Vital Signs Section content -->
      </section>
    </component>

  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.16' />
      <!-- Optional General Appearance Section content -->
    </section>
  </component>

  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.48' />
      <!-- Optional Visible Implanted Medical Devices Section content -->
    </section>
  </component>

  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.17' />
      <!-- Optional Integumentary System Section content -->
    </section>
  </component>

  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.18' />
      <!-- Optional Head Section content -->
    </section>
  </component>

  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.19' />
      <!-- Optional Eyes Section content -->
    </section>
  </component>

  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.20' />
      <!-- Optional Ears, Nose, Mouth and Throat Section content -->
    </section>
  </component>

  <component>
    <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.21' />
      <!-- Optional Ears Section content -->
    </section>
  </component>

  <component>
    <section>
```

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```
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.22'/>
<!-- Optional Nose Section content -->
</section>
</component>

3975 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.23'/>
          <!-- Optional Mouth, Throat, and Teeth Section content -->
      </section>
</component>

3980 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.24'/>
          <!-- Optional Neck Section content -->
      </section>
</component>

3985 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.25'/>
          <!-- Optional Endocrine System Section content -->
      </section>
</component>

3990 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.25'/>
          <!-- Optional Thorax and Lungs Section content -->
      </section>
</component>

3995 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.26'/>
          <!-- Optional Thorax and Lungs Section content -->
      </section>
</component>

4000 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.27'/>
          <!-- Optional Chest Wall Section content -->
      </section>
</component>

4005 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.27'/>
          <!-- Optional Chest Wall Section content -->
      </section>
</component>

4010 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.28'/>
          <!-- Optional Breasts Section content -->
      </section>
</component>

4015 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.29'/>
          <!-- Optional Heart Section content -->
      </section>
</component>

4020 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.30'/>
          <!-- Optional Respiratory System Section content -->
      </section>
</component>

4025 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.30'/>
          <!-- Optional Respiratory System Section content -->
      </section>
</component>

4030 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.31'/>
          <!-- Optional Abdomen Section content -->
      </section>
</component>

4035 <component>
      <section>
```

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```
4040 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.32' />
        <!-- Optional Lymphatic System Section content -->
    </section>
</component>

4045 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.33' />
        <!-- Optional Vessels Section content -->
    </section>
</component>

4050 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.34' />
        <!-- Optional Musculoskeletal System Section content -->
    </section>
</component>

4055 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.35' />
        <!-- Optional Neurologic System Section content -->
    </section>
</component>

4060 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.35' />
        <!-- Optional Neurologic System Section content -->
    </section>
</component>

4065 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.36' />
        <!-- Optional Genitalia Section content -->
    </section>
</component>

4070 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.37' />
        <!-- Optional Rectum Section content -->
    </section>
</component>

4075 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1' />
        <!-- Optional Extremities Section content -->
    </section>
</component>

4080 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1' />
        <!-- Optional Extremities Section content -->
    </section>
</component>

4085 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1' />
        <!-- Optional Extremities Section content -->
    </section>
</component>

4090 </section>
</component>
```

Figure 6.2-26 Sample Triage Note Document

6.2.4.2.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.15'>
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.15"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
        Error: The Physical Exam can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.24"]'>
        Error: The parent template identifier for Physical Exam is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "29545-1"]'>
        Error: The section type code of a Physical Exam must be 29545-1
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The section type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.25"]'>
        <!-- Note any missing optional elements -->
        Note: This Physical Exam Section does not contain a(n) Vital Signs Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.16"]'>
        <!-- Note any missing optional elements -->
        Note: This Physical Exam Section does not contain a(n) General Appearance Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.48"]'>
        <!-- Note any missing optional elements -->
        Note: This Physical Exam Section does not contain a(n) Visible Implanted Medical Devices
        Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.17"]'>
        <!-- Note any missing optional elements -->
        Note: This Physical Exam Section does not contain a(n) Integumentary System Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.18"]'>
        <!-- Note any missing optional elements -->
        Note: This Physical Exam Section does not contain a(n) Head Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.19"]'>
        <!-- Note any missing optional elements -->
        Note: This Physical Exam Section does not contain a(n) Eyes Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.20"]'>
        <!-- Note any missing optional elements -->
        Note: This Physical Exam Section does not contain a(n) Ears, Nose, Mouth and Throat Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.21"]'>
        <!-- Note any missing optional elements -->
        Note: This Physical Exam Section does not contain a(n) Ears Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.22"]'>
        <!-- Note any missing optional elements -->
        Note: This Physical Exam Section does not contain a(n) Nose Section.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.23"]'>
        <!-- Note any missing optional elements -->

```

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```
Note: This Physical Exam Section does not contain a(n) Mouth, Throat, and Teeth Section.  
See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.24"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Neck Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.25"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Endocrine System Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.26"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Thorax and Lungs Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.27"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Chest Wall Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.28"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Breasts Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.29"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Heart Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.30"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Respiratory System Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.31"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Abdomen Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.32"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Lymphatic System Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.33"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Vessels Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.34"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Musculoskeletal System Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.35"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Neurologic System Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>  
<assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.36"]'>  
  <!-- Note any missing optional elements -->  
  Note: This Physical Exam Section does not contain a(n) Genitalia Section.  
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15  
</assert>
```

```

<assert test=".//cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.9.37"]">
  <!-- Note any missing optional elements -->
  Note: This Physical Exam Section does not contain a(n) Rectum Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
</assert>
<assert test=".//cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1"]">
  <!-- Note any missing optional elements -->
  Note: This Physical Exam Section does not contain a(n) Extremeties Section.
  See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.9.15
</assert>
</rule>
</pattern>

```

6.2.4.3 Vital Signs Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.25	
Parent Template	CCD 3.12 (2.16.840.1.113883.10.20.1.16)	
General Description	The vital signs section shall contain a narrative description of the measurement results of a patient's vital signs.	
LOINC Code	Opt	Description
8716-3	R	VITAL SIGNS

6.2.4.3.1 Parent Template

The parent of this template is CCD 3.12.

```

<component>
  <section>
    <templateId root='2.16.840.1.113883.10.20.1.16' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.25' />
    <id root=' ' extension=' '/>
    <code code='8716-3' displayName='VITAL SIGNS'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

4255

Figure 6.2-27 Sample Triage Note Document

6.2.4.3.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.25'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.25"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Vital Signs can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.16"]'>
      Error: The parent template identifier for Vital Signs is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "8716-3"]'>
      Error: The section type code of a Vital Signs must be 8716-3
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

6.2.4.4 Coded Vital Signs Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2	
Parent Template	Vital Signs (1.3.6.1.4.1.19376.1.5.3.1.3.25)	
General Description	The vital signs section contains coded measurement results of a patient's vital signs.	
LOINC Code	Opt	Description
8716-3	R	VITAL SIGNS
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.13.1	R	Vital Signs Organizer

6.2.4.4.1 Parent Template

The parent of this template is [Vital Signs](#).

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.25' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2' />
    <id root=' ' extension=' '/>
    <code code='8716-3' displayName='VITAL SIGNS'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required Vital Signs Organizer element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.1' />
      :
    </entry>
  </section>
</component>
```

Figure 6.2-28 Sample Triage Note Document

4300

6.2.4.4.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Coded Vital Signs can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.25"]'>
      Error: The parent template identifier for Coded Vital Signs is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "8716-3"]'>
      Error: The section type code of a Coded Vital Signs must be 8716-3
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='./cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.13.1"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Coded Vital Signs Section must contain a(n) Vital Signs Organizer Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.5.3.2
    </assert>
  </rule>
</pattern>
```

4305

4310

4315

4320

4325

6.2.4.5 General Appearance Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.16	
General Description	The general appearance section shall contain a description of the overall, visibly-apparent condition of the patient.	
LOINC Code	Opt	Description
10210-3	R	GENERAL STATUS

4330

4335

4340

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.16'>
      <id root=' ' extension=' '/>
      <code code='10210-3' displayName='GENERAL STATUS'
        codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
      <text>
        Text as described above
      </text>
    </section>
  </component>
```

Figure 6.2-29 Sample Triage Note Document

6.2.4.5.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.16'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.16"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The General Appearance can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10210-3"]'>
      Error: The section type code of a General Appearance must be 10210-3
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

6.2.4.6 Visible Implanted Medical Devices Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.48	
General Description	The visible implanted medical devices section shall contain a description of the medical devices apparent on physical exam that have been inserted into the patient, whether internal or partially external.	
LOINC Code	Opt	Description
TBD	R	TBD

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.48' />
    <id root=' ' extension=' '/>
    <code code='TBD' displayName='TBD'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>
Figure 6.2-30 Sample Visible Implanted Medical Devices Section
Schematron
<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.48'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.48"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Visible Implanted Medical Devices can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "TBD"]'>
      Error: The section type code of a Visible Implanted Medical Devices must be TBD
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

6.2.4.7 Integumentary System Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.17
General Description	The integumentary system section shall contain a description of any type of

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary
(EDES)

	integumentary system exam.	
LOINC Code	Opt	Description
29302-7	R	INTEGUMENTARY SYSTEM

4390

```
<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.17'>
    <id root=' ' extension=' '/>
    <code code='29302-7' displayName='INTEGUMENTARY SYSTEM'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>
```

4395

4400

Figure 6.2-31 Sample Triage Note Document

6.2.4.7.1 Schematron

4405

```
<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.17'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.17"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Integumentary System can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "29302-7"]'>
      Error: The section type code of a Integumentary System must be 29302-7
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

4410

4415

4420

6.2.4.8 Head Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.18	
General Description	The head section shall contain a description of any type of head exam.	
LOINC Code	Opt	Description
10199-8	R	HEAD

4425

```
<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.18'>
    <id root=' ' extension=' '/>
    <code code='10199-8' displayName='HEAD'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>
```

4430

Figure 6.2-32 Sample Triage Note Document

4435

6.2.4.8.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.18'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.18"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Head can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10199-8"]'>
      Error: The section type code of a Head must be 10199-8
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

4440

4445

4450

6.2.4.9 Eyes Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.19	
General Description	The eyes section shall contain a description of any type of eye exam.	
LOINC Code	Opt	Description
10197-2	R	EYE

4455

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.19' />
    <id root=' ' extension=' '/>
    <code code='10197-2' displayName='EYE'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>
```

4460

4465

Figure 6.2-33 Sample Triage Note Document

6.2.4.9.1 Schematron

```

4470 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.19'>
    <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.19"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
            Error: The Eyes can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "10197-2"]'>
            Error: The section type code of a Eyes must be 10197-2
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
            Error: The section type code must come from the LOINC code
            system (2.16.840.1.113883.6.1).
        </assert>
    </rule>
</pattern>
```

6.2.4.10 Ears, Nose, Mouth and Throat Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.20	
General Description	The ears, nose, mouth, and throat section shall contain a description of any type of ears, nose, mouth, or throat exam.	
LOINC Code	Opt	Description
11393-6	R	EARS and NOSE and MOUTH and THROAT

```

4485 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.20' />
        <id root=' ' extension=' '/>
        <code code='11393-6' displayName='EARS and NOSE and MOUTH and THROAT'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
            Text as described above
        </text>
    </section>
</component>
```

Figure 6.2-34 Sample Triage Note Document

6.2.4.10.1 Schematron

```

4500 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.20'>
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.20"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
        Error: The Ears, Nose, Mouth and Throat can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "11393-6"]'>
        Error: The section type code of a Ears, Nose, Mouth and Throat must be 11393-6
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The section type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
    </assert>
</rule>
</pattern>

```

6.2.4.11 Ears Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.21	
General Description	The ears section shall contain a description of any type of ear exam.	
LOINC Code	Opt	Description
10195-6	R	EAR

```

4520 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.21'>
<id root=' ' extension=' '/>
<code code='10195-6' displayName='EAR'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
<text>
    Text as described above
</text>
</section>
</component>

```

4530 **Figure 6.2-35 Sample Triage Note Document**

6.2.4.11.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.21'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.21"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Ears can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10195-6"]'>
      Error: The section type code of a Ears must be 10195-6
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

6.2.4.12 Nose Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.22	
General Description	The nose section shall contain a description of any type of nose exam.	
LOINC Code	Opt	Description
10203-8	R	NOSE

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.22' />
    <id root=' ' extension=' '/>
    <code code='10203-8' displayName='NOSE'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

Figure 6.2-36 Sample Triage Note Document

6.2.4.12.1 Schematron

```

4565 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.22'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.22"]'>
          <!-- Verify that the template id is used on the appropriate type of object -->
          <assert test='../../cda:section'>
              Error: The Nose can only be used on sections.
          </assert>
          <!-- Verify the section type code -->
          <assert test='cda:code[@code = "10203-8"]'>
              Error: The section type code of a Nose must be 10203-8
          </assert>
          <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
              Error: The section type code must come from the LOINC code
              system (2.16.840.1.113883.6.1).
          </assert>
      </rule>
  </pattern>

```

4580 6.2.4.13 Mouth, Throat and Teeth Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.23	
General Description	The mouth, throat, and teeth section shall contain a description of any type of mouth, throat, or teeth exam.	
LOINC Code	Opt	Description
10201-2	R	MOUTH and THROAT and TEETH

```

4585 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.23' />
          <id root=' ' extension=' '/>
          <code code='10201-2' displayName='MOUTH and THROAT and TEETH'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
          <text>
              Text as described above
          </text>
      </section>
  </component>

```

Figure 6.2-37 Sample Triage Note Document

4595

6.2.4.13.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.23'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.23"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Mouth, Throat and Teeth can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10201-2"]'>
      Error: The section type code of a Mouth, Throat and Teeth must be 10201-2
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

4600

4605

4610

6.2.4.14 Neck Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.24	
General Description	The neck section shall contain a description of any type of neck exam.	
LOINC Code	Opt	Description
11411-6	R	NECK

4615

4620

4625

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.24' />
    <id root=' ' extension=' '/>
    <code code='11411-6' displayName='NECK'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>
```

Figure 6.2-38 Sample Triage Note Document

6.2.4.14.1 Schematron

```

4630   <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.24'>
        <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.24"]'>
          <!-- Verify that the template id is used on the appropriate type of object -->
          <assert test='../../cda:section'>
            Error: The Neck can only be used on sections.
          </assert>
          <!-- Verify the section type code -->
          <assert test='cda:code[@code = "11411-6"]'>
            Error: The section type code of a Neck must be 11411-6
          </assert>
          <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
            Error: The section type code must come from the LOINC code
            system (2.16.840.1.113883.6.1).
          </assert>
        </rule>
      </pattern>

```

6.2.4.15 Endocrine System Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.25	
General Description	The endocrine system section shall contain a description of any type of endocrine system exam.	
LOINC Code	Opt	Description
29307-6	R	ENDOCRINE SYSTEM

```

4645   <component>
        <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.25' />
          <id root=' ' extension=' '/>
          <code code='29307-6' displayName='ENDOCRINE SYSTEM'
            codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
          <text>
            Text as described above
          </text>
        </section>
      </component>

```

Figure 6.2-39 Sample Triage Note Document

6.2.4.15.1 Schematron

```

4660 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.25'>
4661   <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.25"]'>
4662     <!-- Verify that the template id is used on the appropriate type of object -->
4663     <assert test='../../cda:section'>
4664       Error: The Endocrine System can only be used on sections.
4665     </assert>
4666     <!-- Verify the section type code -->
4667     <assert test='cda:code[@code = "29307-6"]'>
4668       Error: The section type code of a Endocrine System must be 29307-6
4669     </assert>
4670     <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
4671       Error: The section type code must come from the LOINC code
4672       system (2.16.840.1.113883.6.1).
4673     </assert>
4674   </rule>
4675 </pattern>
```

6.2.4.16 Thorax and Lungs Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.26	
General Description	The thorax and lungs section shall contain a description of any type of thoracic or lung exams.	
LOINC Code	Opt	Description
10207-9	R	THORAX+LUNGS

```

4680 <component>
4681   <section>
4682     <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.26' />
4683     <id root=' ' extension=' '/>
4684     <code code='10207-9' displayName='THORAX+LUNGS'
4685       codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
4686     <text>
4687       Text as described above
4688     </text>
4689   </section>
4690 </component>
```

Figure 6.2-40 Sample Triage Note Document

6.2.4.16.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.26'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.26"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Thorax and Lungs can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10207-9"]'>
      Error: The section type code of a Thorax and Lungs must be 10207-9
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

6.2.4.17 Chest Wall Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.27	
General Description	The chest wall section shall contain a description of any type of chest wall exam.	
LOINC Code	Opt	Description
11392-8	R	CHEST WALL

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.27' />
    <id root=' ' extension=' '/>
    <code code='11392-8' displayName='CHEST WALL'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

Figure 6.2-41 Sample Triage Note Document

6.2.4.17.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.27'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.27"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Chest Wall can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "11392-8"]'>
      Error: The section type code of a Chest Wall must be 11392-8
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

4740

6.2.4.18 Breast Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.28	
General Description	The breast section shall contain a description of any type of breast exam.	
LOINC Code	Opt	Description
10193-1	R	BREASTS

4745

```
<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.28' />
    <id root=' ' extension=' '/>
    <code code='10193-1' displayName='BREASTS'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>
```

4750

Figure 6.2-42 Sample Triage Note Document

4755

6.2.4.18.1 Schematron

4760

```
<pattern name='Template 1.3.6.1.4.1.19376.1.5.3.1.1.9.28'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.28"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Breast can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10193-1"]'>
      Error: The section type code of a Breast must be 10193-1
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

4765

4770

6.2.4.19 Heart Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.29	
General Description	The heart section shall contain a description of any type of heart exam.	
LOINC Code	Opt	Description
10200-4	R	HEART

```

4775 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.29' />
        <id root=' ' extension=' '/>
        <code code='10200-4' displayName='HEART'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
      </section>
    </component>

```

Figure 6.2-43 Sample Triage Note Document

6.2.4.19.1 Schematron

```

4790 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.29'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.29"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The Heart can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "10200-4"]'>
          Error: The section type code of a Heart must be 10200-4
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
      </rule>
    </pattern>

```

6.2.4.20 Respiratory System Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.30	
General Description	The respiratory system section shall contain a description of any type of respiratory exam.	
LOINC Code	Opt	Description
11412-4	R	RESPIRATORY SYSTEM

```

4805 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.30' />
        <id root=' ' extension=' '/>
        <code code='11412-4' displayName='RESPIRATORY SYSTEM'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
      </section>
    </component>

```

Figure 6.2-44 Sample Triage Note Document

6.2.4.20.1 Schematron

```

4820 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.30'>
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.30"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
        Error: The Respiratory System can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "11412-4"]'>
        Error: The section type code of a Respiratory System must be 11412-4
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The section type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
    </assert>
</rule>
</pattern>
```

6.2.4.21 Abdomen Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.31	
General Description	The abdomen system section shall contain a description of any type of abdominal exam.	
LOINC Code	Opt	Description
10191-5	R	ABDOMEN

```

4840 <component>
<section>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.31'>
<id root=' ' extension=' '/>
<code code='10191-5' displayName='ABDOMEN'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
<text>
    Text as described above
</text>
</section>
</component>
```

4850 **Figure 6.2-45 Sample Triage Note Document**

6.2.4.21.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.31'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.31"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Abdomen can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10191-5"]'>
      Error: The section type code of a Abdomen must be 10191-5
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

6.2.4.22 Lymphatic System Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.32	
General Description	The lymphatic system section shall contain a description of any type of lymphatic exam.	
LOINC Code	Opt	Description
11447-0	R	HEMATOLOGIC+LYMPHATIC+IMMUNOLOGIC SYSTEM

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.32' />
    <id root=' ' extension=' '/>
    <code code='11447-0' displayName='HEMATOLOGIC+LYMPHATIC+IMMUNOLOGIC SYSTEM'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

Figure 6.2-46 Sample Triage Note Document

6.2.4.22.1 Schematron

```

4885 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.32'>
     <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.32"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
            Error: The Lymphatic System can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "11447-0"]'>
            Error: The section type code of a Lymphatic System must be 11447-0
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
            Error: The section type code must come from the LOINC code
            system (2.16.840.1.113883.6.1).
        </assert>
    </rule>
</pattern>
```

4900 6.2.4.23 Vessels Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.33	
General Description	The vessels section shall contain a description of any type of vessels exam.	
LOINC Code	Opt	Description
10208-7	R	VESSELS

```

4905 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.33' />
        <id root=' ' extension=' '/>
        <code code='10208-7' displayName='VESSELS'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
      </section>
</component>
```

Figure 6.2-47 Sample Triage Note Document

4915

6.2.4.23.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.33'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.33"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Vessels can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10208-7"]'>
      Error: The section type code of a Vessels must be 10208-7
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

4920

4925

4930

6.2.4.24 Musculoskeletal System Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.34	
General Description	The musculoskeletal system section shall contain a description of any type of musculoskeletal exam.	
LOINC Code	Opt	Description
11410-8	R	MUSCULOSKELETAL SYSTEM

4935

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.34' />
    <id root=' ' extension=' '/>
    <code code='11410-8' displayName='MUSCULOSKELETAL SYSTEM'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>
```

4940

4945

Figure 6.2-48 Sample Triage Note Document

6.2.4.24.1 Schematron

```

4950 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.34'>
    <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.34"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
            Error: The Musculoskeletal System can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "11410-8"]'>
            Error: The section type code of a Musculoskeletal System must be 11410-8
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
            Error: The section type code must come from the LOINC code
            system (2.16.840.1.113883.6.1).
        </assert>
    </rule>
</pattern>
```

6.2.4.25 Neurologic System Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.35	
General Description	The neurologic system section shall contain a description of any type of neurologic exam.	
LOINC Code	Opt	Description
10202-0	R	NEUROLOGIC SYSTEM

```

4965 <component>
    <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.35' />
        <id root=' ' extension=' '/>
        <code code='10202-0' displayName='NEUROLOGIC SYSTEM'
            codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
            Text as described above
        </text>
    </section>
</component>
```

Figure 6.2-49 Sample Triage Note Document

6.2.4.25.1 Schematron

```

4980 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.35'>
4981   <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.35"]'>
4982     <!-- Verify that the template id is used on the appropriate type of object -->
4983     <assert test='../../cda:section'>
4984       Error: The Neurologic System can only be used on sections.
4985     </assert>
4986     <!-- Verify the section type code -->
4987     <assert test='cda:code[@code = "10202-0"]'>
4988       Error: The section type code of a Neurologic System must be 10202-0
4989     </assert>
4990     <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
4991       Error: The section type code must come from the LOINC code
4992         system (2.16.840.1.113883.6.1).
4993     </assert>
4994   </rule>
4995 </pattern>
```

6.2.4.26 Genitalia Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.36	
General Description	The genitalia section shall contain a description of any type of genital exam.	
LOINC Code	Opt	Description
11400-9	R	GENITALIA

```

5000 <component>
5001   <section>
5002     <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.36' />
5003     <id root=' ' extension=' '/>
5004     <code code='11400-9' displayName='GENITALIA'
5005       codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
5006     <text>
5007       Text as described above
5008     </text>
5009   </section>
5010 </component>
```

Figure 6.2-50 Sample Triage Note Document

6.2.4.26.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.36'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.36"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Genitalia can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "11400-9"]'>
      Error: The section type code of a Genitalia must be 11400-9
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

5015

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6.2.4.27 Rectum Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.9.37	
General Description	The rectum section shall contain a description of any type of rectal exam.	
LOINC Code	Opt	Description
10205-3	R	RECTUM

5030

5035

5040

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.9.37' />
    <id root=' ' extension=' '/>
    <code code='10205-3' displayName='RECTUM'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

Figure 6.2-51 Sample Triage Note Document

6.2.4.27.1 Schematron

```

5045 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.9.37'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.9.37"]'>
          <!-- Verify that the template id is used on the appropriate type of object -->
          <assert test='../../cda:section'>
              Error: The Rectum can only be used on sections.
          </assert>
          <!-- Verify the section type code -->
          <assert test='cda:code[@code = "10205-3"]'>
              Error: The section type code of a Rectum must be 10205-3
          </assert>
          <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
              Error: The section type code must come from the LOINC code
              system (2.16.840.1.113883.6.1).
          </assert>
      </rule>
  </pattern>

```

6.2.4.28 Extremities Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1	
General Description	The Extremities section SHALL contain a description of any type of exam on the patient's extremities.	
LOINC Code	Opt	Description
10196-4	R	EXTREMITIES

```

5065 <component>
      <section>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1' />
          <id root=' ' extension=' '/>
          <code code='10196-4' displayName='EXTREMITIES'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
          <text>
              Text as described above
          </text>
      </section>
  </component>

```

Figure 6.2-52 Sample Triage Note Document

5075

6.2.4.28.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.16.2.1"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Extremities can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "10196-4"]'>
      Error: The section type code of a Extremities must be 10196-4
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

5080

5085

5090

6.2.5 Relevant Studies

6.2.5.1 Results Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.27	
General Description	The results section shall contain a narrative description of the patient's relevant studies.	
LOINC Code	Opt	Description
30954-2	R	STUDIES SUMMARY

5095

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.27' />
    <id root=' ' extension=' '/>
    <code code='30954-2' displayName='STUDIES SUMMARY'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>
```

5100

5105

Figure 6.2-53 Sample Triage Note Document

6.2.5.1.1 Schematron

```

5110   <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.27'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.27"]'>
          <!-- Verify that the template id is used on the appropriate type of object -->
          <assert test='../../cda:section'>
              Error: The Results can only be used on sections.
          </assert>
          <!-- Verify the section type code -->
          <assert test='cda:code[@code = "30954-2"]'>
              Error: The section type code of a Results must be 30954-2
          </assert>
          <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
              Error: The section type code must come from the LOINC code
              system (2.16.840.1.113883.6.1).
          </assert>
      </rule>
  </pattern>

```

6.2.5.2 Coded Results Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.28	
General Description	The results section shall contain a narrative description of the relevant diagnostic procedures the patient received in the past. It shall include entries for procedures and references to procedure reports when known as described in the Entry Content Modules.	
LOINC Code	Opt	Description
30954-2	R	STUDIES SUMMARY
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.19	R	Procedure Entry
1.3.6.1.4.1.19376.1.5.3.1.4.4	R2	References Entry
1.3.6.1.4.1.19376.1.5.3.1.4.13	O	Simple Observation

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(EDES)

```
5130 <component>
5135   <section>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.28' />
      <id root=' ' extension=' '/>
      <code code='30954-2' displayName='STUDIES SUMMARY'
            codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
      <text>
        Text as described above
      </text>
      <entry>
        :
        <!-- Required Procedure Entry element -->
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.19' />
        :
      </entry>
      <entry>
        :
        <!-- Required if known References Entry element -->
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4' />
        :
      </entry>
      <entry>
        :
        <!-- Optional Simple Observation element -->
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />
        :
      </entry>
    </section>
</component>
```

Figure 6.2-54 Sample Triage Note Document

6.2.5.2.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.28'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.28"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Coded Results can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "30954-2"]'>
      Error: The section type code of a Coded Results must be 30954-2
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.19"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Coded Results Section must contain a(n) Procedure Entry Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.28
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.4"]'>
      <!-- Alert on any missing required if known elements -->
      Warning: The Coded Results Section should contain a(n) References Entry Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.28
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.13"]'>
      <!-- Note any missing optional elements -->
      Note: This Coded Results Section does not contain a(n) Simple Observation Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.28
    </assert>
  </rule>
</pattern>

```

5190 6.2.5.3 Hospital Studies Summary Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.29	
General Description	The hospital studies summary section shall contain a narrative description of the relevant diagnostic procedures the patient received during the hospital admission.	
LOINC Code	Opt	Description
11493-4	R	HOSPITAL DISCHARGE STUDIES SUMMARY

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.29' />
    <id root=' ' extension=' '/>
    <code code='11493-4' displayName='HOSPITAL DISCHARGE STUDIES SUMMARY'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

Figure 6.2-55 Sample Triage Note Document

5205

6.2.5.3.1 Schematron

```
<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.29'>
<rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.29"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
        Error: The Hospital Studies Summary can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "11493-4"]'>
        Error: The section type code of a Hospital Studies Summary must be 11493-4
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The section type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
    </assert>
</rule>
</pattern>
```

5210

5215

5220

6.2.5.4 Coded Hospital Studies Summary Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.30	
Parent Template	Hospital Studies Summary (1.3.6.1.4.1.19376.1.5.3.1.3.29)	
General Description	The hospital studies summary section shall include entries for diagnostic procedures and references to procedure reports when known as described in the Entry Content Modules.	
LOINC Code	Opt	Description
11493-4	R	HOSPITAL DISCHARGE STUDIES SUMMARY
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.19	R	Procedure Entry
1.3.6.1.4.1.19376.1.5.3.1.4.4	R2	References Entry

6.2.5.4.1 Parent Template

5225

The parent of this template is [Hospital Studies Summary](#).

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.29' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.30' />
    <id root=' ' extension=' '/>
    <code code='11493-4' displayName='HOSPITAL DISCHARGE STUDIES SUMMARY'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required Procedure Entry element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.19' />
      :
    </entry>
    <entry>
      :
      <!-- Required if known References Entry element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4' />
      :
    </entry>
  </section>
</component>

```

Figure 6.2-56 Sample Triage Note Document

6.2.5.4.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.30'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.30"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Coded Hospital Studies Summary can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.29"]'>
      Error: The parent template identifier for Coded Hospital Studies Summary is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "11493-4"]'>
      Error: The section type code of a Coded Hospital Studies Summary must be 11493-4
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.19"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Coded Hospital Studies Summary Section must contain a(n) Procedure Entry Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.30
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.4"]'>
      <!-- Alert on any missing required if known elements -->
      Warning: The Coded Hospital Studies Summary Section should contain a(n) References Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.30
    </assert>
  </rule>
</pattern>

```

ED Consultations Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.8	
General Description	The ED Consultations section shall contain a narrative description of the consultations obtained during an encounter of care. Consultations themselves may be placed in the consultation section of the EDES folder.	
LOINC Code	Opt	Description
18693-2	R	ED CONSULTANT PRACTITIONER

5285

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.8' />
    <id root=' ' extension=' '/>
    <code code='18693-2' displayName='ED CONSULTANT PRACTITIONER'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

5290

5295

Figure 6.2-57 Sample Triage Note Document

6.2.5.4.3 Schematron

5300

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.8'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.8"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The ED Consultations can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "18693-2"]'>
      Error: The section type code of a ED Consultations must be 18693-2
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

5305

5310

5315

6.2.6 Plans of Care

This section provides content modules for sections that describe the plan of care intended for the patient.

6.2.7 Care Plan Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.31	
Parent Template	CCD 3.16 (2.16.840.1.113883.10.20.1.10)	
General Description	The care plan section shall contain a narrative description of the expectations for care including proposals, goals, and order requests for monitoring, tracking, or improving the condition of the patient.	
LOINC Code	Opt	Description

18776-5	R	TREATMENT PLAN
---------	---	----------------

5320

6.2.7.1.1 Parent Template

The parent of this template is CCD 3.16.

5325

```
<component>
  <section>
    <templateId root='2.16.840.1.113883.10.20.1.10' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.31' />
    <id root=' ' extension=' '/>
    <code code='18776-5' displayName='TREATMENT PLAN'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>
```

5330

5335

Figure 6.2-58 Sample Triage Note Document

6.2.7.1.2 Schematron

5340

```
<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.31'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.31"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Care Plan can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.10"]'>
      Error: The parent template identifier for Care Plan is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "18776-5"]'>
      Error: The section type code of a Care Plan must be 18776-5
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

5345

5350

5355

6.2.7.2 Assessment and Plan Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5	
General Description	The assessment and plan section shall contain a narrative description of the assessment of the patient condition and expectations for care including proposals, goals, and order requests for monitoring, tracking, or improving the condition of the patient.	
LOINC Code	Opt	Description
51847-2	R	ASSESSMENT AND PLAN

```

5360 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5' />
        <id root=' ' extension=' '/>
        <code code='51847-2' displayName='ASSESSMENT AND PLAN'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
      </section>
    </component>

```

Figure 6.2-59 Sample Triage Note Document

6.2.7.2.1 Schematron

```

5375 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.5"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The Assessment and Plan can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "51847-2"]'>
          Error: The section type code of a Assessment and Plan must be 51847-2
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
      </rule>
    </pattern>

```

5390 6.2.7.3 Discharge Disposition Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.32	
General Description	The plan of care section shall contain a narrative description of the expectations for care including proposals, goals, and order requests for monitoring, tracking, or improving the condition of the patient, specifically used in a discharge from a facility such as a hospital or nursing home.	
LOINC Code	Opt	Description
18776-5	R	TREATMENT PLAN

```

5395 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.32' />
        <id root=' ' extension=' '/>
        <code code='18776-5' displayName='TREATMENT PLAN'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
      </section>
    </component>

```

Figure 6.2-60 Sample Triage Note Document

5405

6.2.7.3.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.32'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.32"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Discharge Disposition can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "18776-5"]'>
      Error: The section type code of a Discharge Disposition must be 18776-5
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

5410

5415

5420

6.2.7.4 Advance Directives Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.34	
Parent Template	CCD 3.2 (2.16.840.1.113883.10.20.1.1)	
General Description	The advance directive section shall contain a narrative description of the list of documents that define the patient's expectations and requests for care along with the locations of the documents.	
LOINC Code	Opt	Description
42348-3	R	ADVANCE DIRECTIVES

6.2.7.5 Parent Template

5425

The parent of this template is CCD 3.2. This template is compatible with the ASTM/HL7 Continuity of Care Document template: 2.16.840.1.113883.10.20.1.1

5430

```

<component>
  <section>
    <templateId root='2.16.840.1.113883.10.20.1.1'>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.34'>
    <id root=' ' extension=' '/>
    <code code='42348-3' displayName='ADVANCE DIRECTIVES'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>
```

5435

5440

Figure 6.2-61 Sample Triage Note Document

6.2.7.5.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.34'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.34"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Advance Directives can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="2.16.840.1.113883.10.20.1.1"]'>
      Error: The parent template identifier for Advance Directives is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "42348-3"]'>
      Error: The section type code of a Advance Directives must be 42348-3
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>
```

6.2.7.6 Coded Advance Directives Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.3.35	
Parent Template	Advance Directives (1.3.6.1.4.1.19376.1.5.3.1.3.34)	
General Description	The advance directive section shall include entries for references to consent and advance directive documents when known as described in the Entry Content Modules.	
LOINC Code	Opt	Description
42348-3	R	ADVANCE DIRECTIVES
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.13.7	R2	Advance Directive Observation

6.2.7.6.1 Parent Template

5465 The parent of this template is [Advance Directives](#).

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.34' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.3.35' />
    <id root=' ' extension=' '/>
    <code code='42348-3' displayName='ADVANCE DIRECTIVES'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required if known Advance Directive Observation element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.7' />
      :
    </entry>
  </section>
</component>

```

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Figure 6.2-62 Sample Triage Note Document

6.2.7.6.2 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.3.35'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.35"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Coded Advance Directives can only be used on sections.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='cda:templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.34"]'>
      Error: The parent template identifier for Coded Advance Directives is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "42348-3"]'>
      Error: The section type code of a Coded Advance Directives must be 42348-3
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.13.7"]'>
      <!-- Alert on any missing required if known elements -->
      Warning: The Coded Advance Directives Section should contain a(n) Advance Directive
      Observation Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.3.35
    </assert>
  </rule>
</pattern>

```

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6.2.7.7 Transport Mode Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2	
General Description	The transport mode section contains a description of the mode of transport and the time of departure or arrival of the patient to a facility.	
LOINC Code	Opt	Description
11459-5	R	TRANSPORT MODE
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1	R	Transport This entry provides coded values giving the mode and time of departure or arrival of the patient to a facility.

```

5515 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2' />
        <id root=' ' extension=' '/>
        <code code='11459-5' displayName='TRANSPORT MODE'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Required Transport element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1' />
          :
        </entry>
      </section>
    </component>

```

Figure 6.2-63 Sample Triage Note Document

6.2.7.7.1 Schematron

```

5535 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The Transport Mode can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "11459-5"]'>
          Error: The section type code of a Transport Mode must be 11459-5
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='../../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1"]'>
          <!-- Verify that all required data elements are present -->
          Error: The Transport Mode Section must contain a(n) Transport Entry.
          See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2
        </assert>
      </rule>
    </pattern>

```

6.2.8 Procedures Performed

6.2.9 Procedures and Interventions Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11	
General Description	This section contains a narrative description of the procedures and/or interventions performed by a clinician.	
LOINC Code	Opt	Description
X-PROC	R	PROCEDURES PERFORMED
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.19	R	Procedures This entry provides coded values for procedures performed during the encounter.

```

5560 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11' />
        <id root=' ' extension=' '/>
        <code code='X-PROC' displayName='PROCEDURES PERFORMED'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Required Procedures element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.19' />
          :
        </entry>
      </section>
    </component>

```

Figure 6.2-64 Sample Triage Note Document

6.2.9.1.1 Schematron

```

5580 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The Procedures and Interventions can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "X-PROC"]'>
          Error: The section type code of a Procedures and Interventions must be X-PROC
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.19"]'>
          <!-- Verify that all required data elements are present -->
          Error: The Procedures and Interventions Section must contain a(n) Procedures Entry.
          See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.11
        </assert>
      </rule>
    </pattern>

```

5600 6.2.10 Intravenous Fluids Administered Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6	
General Description	The intravenous fluids administered section shall contain a narrative description of fluids administered to a patient during the course of an encounter. It may include entries for IV fluid administration as described in the Entry Content Module.	
LOINC Code	Opt	Description
XIVFLU-X	R	INTRAVENOUS FLUIDS ADMINISTERED
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.13.3.2	R	Intravenous Fluids Administered

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```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6' />
    <id root=' ' extension=' '/>
    <code code='XIVFLU-X' displayName='INTRAVENOUS FLUIDS ADMINISTERED'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required Intravenous Fluids Administered element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.3.2' />
      :
    </entry>
  </section>
</component>

```

Figure 6.2-65 Sample Triage Note Document

6.2.10.1.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Intravenous Fluids Administered can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "XIVFLU-X"]'>
      Error: The section type code of a Intravenous Fluids Administered must be XIVFLU-X
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.3.2"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Intravenous Fluids Administered Section must contain a(n) Intravenous Fluids
      Administered Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.6
    </assert>
  </rule>
</pattern>

```

6.2.11 Impressions

6.2.11.1 Progress Note Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.7	
General Description	The Progress Note section shall contain a narrative description of the sequence of events from initial assessment to discharge for an encounter.	
LOINC Code	Opt	Description
18733-6	R	SUBSEQUENT EVALUATION NOTE (ATTENDING PHYSICIAN)

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.7' />
    <id root=' ' extension=' '/>
    <code code='18733-6' displayName='SUBSEQUENT EVALUATION NOTE (ATTENDING PHYSICIAN)' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
  </section>
</component>

```

Figure 6.2-66 Sample Triage Note Document

```

Schematron
<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.7'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.7"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Progress Note can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "18733-6"]'>
      Error: The section type code of a Progress Note must be 18733-6
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
  </rule>
</pattern>

```

6.2.11.2 ED Diagnosis Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.9	
General Description	The ED diagnosis section shall contain a narrative description of the conditions that were diagnosed or addressed during the ED course, as well as those active conditions that modify the complexity of the patient encounter. It should include entries for patient conditions as described in the Entry Content Module.	
LOINC Code	Opt	Description
11301-9	R	ED DIAGNOSIS
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.4.5	R	Conditions Entry

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```

5680 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.9' />
        <id root=' ' extension=' '/>
        <code code='11301-9' displayName='ED DIAGNOSIS'
          codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Required Conditions Entry element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5' />
          :
        </entry>
      </section>
    </component>

```

Figure 6.2-67 Sample Triage Note Document

6.2.11.2.1 Schematron

```

5700 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.9'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.9"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The ED Diagnosis can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "11301-9"]'>
          Error: The section type code of a ED Diagnosis must be 11301-9
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.5"]'>
          <!-- Verify that all required data elements are present -->
          Error: The ED Diagnosis Section must contain a(n) Conditions Entry Entry.
          See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.9
        </assert>
      </rule>
    </pattern>

```

5720 6.2.11.3 Acuity Assessment Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2	
General Description	The Acuity Assessment section contains a description of the acuity of the patient upon presentation to the Emergency department.	
LOINC Code	Opt	Description
11283-9	R	ACUITY ASSESSMENT
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.13.3.1	R	Acuity This entry provides coded values giving the triage acuity.

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2' />
    <id root=' ' extension=' '/>
    <code code='11283-9' displayName='ACUITY ASSESSMENT'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required Acuity element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.3.1' />
      :
    </entry>
  </section>
</component>

```

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Figure 6.2-68 Sample Triage Note Document

6.2.11.3.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Acuity Assessment can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "11283-9"]'>
      Error: The section type code of a Acuity Assessment must be 11283-9
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.3.1"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Acuity Assessment Section must contain a(n) Acuity Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.2
    </assert>
  </rule>
</pattern>

```

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6.2.11.4 Assessments Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4	
General Description	The assessments section contains narrative assessments of the patient status.	
LOINC Code	Opt	Description
X-ASSESS	R	ASSESSMENTS
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.13.3.4	O	Nursing Assessments Battery

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```

5765 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4' />
        <id root=' ' extension=' '/>
        <code code='X-ASSESS' displayName='ASSESSMENTS'
              codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Optional Nursing Assessments Battery element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.3.4' />
          :
        </entry>
      </section>
    </component>

```

Figure 6.2-69 Sample Triage Note Document

6.2.11.4.1 Schematron

```

5785 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The Assessments can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "X-ASSESS"]'>
          Error: The section type code of a Assessments must be X-ASSESS
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.13.3.4"]'>
          <!-- Note any missing optional elements -->
          Note: This Assessments Section does not contain a(n) Nursing Assessments Battery Entry.
          See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.4
        </assert>
      </rule>
    </pattern>

```

6.2.12 Administrative and Other Information

6.2.12.1 Referral Source Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.3	
General Description	The Referral Source section shall contain a narrative description of the referral source of the patient. Patients who are not referred by a particular agency or health care provider should be designated as "self referred".	
LOINC Code	Opt	Description
11293-8	R	ED REFERRAL SOURCE

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary
(EDES)

```

5810 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.3' />
        <id root=' ' extension=' '/>
        <code code='11293-8' displayName='ED REFERRAL SOURCE'
          codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
      </section>
    </component>

```

Figure 6.2-70 Sample Triage Note Document

6.2.12.1.1 Schematron

```

5825 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.3'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.3"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The Referral Source can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "11293-8"]'>
          Error: The section type code of a Referral Source must be 11293-8
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
      </rule>
    </pattern>

```

6.2.13 Transport Mode Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2	
General Description	The transport mode section contains a description of the mode of transport and the time of departure or arrival of the patient to a facility.	
LOINC Code	Opt	Description
11459-5	R	TRANSPORT MODE
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1	R	Transport This entry provides coded values giving the mode and time of departure or arrival of the patient to a facility.

5840

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```

<component>
  <section>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2' />
    <id root=' ' extension=' '/>
    <code code='11459-5' displayName='TRANSPORT MODE'
      codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
    <text>
      Text as described above
    </text>
    <entry>
      :
      <!-- Required Transport element -->
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1' />
      :
    </entry>
  </section>
</component>

```

Figure 6.2-71 Sample Triage Note Document

6.2.13.1.1 Schematron

```

<pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2'>
  <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../../cda:section'>
      Error: The Transport Mode can only be used on sections.
    </assert>
    <!-- Verify the section type code -->
    <assert test='cda:code[@code = "11459-5"]'>
      Error: The section type code of a Transport Mode must be 11459-5
    </assert>
    <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
      Error: The section type code must come from the LOINC code
      system (2.16.840.1.113883.6.1).
    </assert>
    <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1"]'>
      <!-- Verify that all required data elements are present -->
      Error: The Transport Mode Section must contain a(n) Transport Entry.
      See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.10.3.2
    </assert>
  </rule>
</pattern>

```

6.2.13.2 ED Disposition Section

Template ID	1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10	
General Description	The ED Disposition section contains descriptions of the various components of ED Disposition, including disposition from the ED, time of disposition, intended transportation mode, time of transport, and the non-ED practitioner the patient's care will be transferred to.	
LOINC Code	Opt	Description
11302-7	R	ED DISPOSITION
Entries	Opt	Description
1.3.6.1.4.1.19376.1.5.3.1.1.10.4.2	R	Encounter Disposition This required entry describes the expected or actual disposition of the patient after the emergency department encounter has been completed.

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
5885 <component>
      <section>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10' />
        <id root=' ' extension=' '/>
        <code code='11302-7' displayName='ED DISPOSITION'
          codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
        <text>
          Text as described above
        </text>
        <entry>
          :
          <!-- Required Encounter Disposition element -->
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.2' />
          :
        </entry>
      </section>
    </component>
```

Figure 6.2-72 Sample Triage Note Document

6.2.13.2.1 Schematron

```
5905 <pattern name='Template_1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10'>
      <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10"]'>
        <!-- Verify that the template id is used on the appropriate type of object -->
        <assert test='../../cda:section'>
          Error: The ED Disposition can only be used on sections.
        </assert>
        <!-- Verify the section type code -->
        <assert test='cda:code[@code = "11302-7"]'>
          Error: The section type code of a ED Disposition must be 11302-7
        </assert>
        <assert test='cda:code[@codeSystem = "2.16.840.1.113883.6.1"]'>
          Error: The section type code must come from the LOINC code
          system (2.16.840.1.113883.6.1).
        </assert>
        <assert test='../../cda:templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.1.10.4.2"]'>
        <!-- Verify that all required data elements are present -->
        Error: The ED Disposition Section must contain a(n) Encounter Disposition Entry.
        See http://wiki.ihe.net/index.php?title=1.3.6.1.4.1.19376.1.5.3.1.1.13.2.10
      </assert>
    </rule>
  </pattern>
```

5925 **6.3 CDA and HL7 Version 3 Entry Content Modules**

6.3.1 Authors and Informants

Each clinical statement that can be made in a CDA Document or HL7 Version 3 message shall be attributable to one or more authors. These are found in `<author>` elements, either directly within the clinical statement, or in one of its ancestors in the XML document or message.

5930 Each clinical statement may also contain information from zero or more informants. These are found in `<informant>` elements, again, either directly within the clinical statement, or in one of its ancestors in the XML document or message.

6.3.1.1 `<author>`

Authors shall be described in an `<author>` element that is either directly on the clinical statement, or which can be reached by one of its ancestors.

6.3.1.2 <time value=' '/>

The time of authorship shall be recorded in the <time> element.

6.3.1.3 <assignedAuthor> -OR- <assignedEntity1>

5940 <id root=' ' extension=' '>
 <addr></addr>
 <telecom value=' ' use=' '>

In a CDA document details about the author are provided in the <assignedAuthor> element. In Version 3 messages, they are provided in the <assignedEntity1> element. The semantics are identical even though the element names differ. The identifier of the author, and their address and telephone number shall be present inside the <id>, <addr> and <telecom> elements.
5945

6.3.1.4 <assignedPerson><name></name></assignedPerson> <representedOrganization><name></name></representedOrganization>

The author's and/or the organization's name shall be present when the <author> element is present.

5950

6.3.2 Linking Narrative and Coded Entries

This section defines a linking mechanism that allows entries or portions thereof to be connected to the text of the clinical document.

6.3.2.1 Standards

RIM HL7 Version 3 Reference Information Model

CDAR2 HL7 Clinical Document Architecture Release 2.0

6.3.2.2 Constraints for CDA

5955 Elements within the narrative <text> will use the ID attribute to provide a destination for links. Elements within an <entry> will be linked to the text via a URI reference using this attribute as the fragment identifier. This links the coded entry to the specific narrative text it is related to within the CDA instance, and can be traversed in either direction. This serves three purposes:
It supports diagnostics during software development and testing.

5960 It provides a mechanism to enrich the markup that can be supported in the viewing application. It eliminates the need to duplicate content in two places, which prevents a common source of error, and eliminates steps needed to validate that content that should be identical in fact is.

Each narrative content element within CDA may have an ID attribute. This attribute is of type xs:ID. This means that each ID in the document must be unique within that document. Within an XML document, an attribute of type xs:ID must start with a letter, and may be followed one or more letters, digits, hyphens or underscores . Three different examples showing the use of the ID attribute, and references to it appear below:

Use of ID	References to ID
-----------	------------------

<tr ID='foo'> <td ID='bar'>Table Cell 1</td> <td>Table Cell 2</td> </tr>	<code> <originalText><referencevalue='#foo'></originalText> </code> <code> <originalText><referencevalue='#bar'></originalText> </code>
<list> <item ID='baz'>List item 1</item> </list>	<code> <originalText><referencevalue='#baz'></originalText> </code>
<paragraph ID='p-1'>A paragraph <content ID='c-1'>with content</content> </paragraph>	<code> <originalText><referencevalue='#p-1'></originalText> </code> <code> <originalText><referencevalue='#c-1'></originalText> </code>

6.3.2.3 Example Uses of ID

This allows the text to be located with a special type of URI reference, which simply contains a fragment identifier. This URI is local to the document and so just begins with a hash mark (#), and is followed by the value of the ID being referenced. Given one of these URIs stored in a variable named theURI, the necessary text value can be found via the following XPath expression:

```
string(//*[@@ID=substring-after('#',$theURI)])
```

The table below shows the result of this expression using the examples above:

\$theURI	Returned Value
"#bar"	"Table Cell 1"
"#foo"	"Table Cell 1Table Cell 2" (note the spacing issue between 1 and T)
"#p-1"	"A paragraph with content"
"#c-1"	"with content"

If your XSLT processor is schema aware, even more efficient mechanisms exist to locate the element than the above expression.

Having identified the critical text in the narrative, any elements using the HL7 CD datatype (e.g., <code>) can then contain a <reference> to the <originalText> found in the narrative. That is why, although CDA allows <value> to be of any type in <entry> elements, this profile restricts them to always be of xsi:type='CD'.

Now, given an item with an ID stored in a variable named theID all <reference> elements referring to it can be found via the following XPath expression:

```
//cda:reference[@URI=concat('#',$theID)]
```

5985 **6.3.2.4 Constraints for HL7 Version 3 Messages**

Unlike CDA entries, structured statements in HL7 Version 3 Messages do not have a related narrative text section. Therefore full text representations should be included in the <text> element care statement acts.

6.3.3 Severity 1.3.6.1.4.1.19376.1.5.3.1.4.1

- 5990 Any condition or allergy may be the subject of a severity observation. This structure is included in the target act using the <entryRelationship> element defined in the CDA Schema.
The example below shows the recording the condition or allergy severity, and is used as the context for the following sections.

6.3.3.1 Standards

PatCareStruct HL7 Care Provision Domain (DSTU)

CCD ASTM/HL7 Continuity of Care Document

5995 **6.3.3.2 Specification**

```
<observation classCode='COND' moodCode='EVN'>

    <entryRelationship typeCode='SUBJ' inversionInd='true'>
        <observation classCode='OBS' moodCode='EVN'>
            <templateId root='2.16.840.1.113883.10.20.1.55' />
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.1' />
            <code code='SEV' displayName='Severity'
                codeSystem='2.16.840.1.113883.5.4' codeSystemName='ActCode' />
            <text><reference value='#severity-2' /></text>
            <statusCode code='completed' />
            <value xsi:type='CD' code='H|M|L'
                codeSystem='2.16.840.1.113883.5.1063'
                codeSystemName='ObservationValue' />
        </observation>
    </entryRelationship>

</observation>
```

- 6000 6005 6010 6015 6020 This specification models a severity observation as a separate observation from the condition. While this model is different from work presently underway by various organizations (i.e., SNOMED, HL7, TermInfo), it is not wholly incompatible with that work. In that work, qualifiers may be used to identify severity in the coded condition observation, and a separate severity observation is no longer necessary. The use of qualifiers is not precluded by this specification. However, to support semantic interoperability between EMR systems using different vocabularies, this specification does require that severity information also be provided in a separate observation. This ensures that all EMR systems have equal access to the information, regardless of the vocabularies they support.

6.3.3.2.1 <entryRelationship typeCode='SUBJ' inversionInd='true'>

- 6025 The related statement is made about the severity of the condition (or allergy). For CDA, this observation is recorded inside an <entryRelationship> element occurring in the condition, allergy or medication entry. The containing <entry> is the subject (typeCode='SUBJ') of this new observation, which is the inverse of the normal containment structure, thus inversionInd='true'. For HL7 Version 3 Messages this relationship is represented with a <sourceOf> element, however the semantics, typeCode, and inversionInd is unchanged.
- 6030

6.3.3.2.2 <observation moodCode='EVN' classCode='OBS'>

The related statement is another event (moodCode='EVN') observing (<observation classCode='OBS'>) the severity of the (surrounding) related entry (e.g., a condition or allergy).

6.3.3.2.3 <templateId root='2.16.840.1.113883.10.20.1.55'>

<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.1'>

- 6035 The <templateId> elements identifies this <observation> as a severity observation, allowing for validation of the content. As a side effect, readers of the CDA can quickly locate and identify severity observations. The templateId elements shown above must be present.

6.3.3.2.4 <code code='SEV' codeSystem='2.16.840.1.113883.5.4'

displayName='Severity' codeSystemName='ActCode' />

This observation is of severity, as indicated by the <code> element listed above. This element is required. The code and codeSystem attributes shall be recorded exactly as shown above.

6.3.3.2.5 <text><reference value='#severity-2' /></text>

- 6045 The <observation> element shall contain a <text> element. For CDA, the <text> elements shall contain a <reference> element pointing to the narrative where the severity is recorded, rather than duplicate text to avoid ambiguity. For HL7 Version 3 Messages, the <text> element should contain the full narrative text.

6.3.3.2.6 <statusCode code='completed' />

- 6050 The code attribute of <statusCode> for all severity observations shall be completed. While the <statusCode> element is required in all acts to record the status of the act, the only sensible value of this element in this context is completed.

6.3.3.2.7 <value xsi:type='CD' code='H|M|L' codeSystem='2.16.840.1.113883.5.1063' codeSystemName='SeverityObservation'>

- 6055 The <value> element contains the level of severity. It is always represented using the CD datatype (xsi:type='CD'), even though the value may be a coded or uncoded string. If coded, it should use the HL7 SeverityObservation vocabulary (codeSystem='2.16.840.1.113883.5.1063') containing three values (H, M, and L), representing high, moderate and low severity depending upon whether the severity is life threatening, presents noticeable adverse consequences, or is unlikely substantially effect the situation of the subject.
- 6060

6.3.4 Problem Status Observation 1.3.6.1.4.1.19376.1.5.3.1.4.1.1

Any problem or allergy observation may reference a problem status observation. This structure is included in the target observation using the `<entryRelationship>` element defined in the CDA Schema. The clinical status observation records information about the current status of the problem or allergy, for example, whether it is active, in remission, resolved, et cetera. The example below shows the recording of clinical status of a condition or allergy, and is used as the context for the following sections.

6.3.4.1 Standards

CCD ASTM/HL7 Continuity of Care Document

6.3.4.2 Specification

```
6070 <entry>
      <observation classCode='OBS' moodCode='EVN'>
        <entryRelationship typeCode='REFR' inversionInd='false'>
          <observation classCode='OBS' moodCode='EVN'>
            <templateId root='2.16.840.1.113883.10.20.1.57' />
            <templateId root='2.16.840.1.113883.10.20.1.50' />
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.1.1' />
            <code code='33999-4' displayName='Status'
                  codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
            <text><reference value='#cstatus-2' /></text>
            <statusCode code='completed' />
            <value xsi:type='CE' code=' ' codeSystem='2.16.840.1.113883.6.96'
                  codeSystemName='SNOMED CT' />
          </observation>
        </entryRelationship>
      </observation>
    </entry>
```

This CCD models a problem status observation as a separate observation from the problem, 6090 allergy or medication observation. While this model is different from work presently underway by various organizations (i.e., SNOMED, HL7, TermInfo), it is not wholly incompatible with that work. In that work, qualifiers may be used to identify problem status in the coded condition observation, and a separate clinical status observation is no longer necessary. The use of qualifiers in the problem observation is not precluded by this specification or by CCD. However, 6095 to support semantic interoperability between EMR systems using different vocabularies, this specification does require that problem status information also be provided in a separate observation. This ensures that all EMR systems have equal access to the information, regardless of the vocabularies they support.

6.3.4.2.1 <entryRelationship typeCode='REFR' inversionInd='false'>

6100 The related statement is made about the clinical status of the problem or allergy. For CDA, this observation is recorded inside an `<entryRelationship>` element occurring in the problem or allergy. For HL7 Version 3 Messages, the `<entryRelationship>` tag name is `<sourceOf>`, though the typeCode and inversionInd attributes and other semantics remain the same. The containing observation refers to (typeCode='REFR') this new observation.

- 6105 **6.3.4.2.2 <observation moodCode='EVN' classCode='OBS'>**
The related statement is another event (moodCode='EVN') observing (<observation classCode='OBS'>) the clinical status of the (surrounding) related observation (e.g., a problem or allergy).
- 6110 **6.3.4.2.3 <templateId root='2.16.840.1.113883.10.20.1.57'>
<templateId root='2.16.840.1.113883.10.20.1.50'>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.1.1'>**
These <templateId> elements identify this <observation> as a problem status observation, allowing for validation of the content.
- 6115 **6.3.4.2.4 <code code='33999-4' codeSystem='2.16.840.1.113883.6.1'
displayName='Status' codeSystemName='LOINC' />**
This observation is of clinical status, as indicated by the <code> element. This element must be present. The code and codeSystem shall be recorded exactly as shown above.
- 6120 **6.3.4.2.5 <text><reference value='#cstatus-2'></text>**
The <observation> element shall contain a <text> element that points to the narrative text describing the clinical status. For CDA, the <text> elements shall contain a <reference> element pointing to the narrative section (see [Linking Narrative and Coded Entries](#)), rather than duplicate text to avoid ambiguity. For HL7 Version 3 Messages, the <text> element SHALL contain the full narrative text.
- 6125 **6.3.4.2.6 <statusCode code='completed'>**
The code attribute of <statusCode> for all clinical status observations shall be completed. While the <statusCode> element is required in all acts to record the status of the act, the only sensible value of this element in this context is completed.
- 6130 **6.3.4.2.7 <value xsi:type='CE' code=' ' displayName=' '
codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED CT'>**
The <value> element contains the clinical status. It is always represented using the CE datatype (xsi:type='CE'). It shall contain a code from the following set of values from SNOMED CT.

Code	Description
55561003	Active
73425007	Inactive
90734009	Chronic
7087005	Intermittent
255227004	Recurrent
415684004	Rule out
410516002	Ruled out
413322009	Resolved

6.3.5 Health Status 1.3.6.1.4.1.19376.1.5.3.1.4.1.2

A problem observation may reference a health status observation. This structure is included in the target observation using the <entryRelationship> element defined in the CDA Schema. The health status observation records information about the current health status of the patient. The example below shows the recording the health status, and is used as the context for the following sections.

6.3.5.1 Specification

```

6140 <entry>
      <observation classCode='OBS' moodCode='EVN'>
6145     <entryRelationship typeCode='REFR' inversionInd='false'>
         <observation classCode='OBS' moodCode='EVN'>
             <templateId root='2.16.840.1.113883.10.20.1.51' />
             <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.1.2' />
             <code code='11323-3' displayName='Health Status'
                  codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
             <text><reference value='#hstatus-2' /></text>
             <statusCode code='completed' />
             </value>
             <value xsi:type='CE' code=' ' codeSystem='2.16.840.1.113883.6.96'
                   codeSystemName='SNOMED CT' />
         </observation>
     </entryRelationship>
   </observation>
</entry>
```

This specification models a health status observation as a separate observation about the patient.

6.3.5.1.1 <entryRelationship typeCode='REFR'>

The related statement is made about the health status of the patient. For CDA, this observation is recorded inside an <entryRelationship> element occurring in the observation. The contained observation is referenced (typeCode='REFR') by the observation entry. For HL7 Version 3 Messages, the entryRelationship tagName is sourceOf, though the typeCode and inversionInd attributes and other semantics remain the same.

6.3.5.1.2 <observation moodCode='EVN' classCode='OBS'>

The related statement is another event (moodCode='EVN') observing (<observation classCode='OBS'>) the health status of the patient.

6.3.5.1.3 <templateId root='2.16.840.1.113883.10.20.1.51'> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.1.2'>

6170

The <templateId> element identifies this <observation> as a health status observation, allowing for validation of the content.

6.3.5.1.4 <code code='11323-3' displayName='Health Status' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />

6175

This observation is of health status, as indicated by the <code> element. This element must be present. The code and codeSystem attributes shall be recorded exactly as shown above.

6.3.5.1.5 <text><reference value='#hstatus-2' /></text>

6180

The <observation> element shall contain a <text> element that contains the narrative text describing the clinical status. For CDA, the <text> elements shall contain a <reference> element pointing to the narrative section (see [Linking Narrative and Coded Entries](#), rather than duplicate text to avoid ambiguity. For HL7 Version 3 Messages, the <text> element shall contain the full narrative text.

6185

6.3.5.1.6 <statusCode code='completed' />

The code attribute of <statusCode> for all health status observations shall be completed. While the <statusCode> element is required in all acts to record the status of the act, the only sensible value of this element in this context is completed.

6.3.5.1.7 <value xsi:type='CE' code=' ' displayName=' ' codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED CT'>

6190

The <value> element contains the clinical status. It is always represented using the CE datatype (xsi:type='CE').

Code	Description
81323004	Alive and well
313386006	In remission
162467007	Symptom free
161901003	Chronically ill
271593001	Severely ill
21134002	Disabled
161045001	Severely disabled
419099009	Deceased

6.3.6 Comments 1.3.6.1.4.1.19376.1.5.3.1.4.2

- 6195 This entry allows for a comment to be supplied with each entry. For CDA this structure is usually included in the target act using the <entryRelationship> element defined in the CDA Schema, but can also be used in the <component> element when the comment appears within an <organizer>. The example below shows recording a comment for an <entry>, and is used as context for the following sections. For HL7 Version 3 Messages, this relationship is represented
6200 with the element <sourceOf>, although the remainder of the typecodes and semantics are unchanged.

Any condition or allergy may be the subject of a comment.

6.3.6.1 Standards

CareStruct [HL7 Care Provision Care Structures \(DSTU\)](#)

CCD [ASTM/HL7 Continuity of Care Document](#)

6.3.6.2 Specification

```
6205 <entry>
  <observation classCode='OBS' moodCode='EVN'>
    :
    <entryRelationship typeCode='SUBJ' inversionInd='true'>
      <act classCode='ACT' moodCode='EVN'>
        <templateId root='2.16.840.1.113883.10.20.1.40'>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.2'>
        <code code='48767-8' displayName='Annotation Comment'
          codeSystem='2.16.840.1.113883.6.1'
          codeSystemName='LOINC' />
        <text><reference value='#comment-2' /></text>
        <statusCode code='completed' />
        <author>
          <time value='' />
          <assignedAuthor>
            <id root='' extension=''>
            <addr></addr>
            <telecom value='' use=''>
            <assignedPerson><name></name></assignedPerson>
            <representedOrganization><name></name></representedOrganization>
            </assignedAuthor>
          </author>
        </act>
      </entryRelationship>
    :
  </observation>
</entry>
<entry>
  <organizer>
    <component typeCode='COMP'>
      <act classCode='ACT' moodCode='EVN'>
        <templateId root='2.16.840.1.113883.10.20.1.40'>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.2'>
        <code code='48767-8' displayName='Annotation Comment'
          codeSystem='2.16.840.1.113883.6.1'
          codeSystemName='LOINC' />
        :
      </act>
    </component>
  </organizer>
</entry>
```

6.3.6.2.1 <entryRelationship typeCode='SUBJ' inversionInd='true'> or <component typeCode='COMP'>

A related statement is made about an act, or a cluster or battery of results. In CDA the former shall be recorded inside an <entryRelationship> element occurring at the end of the entry. The containing act is the subject (typeCode='SUBJ') of this new observation, which is the inverse of the normal containment structure, thus inversionInd='true'.

For HL7 Version 3 Messages, the relationship element is <sourceOf>, however the typeCode and inversionInd remain the same.

In the latter case, the comment shall be recorded inside a <component> element contained within the <organizer> element.

6.3.6.2.2 <act classCode='ACT' moodCode='EVN'>

The related statement is an event (moodCode='EVN') describing the act (classCode='ACT') of making an arbitrary comment or providing instruction on the related entry.

**6.3.6.2.3 <templateId root='2.16.840.1.113883.10.20.1.40'>
 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.2'>**

6260

These <templateId> elements identify this <act> as a comment, allowing for validation of the content.

**6.3.6.2.4 <code code='48767-8' displayName='Annotation Comment'
 codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />**

6265

The <code> element indicates that this is a comment and shall be recorded as shown above. The codeSystem and code attributes shall use the values specified above.

6.3.6.2.5 <text><reference value='#comment-2'></text>

6270

The <text> element provides a way to represent the <reference> to the text of the comment in the narrative portion of the document. For CDA, this SHALL be represented as a <reference> element that points to the narrative text section of the CDA. The comment itself is not the act being coded, so it appears in the <text> of the <observation>, not as part of the <code>. For HL7 Version 3 Messages, the <text> element SHALL contain the full narrative text.

6.3.6.2.6 <statusCode code='completed' />

The code attribute of <statusCode> for all comments must be completed.

6275

6.3.6.2.7 <author>

The comment may have an author.

6.3.6.2.8 <time value=' '>

The time of the comment creation shall be recorded in the <time> element when the <author> element is present.

6280

**6.3.6.2.9 <assignedAuthor>
 <id root=' ' extension=' '>
 <addr></addr>
 <telecom value=' ' use=' '>**

6285

The identifier of the author, and their address and telephone number must be present inside the <id>, <addr> and <telecom> elements when the <author> element is present.

**6.3.6.2.10 <assignedPerson><name></name></assignedPerson>
 <representedOrganization><name></name></representedOrganization>**

The author's and/or the organization's name must be present when the <author> element is present.

6290

6.3.7 Patient Medication Instructions 1.3.6.1.4.1.19376.1.5.3.1.4.3

Any medication may be the subject of further instructions to the patient, for example to indicate that it should be taken with food, et cetera.

This structure is included in the target substance administration or supply act using the `<entryRelationship>` element defined in the CDA Schema. The example below shows the recording of patient medication instruction for an `<entry>`, and is used as context for the following section.

6.3.7.1 Standards

Pharmacy HL7 Pharmacy Domain (Normative)

6.3.7.2 Specification

```
6300 <entry>
      <substanceAdministration classCode='SBADM' moodCode='EVN'>
          :
          <entryRelationship typeCode='SUBJ' inversionInd='true'>
              <act classCode='ACT' moodCode='INT'>
                  <templateId root='2.16.840.1.113883.10.20.1.49' />
                  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.3' />
                  <code code='PINSTRUCT' codeSystem='1.3.6.1.4.1.19376.1.5.3.2'
                        codeSystemName='IHEActCode' />
                  <text><reference value='#comment-2' /></text>
                  <statusCode code='completed' />
              </act>
          </entryRelationship>
          :
      </substanceAdministration>
</entry>
```

6.3.7.2.1 `<entryRelationship typeCode='SUBJ' inversionInd='true'>`

Again, a related statement is made about the medication or immunization. This observation is recorded inside an `<entryRelationship>` element occurring at the end of the substance administration or supply entry. The containing `<entry>` is the subject (`typeCode='SUBJ'`) of this new observation, which is the inverse of the normal containment structure, thus `inversionInd='true'`.

6.3.7.2.2 `<act classCode='ACT' moodCode='INT'>`

The related statement is the intent (`moodCode='INT'`) on how the related entry is to be performed.

6.3.7.2.3 `<templateId root='2.16.840.1.113883.10.20.1.49' />` `<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.3' />`

These `<templateId>` elements identify this `<act>` as a medication instruction, allowing for validation of the content. As a side effect, readers of the CDA can quickly locate and identify medication instructions.

6.3.7.2.4 `<code code='PINSTRUCT' codeSystem='1.3.6.1.4.1.19376.1.5.3.2' codeSystemName='IHEActCode' />`

The `<code>` element indicates that this is a patient medication instruction. This element shall be recorded exactly as specified above.

Note: These values will be sent to HL7 for harmonization with the HL7 Act Vocabulary.

6.3.7.2.5 <text><reference value="#comment-2"/></text>

The <text> element indicates the text of the comment. For CDA, this SHALL be represented as a <reference> element that points at the narrative portion of the document. The comment itself is not the act being coded, so it appears in the <text> of the <observation>, not as part of the <code>. For HL7 Version 3 Messages, the full text SHALL be represented here.

6.3.7.2.6 <statusCode code='completed' />

The code attribute of <statusCode> for all comments must be completed.

6.3.8 Medication Fulfillment Instructions 1.3.6.1.4.1.19376.1.5.3.1.4.3.1

Any medication may be the subject of further instructions to the pharmacist, for example to indicate that it should be labeled in Spanish, et cetera.

This structure is included in the target substance administration or supply act using the <entryRelationship> element defined in the CDA Schema. The figure below is an example of recording an instruction for an <entry>, and is used as context for the following sections.

6.3.8.1 Standards

Pharmacy HL7 Pharmacy Domain (Normative)

6.3.8.2 Specification

```
<entry>
  <supply classCode='SPLY' moodCode='EVN'>
    :
    <entryRelationship typeCode='SUBJ' inversionInd='true'>
      <act classCode='ACT' moodCode='INT'>
        <templateId root='2.16.840.1.113883.10.20.1.43' />
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.3.1' />
        <code code='FINSTRUCT' codeSystem='1.3.6.1.4.1.19376.1.5.3.2'
          codeSystemName='IHEActCode' />
        <text><reference value="#comment-2"/></text>
        <statusCode code='completed' />
      </act>
    </entryRelationship>
    :
  </supply>
</entry>
```

6.3.8.2.1 <entryRelationship typeCode='SUBJ' inversionInd='true'>

Again, a related statement is made about the medication or immunization. In CDA, this observation is recorded inside an <entryRelationship> element occurring at the end of the substance administration or supply entry. The containing <act> is the subject (typeCode='SUBJ') of this new observation, which is the inverse of the normal containment structure, thus inversionInd='true'. For HL7 Version 3 Messages, this relationship is represented with the <sourceOf> element however the semantics, typeCode, and inversionInd remain the same.

6.3.8.2.2 <act classCode='ACT' moodCode='INT'>

6375 The related statement is the intent (moodCode='INT') on how the related entry is to be performed.

6.3.8.2.3 <templateId root='2.16.840.1.113883.10.20.1.43'> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.3.1'>

These <templateId> elements identify this <act> as a medication fulfillment instruction, allowing for validation of the content.

6380 **6.3.8.2.4 <code code='FINSTRUCT' codeSystem='1.3.6.1.4.1.19376.1.5.3.2'
codeSystemName='IHEActCode' />**

The <code> element indicates that this is a medication fulfillment instruction. This element shall be recorded exactly as specified above.

Note: These values will be sent to HL7 for harmonization with the HL7 Act Vocabulary.

6.3.8.2.5 <text><reference value="#comment-2"/></text>

6385 The <text> element contains a free text representation of the instruction. For CDA this SHALL contain a provides a <reference> element to the link text of the comment in the narrative portion of the document. The comment itself is not the act being coded, so it appears in the <text> of the <observation>, not as part of the <code>. For HL7 Version 3 Messages, the full text SHALL be represented here.

6390 **6.3.8.2.6 <statusCode code='completed' />**

The code attribute of <statusCode> for all comments must be completed.

6.3.9 External References 1.3.6.1.4.1.19376.1.5.3.1.4.4

6395 CDA Documents may reference information contained in other documents. While CDA Release 2.0 supports references in content via the <linkHtml> element, this is insufficient for many EMR systems as the link is assumed to be accessible via a URL, which is often not the case. In order to link an external reference, one needs the document identifier, and access to the clinical system wherein the document resides. For a variety of reasons, it is desirable to refer to the document by its identity, rather than by linking through a URL.

1. The identity of a document does not change, but the URLs used to access it may vary depending upon location, implementation, or other factors.
2. Referencing clinical documents by identity does not impose any implementation specific constraints on the mechanism used to resolve these references, allowing the content to be implementation neutral. For example, in the context of an XDS Affinity domain the clinical system used to access documents would be an XDS Registry and one or more XDS Repositories where documents are stored. In other contexts, access might be through a Clinical Data Repository (CDR), or Document Content Management System

- (DCMS). Each of these may have different mechanisms to resolve a document identifier to the document resource.
- 6410 3. The identity of a document is known before the document is published (e.g., in an XDS Repository, Clinical Data Repository, or Document Content Management System), but its URL is often not known. Using the document identity allows references to existing documents to be created before those documents have been published to a URL. This is important to document creators, as it does not impose workflow restrictions on how links are created during the authoring process.
- 6415 Fortunately, CDA Release 2.0 also provides a mechanism to refer to external documents in an entry, as shown below.

6.3.9.1 Specification

```
<entry>
  <act classCode='ACT' moodCode='EVN'>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4' />
    <id root='' extension=''/>
    <code nullFlavor='NA' />
    <text><reference value='#study-1' /></text>
    <!-- For CDA -->
    <reference typeCode='REFR|SPRT'>
      <externalDocument classCode='DOC' moodCode='EVN'>
        <id extension='' root=''/>
        <text><reference value='http://foo...'/></text>
      </externalDocument>
    </reference>
    <!-- For HL7 Version 3 Messages
    <sourceOf typeCode='REFR|SPRT'>
      <act classCode='DOC' moodCode='EVN'>
        <id extension='' root=''/>
        <text><reference value='http://foo...'/></text>
      </act>
    </sourceOf>
    -->
  </act>
</entry>
```

6.3.9.1.1 <act classCode='ACT' moodCode='EVN'>

The external reference is an act that refers to documentation of an <act> (classCode='ACT'), that previously occurred (moodCode='EVN').

6.3.9.1.2 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4' />

6445 The <templateId> element identifies this <act> as a reference act, allowing for validation of the content. As a side effect, readers of the CDA can quickly locate and identify reference acts. The templateId must have root='1.3.6.1.4.1.19376.1.5.3.1.4.1.4.4'.

6.3.9.1.3 <id root=' ' extension=' '/>

6450 The reference is an act of itself, and must be uniquely identified. If there is no explicit identifier for this act in the source EMR system, a GUID may be used for the root attribute, and the extension may be omitted. Although HL7 allows for multiple identifiers, this profile requires that one and only one be used.

6.3.9.1.4 <code nullFlavor='NA'>

The reference act has no code associated with it.

6455 **6.3.9.1.5 <text><reference value="#study-1'/'></text>**

In order to connect this external reference to the narrative text which it refers, the value of the <reference> element in the <text> element is a URI to an element in the CDA narrative of this document.

6.3.9.1.6 <reference typeCode='SPRT|REFR'>

6460 **<externalDocument classCode='DOC' moodCode='EVN'>**

External references are listed as either supporting documentation (typeCode='SPRT') or simply reference material (typeCode='REFR') for the reader. If this distinction is not supported by the source EMR system, the value of typeCode should be REFR. For CDA, the reference is indicated by a <reference> element containing an <externalDocument> element which documents (classCode='DOC') the event (moodCode='EVN'). For HL7 Version 3 Messages, the reference is represented with the element <sourceOf> and the external document is represented with a <act> element, however semantics, and attributes remain otherwise without change.

6.3.9.1.7 <id extension=' ' root=' '/>

The identifier of the document is supplied in the <id> element.

6470 **6.3.9.1.8 <text><reference value=' '/></text>**

A link to the original document may be provided here. This shall be a URL where the referenced document can be located. For CDA, the link should also be present in the narrative inside the CDA Narrative in a <linkHTML> element.

6.3.10 Internal References 1.3.6.1.4.1.19376.1.5.3.1.4.4.1

6475 CDA and HL7 Version 3 Entries may reference (point to) information contained in other entries within the same document or message as shown below.

6.3.10.1 Specification

```
:  
<entryRelationship typeCode='' inversionInd='true|false'>  
  <act classCode='' moodCode=''>  
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4.1'>  
      <id root='' extension=''>  
        <code code='' displayName='' codeSystem='' codeSystemName=''>  
      </code>  
    </act>  
</entryRelationship>
```

6.3.10.1.1<entryRelationship typeCode=' ' inversionInd='true|false'>

For CDA the act being referenced appears inside a related entryRelationship. The type (typeCode) and direction (inversionInd) attributes will be specified in the entry content module that contains the reference. For HL7 Version 3 Messages, the relationship is indicated with a <sourceOf> element, however typeCodes and semantics remain unchanged.

6.3.10.1.2<act classCode=' ' moodCode=' '>

The act being referred to can be any CDA Clinical Statement element type (act, procedure, observation, substanceAdministration, supply, et cetera). For compatibility with the Clinical Statement model the internal reference shall always use the <act> class, regardless of the XML element type of the act it refers to.

6.3.10.1.3<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4.1'>

The <templateId> element identifies this as an internal reference that conforms to all rules specified in this section.

6.3.10.1.4<id root=' ' extension=' '/>

6495 This element shall be present. The root and extension attributes shall identify an element defined elsewhere in the same document.

6.3.10.1.5<code code=' ' displayName=' ' codeSystem=' ' codeSystemName=' '/>

6500 This element shall be present. It shall be valued when the internal reference is to an element that has a <code> element, and shall have the same attributes as the <code> element in the act it references. If the element it references does not have a <code> element, then the nullFlavor attribute should be set to "NA".

6.3.11 Concern Entry 1.3.6.1.4.1.19376.1.5.3.1.4.5.1

6510 This event (moodCode='EVN') represents an act (<act classCode='ACT'>) of being concerned about a problem, allergy or other issue. The <effectiveTime> element describes the period of concern. The subject of concern is one or more observations about related problems (see [1.3.6.1.4.1.19376.1.5.3.1.4.5.2](#)) or allergies and intolerances (see [1.3.6.1.4.1.19376.1.5.3.1.4.5.3](#)). Additional references can be provided having additional information related to the concern. The concern entry allows related acts to be grouped. This allows representing the history of a problem as a series of observation over time, for example.

6.3.12 Standards

CCD [ASTM/HL7 Continuity of Care Document](#)

CareStruct [HL7 Care Provision Care Structures \(DSTU\)](#)

ClinStat ClinStat HL7 Clinical Statement (DRAFT)

6.3.12.1 Specification

```

<act classCode='ACT' moodCode='EVN'>
  <templateId root='2.16.840.1.113883.10.20.1.27' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.1' />
  <id root='' extension='' />
  <code nullFlavor='NA' />
  <statusCode code='active|suspended|aborted|completed' />
  <effectiveTime>
    <low value='' />
    <high value='' />
  </effectiveTime>
  <!-- one or more entry relationships identifying problems of concern -->
  <entryRelationship typeCode='SUBJ' inversionInd='false'>
    :
  </entryRelationship>
  <!-- For HL7 Version 3 Messages
  <sourceOf typeCode='SUBJ' inversionInd='false'>
    :
  </sourceOf>
  -->
  <!-- optional entry relationship providing more information about the concern -->
  <entryRelationship typeCode='REFR'>
    :
  </entryRelationship>
  <!-- For HL7 Version 3 Messages
  <sourceOf typeCode='REFR' inversionInd='false'>
    :
  </sourceOf>
  -->
</act>
```

6.3.12.1.1<act classCode='ACT' moodCode='EVN'>

All concerns reflect the act of recording (<act classCode='ACT'>) the event (moodCode='EVN') of being concerned about a problem, allergy or other issue about the patient condition.

6.3.12.1.2<templateId root='2.16.840.1.113883.10.20.1.27'>

<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.1' />

These template identifiers indicates this entry conforms to the concern content module. This content module inherits constraints from the HL7 CCD Template for problem acts, and so also includes that template identifier.

6.3.12.1.3<id root=' ' extension=' '>

6555 This required element identifies the concern.

6.3.12.1.4<code nullFlavor='NA'>

The code is not applicable to a concern act, and so shall be recorded as shown above.

6.3.12.1.5<statusCode code='active|suspended|aborted|completed'>

The statusCode associated with any concern must be one of the following values:

Value	Description
active	A concern that is still being tracked.
suspended	A concern that is active, but which may be set aside. For example, this value might be used to suspend concern

	about a patient problem after some period of remission, but before assumption that the concern has been resolved.
aborted	A concern that is no longer actively being tracked, but for reasons other than because the problem was resolved. This value might be used to mark a concern as being aborted after a patient leaves care against medical advice.
completed	The problem, allergy or medical state has been resolved and the concern no longer needs to be tracked except for historical purposes.
Note: A concern in the "active" state represents one for which some ongoing clinical activity is expected, and that no activity is expected in other states. Specific uses of the suspended and aborted states are left to the implementation.	

6.3.12.1.6<effectiveTime><low value=' '/><high value=' '/></effectiveTime>

The <effectiveTime> element records the starting and ending times during which the concern was active. The <low> element shall be present. The <high> element shall be present for concerns in the completed or aborted state, and shall not be present otherwise.

6565 **6.3.12.1.7<!-- 1..* entry relationships identifying problems of concern -->**
<entryRelationship type='SUBJ' inversionInd='false'>

Each concern is about one or more related problems or allergies. This entry shall contain one or more problem or allergy entries that conform to the specification in section [Problem Entry](#) or [Allergies and Intolerances](#). This is how a series of related observations can be grouped as a single concern.

6570 For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <sourceOf> element. The typeCode SHALL be 'SUBJ' for both HL7 Version 3 and CDA. HL7 Version 3 additionally requires that inversionInd SHALL be 'false'.

6575

Note: The Allergy and Intolerances entry is a refinement of the Problem entry.
--

6.3.12.1.8<!-- 0..n optional entry relationship providing more information about the concern -->

6580 **<entryRelationship type='REFR' inversionInd='false'>**

Each concern may have 0 or more related references. These may be used to represent related statements such related visits. This may be any valid CDA clinical statement, and SHOULD be an IHE entry template. For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <subjectOf> element. The typeCode SHALL be 'SUBJ' and inversionInd SHALL be 'false'

6.3.13 Problem Concern Entry 1.3.6.1.4.1.19376.1.5.3.1.4.5.2

6585 This entry is a specialization of the Concern Entry, wherein the subject of the concern is focused on a problem. Elements shown in the example below in gray are explained in the [Concern Entry](#).

6.3.13.1 Standards

CCD [ASTM/HL7 Continuity of Care Document](#)

CareStruct [HL7 Care Provision Care Structures \(DSTU\)](#)

ClinStat [HL7 Clinical Statement Pattern \(Draft\)](#)

6.3.13.2 Parent Template

The parent of this template is [Concern Entry](#). This template is compatible with the ASTM/HL7

6590 Continuity of Care Document template: 2.16.840.1.113883.10.20.1.27

6.3.13.3 Specification

```
<act classCode='ACT' moodCode='EVN'>
  <templateId root='2.16.840.1.113883.10.20.1.27' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.1' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.2' />
  <id root=' ' extension=' ' />
  <code nullFlavor='NA' />
  <statusCode code='active|suspended|aborted|completed' />
  <effectiveTime>
    <low value=' '/>
    <high value=' '/>
  </effectiveTime>
  <!-- 1..* entry relationships identifying problems of concern -->
  <entryRelationship type='SUBJ'>
    <observation classCode='OBS' moodCode='EVN' />
    <templateID root='1.3.6.1.4.1.19376.1.5.3.1.4.5'>
      :
    </observation>
  </entryRelationship>
  <!-- optional entry relationship providing more information about the concern -->
  <entryRelationship type='REFR'>
  </entryRelationship>
</act>
```

6615 6.3.13.3.1 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.1'> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.2'>

This entry has a template identifier of 1.3.6.1.4.1.19376.1.5.3.1.4.5.2, and is a subtype of the [Concern Entry](#), and so must also conform to that specification, with the template identifier of 1.3.6.1.4.1.19376.1.5.3.1.4.5.1. These elements are required and shall be recorded exactly as shown above.

6620 6.3.13.3.2 <!-- 1..* entry relationships identifying problems of concern --> <observation classCode='OBS' moodCode='EVN'> <templateID root='1.3.6.1.4.1.19376.1.5.3.1.4.5'> ... </observation> <entryRelationship type='SUBJ'>

This entry shall contain one or more problem entries that conform to the [Problem Entry](#) template 1.3.6.1.4.1.19376.1.5.3.1.4.5. For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <subjectOf> element.
6630 The typeCode SHALL be 'SUBJ' and inversionInd SHALL be 'false'

6.3.14 Allergy and Intolerance Concern 1.3.6.1.4.1.19376.1.5.3.1.4.5.3

This entry is a specialization of the [Concern Entry](#), wherein the subject of the concern is focused on an allergy or intolerance. Elements shown in the example below in gray are explained in that entry.

6635 **6.3.14.1 Standards**

CCD [ASTM/HL7 Continuity of Care Document](#)

CareStruct [HL7 Care Provision Care Structures \(DSTU\)](#)

ClinStat [HL7 Clinical Statement Pattern \(Draft\)](#)

6.3.14.2 Parent Template

The parent of this template is [Concern Entry](#). This template is compatible with the ASTM/HL7 Continuity of Care Document template: 2.16.840.1.113883.10.20.1.27

6.3.14.3 Specification

6640

```
<act classCode='ACT' moodCode='EVN'>
  <templateId root='2.16.840.1.113883.10.20.1.27' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.1' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.3' />
  <id root='' extension=''/>
  <code nullFlavor='NA' />
  <statusCode code='active|suspended|aborted|completed' />
  <effectiveTime>
    <low value=''/>
    <high value=''/>
  </effectiveTime>
  <!-- 1..* entry relationships identifying allergies of concern -->
  <entryRelationship typeCode='SUBJ'>
    <observation classCode='OBS' moodCode='EVN' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.6' />
    :
    </observation>
  </entryRelationship>
  <!-- optional entry relationship providing more information about the concern -->
  <entryRelationship type='REFR'>
  </entryRelationship>
</act>
```

6.3.14.3.1 <templateId root='2.16.840.1.113883.10.20.1.27'>

<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.1'>

6665

<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.3'>

This entry has a template identifier of 1.3.6.1.4.1.19376.1.5.3.1.4.5.3, and is a subtype of the Concern entry, and so must also conform to the rules of the [Concern Entry](#). These elements are required and shall be recorded exactly as shown above.

6.3.14.3.2 <!-- 1..* entry relationships identifying allergies of concern -->

6670

<observation classCode='OBS' moodCode='EVN' />

<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.6' />

:
</observation>
<entryRelationship typeCode='SUBJ'>

- 6675 This entry shall contain one or more allergy or intolerance entries that conform to the [Allergy and Intolerance Entry](#). For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <sourceOf> element. The typeCode SHALL be 'SUBJ' and inversionInd SHALL be 'false'

6.3.15 Problem Entry 1.3.6.1.4.1.19376.1.5.3.1.4.5

- 6680 This section makes use of the linking, severity, clinical status and comment content specifications defined elsewhere in the technical framework. In HL7 RIM parlance, observations about a problem, complaint, symptom, finding, diagnosis, or functional limitation of a patient is the event (moodCode='EVN') of observing (<observation classCode='OBS'>) that problem. The <value> of the observation comes from a controlled vocabulary representing such things. The
6685 <code> contained within the <observation> describes the method of determination from yet another controlled vocabulary. An example appears below in the figure below.

6.3.15.1 Standards

CCD [ASTM/HL7 Continuity of Care Document](#)

CareStruct [HL7 Care Provision Care Structures \(DSTU\)](#)

ClinStat [HL7 Clinical Statement Pattern \(Draft\)](#)

6.3.15.2 Parent Template

6.3.15.3 This template is compatible with the ASTM/HL7 Continuity of Care Document template: 2.16.840.1.113883.10.20.1.28

6.3.15.4 Specification

```
6695 <observation classCode='OBS' moodCode='EVN' negationInd=' false|true '>
6700   <templateId root='2.16.840.1.113883.10.20.1.28'/>
6705   <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5'/>
6710   <id root=' ' extension=' '/>
       <code code=' ' displayName=' '
             codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED CT' />
   <text><reference value=' '/></text>
   <statusCode code='completed' />
   <effectiveTime><low value=' '/><high value=' '/></effectiveTime>
   <value xsi:type='CD' code=' '
         codeSystem=' ' displayName=' ' codeSystemName=' '>
     <originalText><reference value=' '/></originalText>
   </value>
   <
     <!-- zero or one <entryRelationship typeCode='REFR' inversionInd='false'> elements
         identifying the health status of concern -->
     <!-- zero or one <entryRelationship typeCode='REFR' inversionInd='false'> elements
         containing clinical status -->
     <!-- zero to many <entryRelationship typeCode='REFR' inversionInd='true'> elements
         containing comments -->
   </observation>
```

6.3.15.4.1 <observation classCode='OBS' moodCode='EVN' negationInd='false|true'>

The basic pattern for reporting a problem uses the CDA <observation> element, setting the classCode='OBS' to represent that this is an observation of a problem, and the moodCode='EVN', to represent that this is an observation that has in fact taken place. The negationInd attribute, if true, specifies that the problem indicated was observed to not have occurred (which is subtly but importantly different from having not been observed). The value of negationInd should not normally be set to true. Instead, to record that there is "no prior history of chicken pox", one would use a coded value indicated exactly that. However, it is not always possible to record problems in this manner, especially if using a controlled vocabulary that does not supply pre-coordinated negations , or which do not allow the negation to be recorded with post-coordinated coded terminology.

6.3.15.4.2 <templateId root='2.16.840.1.113883.10.20.1.28' /> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5' />

These <templateId> elements identify this <observation> as a problem, under both IHE and CCD specifications. This SHALL be included as shown above.

6.3.15.4.3 <id root=' ' extension=' '/>

The specific observation being recorded must have an identifier (<id>) that shall be provided for tracking purposes. If the source EMR does not or cannot supply an intrinsic identifier, then a GUID shall be provided as the root, with no extension (e.g., <id root='CE1215CD-69EC-4C7B-805F-569233C5E159' />). While CDA allows for more than one identifier element to be provided, this profile requires that only one be used.

**6.3.15.4.4<code code=" displayName=" codeSystem='2.16.840.1.113883.6.96'
codeSystemName='SNOMED CT'>**

The <code> describes the process of establishing a problem. The code element should be used, as the process of determining the value is important to clinicians (e.g., a diagnosis is a more advanced statement than a symptom). The recommended vocabulary for describing problems is shown in the table below. Subclasses of this content module may specify other vocabularies. When the list below is used, the codeSystem is '2.16.840.1.113883.6.96' and codeSystemName is SNOMED CT.

Code	Description
64572001	Condition
418799008	Symptom
404684003	Finding
409586006	Complaint
248536006	Functional limitation
55607006	Problem
282291009	Diagnosis

6.3.15.4.5<text><reference value="/"></text>

The <text> element is required and points to the text describing the problem being recorded; including any dates, comments, et cetera. The <reference> contains a URI in value attribute. This URI points to the free text description of the problem in the document that is being described.

6.3.15.4.6<statusCode code='completed'>

6750 A clinical document normally records only those condition observation events that have been completed, not observations that are in any other state. Therefore, the <statusCode> shall always have code='completed'.

6.3.15.4.7<effectiveTime><low value=' '/><high value=' '/></effectiveTime>

6755 The <effectiveTime> of this <observation> is the time interval over which the <observation> is known to be true. The <low> and <high> values should be no more precise than known, but as precise as possible. While CDA allows for multiple mechanisms to record this time interval (e.g. by low and high values, low and width, high and width, or center point and width), we are constraining Medical summaries to use only the low/high form. The <low> value is the earliest point for which the condition is known to have existed. The <high> value, when present, indicates the time at which the observation was no longer known to be true. Thus, the implication is made that if the <high> value is specified, that the observation was no longer seen after this time, and it thus represents the date of resolution of the problem. Similarly, the <low> value may seem to represent onset of the problem. Neither of these statements is necessarily precise, as the <low> and <high> values may represent only an approximation of the true onset and resolution (respectively) times. For example, it may be the case that onset occurred prior to the <low>

value, but no observation may have been possible before that time to discern whether the condition existed prior to that time. The <low> value should normally be present. There are exceptions, such as for the case where the patient may be able to report that they had chicken pox, but are unsure when. In this case, the <effectiveTime> element shall have a <low> element with a nullFlavor attribute set to 'UNK'. The <high> value need not be present when the observation is about a state of the patient that is unlikely to change (e.g., the diagnosis of an incurable disease).

6.3.15.4.8<value xsi:type='CD' code=' ' codeSystem=' ' codeSystemName=' ' displayName=' '>

The <value> is the condition that was found. This element is required. While the value may be a coded or an un-coded string, the type is always a coded value (xsi:type='CD'). If coded, the code and codeSystem attributes shall be present. The codeSystem should reference a controlled vocabulary describing problems, complaints, symptoms, findings, diagnoses, or functional limitations, e.g., ICD-9, SNOMED-CT or MEDCIN, or others. The table below is an incomplete listing of acceptable values for the codeSystem attribute, along with the codeSystemName.

CodeSystem	codeSystemName	Description
2.16.840.1.113883.6.96	SNOMED-CT	SNOMED Controlled Terminology
2.16.840.1.113883.6.103	ICD-9CM (diagnoses)	International Classification of Diseases, Clinical Modifiers, Version 9
2.16.840.1.113883.6.26	MEDCIN	A classification system from MEDICOMP Systems.

It is recommended that the codeSystemName associated with the codeSystem, and the displayName for the code also be provided for diagnostic and human readability purposes, but this is not required by this profile.

If uncoded, all attributes other than xsi:type='CD' must be absent.

In cases where information about a problem or allergy is unknown or where there are no problems or allergies, an entry shall use codes from the table below to record this fact:

Entry Type	Code	Display Name	Description
Problem	396782006	Past Medical History Unknown	To indicate unknown medical history
Problem	407559004	Family History Unknown	To indicate that the patient's family history is not known.
Problem	160243008	No Significant Medical History	To indicate no relevant medical history
Problem	160245001	No current problems or disability	To indicate that the patient has no current problems (as distinct from no history).
Allergy	409137002	No Known Drug Allergies	To indicate that there are no known Drug allergies for this patient.
Allergy	160244002	No Known Allergies	To indicate that there are no known allergies for this patient.
Allergy	64970000	Substance Type Unknown	To indicate the state where there is a known allergy or intolerance to an unknown substance

6.3.15.4.9 <originalText><reference value=' '/></originalText>

The <value> contains a <reference> to the <originalText> in order to link the coded value to the problem narrative text (minus any dates, comments, et cetera). The <reference> contains a URI in value attribute. This URI points to the free text description of the problem in the document that is being described.

6.3.15.4.10 <!-- zero or one <entryRelationship typeCode='SUBJ' inversionInd='true'> elements containing severity -->

An optional <entryRelationship> element may be present indicating the severity of the problem. When present, this <entryRelationship> element shall contain a severity observation conforming to the [Severity](#) entry template (1.3.6.1.4.1.19376.1.5.3.1.4.1).

For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <subjectOf> element. The typeCode SHALL be 'SUBJ' and inversionInd SHALL be 'true'.

6.3.15.4.11 <!-- zero or one <entryRelationship typeCode='REFR' inversionInd='false'> elements containing clinical status -->

An optional <entryRelationship> may be present indicating the clinical status of the problem, e.g., resolved, in remission, active. When present, this <entryRelationship> element shall contain a clinical status observation conforming to the Problem Status Observation template (1.3.6.1.4.1.19376.1.5.3.1.4.1.1).

For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <sourceOf> element. The typeCode SHALL be 'REFR' and inversionInd SHALL be 'false'.

6.3.15.4.12 <!-- zero or one <entryRelationship typeCode='REFR' inversionInd='false'> elements identifying the health status of concern -->

An optional <entryRelationship> may be present referencing the health status of the patient, e.g., resolved, in remission, active. When present, this <entryRelationship> element shall contain a clinical status observation conforming to the [Health Status Observation](#) template (1.3.6.1.4.1.19376.1.5.3.1.4.1.1). The typeCode SHALL be 'REFR' and inversionInd SHALL be 'false'.

For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <sourceOf> element.

6.3.15.4.13 <!-- zero to many <entryRelationship typeCode='SUBJ' inversionInd='true'> element containing comments -->

One or more optional <entryRelationship> elements may be present providing an additional comments (annotations) for the condition. When present, this <entryRelationship> element shall contain a comment observation conforming to the [Comment](#) entry template

6825 (1.3.6.1.4.1.19376.1.5.3.1.4.2). The typeCode SHALL be ‘SUBJ’ and inversionInd SHALL be ‘true’.

For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <sourceOf> element.

6.3.16 Allergies and Intolerances 1.3.6.1.4.1.19376.1.5.3.1.4.6

6830 Allergies and intolerances are special kinds of problems, and so are also recorded in the CDA <observation> element, with classCode='OBS'. They follow the same pattern as the problem entry, with exceptions noted below.

6.3.16.1 Standards

CCD [ASTM/HL7 Continuity of Care Document](#)

CareStruct [HL7 Care Provision Care Structures \(DSTU\)](#)

ClinStat [HL7 Clinical Statement Pattern \(Draft\)](#)

6.3.16.2 Specification

6835

```

<observation classCode='OBS' moodCode='EVN' negationInd='false'>
  <templateId root='2.16.840.1.113883.10.20.1.18' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.6' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5' />
  <id root=' ' extension=' ' />
  <code
    code='ALG|OINT|DALG|EALG|FALG|DINT|EINT|FINT|DNAINT|ENAINT|FNAINT'
    codeSystem='2.16.840.1.113883.5.4'
    codeSystemName='ObservationIntoleranceType' />
  <text><reference value=' ' /></text>
  <statusCode code='completed' />
  <effectiveTime>
    <low value=' ' />
    <high value=' ' />
  </effectiveTime>
  <value xsi:type='CD' code=' ' codeSystem=' ' displayName=' ' codeSystemName=' ' />
  <participant typeCode='CSM'>
    <participantRole classCode='MANU'>
      <playingEntity classCode='MMAT'>
        <code code=' ' codeSystem=' ' >
          <originalText><reference value='#substance' /></originalText>
        </code>
        <name></name>
      </playingEntity>
    </participantRole>
  </participant>
  <!-- zero to many <entryRelationship> elements containing reactions -->
  <!-- zero or one <entryRelationship> elements containing severity -->
  <!-- zero or one <entryRelationship> elements containing clinical status -->
  <!-- zero to many <entryRelationship> elements containing comments -->
</observation>
```

6.3.16.2.1.1 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5' /> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.6' />

This entry has a template identifier of 1.3.6.1.4.1.19376.1.5.3.1.4.6, and is a subtype of the [Problem Entry](#), and so must also conform to the rules of the problem entry, which has the template identifier of 1.3.6.1.4.1.19376.1.5.3.1.4.5.5. These elements are required and shall be recorded exactly as shown above.

6.3.16.2.1.2 <code

```
code='ALG|OINT|DINT|EINT|FINT|DALG|EALG|FALG|DNAINT|ENAINT|FNAINT' displayName="" codeSystem='2.16.840.1.113883.5.4' codeSystemName='ObservationIntoleranceType' />
```

The <code> element represents the kind of allergy observation made, to a drug, food or environmental agent, and whether it is an allergy, non-allergy intolerance, or unknown class of intolerance (not known to be allergy or intolerance). The <code> element of an allergy entry shall be provided, and a code and codeSystem attribute shall be present. The example above uses the HL7 ObservationIntoleranceType vocabulary domain, which does provide suitable observation codes. Other vocabularies may be used, such as SNOMED-CT or MEDCIN. The displayName and codeSystemName attributes should be present.

**6.3.16.2.1.3 <value xsi:type='CD' code=" codeSystem=" codeSystemName=""
6885 displayName=>**

The <value> is a description of the allergy or adverse reaction. While the value may be a coded or an uncoded string, the type is always a coded value (xsi:type='CD'). If coded, the code and codeSystem attributes must be present. The codingSystem should reference a controlled vocabulary describing allergies and adverse reactions, see Table 5.4 12Table 5.4 12 above . If uncoded, all attributes other than xsi:type='CD' must be absent. The allergy or intolerance may not be known, in which case that fact shall be recorded appropriately. This might occur in the case where a patient experiences an allergic reaction to an unknown substance.

**6.3.16.2.1.4 <participant typeCode='CSM'>
6895 <participantRole classCode='MANU'>
<playingEntity classCode='MMAT'>**

The substance that causes the allergy or intolerance may be specified in the <participant> element.

**6.3.16.2.1.5 <code code=' ' codeSystem=' '>
6900 <originalText><reference value=' '/></originalText>
</code>**

The <code> element shall be present. It may contain a code and codeSystem attribute to indicate the code for the substance causing the allergy or intolerance. It shall contain a <reference> to the <originalText> in the narrative where the substance is named.

**6.3.16.2.1.6 <!-- zero to many <entryRelationship> elements containing reactions
6905 -->**

An allergy entry can record the reactions that are manifestations of the allergy or intolerance as shown below.

```
<entryRelationship typeCode='MFST'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.6.1'>
    <!-- a problem entry -->
    <observation classCode='OBS' moodCode='EVN'>
      <templateId root='2.16.840.1.113883.10.20.1.54'>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5'>
          :
        </observation>
    </entryRelationship>
```

6.3.16.2.1.7 <entryRelationship typeCode='MFST'>

This is a related entry (<entryRelationship>) that indicates the manifestations (typeCode='MFST') the reported allergy or intolerance. These are events that may occur, or have occurred in the past as a reaction to the allergy or intolerance.

6.3.16.2.1.8 <observation classCode='OBS' moodCode='EVN'>
6925 **<templateId root='2.16.840.1.113883.10.20.1.54' />**
 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5' />
 □
 </observation>

The entry contained with this entry relationship is some sort of problem that is a manifestation of the allergy. It is recorded using the [Problem Entry](#) structure, with the additional template identifier (2.16.840.1.113883.10.20.1.54) indicating that this problem is a reaction.

**6.3.16.2.1.9 <!-- zero or one <entryRelationship typeCode='SUBJ'
 inversionInd='true'> elements containing severity -->**

An optional <entryRelationship> element may be present indicating the severity of the problem. When present, this <entryRelationship> element shall contain a severity observation conforming to the [Severity](#) entry template (1.3.6.1.4.1.19376.1.5.3.1.4.1). For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <sourceOf> element. The typeCode SHALL be ‘SUBJ’ and inversionInd SHALL be ‘true’.

**6.3.16.2.1.10 <!-- zero or one <entryRelationship typeCode='REFR'
 inversionInd='false'> elements containing clinical status -->**

An optional <entryRelationship> may be present indicating the clinical status of the allergy, e.g., resolved, in remission, active. When present, this <entryRelationship> element shall contain a clinical status observation conforming to the [Problem Status Observation](#) template (1.3.6.1.4.1.19376.1.5.3.1.4.1.1). The typeCode SHALL be ‘REFR’ and inversionInd SHALL be ‘false’. For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <sourceOf> element.

**6.3.16.2.1.11 <!-- zero to many <entryRelationship typeCode='SUBJ'
 inversionInd='true'> element containing comments -->**

One or more optional <entryRelationship> elements may be present providing an additional comments (annotations) for the allergy. When present, this <entryRelationship> element shall contain an entry conforming to the [Comment](#) entry template (1.3.6.1.4.1.19376.1.5.3.1.4.2). The typeCode SHALL be ‘SUBJ’ and inversionInd SHALL be ‘true’.

For CDA this SHALL be represented with the <entryRelationship> element. For HL7 Version 3 Messages, this SHALL be represented as a <sourceOf> element.

6955 **6.3.17 Medications 1.3.6.1.4.1.19376.1.5.3.1.4.7**

This content module describes the general structure for a medication. All medication administration acts will be derived from this content module.

6.3.17.1 Standards

Pharmacy HL7 Pharmacy Domain (Normative)

CCD [ASTM/HL7 Continuity of Care Document](#)

6.3.17.2 Specification

```
6960 <substanceAdministration classCode='SBADM' moodCode='INT|EVN'>
  <templateId root='2.16.840.1.113883.10.20.1.24' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7' />
  <templateId root='' />
  <id root='' extension='' />
  <code code='' codeSystem='' displayName='' codeSystemName='' />
  <text><reference value='#med-1' /></text>
  <statusCode code='completed' />
  <effectiveTime xsi:type='IVL_TS'>
    <low value='' />
    <high value='' />
  </effectiveTime>
  <effectiveTime operator='A' xsi:type='TS|PIVL_TS|EIVL_TS|PIVL_PPD_TS|SXPR_TS'>
    :
  </effectiveTime>
  <routeCode code='' codeSystem='' displayName='' codeSystemName='' />
  <doseQuantity value='' unit='' />
  <approachSiteCode code='' codeSystem='' displayName='' codeSystemName='' />
  <rateQuantity value='' unit='' />
  <consumable>
    :
  </consumable>
  <!-- 0..* entries describing the components -->
  <entryRelationship typeCode='COMP' >
    <sequenceNumber value='' />
  </entryRelationship>
  <!-- An optional entry relationship that indicates the reason for use -->
  <entryRelationship typeCode='RSON'>
    <act classCode='ACT' moodCode='EVN'>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4.1' />
      <id root='' extension='' />
    </act>
  </entryRelationship>
  <!-- An optional entry relationship that provides prescription activity -->
  <entryRelationship typeCode='REFR'>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.3' />
    :
  </entryRelationship>
  <precondition>
    <criterion>
      <text><reference value='' /></text>
    </criterion>
  </precondition>
</substanceAdministration>
```

This section makes use of the linking, severity and instruction entries.

Medications are perhaps the most difficult data elements to model due to variations in the ways that medications are prescribed.

7010 This profile identifies the following relevant fields of a medication as being important to be able to generate in a medical summary. The table below identifies and describes these fields, and indicates the constraints on whether or not they are required to be sent. The fields are listed in the order that they appear in the CDA XML content.

6.3.17.2.1.1

Medication Fields

Field	Opt.	CDA Tag	Description
Start and Stop Date	R2	<effectiveTime>	The date (and time if available) when the medication regimen began and is expected to finish. The first component of the <effectiveTime> encodes the lower and upper bounds over which the <substanceAdministration> occurs, and the start time is determined from the lower bound. If the medication has been known to be stopped, the high value must be present, but expressed as a flavor of null (e.g., Unknown).
Frequency	R2	<effectiveTime>	The frequency indicates how often the medication is to be administered. It is often expressed as the number of times per day, but which may also include information such as 1 hour before/after meals, or in the morning, or evening. The second <effectiveTime> element encodes the frequency. In cases where split or tapered doses are used, these may be found in subordinate <substanceAdministration> elements.
Route	R2	<routeCode>	The route is a coded value, and indicates how the medication is received by the patient (by mouth, intravenously, topically, et cetera).
Dose	R2	<doseQuantity>	The amount of the medication given. This should be in some known and measurable unit, such as grams, milligrams, et cetera. It may be measured in "administration" units (such as tablets or each), for medications where the strength is relevant. In this case, only the unit count is specified, no units are specified. It may be a range.
Site	O	<approachSiteCode>	The site where the medication is administered, usually used with IV or topical drugs.
Rate	R2	<rateQuantity>	The rate is a measurement of how fast the dose is given to the patient over time (e.g., .5 liter / 1 hr), and is often used with IV drugs.
Product	R ¹	<consumable> <name> </consumable>	The name of the substance or product. This should be sufficient for a provider to identify the kind of medication. It may be a trade name or a generic name. This information is required in all medication entries. If the name of the medication is unknown, the type, purpose or other description may be supplied. The name should not include packaging, strength or dosing information. Note: Due to restrictions of the CDA schema, there is no way to explicitly link the name to the narrative text.
Strength	R2	<consumable> <code> <originalText/> </code> </consumable>	The name and strength of the medication. This information is only relevant for some medications, as the dose of the medication is often sufficient to indicate how much medication the patient receives. For example, the medication Percocet comes in a variety of strengths, which indicate specific amounts of two different medications being received in single tablet. Another example is eye-drops, where the medication is in a solution of a particular strength, and the dose quantity is some number of drops. The originalText referenced by the <code> element in the consumable should refer to the name and strength of the medication in the narrative text. Note: Due to restrictions of the CDA schema, there is no way to separately record the strength.
Code	R2	<consumable> <code/> </consumable>	A code describing the product from a controlled vocabulary, such as RxNorm, First DataBank, et cetera.
Instructions	R2	<entryRelationship>	A place to put free text comments to support additional relevant information, or to deal with specialized dosing instructions. For example, "take with food", or tapered dosing.
Indication	O	<entryRelationship>	A link to supporting clinical information about the reason for providing the medication (e.g., a link to the relevant diagnosis).

¹ A consumable is not necessary when the substanceAdministration code indicates none or unknown medications.

6.3.17.2.1.2 <substanceAdministration classCode='SBADM' moodCode='INT|EVN'>

- 7020 The general model is to record each prescribed medication in a <substanceAdministration> intent (moodCode='INT'). Medications that have been reported by the patient or administered (instead of prescribed), are recorded in the same element, except that this is now an event (moodCode='EVN'). The <substanceAdministration> element may contain subordinate <substanceAdministration> elements in a related component entry to deal with special cases (see the section below on Special Cases). These cases include split, tapered, or conditional dosing, or combination medications. The use of subordinate <substanceAdministration> elements to deal with these cases is optional. The comment field should always be used in these cases to provide the same information as free text in the top level <substanceAdministration> element. There are a variety of special cases for dosing that need to be accounted for. These are described below.
- 7025
- 7030 Most of these special cases involve changing the dosage or frequency over time, or based on some measurement. When the dosage changes, then additional entries are required for each differing dosage. The last case deals with combination medications.

6.3.17.2.1.3 Normal Dosing 1.3.6.1.4.1.19376.1.5.3.1.4.7.1

- 7035 This template identifier is used to identify medication administration events that do not require any special processing. The parent template is [1.3.6.1.4.1.19376.1.5.3.1.4.7](#). Medications that use this template identifier shall not use subordinate <substanceAdministation> acts.

6.3.17.2.1.4 Tapered Doses 1.3.6.1.4.1.19376.1.5.3.1.4.8

- 7040 This template identifier is used to identify medication administration events that require special processing to handle tapered dosing. The parent template is 1.3.6.1.4.1.19376.1.5.3.1.4.7. A tapered dose is often used for certain medications where abrupt termination of the medication can have negative consequences. Tapered dosages may be done by adjusting the dose frequency, the dose amount, or both.

When merely the dose frequency is adjusted, (e.g., Prednisone 5mg b.i.d. for three days, then 5mg. daily for three days, and then 5mg every other day), then only one medication entry is needed, multiple frequency specifications recorded in <effectiveTime> elements. When the dose varies (eg. Prednisone 15mg daily for three days, then 10 mg daily for three days, the 5 mg daily for three days), subordinate medication entries should be created for each distinct dosage.

6.3.17.2.1.5 Split Dosing 1.3.6.1.4.1.19376.1.5.3.1.4.9

- 7050 This template identifier is used to identify medication administration events that require special processing to handle split dosing. The parent template is 1.3.6.1.4.1.19376.1.5.3.1.4.7. A split dose is often used when different dosages are given at different times (e.g., at different times of day, or on different days). This may be to account for different metabolism rates at different

times of day, or to simply address drug packaging deficiencies (e.g., and order for Coumadin 2mg on even days, 2.5mg on odd days is used because Coumadin does not come in a 2.25mg dose form).

7055

In this case a subordinate <substanceAdministration> entry is required for each separate dosage.

6.3.17.2.1.6 Conditional Dosing 1.3.6.1.4.1.19376.1.5.3.1.4.10

This template identifier is used to identify medication administration events that require special processing to handle conditional dosing. The parent template is 1.3.6.1.4.1.19376.1.5.3.1.4.7. A conditional dose is often used when the dose amount differs based on some measurement (e.g., an insulin sliding scale dose based on blood sugar level). In this case a subordinate <substanceAdministration> entry is required for each different dose, and the condition should be recorded.

7060

6.3.17.2.1.7 Combination Medications 1.3.6.1.4.1.19376.1.5.3.1.4.11

7065

This template identifier is used to identify medication administration events that require special processing to handle combination medications. The parent template is 1.3.6.1.4.1.19376.1.5.3.1.4.7. A combination medication is made up of two or more other medications. These may be prepackaged, such as Percocet, which is a combination of Acetaminophen and oxycodone in predefined ratios, or prepared by a pharmacist, such as a GI cocktail.

7070

In the case of the prepackaged combination, it is sufficient to supply the name of the combination drug product, and its strength designation in a single <substanceAdministration> entry. The dosing information should then be recorded as simply a count of administration units.

7075

In the latter case of a prepared mixture, the description of the mixture should be provided as the product name (e.g., "GI Cocktail"), in the <substanceAdministration> entry. That entry may, but is not required, to have subordinate <substanceAdministration> entries included beneath it to record the components of the mixture.

6.3.17.2.1.8 <templateId root='2.16.840.1.113883.10.20.1.24'> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7' />

7080

All medications entries use the <templateId> elements specified above to indicate that they are medication acts. This element is required. In addition, a medication entry shall further identify itself using one of the template identifiers detailed in the next section.

6.3.17.2.1.9 <templateId root=" "/>

7085

The <templateId> element identifies this <entry> as a particular type of medication event, allowing for validation of the content. As a side effect, readers of the CDA can quickly locate and identify medication events. The templateId must use one of the values in the table below for the root attribute.

root	Description
1.3.6.1.4.1.19376.1.5.3.1.4.7.1	A "normal" <substanceAdministration> act that may not contain any subordinate <substanceAdministration> acts.

1.3.6.1.4.1.19376.1.5.3.1.4.8	A <substanceAdministration> act that records tapered dose information in subordinate <substanceAdministration> act.
1.3.6.1.4.1.19376.1.5.3.1.4.9	A <substanceAdministration> act that records split dose information in subordinate <substanceAdministration> acts.
1.3.6.1.4.1.19376.1.5.3.1.4.10	A <substanceAdministration> act that records conditional dose information in subordinate <substanceAdministration> acts.
1.3.6.1.4.1.19376.1.5.3.1.4.11	A <substanceAdministration> act that records combination medication component information in subordinate <substanceAdministration> acts.

6.3.17.2.1.10 <id root=" extension="/>

- 7090 A top level <substanceAdministration> element must be uniquely identified. If there is no explicit identifier for this observation in the source EMR system, a GUID may be used for the root attribute, and the extension may be omitted. Although HL7 allows for multiple identifiers, this profile requires that one and only one be used. Subordinate <substanceAdministration> elements may, but need not be uniquely identified.

6.3.17.2.1.11 <code code=" displayName=" codeSystem=" codeSystemName="/">

- 7095 The <code> element is used to supply a code that describes the <substanceAdminstration> act, not the medication being administered or prescribed. This may be a procedure code, such as those found in CPT-4 (and often used for billing), or may describe the method of medication administration, such as by intravenous injection. The type of medication is coded in the consumable, do not supply the code for the medication in this element. This element is optional.
- 7100 One of the following values from SNOMED CT shall be used in the <code> element to record that a patient is either not on medications, or that medications are not known.

Entry Type	Code	Display Name	Description
Medication	182904002	Drug Treatment Unknown	To indicate lack of knowledge about drug therapy
Medication	182849000	No Drug Therapy Prescribed	To indicate the absense of any prescribed medications
Medication	408350003	Patient Not On Self-Medications	To indicate no treatment

6.3.17.2.1.12 <text><reference value="/"></text>

- 7105 The URI given in the value attribute of the <reference> element points to an element in the narrative content that contains the complete text describing the medication. In a CDA document, the URI given in the value attribute of the <reference> element points to an element in the narrative content that contains the complete text describing the medication. In an HL7 message, the content of the text element shall contain the complete text describing the medication.

6.3.17.2.1.13 <statusCode code='completed' />

- 7110 The status of all <substanceAdministration> elements must be "completed". The act has either occurred, or the request or order has been placed.

6.3.17.2.1.14 <effectiveTime xsi:type='IVL_TS'>

The first <effectiveTime> element encodes the start and stop time of the medication regimen. This is an interval of time (xsi:type='IVL_TS'), and must be specified as shown. This is an additional constraint placed upon CDA Release 2.0 by this profile, and simplifies the exchange of start/stop and frequency information between EMR systems.

6.3.17.2.1.15 <low value="/"><high value="/">

The <low> and <high> values of the first <effectiveTime> element represent the start and stop times for the medication. The <low> value represents the start time, and the <high> value represents the stop time. If either the <low> or the <high> value is unknown, this shall be recorded by setting the nullFlavor attribute to UNK. The <high> value records the end of the medication regime according to the information provided in the prescription or order. For example, if the prescription is for enough medication to last 30 days, then the high value should contain a date that is 30 days later than the <low> value. The rationale is that a provider, seeing an un-refilled prescription would normally assume that the medication is no longer being taken, even if the intent of the treatment plan is to continue the medication indefinitely.

6.3.17.2.1.16 <effectiveTime operator='A' xsi:type='TS|PIVL_TS|EIVL_TS|PIVL_PPD_TS|SXPR_TS' />

The second <effectiveTime> element records the frequency of administration. This <effectiveTime> element must be intersected with the previous time specification (operator='A'), producing the bounded set containing only those time specifications that fall within the start and stop time of the medication regimen. Several common frequency expressions appear in the table below, along with their XML representations.

6.3.17.2.1.17 Specifying Medication Frequency

Freq	Description	XML Representation
b.i.d.	Twice a day	<effectiveTime xsi:type='PIVL_TS' institutionSpecified='true' operator='A'><period value='12' unit='h' /></effectiveTime>
q12h	Every 12 hours	<effectiveTime xsi:type='PIVL_TS' institutionSpecified='false' operator='A'><period value='12' unit='h' /></effectiveTime>
Once	Once, on 2005-09-01 at 1:18am.	<effectiveTime xsi:type='TS' value='200509010118' />
t.i.d.	Three times a day, at times determined by the person administering the medication .	<effectiveTime xsi:type='PIVL_TS' institutionSpecified='true' operator='A'><period value='8' unit='h' /></effectiveTime>
q8h	Every 8 hours	<effectiveTime xsi:type='PIVL_TS' institutionSpecified='false' operator='A'><period value='8' unit='h' /></effectiveTime>
qam	In the morning	<effectiveTime xsi:type='EIVL' operator='A'> <event code='ACM' /></effectiveTime>
	Every day at 8 in the morning for 10 minutes	<effectiveTime xsi:type='PIVL_TS' operator='A'> <phase> <low value='198701010800' inclusive='true' /> <width value='10' unit='min' /> </phase> <period value='1' unit='d' /></effectiveTime>
q4-6h	Every 4 to 6 hours.	<effectiveTime xsi:type='PIVL_PPD_TS' institutionSpecified='false' operator='A'> <period value='5' unit='h' /> <standardDeviation value='1'

		unit='h'></effectiveTime>
--	--	---------------------------

7135 The last frequency specification is about as bad as it gets, but can still be represented accurately within the HL7 V3 datatypes. The mean (average) of the low and high values is specified for the period. The mean of 4 and 6 is 5. The standard deviation is recorded as one half the difference between the high and low values, with an unspecified distribution. The type attribute of the <effectiveTime> element describes the kind of frequency specification it contains. More detail is given for each type in the table below.

7140 6.3.17.2.1.18 Data types used in Frequency Specifications

xsi:type	Description
TS	An xsi:type of TS represents a single point in time, and is the simplest of all to represent. The value attribute of the <effectiveTime> element specifies the point in time in HL7 date-time format (CCYYMMDDHHMMSS)
PIVL_TS	An xsi:type of PIVL_TS is the most commonly used, representing a periodic interval of time. The <low> element of <phase> may be present. If so it specifies the starting point, and only the lower order components of this value are relevant with respect to the <period>. The <width> element represents the duration of the dose administration (e.g., for IV administration). The <period> indicates how often the dose is given. Legal values for the unit attribute of <period> are s, min, h, d, wk and mo representing seconds, minutes, hours, days, weeks, and months respectively.
EIVL_TS	An xsi:type of EIVL_TS represents an event based time interval, where the event is not a precise time, but is often used for timing purposes (e.g. with meals, between meals, before breakfast, before sleep). Refer to the HL7 TimingEvent vocabulary for the codes to use for the <event> element. This interval may specify an <offset> which provides information about the time offset from the specified event (e.g., <offset><low value='-1' unit='h'/><width value='10' unit='min'/></offset> means 1 hour before the event. In that same example, the <width> element indicates the duration for the dose to be given.
PIVL_PPD_TS	An xsi:type of PIVL_PPD_TS represents an probabilistic time interval and is used to represent dosing frequencies like q4-6h. This profile requires that the distributionType of this interval be left unspecified. The <period> element specifies the average of the time interval, and the value of the <standardDeviation> shall be computed as half the width of the interval. The unit attributes of the <period> and <standardDeviation> elements shall be the same.
SXPR_TS	An xsi:type of SXPR_TS represents a parenthetical set of time expressions. This type is used when the frequency varies over time (e.g., for some cases of tapered dosing, or to handle split dosing). The <comp> elements of this <effectiveTime> element are themselves time expressions (using any of the types listed above). Each <comp> element may specify an operator (e.g. to intersect or form the union of two sets).

6.3.17.2.1.19 <routeCode code=" displayName=" codeSystem='2.16.840.1.113883.5.112' codeSystemName='RouteOfAdministration'>

7145 The <routeCode> element specifies the route of administration using the HL7 RouteOfAdministration vocabulary. A code must be specified if the route is known, and the displayName attribute should be specified. If the route is unknown, this element shall not be sent.

**6.3.17.2.1.20 <approachSiteCode code="" codeSystem="">
 originalText><reference value="/" /></originalText>
 </approachSiteCode>**

- 7150 The <approachSiteCode> element describes the site of medication administration. It may be coded to a controlled vocabulary that lists such sites (e.g., SNOMED-CT). In CDA documents, this element contains a URI in the value attribute of the <reference> that points to the text in the narrative identifying the site. In a message, the <originalText> element shall contain the text identifying the site.

7155 **6.3.17.2.1.21 <doseQuantity> <low value="" unit="" /><high value="" unit="" />
 </doseQuantity>**

- The dose is specified if the <doseQuantity> element. If a dose range is given (e.g., 1-2 tablets, or 325-750mg), then the <low> and <high> bounds are specified in their respective elements, otherwise both <low> and <high> have the same value. If the dose is in countable units (tablets, caplets, "eaches"), then the unit attribute is not sent. Otherwise the units are sent. The unit attribute should be derived from the HL7 UnitsOfMeasureCaseSensitive vocabulary .

**6.3.17.2.1.22 <low|high value=""> <translation> <originalText><reference
 value="/" /></originalText> </translation></low|high >**

- 7165 Any <low> and <high> elements used for <doseQuantity> or <rateQuantity> should contain a <translation> element that provides a <reference> to the <originalText> found in the narrative body of the document. In a CDA document, any <low> and <high> elements used for <doseQuantity> or <rateQuantity> should contain a <translation> element that provides a <reference> to the <originalText> found in the narrative body of the document. In a message, the <originalText> may contain the original text used to describe dose quantity.

7170 **6.3.17.2.1.23 <rateQuantity><low value="" unit="" /><high value=""
 unit="" /></rateQuantity>**

The rate is specified in the <rateQuantity> element. The rate is given in units that have measure over time. In this case, the units should be specified as a string made up of a unit of measure (see doseQuantity above), followed by a slash (/), followed by a time unit (s, min, h or d).

- 7175 Again, if a range is given, then the <low> and <high> elements contain the lower and upper bound of the range, otherwise, they contain the same value.

6.3.17.2.1.24 <consumable>

The <consumable> element shall be present, and shall contain a <manufacturedProduct> entry conforming to the [Product Entry](#) template

7180 **6.3.17.2.1.25 <entryRelationship typeCode='REFR'>
 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.3' />**

The top level <substanceAdministration> element may contain a reference (typeCode='REFR') to related prescription activity as described in the [Supply Entry](#).

**6.3.17.2.1.26 <entryRelationship typeCode='COMP'>
 <sequenceNumber value="">**

7185

A top level <substanceAdministration> element may contain one or more related components, either to handle split, tapered or conditional dosing, or to support combination medications.

7190

In the first three cases, the subordinate components shall specify only the changed <frequency> and/or <doseAmount> elements. For conditional dosing, each subordinate component shall have a <precondition> element that specifies the <observation> that must be obtained before administration of the dose. The value of the <sequenceNumber> shall be an ordinal number, starting at 1 for the first component, and increasing by 1 for each subsequent component. Components shall be sent in <sequenceNumber> order.

6.3.17.2.1.27 <entryRelationship typeCode='SUBJ' inversionInd='true'>

7195

At most one instruction may be provided for each <substanceAdministration> entry. If provided, it shall conform to the requirements listed for [Patient Medication Instructions](#). The instructions shall contain any special case dosing instructions (e.g., split, tapered, or conditional dosing), and may contain other information (take with food, et cetera).

7200

**6.3.17.2.1.28 <entryRelationship typeCode='RSON'>
 <act classCode='ACT' moodCode='EVN'>
 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4.1'>
 <id root="" extension="">
 </act>
 </entryRelationship>**

7205

A <substanceAdministration> event may indicate one or more reasons for the use of the medication. These reasons identify the concern that was the reason for use via the [Internal Reference](#) entry content module.

The extension and root of each observation present must match the identifier of a concern entry contained elsewhere within the CDA document.

7210

A consumer of the Medical Summary is encouraged, but not required to maintain these links on import.

**6.3.17.2.1.29 <precondition><criterion>
 <text><reference value=""></text>
 </criterion></precondition>**

7215

In a CDA document, the preconditions for use of the medication are recorded in the <precondition> element. The value attribute of the <reference> element is a URL that points to the CDA narrative describing those preconditions.

**6.3.17.2.1.30 <condition typeCode='PRCN'>
 <criterion>
 <text></text>
 <value nullFlavor='UNK'>**

7220

```
<interpretationCode nullFlavor='UNK'>
</criterion>
</condition>
```

- 7225 In a message, the preconditions for use of the medication are recorded in the <condition> element. The typeCode shall be PRCN. The <text> element of the criterion shall contain a text description of the precondition. The <value> element is required, and may be recorded in a structured data type if known, and if not, may be recorded using a nullFlavor as shown above. The same is true for <interpretationCode>.

7230 **6.3.18 Immunizations 1.3.6.1.4.1.19376.1.5.3.1.4.12**

An immunizations entry is used to record the patient's immunization history.

6.3.18.1 Specification

```

<substanceAdministration typeCode='SBADM' moodCode='EVN' negationInd='true{!}false'>
  <templateId root='2.16.840.1.113883.10.20.1.24'/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.12'/>
  <id root='' extension=''/>
  <code code='IMMUNIZ' codeSystem='2.16.840.1.113883.5.4' codeSystemName='ActCode' />
  <text><reference value='#xxx'/'></text>
  <statusCode code='completed'/'>
  <effectiveTime value=''/>
  <!-- The reasonCode would normally provide a reason why the immunization was
      not performed. It isn't supported by CDA R2, and so comments will have to suffice.
      <reasonCode code='' codeSystem='' codeSystemName='ActNoImmunizationReasonIndicator'/'>
  -->
  <routeCode code='' codeSystem='' codeSystemName='RouteOfAdministration'/'>
  <approachSiteCode code='' codeSystem='' codeSystemName='HumanSubstanceAdministrationSite'/'>
  <doseQuantity value='' units=''/>
  <consumable typeCode='CSM'>
    <manufacturedProduct classCode='MANU'>
      <manufacturedLabeledDrug classCode='MMAT' determinerCode='KIND'>
        <code code='' codeSystem='' codeSystemName=''>
          <originalText><reference value='#yyy'/'></originalText>
        </code>
      </manufacturedLabeledDrug>
    </manufacturedProduct>
  </consumable>
  <!-- An optional entry relationship that provides prescription activity -->
  <entryRelationship typeCode='REFR'>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.3'/'>
    :
    .
  </entryRelationship>
  <!-- An optional entry relationship that identifies the immunization series number -->
  <entryRelationship typeCode='SUBJ'>
    <observation classCode='OBS' moodCode='EVN'>
      <templateId root='2.16.840.1.113883.10.20.1.46'/'>
      <code code='30973-2' displayName='Dose Number'
            codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'/'>
      <statusCode code='completed'/'>
      <value xsi:type='INT' value=''/>
    </observation>
  </entryRelationship>
  <entryRelationship inversionInd='false' typeCode='CAUS'>
    <observation classCode='OBS' moodCode='EVN'>
      <templateId root='2.16.840.1.113883.10.20.1.28'/'>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5'/'>
      <templateId root='2.16.840.1.113883.10.20.1.54'/'>
      <id root='' extension=''/>
    </observation>
  </entryRelationship>
  <!-- Optional <entryRelationship> element containing comments -->
</substanceAdministration>

```

6.3.18.1.1.1 <substanceAdministration typeCode='SBADM' moodCode='EVN' negationInd='true|false'>

7285 An immunization is a substance administration event. An immunization entry may be a record of why a specific immunization was not performed. In this case, negationInd shall be set to "true", otherwise, it shall be false.

**6.3.18.1.1.2 <templateId root='2.16.840.1.113883.10.20.1.24'>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.12'>**

7290 The <templateId> elements identifies this <substanceAdministration> as an immunization. Both elements shall be present as shown above.

6.3.18.1.1.3 <id root=" extension="/>

This shall be the identifier for the immunization event.

**6.3.18.1.1.4 <code code='IMMUNIZ' codeSystem='2.16.840.1.113883.5.4'
codeSystemName='ActCode'>**

7295 This required element records that the act was an immunization. The substance administration act must have a <code> element with code and codeSystem attributes present. If no coding system is used by the source, then simply record the code exactly as shown above. Another coding system that may be used for codes for immunizations are the CPT-4 codes for immunization procedures. This <code> element shall not be used to record the type of vaccine used from a vocabulary of drug names.

codeSystem	codeSystemName	Description
2.16.840.1.113883.5.4	IMMUNIZ	The IMMUNIZ term from the HL7 ActCode vocabulary.
2.16.840.1.113883.6.12	C4	Current Procedure Terminology 4 (CPT-4) codes.

6.3.18.1.1.5 <text><reference value="#xxx"/></text>

7305 In a CDA document, the URI given in the value attribute of the <reference> element points to an element in the narrative content that contains the complete text describing the immunization activity. In an HL7 message, the content of the text element shall contain the complete text describing the immunization activity.

6.3.18.1.1.6 <statusCode code='completed'>

The statusCode shall be set to "completed" for all immunizations.

6.3.18.1.1.7 <effectiveTime value="/">

7310 The effectiveTime element shall be present and should contain a time value that indicates the date of the substance administration. If the date is unkown, this shall be recorded using the nullFlavor attribute, with the reason that the information is unknown being specified. Otherwise, the date shall be recorded, and should have precision of at least the day.

**6.3.18.1.1.8 <routeCode code=" codeSystem=""
codeSystemName='RouteOfAdministration'>**

7315 See [routeCode](#) under Medications.

**6.3.18.1.1.9 <approachSiteCode code="" codeSystem=""
codeSystemName='HumanSubstanceAdministrationSite' />**

See [approachSiteCode](#) under Medications.

7320 **6.3.18.1.1.10 <doseQuantity value="" units="" />**

See [doseQuantity](#) under Medications.

6.3.18.1.1.11 <consumable typeCode='CSM' />

See [consumable](#) under Medications.

6.3.18.1.1.12 <entryRelationship typeCode='REFR' />

7325 **<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.3' />**

The top level <substanceAdministration> element may contain a reference (typeCode='REFR') to related [Supply entry](#)

**6.3.18.1.1.13 <entryRelationship typeCode='SUBJ' />
<observation classCode='OBS' moodCode='EVN' />
<templateId root='2.16.840.1.113883.10.20.1.46' />**

7330

This optional entry relationship may be present to indicate that position of this immunization in a series of immunizations.

**6.3.18.1.1.14 <code code='30973-2' displayName='Dose Number'
codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />**

7335 The <code> element shall be present and must be recorded with the code and codeSystem attributes shown above. This element indicates that the observation describes the dose number for the immunization.

6.3.18.1.1.15 <statusCode code='completed' />

7340 The <statusCode> element shall be present, and must be recorded exactly as shown above. This element indicates that the observation has been completed.

6.3.18.1.1.16 <value xsi:type='INT' value="" />

The <value> element shall be present, and shall indicate the immunization series number in the value attribute.

6.3.18.1.1.17 <entryRelationship inversionInd='false' typeCode='CAUS' />

7345 This repeatable element should be used to identify adverse reactions caused by the immunization.

6.3.18.1.1.18 <observation classCode='OBS' moodCode='EVN' />

This element is required, and provides a pointer to the the adverse reaction caused by the immunization.

7350 **6.3.18.1.1.19 <templateId root='2.16.840.1.113883.10.20.1.28'>**
 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5'>
 <templateId root='2.16.840.1.113883.10.20.1.54'>

It shall contain a conforming [Problem Entry](#) that also conform to the CCD Reaction template.

6.3.18.1.1.20 <id root=" extension="/>

7355 This element is required, and gives the identifier of the adverse reaction. The adverse reaction pointed to by this element shall be described in more detail using the Allergies entry, elsewhere in the document where this element was found.

6.3.18.1.1.21 <!-- Optional <entryRelationship> element containing comments -->

7360 An immunization entry can have negationInd set to true to indicate that an immunization did not occur. In this case, it shall have at least one comment that provides an explainaination for why the immunization did not take place . Other comments may also be present.

6.3.19 Supply Entry 1.3.6.1.4.1.19376.1.5.3.1.4.7.3

The supply entry describes a prescription activity.

6.3.19.1 Specification

```
7365 <substanceAdministration classCode='SBADM' moodCode='INT|EVN'>
7366   :
7367   .
7368   <entryRelationship typeCode='REFR' inversionInd='false'>
7369     <sequenceNumber value=''/>
7370     <supply classCode='SPLY' moodCode='INT|EVN'>
7371       <templateId root='2.16.840.1.113883.10.20.1.34'>
7372       <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.3'>
7373       <id root='' extension=''/>
7374       <repeatNumber value=''/>
7375       <quantity value='' unit=''/>
7376       <author>
7377         <time value=''/>
7378         <assignedAuthor>
7379           <id root='' extension=''/>
7380           <addr></addr>
7381           <telecom use='' value=''/>
7382           <assignedPerson><name></name></assignedPerson>
7383           <representedOrganization><name></name></representedOrganization>
7384         </assignedAuthor>
7385       </author>
7386       <performer typeCode='PRF'>
7387         <time value=''/>
7388         <assignedEntity>
7389           <id root='' extension=''/>
7390           <addr></addr>
7391           <telecom use='' value=''/>
7392           <assignedPerson><name></name></assignedPerson>
7393           <representedOrganization><name></name></representedOrganization>
7394         </assignedEntity>
7395       </performer>
7396       <!-- Optional Fulfillment instructions -->
7397       <entryRelationship typeCode='SUBJ'>
7398         </entryRelationship>
7399       </supply>
7400     </entryRelationship>
7401   </substanceAdministration>
```

6.3.19.1.1.1 <entryRelationship typeCode='REFR' inversionInd='false'>

A <substanceAdministration> act may reference (typeCode='REFR') a prescription activity in an <entryRelationship> element in a CDA document. In a message, the relationship is recorded using a <sourceOf> element instead of the <entryRelationship> element. The typeCode and inversionInd attributes, and the semantics remain identical.

6.3.19.1.1.2 <sequenceNumber value=""/>

The prescription activity may have a <sequenceNumber> element to indicate the fill number. A value of 1, 2 or N indicates that it is the first, second, or Nth fill respectively of a specific prescription. This element should be present when the embedded <supply> element has a moodCode attribute of EVN.

6.3.19.1.1.3 <supply classCode='SPLY' moodCode='INT|EVN'>

The <supply> element shall be present. The moodCode attribute shall be INT to reflect that a medication has been prescribed, or EVN to indicate that the prescription has been filled.

7415 **6.3.19.1.1.4 <templateId root='2.16.840.1.113883.10.20.1.34'>**
 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.3'>

The <templateId> elements shown above shall be present, and identify this supply act as a Supply Entry.

6.3.19.1.1.5 <id root=" extension="/>

7420 Each supply act shall have an identifier to uniquely identify the supply entry.

6.3.19.1.1.6 <repeatNumber value="/">

Each supply entry should have a <repeatNumber> element that indicates the number of times the prescription can be filled.

6.3.19.1.1.7 <quantity value=" unit="/">

7425 The supply entry should indicate the quantity supplied. The value attribute shall be present and indicates the quantity of medication supplied. If the medication is supplied in dosing units (tablets or capsules), then the unit attribute need not be present (and should be set to 1 if present). Otherwise, the unit element shall be present to indicate the quantity (e.g., volume or mass) of medication supplied.

7430 **6.3.19.1.1.8 <author>**

A supply entry that describes an intent (<supply classCode='SPLY' moodCode='INT'>) may include an <author> element to identify the prescribing provider.

6.3.19.1.1.9 <time value="/">

7435 The <time> element must be present to indicate when the author created the prescription. If this information is unknown, it shall be recorded by setting the nullFlavor attribute to UNK.

6.3.19.1.1.10 <assignedAuthor>

The <assignedAuthor> element shall be present, and identifies the author.

6.3.19.1.1.11 <id root=" extension="/">

7440 One or more <id> elements should be present. These identifiers identify the author of the act. When the author is the prescribing physician they may include local identifiers or regional identifiers necessary for prescribing.

6.3.19.1.1.12 <assignedPerson><name/></assignedPerson>
<representedOrganization><name/></ representedOrganization>

7445 An <assignedPerson> and/or <representedOrganization> element shall be present. This element shall contain a <name> element to identify the prescriber or their organization.

6.3.19.1.1.13 <performer typeCode='PRF'>

The <performer> element may be present to indicate who is intended (moodCode='INT'), or actually filled (moodCode='EVN') the prescription.

6.3.19.1.1.14 <time value="/">

7450 The <time> element shall be present to indicate when the prescription was filled (moodCode='EVN'). If this information is unknown, it shall be recorded by setting the nullFlavor attribute to UNK.

The <time> element should be present to indicate when the prescription is intended to be filled (moodCode='INT').

7455 **6.3.19.1.1.15 <assignedEntity>**

The < assignedEntity> element shall be present, and identifies the filler of the prescription.

6.3.19.1.1.16 <id root=" extension="/">

One or more <id> elements should be present. These identify the performer.

6.3.19.1.1.17 <assignedPerson><name/></assignedPerson>

7460 **<representedOrganization><name/></ representedOrganization>**

An <assignedPerson> and/or <representedOrganization> element shall be present. This element shall contain a <name> element to identify the filler or their organization.

6.3.19.1.1.18 <!-- Optional Fulfillment instrctions -->

**<entryRelationship typeCode='SUBJ'>
</entryRelationship>**

7465

An entry relationship may be present to provide the fulfillment instructions. When present, this entry relationship shall contain a [Medication Fulfillment Instructions](#) entry.

6.3.20 Product Entry 1.3.6.1.4.1.19376.1.5.3.1.4.7.2

7470 The product entry describes a medication or immunization used in a <substanceAdministration> or <supply> act. It adopts the constraints of the ASTM/HL7 Continuity of Care Document.

6.3.20.1 Specification

```
<!-- Within a CDA Document -->
<manufacturedProduct>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.2' />
  <templateId root='2.16.840.1.113883.10.20.1.53' />
  <manufacturedMaterial>
    <code code='' displayName='' codeSystem='' codeSystemName=''>
      <originalText><reference value=''/></originalText>
    </code>
    <name></name>
  </manufacturedMaterial>
</manufacturedProduct>
<!-- Within a message -->
<administerableMaterial>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.2' />
  <templateId root='2.16.840.1.113883.10.20.1.53' />
  <administerableMaterial>
    <code></code>
    <desc></desc>
  </administerableMaterial>
</administerableMaterial>
```

6.3.20.1.1.1 <manufacturedProduct> -OR- <administerableMaterial>

<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.2' />

<templateId root='2.16.840.1.113883.10.20.1.53' />

<manufacturedMaterial> -OR- <administerableMaterial>

In a CDA document, the name and strength of the medication are specified in the elements under the <manufacturedMaterial> element. In a message, they are contained within the <administeredMaterial> element, inside another <administerableMaterial> element¹. The templateId elements are required and identify this as a product entry.

¹ This duplication of element names is an artifact of the standard.

6.3.20.1.1.2 <code code=" displayName=" codeSystem=" codeSystemName=">

<originalText><reference value=''/></originalText>

</code>

The <code> element of the <manufacturedMaterial> describes the medication. This may be coded using a controlled vocabulary, such as RxNorm, First Databank, or other vocabulary system for medications, and should be the code that represents the generic medication name and strength (e.g., acetaminophen and oxycodone -5/325), or just the generic medication name alone if strength is not relevant (Acetaminophen).

In a CDA document, the <originalText> shall contain a <reference> whose URI value points to the generic name and strength of the medication, or just the generic name alone if strength is not relevant. Inside a message, the <originalText> may contain the actual text that describes the medication in similar fashion.

Note: When the text is supplied from the narrative, the implication is that if you supply the components of a combination medication in an entry, you must also display these in the narrative text, otherwise you would not be able to break the combination medication down into its component parts. This is entirely consistent with the CDA Release 2.0 requirements that the narrative supply the necessary and relevant human readable information content.

The <code> element is also used to support coding of the medication. If coded, it must provide a code and codeSystem attribute using a controlled vocabulary for medications. The displayName for the code and codeSystemName should be provided as well for diagnostic and human readability purposes, but are not required. The table below provides the codeSystem and codeSystemName for several controlled terminologies that may be used to encode medications and/or immunizations.

codeSystem	codeSystemName	Description
2.16.840.1.113883.6.88	RxNorm	RxNorm
2.16.840.1.113883.6.69	NDC	National Drug Codes
2.16.840.1.113883.6.63	FDDC	First DataBank Drug Codes
2.16.840.1.113883.6.96	SNOMED-CT	SNOMED Controlled Terminology
2.16.840.1.113883.6.59	CVX	CDC Vaccine Codes

The code used for an immunization may use code systems other than what might be used for other medications, such as the CDC maintained CVX codes. Code systems that describe vaccination *procedures* (such as CPT-4) shall not be used to describe the vaccine entry.

6.3.20.1.1.3 <name> -OR- <desc>

In a CDA document, the <name> element should contain the brand name of the medication (or active ingredient in the case of subordinate <substanceAdministration> elements used to record components of a medication). Within a message, this information shall be provided in the <desc> element.

6.3.21 Simple Observations 1.3.6.1.4.1.19376.1.5.3.1.4.13

The simple observation entry is meant to be an abstract representation of many of the observations used in this specification. It can be made concrete by the specification of a few additional constraints, namely the vocabulary used for codes, and the value representation. A simple observation may also inherit constraints from other specifications (e.g., ASTM/HL7 Continuity of Care Document).

6.3.21.1 Specification

```
7535 <observation classCode='OBS' moodCode='EVN'>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />
    <id root='' extension=''/>
    <code code='' displayName='' codeSystem='' codeSystemName='' />
    <!-- for CDA -->
    <text><reference value="#xxx"/></text>
    <!-- For HL7 Version 3 Messages
    <text>text</text>
    -->
    <statusCode code='completed' />
    <effectiveTime value='' />
    <repeatNumber value='' />
    <value xsi:type='...' />
    <interpretationCode code='' codeSystem='' codeSystemName='' />
    <methodCode code='' codeSystem='' codeSystemName='' />
    <targetSiteCode code='' codeSystem='' codeSystemName='' />
    <author typeCode='AUT'>
        <assignedAuthor typeCode='ASSIGNED'><id ... /></assignedAuthor> <!-- for CDA -->
        <!-- For HL7 Version 3 Messages
        <assignedEntity typeCode='ASSIGNED'>
            <Person classCode='PSN'>
                <determinerCode root='' />
                <name>...</name>
            </Person>
            <assignedEntity>
            -->
        </author>
    </observation>
```

6.3.21.1.1.1 <observation classCode='OBS' moodCode='EVN'>

These acts are simply observations that have occurred, and so are recorded using the <observation> element as shown above.

7565 6.3.21.1.1.2 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />

The <templateId> element identifies this <observation> as a simple observation, allowing for validation of the content. The templateId must appear as shown above.

6.3.21.1.1.3 <id root=" extension=" />

Each observation shall have an identifier.

7570 6.3.21.1.1.4 <code code=" displayName=" codeSystem=" codeSystemName=" />

Observations shall have a code describing what was measured. The code system used is determined by the vocabulary constraints on the types of measurements that might be recorded in a section. Content modules that are derived from the Simple Observation content module may restrict the code system and code values used for the observation.

7575 6.3.21.1.1.5 <text><reference value="#xxx"/></text> -OR- <text>text</text>

Each observation measurement entry may contain a <text> element providing the free text that provides the same information as the observation within the narrative portion of the document with a <text> element. For CDA based uses of Simple Observations, this element SHALL be present, and SHALL contain a <reference> element that points to the related string in the

7580 narrative portion of the document. For HL7 Version 3 based uses, the <text> element MAY be included.

6.3.21.1.1.6 <statusCode code='completed' />

The status code of all observations shall be completed.

6.3.21.1.1.7 <effectiveTime value=""/>

7585 The <effectiveTime> element shall be present in standalone observations , and shall record the date and time when the measurement was taken. This element should be precise to the day. If the date and time is unknown, this element should record that using the nullFlavor attribute.

6.3.21.1.1.8 <value xsi:type=" .../>

7590 The value of the observation shall be recording using a data type appropriate to the observation. Content modules derived from the Simple Observation content module may restrict the allowable data types used for the observation.

6.3.21.1.1.9 <interpretationCode code="" codeSystem="" codeSystemName="" />

If there is an interpretation that can be performed using an observation result (e.g., high, borderline, normal, low), these may be recorded within the interpretationCode element.

7595 **6.3.21.1.1.10 <methodCode code="" codeSystem="" codeSystemName="" />**

The methodCode element may be used to record the specific method used to make an observation when this information is not already pre-coordinated with the observation code .

6.3.21.1.1.11 <targetSiteCode code="" codeSystem="" codeSystemName="" />

7600 The targetSiteCode may be used to record the target site where an observation is made when this information is not already pre-coordinated with the observation code.

6.3.21.1.1.12 <author><assignedAuthor classCode='ASSIGNED'>...<assignedAuthor></author>

7605 In CDA uses, SimpleObservations are assumed to be authored by the same author as the document through context conduction. However specific authorship of observation may be represented by listing the author in the header and referencing the author in a <author> relationship. If authors are explicitly listed in documents, an <id> element SHOULD reference the ID of the author in the header through an assignedAuthor Role. If the author of the observation is not an author of the document the <person> object including a name and ID SHALL be included.

7610 For HL7 Version 3 purposes, the <author> element SHOULD be present unless it can be determined by conduction from organizers or higher level structures. When used for HL7 Version 3 the role element name is <assignedEntity> and the author is represented a <assignedPerson> element.

6.3.22 Vital Signs Organizer 1.3.6.1.4.1.19376.1.5.3.1.4.13.1

7615 A vital signs organizer collects vital signs observations.

6.3.22.1 Specification

```
<organizer classCode='CLUSTER' moodCode='EVN'>
  <templateId root='2.16.840.1.113883.10.20.1.32' />
  <templateId root='2.16.840.1.113883.10.20.1.35' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.1' />
  <id root='' extension=''/>
  <code code='46680005' displayName='Vital signs'
    codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED CT' />
  <statusCode code='completed' />
  <effectiveTime value=''/>
  <!-- For HL7 Version 3 Messages
  <author classCode='AUT'>
    <assignedEntity1 typeCode='ASSIGNED'>
      :
      <assignedEntity1>
    </author>
    -->
  <!-- one or more vital signs observations -->
  <component typeCode='COMP'>
    <observation classCode='OBS' moodCode='EVN'>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.2' />
      :
      </observation>
    </component>
  </organizer>
```

6.3.22.1.1.1 <organizer classCode='CLUSTER' moodCode='EVN'>

The vital signs organizer is a cluster of vital signs observations.

6.3.22.1.1.2 <templateId root='2.16.840.1.113883.10.20.1.32' />

<templateId root='2.16.840.1.113883.10.20.1.35' />

<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.1' />

7645

The vital signs organizer shall have the <templateId> elements shown above to indicate that it inherits constraints from the ASTM/HL7 CCD Specification for Vital signs, and the constraints of this specification.

6.3.22.1.1.3 <id root=" extension=" />

7650 The organizer shall have an <id> element.

6.3.22.1.1.4 <code code='46680005' displayName='Vital signs' codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED CT' />

7655 The <code> element shall be recorded as shown above to indicate that this organizer captures information about patient vital signs.

6.3.22.1.1.5 <statusCode code='completed' />

The observations have all been completed.

6.3.22.1.1.6 <effectiveTime value="/">

The effective time element shall be present to indicate when the measurement was taken.

- 7660 **6.3.22.1.1.7 <author typeCode='AUT'><assignedEntity1 typeCode='ASSIGNED'>...</assignedEntity1></author>**

For use with HL7 Version 3, Vital Sign organizers SHALL contain an <author> element to represent the person or device.

6.3.22.1.1.8 <!-- one or more vital signs observations --> <component typeCode='COMP'>

- 7665 The organizer shall have one or more <component> elements that are <observation> elements

using the [Vital Signs Observation](#) template.

6.3.23 Vital Signs Observation 1.3.6.1.4.1.19376.1.5.3.1.4.13.2

- 7670 A vital signs observation is a simple observation that uses a specific vocabulary, and inherits constraints from CCD.

6.3.23.1 Specification

```
<observation classCode='OBS' moodCode='EVN'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />
  <templateId root='2.16.840.1.113883.10.20.1.31' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.2' />
  <id root=' ' extension=' '/>
  <code code='' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <text><reference value='#xxx' /></text>
  <statusCode code='completed' />
  <effectiveTime value='/' />
  <repeatNumber value='/' />
  <value xsi:type='PQ' value=' ' unit=' '/>
  <interpretationCode code='' codeSystem='' codeSystemName='' />
  <methodCode code='' codeSystem='' codeSystemName='' />
  <targetSiteCode code='' codeSystem='' codeSystemName='' />
</observation>
```

6.3.23.1.1.1 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />

<templateId root='2.16.840.1.113883.10.20.1.31' />

<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.2' />

- 7690 A vital signs observation shall have the <templateId> elements shown above to indicate that it inherits constraints from the ASTM/HL7 CCD Specification for Vital signs, and the constraints of this specification.

6.3.23.1.1.2 <code code="" codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />

- 7695 A vital signs observation entry shall use one of the following LOINC codes, with the specified data types and units.

LOINC	Description	Units	Type
9279-1	RESPIRATION RATE	/min	PQ

8867-4	HEART BEAT		
2710-2	OXYGEN SATURATION	%	
8480-6	INTRAVASCULAR SYSTOLIC	mm[Hg]	
8462-4	INTRAVASCULAR DIASTOLIC		
8310-5	BODY TEMPERATURE	Cel or [degF]	
8302-2	BODY HEIGHT (MEASURED)		
8306-3	BODY HEIGHT^LYING	m, cm,[in_us] or [in_uk]	
8287-5	CIRCUMFRENCE.OCCIPITAL-FRONTAL (TAPE MEASURE)		
3141-9	BODY WEIGHT (MEASURED)	kg, g, [lb_av] or [oz_av]	

6.3.23.1.1.3 <value xsi:type='PQ' value="" unit=""/>

The <value> element shall be present, and shall be of the appropriate data type specified for measure in the table above.

- 7700 **6.3.23.1.1.4 <interpretationCode code="" codeSystem="" codeSystemName=""/>**

The interpretation code may be present to provide an interpretation of the vital signs measure (e.g., High, Normal, Low, et cetera).

6.3.23.1.1.5 <methodCode code="" codeSystem="" codeSystemName=""/>

- 7705 The <methodCode> element may be present to indicate the method used to obtain the measure. Note that method used is distinct from, but possibly related to the target site.

6.3.23.1.1.6 <targetSiteCode code="" codeSystem="" codeSystemName=""/>

The target site of the measure may be identified in the <targetSiteCode> element (e.g., Left arm [blood pressure], oral [temperature], et cetera).

6.3.24 Family History Organizer 1.3.6.1.4.1.19376.1.5.3.1.4.15

- 7710 The family history organizer collects the problems of a patient's family member.

6.3.24.1 Specification

```

<entry>
  <organizer classCode='CLUSTER' moodCode='EVN'>
    <templateId root='2.16.840.1.113883.10.20.1.23' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.15' />
    <subject typeCode='SBJ'>
      <relatedSubject classCode='PRS'>
        <code code='' displayName=''
              codeSystem='2.16.840.1.113883.5.111' codeSystemName='RoleCode' />
        <subject>
          <sdtc:id root='' extension='' />
          <administrativeGenderCode code='' displayName=''
              codeSystem='' codeSystemName='' />
        </subject>
      </relatedSubject>
    </subject>
    <!-- zero or more participants linking to other relations -->
    <participant typeCode='IND'>
      <participantRole classCode='PRS'>
        <code code='' displayName=''
              codeSystem='2.16.840.1.113883.5.111' codeSystemName='RoleCode' />
        <playingEntity classCode='PSN'>
          <sdtc:id root='' extension='' />
        </playingEntity>
      </participantRole>
    </participant>
    <!-- one or more entry relationships for family history observations -->
    <component typeCode='COMP'>
      <observation classCode='OBS' moodCode='EVN'>
        <templateId root='2.16.840.1.113883.10.20.1.22' />
      </observation>
    </component>
  </organizer>
</entry>

```

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6.3.24.1.1.1 <organizer classCode='CLUSTER' moodCode='EVN'>

Each family history entry is organized (classCode='CLUSTER') into a group of observations about a family member.

6.3.24.1.1.2 <templateId root='2.16.840.1.113883.10.20.1.23' /> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.15' />

7750 The organizer is identified by the <templateId> elements, which shall be present as shown above.

6.3.24.1.1.3 <subject typeCode='SUBJ'> <relatedSubject classCode='PRS'>

The <subject> element shall be present and relates the subject of the observations to the patient.
7755 It shall contain a <relatedSubject> element that is a personal relation of the patient (classCode='PRS').

**6.3.24.1.1.4 <code code="" displayName="" codeSystem='2.16.840.1.113883.5.111'
codeSystemName='RoleCode' />**

- 7760 The <code> element shall be present, and give the relationship of the subject to the patient. The code attribute shall be present, and shall contain a value from the HL7 FamilyMember vocabulary. The codeSystem attribute shall be present and shall use the value shown above.

6.3.24.1.1.5 <subject>

The <subject> element contains information about the relation.

6.3.24.1.1.6 <sdtc:id root="" extension="" />

- 7765 The <sdtc:id> element should be present. It is used to identify the patient relation to create a pedigree graph.

6.3.24.1.1.7 <administrativeGenderCode code="" />

The <administrativeGenderCode> element should be present. It gives the gender of the relation.

**6.3.24.1.1.8 <participant typeCode='IND'
<participantRole classCode='PRS'>**

- 7770 The <participant> element may be present to record the relationship of the subject to other family members to create a pedigree graph. It shall contain a <participantRole> element showing the relationship of the subject to other family members (classCode='PRS').

6.3.24.1.1.9 <code code="" displayName="" codeSystem=" codeSystemName="" />

- 7775 The <code> element shall be present, and gives the relationship of the participant to the subject. The code attribute shall be present, and shall contain a value from the HL7 FamilyMember vocabulary. The codeSystem attribute shall be present and shall use the value shown above.

6.3.24.1.1.10 <playingEntity classCode='PSN'>

The <playingEntity> element identifies the related person. It shall be recorded as shown above.

- 7780 **6.3.24.1.1.11 <sdtc:id root="" extension="" />**

The <sdtc:id> element shall be present. It must have the same root and extension attributes of the <subject> of a separate family history organizer. See [Appendix C of PCC-TF](#) for definition of this extension to CDA.

**6.3.24.1.1.12 <component typeCode='COMP'
<observation classCode='OBS' moodCode='EVN'>
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.3' />**

The family history organizer shall contain one or more components using the <component> element shown above. These components must conform the [Family History Observation](#) template.

7790 **6.3.25 Family History Observation 1.3.6.1.4.1.19376.1.5.3.1.4.13.3**

A family history observation is a [Simple Observation](#) that uses a specific vocabulary, and inherits constraints from CCD. Family history observations are found inside [Family History Organizers](#).

6.3.25.1 Standards

6.3.25.2 CCD 6.3.25.3 ASTM/HL7 Continuity of Care Document

7795 **6.3.25.4 Parent Template**

6.3.25.5 The parent of this template is [Simple Observation](#). This template is compatible with the ASTM/HL7 Continuity of Care Document template: 2.16.840.1.113883.10.20.1.22

6.3.25.6 Specification

```
<observation typeCode='OBS' moodCode='EVN'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />
  <templateId root='2.16.840.1.113883.10.20.1.22' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.3' />
  <id root='' extension='' />
  <code code='' displayName='' codeSystem='' codeSystemName='' />
  <text><reference value='#xxx' /></text>
  <statusCode code='completed' />
  <effectiveTime value='' />
  <repeatNumber value='' />
  <value xsi:type='CD' ... />
  <interpretationCode code='' codeSystem='' codeSystemName='' />
  <methodCode code='' codeSystem='' codeSystemName='' />
  <targetSiteCode code='' codeSystem='' codeSystemName='' />
</observation>
```

7815 **6.3.25.6.1.1 <templateId root='2.16.840.1.113883.10.20.1.22' />**
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.3' />

The <templateId> elements identify this observation as a family history observation, and shall be present as shown above.

6.3.25.6.1.2 <code code="" displayName="" codeSystem="" codeSystemName="" />

7820 The <code> indicates the type of observation made (e.g., Diagnosis, et cetera). See the [code](#) element in the Problem Entry entry for suggested values.

6.3.25.6.1.3 <value xsi:type='CD' code="" displayName="" codeSystem="" codeSystemName="" />

7825 The <value> element indicates the information (e.g., diagnosis) of the family member. See the [value](#) element in the Problem Entry for suggested values.

6.3.26 Social History Observation 1.3.6.1.4.1.19376.1.5.3.1.4.13.4

A social history observation is a simple observation that uses a specific vocabulary, and inherits constraints from CCD.

6.3.26.1 Standards

6.3.26.2 CCD 6.3.26.3 [ASTM/HL7 Continuity of Care Document](#)

7830 **6.3.26.4 Parent Template**

6.3.26.5 The parent of this template is [Simple Observation](#). This template is compatible with the ASTM/HL7 Continuity of Care Document template: 2.16.840.1.113883.10.20.1.33

6.3.26.6 Specification

7835

```
<observation typeCode='OBS' moodCode='EVN'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />
  <templateId root='2.16.840.1.113883.10.20.1.33' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4' />
  <id root='' extension='' />
  <code code='' displayName='' codeSystem='' codeSystemName='' />
  <text><reference value='#xxx' /></text>
  <statusCode code='completed' />
  <effectiveTime value='' />
  <repeatNumber value='' />
  <value xsi:type='' />
  <interpretationCode code='' codeSystem='' codeSystemName='' />
  <methodCode code='' codeSystem='' codeSystemName='' />
  <targetSiteCode code='' codeSystem='' codeSystemName='' />
</observation>
```

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7850 **6.3.26.6.1.1 <templateId root='2.16.840.1.113883.10.20.1.33' />**
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.4' />

These <templateId> elements identify this as a Social History observation.

6.3.26.6.1.2 <code code="" displayName="" codeSystem="" codeSystemName="" />

The <code> element identifies the type social history observation.

Code	Description	Data Type	Units
229819007	Smoking	PQ	{pack}/d or {pack}/wk or {pack}/a
256235009	Exercise		{times}/wk
160573003	ETOH (Alcohol) Use		{drink}/d or {drink}/wk
364393001	Diet	CD	N/A
364703007	Employment		
425400000	Toxic Exposure		
363908000	Drug Use		
228272008	Other Social History	ANY	

- 7855 **6.3.26.6.1.3 <repeatNumber value=""/>**
The <repeatNumber> element should not be used in a social history observation.
- 6.3.26.6.1.4 <value xsi:type=" ... />**
- The <value> element reports the value associated with the social history observation. The data type to use for each observation should be drawn from the table above.

- 7860 Observations in the table above using the PQ data type have a unit in the form {xxx}/d, {xxx}/wk or {xxx}/a represent the number of items per day, week or year respectively. The value attribute indicates the number of times of the act performed, and the units represent the frequency. The example below shows how to represent 1 drink per day.

7865 :
<code code='160573003' displayName='ETOH Use'
codeSystem='2.16.840.1.113883.6.96'
codeSystemName='SNOMED CT' />
:
7870 <value xsi:type='PQ' value='1' unit='{drink}/d' />
:

Observations in the table using the CD data type should include coded values from an appropriate vocabulary to represent the social history item. The example below shows the encoding to indicate drug use of cannabis.

7875 :
<code code='363908000' displayName='Drug Use'
codeSystem='2.16.840.1.113883.6.96'
codeSystemName='SNOMED CT' />
:
7880 <value xsi:type='CD' code='398705004' displayName='cannabis'
codeSystem='2.16.840.1.113883.6.96'
codeSystemName='SNOMED CT' />
:

Other social history observations may use any appropriate data type.

- 6.3.26.6.1.5 <interpretationCode code=" codeSystem=" codeSystemName="/">**
<methodCode code=" codeSystem=" codeSystemName="/">
<targetSiteCode code=" codeSystem=" codeSystemName="/">

The <interpretationCode>, <methodCode>, and <targetSiteCode> elements should not be used in a social history observation.

6.3.27 Pregnancy Observation 1.3.6.1.4.1.19376.1.5.3.1.4.13.5

- 7890 A pregnancy observation is a Simple Observation that uses a specific vocabulary to record observations about a patient's pregnancy history.

6.3.27.1 Parent Template

6.3.27.2 The parent of this template is [Simple Observation](#).

6.3.27.3 Specification

7895

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```

<observation classCode='OBS' moodCode='EVN'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.5' />
  <id root='' extension=''/>
  <code code='' displayName='' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <text><reference value='#xxx' /></text>
  <statusCode code='completed' />
  <effectiveTime value=''/>
  <repeatNumber value=''/>
  <value xsi:type='...' .../>
  <interpretationCode code='' codeSystem='' codeSystemName='' />
  <methodCode code='' codeSystem='' codeSystemName='' />
  <targetSiteCode code='' codeSystem='' codeSystemName='' />
</observation>

```

7900

7905

7910

6.3.27.3.1.1 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' /> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.5' />

These <templateId> elements identify this <observation> as a pregnancy observation, allowing for validation of the content. The <templateId> elements shall be recorded as shown above.

7915

6.3.27.3.1.2 <code code=" displayName=" codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />

A pregnancy observations shall have a LOINC code describing what facet of patient's pregnancy history is being recorded. These codes should come from the list of codes shown below.

Additional codes may be used to reflect additional information about the pregnancy history.

LOINC CODE	Description	Type	Units or Vocabulary
Summary over All Pregnancies			
11636-8	BIRTHS LIVE (REPORTED)	QTY	N/A
11637-6	BIRTHS PRETERM (REPORTED)		
11638-4	BIRTHS STILL LIVING (REPORTED)		
11639-2	BIRTHS TERM (REPORTED)		
11640-0	BIRTHS TOTAL (REPORTED)		
11612-9	ABORTIONS (REPORTED)		
11613-7	ABORTIONS INDUCED (REPORTED)		
11614-5	ABORTIONS SPONTANEOUS (REPORTED)		
33065-4	ECTOPIC PREGNANCY (REPORTED)		
Detailed Pregnancy Data			
11449-6	PREGNANCY STATUS	CE	SNOMED CT, ICD-9-CM (V22)
8678-5	MENSTRUAL STATUS		SNOMED CT
8665-2	DATE LAST MENSTRUAL PERIOD	TS	N/A
11778-8	DELIVERY DATE (CLINICAL ESTIMATE)	TS	

11779-6	DELIVERY DATE (ESTIMATED FROM LAST MENSTRUAL PERIOD)		
11780-4	DELIVERY DATE (ESTIMATED FROM OVULATION DATE)		
11884-4	FETUS, GESTATIONAL AGE (CLINICAL ESTIMATE)		
11885-1	FETUS, GESTATIONAL AGE (ESTIMATED FROM LAST MENSTRUAL PERIOD)		
11886-9	FETUS, GESTATIONAL AGE (ESTIMATED FROM OVULATION DATE)	PQ	d, wk or mo
11887-7	FETUS, GESTATIONAL AGE (ESTIMATED FROM SELECTED DELIVERY DATE)		
45371-2	MULTIPLE PREGNANCY		

7920 **6.3.27.3.1.3 <repeatNumber value="/">**

The <repeatNumber> element should not be present in a pregnancy observation.

6.3.27.3.1.4 <value xsi:type=" ..."/>

The value of the observation shall be recording using a data type appropriate to the coded observation according to the table above.

7925 **6.3.27.3.1.5 <interpretationCode code=" codeSystem=" codeSystemName="/">**
<methodCode code=" codeSystem=" codeSystemName="/">
<targetSiteCode code=" codeSystem=" codeSystemName="/">

The <interpretationCode>, <methodCode>, and <targetSiteCode> should not be present in a pregnancy observation.

7930 **6.3.28 Advance Directive Observation 1.3.6.1.4.1.19376.1.5.3.1.4.13.7**

An advance directive observation is a simple observation that uses a specific vocabulary, and inherits constraints from CCD.

6.3.28.1 Standards

6.3.28.2 CCD 6.3.28.3 [ASTM/HL7 Continuity of Care Document](#)

6.3.28.4 Specification

7935

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary
(EDES)

```

<observation typeCode='OBS' moodCode='EVN'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />
  <templateId root='2.16.840.1.113883.10.20.1.17' />
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.7' />
  <id root='' extension='' />
  <code code='' codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED CT' />
  <text><reference value='#xxx' /></text>
  <statusCode code='completed' />
  <effectiveTime value='' />
  <repeatNumber value='' />
  <value xsi:type='BL' value='true|false' />
  <interpretationCode code='' codeSystem='' codeSystemName='' />
  <methodCode code='' codeSystem='' codeSystemName='' />
  <targetSiteCode code='' codeSystem='' codeSystemName='' />
  <reference typeCode='REFR'>
    <templateId root='2.16.840.1.113883.10.20.1.36' />
    <externalDocument classCode='DOC' moodCode='EVN'>
      <id root='' extension='' />
      <text><reference value='' /></text>
    </externalDocument>
  </reference>
</observation>
```

An advanced directive <observation> shall be represented as shown above. They shall not contain any <repeatNumber>, <interpretationCode>, <methodCode> or <targetSiteCode> elements.

**6.3.28.4.1.1 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />
 <templateId root='2.16.840.1.113883.10.20.1.17' />
 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13.7' />**

The <templateId> elements shown above shall be present, and indicated that this is an Advance Directive entry.

**6.3.28.4.1.2 <code code=" codeSystem='2.16.840.1.113883.6.96'
 codeSystemName='SNOMED CT' />**

The <code> element records the type of advance directive. It should use one of the following SNOMED codes in the table below.

Code	Description	Data Type
304251008	Resuscitation	
52765003	Intubation	
225204009	IV Fluid and Support	
89666000	CPR	BL
281789004	Antibiotics	
78823007	Life Support	
61420007	Tube Feedings	
116859006	Transfusion of blood product	
71388002	Other Directive	<value> not permitted

7970 **6.3.28.4.1.3 <value xsi:type='BL' value='true|false'>**

The advance directive observation may include a <value> element using the Boolean (xsi:type='BL') data type to indicate simply whether the procedure described is permitted. Absence of the the <value> element indicates that an advance directive of the specified type has been recorded, and must be examined to determine what type of treatment should be performed.

7975 The value element is not permitted when the <code> element describes an *Other directive*.

6.3.28.4.1.4 <reference typeCode='REFR'>

```
<templateId root='2.16.840.1.113883.10.20.1.36'>
<externalDocument classCode='DOC' moodCode='EVN'>
<id root="" extension="">
<text><reference value="/"></text>
```

7980

The advanced directive observation may contain a single reference to an external document. That reference shall be recorded as shown above. The <id> element shall contain the appropriate root and extension attributes to identify the document. The <text> element may be present to provide a URL link to the document in the value attribute of the <reference> element. If the <reference> element is present, the Advance Directive in the narrative shall contain a <linkHTML> element to the same URL found in the value attribute.

6.3.29 Encounters 1.3.6.1.4.1.19376.1.5.3.1.4.14

6.3.29.1 Standards

6.3.29.2 CCD 6.3.29.3 [ASTM/HL7 Continuity of Care Document](#)

6.3.29.4 Specification

7990

```

<encounter classCode='ENC' moodCode='PRMS|ARQ|EVN'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.14' />
  <templateId root='2.16.840.1.113883.10.20.1.21' />
  <templateId root='2.16.840.1.113883.10.20.1.25' />
  <id root='' extension=''/>
  <code code='' codeSystem='2.16.840.1.113883.5.4' codeSystemName='ActEncounterCode' />
  <text><reference value='#xxx' /></text>
  <effectiveTime>
    <low value=''/>
    <high value=''/>
  </effectiveTime>
  <priorityCode code='' />
  <performer typeCode='PRF'>
    <time><low value=''/><high value=''/></time>
    <assignedEntity>...</assignedEntity>
  </performer>
  <author />
  <informant />
  <participant typeCode='LOC'>
    <participantRole classCode='SDLOC'>
      <id/>
      <code/>
      <addr>...</addr>
      <telecom value='' use='' />
      <playingEntity classCode='PLC' determinerCode='INST'>
        <name></name>
      </playingEntity>
    </participantRole>
  </participant>
</encounter>

```

6.3.29.4.1.1 <encounter classCode='ENC' moodCode='APT|ARQ|EVN'>

This element is an encounter. The classCode shall be 'ENC'. The moodCode may be PRMS to indicated a scheduled appointment, ARQ to describe a request for an appointment that has been made but not yet scheduled by a provider, or EVN, to describe an encounter that has already occurred.

6.3.29.4.1.2 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.14' />

The templateId indicates that this <encounter> entry conforms to the constraints of this content module. NOTE: When the encounter is in event mood (moodCode='EVN'), this entry conforms to the CCD template 2.16.840.1.113883.10.20.1.21, and when in other moods, this entry conforms to the CCD template 2.16.840.1.113883.10.20.1.25.

6.3.29.4.1.3 <id root=" extension=" />

This required element shall contain an identifier for the encounter. More than one encounter identifier may be present.

8035 6.3.29.4.1.4 <code code=" codeSystem='2.16.840.1.113883.5.4' codeSystemName='ActEncounterCode' />

This required element should contain a code from the HL7 ActEncounterCode vocabulary describing the type of encounter (e.g., inpatient, ambulatory, emergency, et cetera). Developers should take care to check that rational combinations of encounter.code and encounter.moodCode are used , but this profile does not restrict any combination.

6.3.29.4.1.5 <text><reference value="#xxx'/'></text>

The <text> element shall contain a reference to the narrative text describing the encounter.

6.3.29.4.1.6 <effectiveTime><low value="/"><high value="/"></effectiveTime>

This element records the time over which the encounter occurred (in EVN mood), or the desired time of the encounter in ARQ or APT mood. In EVN or APT mood, the effectiveTime element should be present. In ARQ mood, the effectiveTime element may be present, and if not, the priorityCode may be present to indicate that a callback is required to schedule the appointment.

6.3.29.4.1.7 <priorityCode code='CS'>

This element may be present in ARQ mood to indicate a callback is requested to schedule the appointment.

6.3.29.4.1.8 <performer>

For encounters in EVN mood, at least one performer should be present that identifies the provider of the service given during the encounter. More than one performer may be present. The <time> element should be used to indicate the duration of the participation of the performer when it is substantially different from that of the effectiveTime of the encounter. In ARQ mood, the performer may be present to indicate a preference for a specific provider. In APT mood, the performer may be present to indicate which provider is scheduled to perform the service.

**6.3.29.4.1.9 <participant typeCode='LOC'>
<participantRole classCode='SDLOC'>**

A <participant> element with typeCode='LOC' may be present to provide information about the location where the encounter is to be or was performed. This element shall have a <participantRole> element with classCode='SDLOC' that describes the service delivery location.

6.3.29.4.1.10 <id/>

The <id> element may be present to identify the service delivery location.

8065 6.3.29.4.1.11 <code/>

The <code> element may be present to classify the service delivery location.

6.3.29.4.1.12 <addr>...</addr>

The <addr> element should be present, and gives the address of the location.

6.3.29.4.1.13 <telecom value=" use="/">

8070 The <telecom> element should be present, and gives the telephone number of the location.

6.3.29.4.1.14 <playingEntity classCode='PLC'>

<name>...</name>
</playingEntity>

8075 The <playingEntity> shall be present, and gives the name of the location in the required <name> element.

6.3.30 Procedure Entry 1.3.6.1.4.1.19376.1.5.3.1.4.19

The procedure entry is used to record procedures that have occurred, or which are planned for in the future.

6.3.30.1 Standards

6.3.30.2 CCD 6.3.30.3 [ASTM/HL7 Continuity of Care Document](#)

8080 **6.3.30.4 Specification**

```
<procedure classCode='PROC' moodCode='EVN|INT'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.19' />
  <templateId root='2.16.840.1.113883.10.20.1.29' /><!-- see text of section 0 -->
  <templateId root='2.16.840.1.113883.10.20.1.25' /><!-- see text of section 0 -->
  <id root='' extension='' />
  <code code='' codeSystem='2.16.840.1.113883.5.4' codeSystemName='ActCode' />
  <text><reference value='#xxx' /></text>
  <statusCode code='completed|active|aborted|cancelled' />
  <effectiveTime>
    <low value='' />
    <high value='' />
  </effectiveTime>
  <priorityCode code='' />
  <approachSiteCode code='' displayName='' codeSystem='' codeSystemName='' />
  <targetSiteCode code='' displayName='' codeSystem='' codeSystemName='' />
  <author />
  <informant />
  <entryRelationship typeCode='COMP' inversionInd='true'>
    <act classCode='ACT' moodCode='' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4.1' />
    <id root='' extension='' />
  </act>
  </entryRelationship>
  <entryRelationship typeCode='RSON'>
    <act classCode='ACT' moodCode='EVN' />
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4.1' />
    <id root='' extension='' />
  </act>
  </entryRelationship>
</procedure>
```

6.3.30.4.1.1 <procedure classCode='PROC' moodCode='EVN|INT'>

This element is a procedure. The classCode shall be 'PROC'. The moodCode may be INT to indicated a planned procedure or EVN, to describe a procedure that has already occurred.

6.3.30.4.1.2 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.19' />

8115 The templateId indicates that this <procedure> entry conforms to the constraints of this content module. NOTE: When the procedure is in event mood (moodCode='EVN'), this entry conforms

to the CCD template 2.16.840.1.113883.10.20.1.29, and when in intent mood, this entry conforms to the CCD template 2.16.840.1.113883.10.20.1.25.

6.3.30.4.1.3 <id root=" extension="/>

- 8120 This required element shall contain an identifier for the procedure. More than one procedure identifier may be present.

6.3.30.4.1.4 <code code=" displayName=" codeSystem=" codeSystemName=" />

This element shall be present, and should contain a code describing the type of procedure.

6.3.30.4.1.5 <text><reference value='#xxx'/'></text>

- 8125 The <text> element shall contain a reference to the narrative text describing the procedure.

6.3.30.4.1.6 <statusCode code='completed|active|aborted|cancelled'/'>

- 8130 The <statusCode> element shall be present when used to describe a procedure event. It shall have the value 'completed' for procedures that have been completed, and 'active' for procedures that are still in progress. Procedures that were stopped prior to completion shall use the value 'aborted', and procedures that were cancelled before being started shall use the value 'cancelled'.

6.3.30.4.1.7 <effectiveTime><low value="/"><high value="/"></effectiveTime>

This element should be present, and records the time at which the procedure occurred (in EVN mood), or the desired time of the procedure in INT mood.

6.3.30.4.1.8 <priorityCode code="/">

- 8135 This element shall be present in INT mood when effectiveTime is not provided, it may be present in other moods. It indicates the priority of the procedure.

6.3.30.4.1.9 <approachSiteCode code=" displayName=" codeSystem=" codeSystemName=" />

This element may be present to indicate the procedure approach.

- 8140 **6.3.30.4.1.10 <targetSiteCode code=" displayName=" codeSystem=" codeSystemName=" />**

This element may be present to indicate the target site of the procedure.

6.3.30.4.1.11 <entryRelationship typeCode='COMP' inversionInd='true'>

- 8145 This element may be present to point the encounter in which the procedure was performed, and shall contain an internal reference to the encounter. See [Internal References](#) for more details.

6.3.30.4.1.12 <entryRelationship typeCode='RSON'>

A <procedure> act may indicate one or more reasons for the procedure. These reasons identify the concern that was the reason for the procedure via an [Internal Reference](#) to the concern. The

extension and root of each observation present must match the identifier of a concern entry
8150 contained elsewhere within the CDA document.

6.3.31 Transport 1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1

A transport entry indicates the intended or actual mode of transport and time of departure and/or arrival of the patient.

6.3.31.1 Specification

```
8155 <entry>
<act classCode='ACT' moodCode='INT|EVN'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1' />
  <id root='' extension=''/>
  <code code='' displayName=''
        codeSystem='2.16.840.1.113883.6.102.4.2'
        codeSystemName='DEEDS4.02'>
    <originalText><reference value="#(ID of text coded) /></originalText>
  </code>
  <text><reference value="#text"/></text>
    <high value=/>
  </effectiveTime>
</act>
</entry>
```

6.3.31.1.1.1 <act classCode='ACT' moodCode='INT|EVN'>

8170 This element indicates that the entry is an act (of transporting the patient, as indicated by the code below). This entry records the mode, and intended or actual ending time of transportation. In intent mood (moodCode='INT') this is how the estimated time of departure or arrival is indicated. In event mood (moodCode='EVN') this is how the actual departure or arrival of the patient is recorded.

8175 6.3.31.1.1.2 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1' />

The <templateId> element identifies this <act> as about the transportation of the patient. The templateId must have root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1'.

6.3.31.1.1.3 <id root=" extension=" />

The entry must have an identifier.

8180 6.3.31.1.1.4 <code code=" displayName=" codeSystem='2.16.840.1.113883.6.102.4.2' codeSystemName='DEEDS4.02'>

8185 The code describes the intended mode of transport. For transport between facilities, IHE recommends the use of a code system based on the DEEDS Mode of Transportation data element value set. However, the vocabulary used within an affinity domain should be determined by a policy agreement within the domain.

6.3.31.1.1.5 <originalText><reference value='#xxx' /><orginalText>

This is a reference to the narrative text within the section that describes the mode of transportation.

8190 **6.3.31.1.1.6 <text><reference value='#text' /></text>**

This is a reference to the narrative text cooresponding to the transport act.

6.3.31.1.1.7 <effectiveTime>

The effectiveTime element shall be sent. It records the interval of time over which transport occurs.

8195 **6.3.31.1.1.8 <low value="" />**

This element records the time of departure. This element shall be sent using the TS data type, as shown above.

6.3.31.1.1.9 <high value="" />

This element records the time of arrival. If unknown, it must be recorded using a flavor of null.
8200 This element shall be sent using the TS data type as shown above.

6.3.32 Encounter Disposition 1.3.6.1.4.1.19376.1.5.3.1.1.10.4.2

This element records the intended or actual disposition for the patient (e.g., admit, discharge home after treatment, et cetera).

6.3.32.1 Specification

```
8205 <act classCode='ACT' moodCode='INT|EVN'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.2' />
  <id root='' extension=''/>
  <code code='' displayName='' codeSystem='' codeSystemName='' />
  <text><reference value='#xxx' /></text>
  <statusCode code='normal|completed' />
  <effectiveTime value=''/>
  <performer typeCode='PRF'>
    <assignedEntity>
      <id root='' extension=''/>
      <addr></addr>
      <telecom value='' use=''/>
      <assignedPerson>
        <name></name>
      </assignedPerson>
    </assignedEntity>
  </performer>
  <participant typeCode='RCV'>
    <time value=''/>
    <participantRole classCode='ROL'>
      <id root='' extension=''/>
      <addr></addr>
      <telecom value='' use=''/>
      <playingEntity>
        <name></name>
      </playingEntity>
    </participantRole>
  </participant>
  <entryRelationship typeCode='COMP'>
    <act classCode='ACT'>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1' />
      :
    </act>
  </entryRelationship>
</act>
```

8240 6.3.32.1.1.1 <act classCode='ACT' moodCode='INT|EVN'>

The disposition is recorded in an act element, to describe the disposition action taken during the encounter¹. In intent mood (moodCode='INT'), this records the expected disposition of the patient. In event mood (moodCode='EVN'), this records the actual disposition.

¹ The HL7 RIM allows this portion of the encounter to be recorded in the dischargeDispositionCode RIM Attribute of the Encounter class, but the Encounter class is constrained within CDA. To record the disposition act therefore requires the use of the Act class.

6.3.32.1.1.2 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.2' />

8245 The templateId indicates that this <encounter> entry conforms to the constraints of this content module.

6.3.32.1.1.3 <id root=" extension=" />

This required element shall contain an identifier.

6.3.32.1.1.4 <code code="" displayName="" codeSystem="" codeSystemName="" />

8250 This required element indicates the disposition of the patient. The code shall come from a coding system that is able to record common patient dispositions (e.g., Discharged, Transferred,

Admitted). The "Administrative Procedure" concept (14734007) of SNOMED CT contains several code values that cover a wide variety of dispositions routinely recorded. Other vocabularies that are commonly in use to describe discharge disposition codes are DEEDS (See section 8.02), and in the US, the Uniform National Billing Code.

6.3.32.1.1.5 <text><reference value="#xxx'/'></text>

The <text> element shall contain a reference to the narrative text describing the disposition of the patient. <statusCode code='normal|completed'> When the disposition act has occurred (moodCode='EVN'), the statusCode element shall be present, and shall contain the value 'completed'. When the disposition act is intended (moodCode='EVN') the statusCode element shall contain the value 'normal'.

6.3.32.1.1.6 <effectiveTime><low value="/"><high value="/"><effectiveTime/>

When the disposition has occurred, this element shall be sent, and indicates the effective time for the disposition process. This element may be sent to record when the disposition act is intended to occur. The <low> element records the time at which the disposition process was started. The <high> value records the time at which the disposition process was completed.

6.3.32.1.1.7 <performer typeCode='PRF'>

The <performer> element provides information about the person that performs the discharge, admission or transfer of the patient. When the disposition is in intent mood, this element describes any expectations with respect to the performer, and is optional. When the disposition is in event mood, this element is required.

6.3.32.1.1.8 <assignedEntity>

The <assignedEntity> element identifies the performer of the disposition.

6.3.32.1.1.9 <id root=" extension="/">

The <id> element shall be sent when the disposition has occurred, and identifies the performer of the act.

6.3.32.1.1.10 <addr></addr>

The <addr> element may be sent to provide a contact postal address for the performer of the disposition.

6.3.32.1.1.11 <telecom value=" use="/">

The <telecom> element may be sent to provide a contact postal address for the performer of the disposition.

6.3.32.1.1.12 <assignedPerson><name/></assignedPerson>

The <assignedPerson> element shall be sent to identify the person who performed the disposition of the patient.

6.3.32.1.1.13 <participant typeCode='RCV'>
 <time value="/" />
 <participantRole classCode='ROL'>
 <id root="" extension="/" />
 <addr></addr>
 <telecom value="" use="/" />
 <playingEntity><name/></playingEntity>

This element identifies the person or organization that is receiving the patient. =====

<entryRelationship typeCode='COMP'>

8290 <act classCode='ACT'>
8295 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.10.4.1' /> If the disposition of the patient requires transport to another location, this information shall be recorded in a subordinate act that conforms to the Transport template described above.

6.3.33 Pain Score Observation 1.3.6.1.4.1.19376.1.5.3.1.1.12.3.1

8300 The pain score observation is a [Simple Observation](#) that records the patient's assessment of their pain on a scale from 0 to 10.

6.3.33.1 Parent Template

6.3.33.2 The parent of this template is [Simple Observation](#).

6.3.33.3 Specification

8305

```
<observation typeCode='OBS' moodCode='EVN'>  
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />  
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />  
    <id root=' ' extension=' ' />  
    <code code='38208-5|38221-8|38214-3' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'>  
        <translation code='406127006' displayName='Pain intensity'  
            codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED CT' />  
    </code>  
    <text><reference value='#xxx' /></text>  
    <statusCode code='completed' />  
    <effectiveTime value=' ' />  
    <repeatNumber value=' ' />  
    <value xsi:type='CO|REAL' />  
    <interpretationCode code='2.16.840.1.113883.6.96' codeSystemName='SNOMED CT' />  
    <methodCode code=' ' codeSystem=' ' codeSystemName=' ' />  
    <targetSiteCode code=' ' codeSystem=' ' codeSystemName=' ' />  
</observation>
```

6.3.33.3.1.1 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />

8325 The <templateId> identifies this as a Pain Score Observation, and shall be present as shown above.

6.3.33.3.1.2 <code code='38208-5' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'>

8330 **<translation code='406127006' displayName='Pain intensity'
codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED
CT' />**

The <code> element indicates what kind of pain observation was made. It shall contain the code and codeSystem attribute values shown above. The <translation> element may be present, and provides a mapping to SNOMED CT of the observation. If present, is shall have the code and codeSystem attribute values shown above.

Code	Data Type	Description
38208-5	CO	A Pain Score made using the Numerical Rating Scale (NRS), where pain is assessed on a scale from 0 to 10.  -->The code system to use for this observation<<--

6.3.33.3.1.3 <value xsi:type='CO' value="" />

The <value> element records the assessed pain score. If using the NRS the pain is assessed using coded ordinal values that range from 0 to 10. The use of the coded ordinal type is required because while pain assessments are ordered values, and can be compared, the differences between two pain assessment values cannot be compared, and so these values are not really numbers.

**6.3.33.3.1.4 <interpretationCode code='301379001|40196000|76948002|67849003'
codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED
CT' />**

8340 The <interpretationCode> element should be present to provide an interpretation of the pain scale assessment using SNOMED CT. When the <interpretationCode> element is present, the <translation> element described above shall be present. These interpretations are provided to assist decision support systems that are making secondary use of the assessment information, and are not intended to replace the score values.

Pain Score Range	Code	Description
0	301379001	No Present Pain
1-3	40196000	Mild Pain
4-6	50415004	Moderate Pain
7-9	76948002	Severe Pain
10	67849003	Excruciating Pain

8350 **6.3.33.3.1.5 <methodCode code="" codeSystem="" codeSystemName="/" />**

The <methodCode> should not be present in a Pain Score Observation, as the method is implied by the <code> element.

6.3.33.3.1.6 <targetSiteCode code="" codeSystem="" codeSystemName="/">

The <targetSiteCode> element should be present, and shall indicate the location of the pain being assessed.

6.3.34 Acuity 1.3.6.1.4.1.19376.1.5.3.1.1.13.3.1

A acuity entry indicates the triage acuity entry and the triage time of the patient.

6.3.34.1 Specification

```
8360   <entry>
        <!-- Acuity Event -->
        <observation classCode='OBS' moodCode='EVN'>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.3.1' />
            <id root='' extension=''/>
            <code code='' displayName=''
                  code code='273887006' displayName='Triage index'
                  codeSystem='2.16.840.1.113883.6.96'
                  codeSystemName='SNOMED CT' /> <!-- Triage index (assessment scale) FullySpecifiedName --
->
            <originalText><reference value='#(ID of text coded)' /></originalText>
        </code>
        <text><reference value='#text' /></text>
        <!-- effectiveTime
        <effectiveTime>
            <low value=''/> <!-- start of triage, may be sent -->
            <high value=''/><!-- end of triage should be sent -->
        </effectiveTime>
    </observation>
</entry>
```

6.3.34.1.1.1 <observation classCode='OBS' moodCode='EVN'>

8380 This element indicates that the entry is an observation regarding the event of triage assessment. This entry records the observation and the time of the observation.

6.3.34.1.1.2 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.3.1' />

The <templateId> element identifies this <act> as about Acuity Assessment of the patient. The templateId must have root='1.3.6.1.4.1.19376.1.5.3.1.1.13.3.1'.

8385 6.3.34.1.1.3 <id root=" extension="/>

The entry must have an identifier.

6.3.34.1.1.4 <code code="" displayName="" codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED CT'>

8390 The code describes the triage acuity scale. IHE recommends the use the Emergency Severity Index (ESI). However, the vocabulary used within an affinity domain may be determined by a policy agreement within the domain.

6.3.34.1.1.5 <originalText><reference value='#xxx' /><orginalText>

This is a reference to the narrative text within the section that describes the acuity description.

6.3.34.1.1.6 <text><reference value="#text"/></text>

8395 This is a reference to the narrative text corresponding to the Observation act.

6.3.34.1.1.7 <effectiveTime>

The effectiveTime element shall be sent. It records the interval of time over which triage occurs. The use case for this information requires that the ending time of triage be recorded. However, the <low value=""> element may be sent by systems that capture the beginning and end of the triage process.

8400

6.3.34.1.1.8 <high value="/">

8405

This element records the time of completion of triage, and is required. If unknown, it must be recorded using a flavor of null. This element may be sent using the TS data type, as shown above. If there is uncertainty about the time of completion of triage, the sender may record the time using the IVL_TS data type, as shown below.

```
<high xsi:type='IVL_TS'>
  <low value=''/>
  <high value=''/>
</high>
```

8410

6.3.35 Intravenous Fluids 1.3.6.1.4.1.19376.1.5.3.1.1.13.3.2

This content module describes the general structure for intravenous fluids. All intravenous fluid administration acts should be derived from this content module.

6.3.35.1 Specification

```

8415   <substanceAdministration classCode='SBADM' moodCode='INT|EVN'>
8416     <templateId root='2.16.840.1.113883.10.20.1.24' />
8417     <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7' />
8418     <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.1' />
8419     <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.3.2' />
8420     <id root='' extension='' />
8421     <code code='' codeSystem='' displayName='' codeSystemName='' />
8422     <text><reference value='#med-1' /></text>
8423     <statusCode code='completed|active' />
8424     <effectiveTime xsi:type='IVL_TS'>
8425       <low value='' />
8426       <high value='' />
8427     </effectiveTime>
8428     <effectiveTime operator='A' xsi:type='TS|PIVL_TS|EIVL_TS|PIVL_PPD_TS|SXPR_TS'>
8429       :
8430     </effectiveTime>
8431     <routeCode code='' codeSystem='' displayName='' codeSystemName='' />
8432     <doseQuantity value='' unit='' />
8433     <approachSiteCode code='' codeSystem='' displayName='' codeSystemName='' />
8434     <rateQuantity value='' unit='' />
8435     <consumable>
8436       :
8437       .
8438     </consumable>
8439     <!-- 0..* entries describing the components -->
8440     <entryRelationship typeCode='COMP'>
8441       <sequenceNumber value='' />
8442     </entryRelationship>
8443     <!-- An optional entry relationship that indicates the the reason for use -->
8444     <entryRelationship typeCode='RSON'>
8445       <act classCode='ACT' moodCode='EVN'>
8446         <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.4.1' />
8447         <id root='' extension='' />
8448       </act>
8449     </entryRelationship>
8450     <!-- An optional entry relationship that provides prescription activity -->
8451     <entryRelationship typeCode='REFR'>
8452       <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.3' />
8453       :
8454       .
8455     </entryRelationship>
8456     <precondition>
8457       <criterion>
8458         <text><reference value='' /></text>
8459       </criterion>
8460     </precondition>
8461   </substanceAdministration>

```

This content module is derived from the Medication content module to specifically and more easily describe the necessary details of intravenous fluid administration. For the purpose of EDER and other profiles employing this content module, the table below identifies and describes the fields and constraints on whether or not they are required to be sent. The fields are listed in the order that they appear in the CDA XML content.

6.3.35.1.1.1 Medication Fields

Field	Opt.	CDA Tag	Description
Start and Stop Date	R2	<effectiveTime>	The date and time when the fluid regimen began and is expected to finish. The first component of the <effectiveTime> encodes the lower and upper bounds over which the <substanceAdministration> occurs, and the start time is determined from the lower bound. If the fluid has been known to be stopped, the high value

			must be present, but expressed as a flavor of null (e.g., Unknown).
Dose	R2	<doseQuantity>	The amount of fluid given. This should be in some known and measurable fluid unit, such as milliliters, or may be measured in "administration" units (such "units" of blood or "packs" of platelets).
Site	O	<approachSiteCode>	The site where the fluid is administered (i.e. "Left Antecubital", or "Central Line").
Rate	R2	<rateQuantity>	The rate is a measurement of how fast the fluid is given to the patient over time (e.g., .5 liter / 1 hr).
Product	R	<consumable> <name> </consumable>	The name of the substance or product. This should be sufficient for a provider to identify the type of fluid. It may be a trade name (Plasmalyte®) or a generic name. This information is required in all fluid entries. The name should not include packaging, strength or dosing information.
Code	R2	<consumable> <code/> </consumable>	A code describing the product from a controlled vocabulary, such as RxNorm, First DataBank, et cetera.

6.3.35.1.1.2 <substanceAdministration classCode='SBADM' moodCode='INT|EVN'>

8470 The general model is to record each fluid administered in a <substanceAdministration> intent (moodCode='INT'). Fluids that have been started but not completely administered should be recorded in a <substanceAdministration> intent (moodCode='INT'). Fluids that have been completed should be recorded as an event (moodCode='EVN').

6.3.35.1.1.3 <templateId root='2.16.840.1.113883.10.20.1.24'> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7'> <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7.1' />

8475 All intravenous fluid entries use the <templateId> elements specified above to indicate that they are IV fluid administration acts. This element is required.

6.3.35.1.1.4 <id root=" extension=">

8480 The <substanceAdministration> element must be uniquely identified. If there is no explicit identifier for this observation in the source EMR system, a GUID may be used for the root attribute, and the extension may be omitted. Although HL7 allows for multiple identifiers, this profile requires that one and only one be used.

6.3.35.1.1.5 <code code="" displayName="" codeSystem="" codeSystemName="">

8485 The <code> element is required, and is used to supply a code that describes the act of fluid administration, not the fluid being administered. This may be a procedure code, such as those found in CPT-4 (and often used for billing), or may describe the method of administration, such as by intravenous injection.

6.3.35.1.1.6 <text><reference value="/"></text>

8490 The URI given in the value attribute of the <reference> element points to an element in the narrative content that contains the complete text describing the fluid administration.

6.3.35.1.1.7 <statusCode code='completed|active'>

The status of all <substanceAdministration> elements must be "completed" or "active". If "completed", then the administration has occurred, or the request or order has been placed. If "active", then at the time recorded, the fluid was still being administered.

8495 **6.3.35.1.1.8 <effectiveTime xsi:type='IVL_TS'>**

The first <effectiveTime> element encodes the start and stop time of the administration. This is an interval of time (xsi:type='IVL_TS'), and must be specified as shown. This is an additional constraint placed upon CDA Release 2.0 by this profile, and simplifies the exchange of start/stop and frequency information between EMR systems.

8500 **6.3.35.1.1.9 <low value="/"><high value="/">**

The <low> and <high> values of the first <effectiveTime> element represent the start and stop times for the fluid administration. The <low> value represents the start time, and the <high> value represents the stop time. If either the <low> or the <high> value is unknown, this shall be recorded by setting the nullFlavor attribute to UNK. The <high> value records the end of the fluid administration according to the information provided in the initial fluid order or RN documentation. For example, if the fluid order is for one liter, and the fluid is to be delivered at 250 mL/hr, then the high value should contain a datetime that is 4 hours later than the <low> value. The rationale is that a provider, seeing a discontinued fluid could normally assume that the fluid has been stopped, even if the intent of the treatment plan is to continue the fluid continuously.

8510 **6.3.35.1.1.10 <approachSiteCode code="" codeSystem="" originalText><reference value="/" /></originalText></approachSiteCode>**

The <approachSiteCode> element contains a URI in the value attribute of the <reference> that points to the text in the narrative identifying the site. It may be coded to a controlled vocabulary that lists such sites (e.g., SNOMED-CT).

8515 **6.3.35.1.1.11 <doseQuantity><low value="" unit="/"><high value="" unit="/"></doseQuantity>**

The dose is specified if the <doseQuantity> element. If a dose range is given (e.g., 125-250 mL/hr [i.e. to replace fluid losses]), then the <low> and <high> bounds are specified in their respective elements, otherwise both <low> and <high> have the same value. The unit attribute should be derived from the HL7 UnitsOfMeasureCaseSensitive vocabulary .

8520 **6.3.35.1.1.12 <low|high value=""> <translation> <originalText><reference value="/" /></originalText> </translation></low|high >**

Any <low> and <high> elements used for <doseQuantity> or <rateQuantity> should contain a <translation> element that provides a <reference> to the <originalText> found in the narrative body of the document .

6.3.35.1.1.13 <rateQuantity><low value="" unit="/"><high value="" unit="/"></rateQuantity>

- 8530 The rate is specified in the <rateQuantity> element. The rate is given in units that have measure over time. In this case, the units should be specified as a string made up of a unit of measure (see doseQuantity above), followed by a slash (/), followed by a time unit (s, min, h or d) (i.e. mL/hr). Again, if a range is given, then the <low> and <high> elements contain the lower and upper bound of the range, otherwise, they contain the same value.

8535 **6.3.35.1.1.14 <consumable>**

The <consumable> element shall be present, and shall contain a <manufacturedProduct> entry conforming to the [Product Entry](#) template.

6.3.36 Nursing Assessments Battery 1.3.6.1.4.1.19376.1.5.3.1.1.13.3.4

- 8540 This entry describes a single row in the Nursing Assessment flowsheet. The single observation date/time and provider is applied to all other observations.

6.3.36.1 Specification

```
8545 <entry>
<organizer classCode='BATTERY' moodCode='EVN'>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.3.4' />
  <id root=' ' extension=' '/>
  <code code='X-ASSESS' displayName='Nursing Assessments Battery'
        codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <statusCode code='completed' />
  <author>
    <time value=' ' />
    <assignedAuthor>
      <id root=' ' extension=' '/>
    </assignedAuthor>
  </author>
  <component>
    <observation classCode='OBS' moodCode='EVN'>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />
      :
      </observation>
    </component>
    <component>
      <observation classCode='OBS' moodCode='EVN'>
        <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.13' />
        :
        </observation>
      </component>
      :
    </organizer>
</entry>
```

6.3.36.1.1.1 <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.13.3.4' />

- 8575 The <templateId> element specifies that this organizer entry conforms to the Nursing Interventions battery. The root attribute SHALL contain the value "1.3.6.1.4.1.19376.1.5.3.1.1.13.3.4"

6.3.36.1.1.2 <organizer classCode='BATTERY' moodCode='EVN'>

Each row in the Nursing Interventions battery SHALL be represented by an organizer with the classCode of 'BATTERY' and the moodCode of 'EVN'

6.3.36.1.1.3 <id root=' ' extension=' '/>

8580 Each battery SHALL have a globally unique identifier.

6.3.36.1.1.4 <code code='X-ASSESS' codeSystem='2.16.840.1.113883.6.1'>

The <code> element specifies the Loinc code that represents the content of the battery. The codeSystem attribute SHALL contain the value '2.16.840.1.113883.6.1'. The code attribute SHALL contain the value='X-ASSESS'. It is good practice to include displayName and codeSystemName for clarity and debugging. The corresponding values are 'Nursing Assessments battery' and 'LOINC' respectively.

6.3.36.1.1.5 <author><time/><assignedAuthor><id/></assignedAuthor></author>

8590 The <author> relation element points at the author that records the visit battery. This assignedAuthor may be different than the author of the document. The time element is used to record when the assigned author recorded the battery.

6.3.36.1.1.6 <statusCode code='completed'>

The status code for all batteries SHALL be 'completed'

6.3.36.1.1.7 <component>

8595 The battery is made of several component [Simple Observations](#). The following table lists the allowable LOINC codes, displayNames, and observation types, and unit of measures for these observations.

Appendix A - Examples Using PCC Content Profiles

Example documents conforming to each profile can be found on the IHE wiki at the following URLs.

Profile and Content	URL
XDS-MS	
Referral Summary	XDSMS Example1
Discharge Summary	XDSMS Example1
XPHR	
XPHR Content	XPHR Example1
XPHR Update	XPHR Example2

(EDR) ED Referral	EDR Example
(APS) Antepartum Summary	APS Example
(EDES)	
Triage Note	EDES Example1
ED Nursing Note	EDES Example2
Composite Triage and Nursing Note	EDES Example3
ED Physician Note	EDES Example4
(FSA) Functional Status Section	FSA Example

8600 **Validating CDA Documents using the Framework**

Many of the constraints specified by the content modules defined in the PCC Technical Framework can be validated automatically by software. Automated validation is a very desirable capability, as it makes it easier for implementers to test the correctness of their implementations. With regard to validation of the content module, the PCC Technical Framework narrative is the authoritative specification, not any automated software tool. Having said that, it is still very easy to create a validation framework for the IHE PCC Technical Framework using a XML validation tool such as Schematron. Since each content module has a name (the template identifier), any XML instance that reports itself to be of that "class" can be validated by creating assertions that must be true for each constraint indicated for the content module. In the XML representation, the `<templateId>` element is a child of the element that is claiming conformance to the template named. Thus the general pattern of a Schematron that validates a specific template is shown below:

```
8615 <schema xmlns="http://www.ascc.net/xml/schematron" xmlns:cda="urn:hl7-org:v3">
  <ns prefix="cda" uri="urn:hl7-org:v3" />
  <pattern name='ReferralSummary'>
    <rule context='*[cda:templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.1.3"]'>
      <!-- one or more assertions made by the content module -->
    </rule>
  </pattern>
</schema>
```

8620

A.1 Validating Documents

For document content modules, the pattern can be extended to support common document content module constraints as shown below:

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
8625 <schema xmlns="http://www.ascc.net/xml/schematron" xmlns:cda="urn:hl7-org:v3">
<ns prefix="cda" uri="urn:hl7-org:v3" />
<pattern name='ReferralSummary'>
<rule context='*[templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.3"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='../ClinicalDocument'>
        Error: The referral content module can only be used on Clinical Documents.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.1.2"]'>
        Error: The parent template identifier for medical summary is not present.
    </assert>
    <!-- Verify the document type code -->
    <assert test='code[@code = "34133-9"]'>
        Error: The document type code of a referral summary must be
            34133-9 SUMMARIZATION OF EPISODE NOTE.
    </assert>
    <assert test='code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The document type code must come from the LOINC code
            system (2.16.840.1.113883.6.1).
    </assert>
    <!-- Verify that all required data elements are present -->
    <assert test='./templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
        Error: A referral summary must contain a reason for referral.
    </assert>
    <!-- Alert on any missing required if known elements -->
    <assert test='./templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.8"]'>
        Warning: A referral summary should contain a list of history of past illnesses.
    </assert>
    <!-- Note any missing optional elements -->
    <assert test='./templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.3.18"]'>
        Note: This referral summary does not contain the pertinent review of systems.
    </assert>
</rule>
</pattern>
</schema>
```

8660 A.3 Validating Sections

The same pattern can be also applied to sections with just a few minor alterations.

IHE PCC Technical Framework Supplement Emergency Department Encounter Summary (EDES)

```
<schema xmlns="http://www.ascc.net/xml/schematron" xmlns:cda="urn:hl7-org:v3">
<ns prefix="cda" uri="urn:hl7-org:v3" />
<pattern name='ReasonForReferralUncoded'>
<rule context='*[templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
    <!-- Verify that the template id is used on the appropriate type of object -->
    <assert test='section'>
        Error: The coded reason for referral module can only be used on a section.
    </assert>
    <assert test='false'>
        Manual: Manually verify that this section contains narrative providing the
        reason for referral.
    </assert>
    <!-- Verify that the parent templateId is also present. -->
    <assert test='templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
        Error: The parent template identifier for the reason for referral
        module is not present.
    </assert>
    <!-- Verify the section type code -->
    <assert test='code[@code = "42349-1"]'>
        Error: The section type code of the reason for referral section must be 42349-1
        REASON FOR REFERRAL.
    </assert>
    <assert test='code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The section type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
    </assert>
</pattern>
<pattern name='ReasonForReferralCoded'>
<rule context='*[templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.2"]'>
    <!-- The parent template will have already verified the type of object -->
    <!-- Verify that the parent templateId is also present. -->
    <assert test='templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
        Error: The parent template identifier for the reason for referral
        module is not present.
    </assert>
    <!-- Don't bother with the section type code, as the parent template caught it -->
    <!-- Verify that all required data elements are present -->
    <assert test='..//templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.13"]'>
        Error: A coded reason for referral section must contain an simple observation.
    </assert>
    <!-- Alert on any missing required if known elements -->
    <!-- Note any missing optional elements -->
</rule>
</pattern>
</schema>
```

A similar pattern can also be followed for Entry and Header content modules, and these are left as an exercise for the reader.

A.4 Phases of Validation and Types of Errors

Note that each message in the Schematrons shown above start with a simple text string that indicates whether the message indicates one of the following conditions:

- An error, e.g., the failure to transmit a required element,
- A warning, e.g., the failure to transmit a required if known element,
- A note, e.g., the failure to transmit an optional element.
- A manual test, e.g., a reminder to manually verify some piece of content.

Schematron supports the capability to group sets of rules into phases by the pattern name, and to specify which phases of validation should be run during processing. To take advantage of this

capability, one simply breaks each <pattern> element above up into separate patterns depending upon whether the assertion indicates an error, warning, note or manual test, and then associate each pattern with a different phase. This is shown in the figure below.

```
<schema xmlns="http://www.ascc.net/xml/schematron" xmlns:cda="urn:hl7-org:v3">
  <ns prefix="cda" uri="urn:hl7-org:v3" />
  <phase id="errors">
    <active pattern="ReasonForReferralUncoded_Errors"/>
    <active pattern="ReasonForReferralCoded_Errors"/>
  </phase>
  <phase id="manual">
    <active pattern="ReasonForReferralUncoded_Manual"/>
  </phase>
  <pattern name='ReasonForReferralUncoded_Errors'>
    <rule context='*[templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
      <assert test='section'>
        Error: The coded reason for referral module can only be used on a section.
      </assert>
      <assert test='code[@code = "42349-1"]'>
        Error: The section type code of the reason for referral section must be 42349-1
        REASON FOR REFERRAL.
      </assert>
      <assert test='code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The section type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
      </assert>
    </rule>
  </pattern>
  <pattern name='ReasonForReferralUncoded_Manual'>
    <rule context='*[templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
      <assert test='false'>
        Manual: Manually verify that this section contains narrative providing the
        reason for referral.
      </assert>
    </pattern>
    <pattern name='ReasonForReferralCoded_Errors'>
      <rule context='*[templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.2"]'>
        <assert test='templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
          Error: The parent template identifier for the reason for referral not present.
        </assert>
        <assert test='../../templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.13"]'>
          Error: A coded reason for referral section must contain an simple observation.
        </assert>
      </rule>
    </pattern>
  </schema>
```

Using these simple "templates" for template validation one can simply create a collection of Schematron patterns that can be used to validate the content modules in the PCC Technical Framework. Such Schematrons are expected to be made available as part of the MESA test tools that are provided to IHE Connectathon participants, and which will also be made available to the general public after connectathon.

Extensions to CDA Release 2.0

This section describes extensions to CDA Release 2.0 that are used by the IHE Patient Care Coordination Technical Framework.

A.5 IHE PCC Extensions

All Extensions to CDA Release 2.0 created by the IHE PCC Technical Committee are in the namespace urn:ihe:pcc:hl7v3.

The approach used to create extension elements created for the PCC Technical Framework is the same as was used for the HL7 Care Record Summary (see Appendix E) and the ASTM/HL7 Continuity of Care Document (see section 7.2).

A.5.1 replacementOf

The <replacementOf> extension element is applied to a section appearing in a PHR Update Document to indicate that that section's content should replace that of a previously existing section. The identifier of the previously existing section is given so that the PHR Manager receiving the Update content will know which section to replace. The model for this extension is shown below.

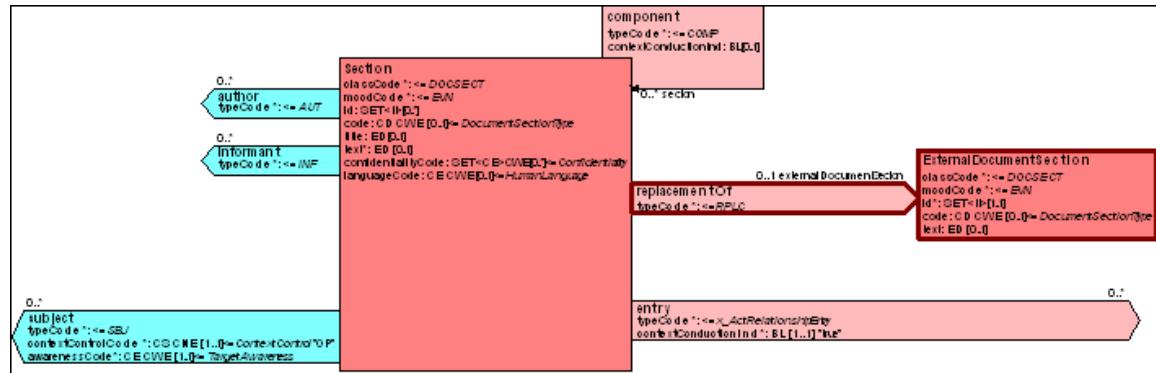


Figure A.5.1-1 Model for replacementOf

Use of this extension is shown below. The <replacementOf> element appears after all other elements within the <section> element. The <id> element appearing in the <externalDocumentSection> element shall provide the identifier of the section being replaced in the parent document.

```

<section>
  <id root=''' extension='''/>
  <code code=''' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <title>Name of the Section</title>
  <text>Text of the section</text>
  <entry></entry>
  <component></component>
  <pcc:replacementOf xmlns:pcc='urn:ihe:pcc:hl7v3'>
    <pcc:externalDocumentSection>
      <pcc:id root='58FCBE50-D4F2-4bda-BC1C-2105B284BBE3' />
    </pcc:externalDocumentSection>
  </pcc:replacementOf>
</section>

```

A.6 Extensions Defined Elsewhere used by IHE PCC

A.6.1 Entity Identifiers

There is often a need to record an identifier for an entity so that it can be subsequently referenced. This extension provides a mechanism to store that identifier. The element appears after any <realm>, <typeId> or <templateId> elements, but before all others in the entity where it is used:

8810

```
<playingEntity classCode='ENT' determinerCode='INSTANCE'>
  <sdtc:id root='1.3.6.4.1.4.1.2835.2' extension='EntityID' />
  :
  .
</playingEntity>
```

A.6.2 Patient Identifier

8815 There is a need to record the identifier by which a patient is known to another healthcare provider. This extension provides a role link between the assigned, related or associated entity, and the patient role.

Use of this extension to record the identifier under which the patient is known to a provider is shown below.

8820

```
<assignedEntity>
  <id extension='1' root='1.3.6.4.1.4.1.2835.1' />
  <code code='59058001'
    codeSystem='2.16.840.1.113883.6.96'
    codeSystemName='SNOMED CT'
    displayName='General Physician' />
  <addr>
    <streetAddressLine>21 North Ave</streetAddressLine>
    <city>Burlington</city>
    <state>MA</state>
    <postalCode>01803</postalCode>
    <country>USA</country>
  </addr>
  <telecom value='tel:(999) 555-1212' use='WP' />
  <assignedPerson>
    <name>
      <prefix>Dr.</prefix><given>Bernard</given><family>Wiseman</family><suffix>Sr.</suffix>
    </name>
  </assignedPerson>
  <sdtc:patient xmlns:sdtc='urn:hl7-org:sdtc' >
    <sdtc:id root='1.3.6.4.1.4.1.2835.2' extension='PatientMRN' />
  </sdtc:patient>
</assignedEntity>
```

8825

8830

8835

8840

The <patient> element records the link between the related, assigned or associated entity and the patient. The <id> element provides the identifier for the patient. The root attribute of the <id> should be the namespace used for patient identifiers by the entity. The extension attribute of the <id> element shall be the patient's medical record number or other identifier used by the entity to identify the patient.

Validating Sections

The same pattern can be also applied to sections with just a few minor alterations.

```
<schema xmlns="http://www.ascc.net/xml/schematron" xmlns:cda="urn:h17-org:v3">
  <ns prefix="cda" uri="urn:h17-org:v3" />
  <pattern name='ReasonForReferralUncoded'>
    <rule context='*[templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
      <!-- Verify that the template id is used on the appropriate type of object -->
      <assert test='section'>
        Error: The coded reason for referral module can only be used on a section.
      </assert>
      <assert test='false'>
        Manual: Manually verify that this section contains narrative providing the
        reason for referral.
      </assert>
      <!-- Verify that the parent templateId is also present. -->
      <assert test='templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
        Error: The parent template identifier for the reason for referral
        module is not present.
      </assert>
      <!-- Verify the section type code -->
      <assert test='code[@code = "42349-1"]'>
        Error: The section type code of the reason for referral section must be 42349-1
        REASON FOR REFERRAL.
      </assert>
      <assert test='code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The section type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
      </assert>
    </pattern>
    <pattern name='ReasonForReferralCoded'>
      <rule context='*[templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.2"]'>
        <!-- The parent template will have already verified the type of object -->
        <!-- Verify that the parent templateId is also present. -->
        <assert test='templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
          Error: The parent template identifier for the reason for referral
          module is not present.
        </assert>
        <!-- Don't bother with the section type code, as the parent template caught it -->
        <!-- Verify that all required data elements are present -->
        <assert test='./templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.13"]'>
          Error: A coded reason for referral section must contain an simple observation.
        </assert>
        <!-- Alert on any missing required if known elements -->
        <!-- Note any missing optional elements -->
      </rule>
    </pattern>
  </schema>
```

A similar pattern can also be followed for Entry and Header content modules, and these are left as an exercise for the reader.

8895 A.7 Phases of Validation and Types of Errors

Note that each message in the Schematrons shown above start with a simple text string that indicates whether the message indicates one of the following conditions:

- An error, e.g., the failure to transmit a required element,
- A warning, e.g., the failure to transmit a required if known element,
- A note, e.g., the failure to transmit an optional element.
- A manual test, e.g., a reminder to manually verify some piece of content.

Schematron supports the capability to group sets of rules into phases by the pattern name, and to specify which phases of validation should be run during processing. To take advantage of this capability, one simply breaks each <pattern> element above up into separate patterns depending upon whether the assertion indicates an error, warning, note or manual test, and then associate each pattern with a different phase. This is shown in the figure below.

```
<schema xmlns="http://www.ascc.net/xml/schematron" xmlns:cda="urn:hl7-org:v3">
  <ns prefix="cda" uri="urn:hl7-org:v3" />
  <phase id="errors">
    <active pattern="ReasonForReferralUncoded_Errors"/>
    <active pattern="ReasonForReferralCoded_Errors"/>
  </phase>
  <phase id="manual">
    <active pattern="ReasonForReferralUncoded_Manual"/>
  </phase>
  <pattern name='ReasonForReferralUncoded_Errors'>
    <rule context='*[templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
      <assert test='section'>
        Error: The coded reason for referral module can only be used on a section.
      </assert>
      <assert test='code[@code = "42349-1"]'>
        Error: The section type code of the reason for referral section must be 42349-1
        REASON FOR REFERRAL.
      </assert>
      <assert test='code[@codeSystem = "2.16.840.1.113883.6.1"]'>
        Error: The section type code must come from the LOINC code
        system (2.16.840.1.113883.6.1).
      </assert>
    </rule>
  </pattern>
  <pattern name='ReasonForReferralUncoded_Manual'>
    <rule context='*[templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
      <assert test='false'>
        Manual: Manually verify that this section contains narrative providing the
        reason for referral.
      </assert>
    </pattern>
  <pattern name='ReasonForReferralCoded_Errors'>
    <rule context='*[templateId/@root="1.3.6.1.4.1.19376.1.5.3.1.3.2"]'>
      <assert test='templateId[@root="1.3.6.1.4.1.19376.1.5.3.1.3.1"]'>
        Error: The parent template identifier for the reason for referral not present.
      </assert>
      <assert test='../../templateId[@root = "1.3.6.1.4.1.19376.1.5.3.1.4.13"]'>
        Error: A coded reason for referral section must contain an simple observation.
      </assert>
    </rule>
  </pattern>
</schema>
```

Using these simple "templates" for template validation one can simply create a collection of Schematron patterns that can be used to validate the content modules in the PCC Technical Framework. Such Schematrons are expected to be made available as part of the MESA test tools that are provided to IHE Connectathon participants, and which will also be made available to the general public after connectathon.

Extensions to CDA Release 2.0

This section describes extensions to CDA Release 2.0 that are used by the IHE Patient Care Coordination Technical Framework.

A.8 IHE PCC Extensions

All Extensions to CDA Release 2.0 created by the IHE PCC Technical Committee are in the
8960 namespace urn:ihe:pcc:hl7v3.

The approach used to create extension elements created for the PCC Technical Framework is the same as was used for the HL7 Care Record Summary (see Appendix E) and the ASTM/HL7 Continuity of Care Document (see section 7.2).

A.8.1 replacementOf

8965 The <replacementOf> extension element is applied to a section appearing in a PHR Update Document to indicate that that section's content should replace that of a previously existing section. The identifier of the previously existing section is given so that the PHR Manager receiving the Update content will know which section to replace. The model for this extension is shown below.

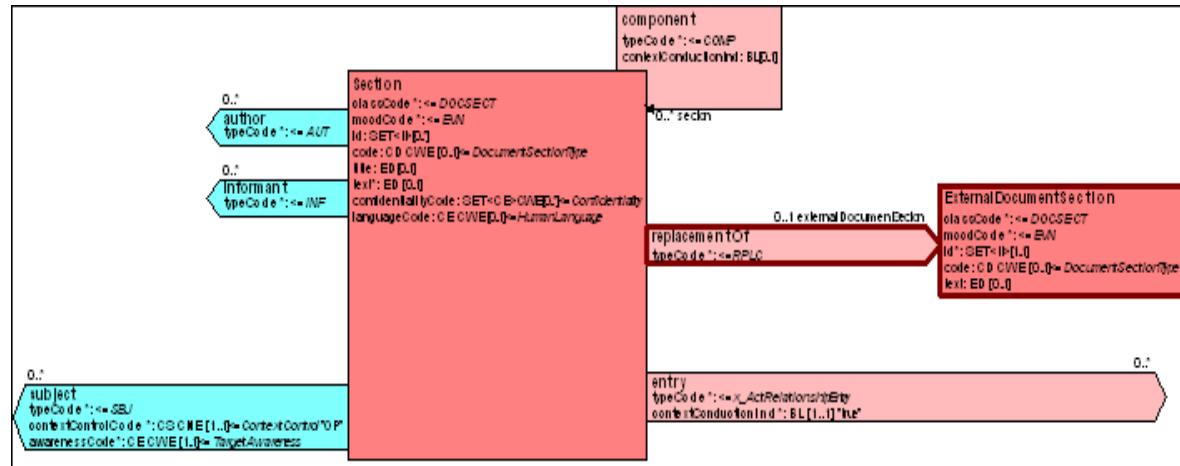


Figure A.8.1-1 Model for replacementOf

Use of this extension is shown below. The <replacementOf> element appears after all other elements within the <section> element. The <id> element appearing in the <externalDocumentSection> element shall provide the identifier of the section being replaced in the parent document.
8975

```

<section>
  <id root='' extension=''/>
  <code code='' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC' />
  <title>Name of the Section</title>
  <text>Text of the section</text>
  <entry></entry>
  <component></component>
  <pcc:replacementOf xmlns:pcc='urn:ihe:pcc:hl7v3'>
    <pcc:externalDocumentSection>
      <pcc:id root='58FCBE50-D4F2-4bda-BC1C-2105B284BBE3' />
      <pcc:externalDocumentSection/>
    </pcc:replacementOf>
  </section>
```

Extensions Defined Elsewhere used by IHE PCC

8990 A.8.2 Entity Identifiers

There is often a need to record an identifier for an entity so that it can be subsequently referenced. This extension provides a mechanism to store that identifier. The element appears after any <realm>, <typeId> or <templateId> elements, but before all others in the entity where it is used:

8995

```
<playingEntity classCode='ENT' determinerCode='INSTANCE'>
  <sdtc:id root='1.3.6.4.1.4.1.2835.2' extension='EntityID' />
  :
</playingEntity>
```

A.8.3 Patient Identifier

9000 There is a need to record the identifier by which a patient is known to another healthcare provider. This extension provides a role link between the assigned, related or associated entity, and the patient role.

Use of this extension to record the identifier under which the patient is known to a provider is shown below.

9005

```
<assignedEntity>
  <id extension='1' root='1.3.6.4.1.4.1.2835.1' />
  <code code='59058001'
```

```
    codeSystem='2.16.840.1.113883.6.96'
```

```
    codeSystemName='SNOMED CT'
```

```
    displayName='General Physician' />
```

```
<addr>
```

```
  <streetAddressLine>21 North Ave</streetAddressLine>
```

```
  <city>Burlington</city>
```

```
  <state>MA</state>
```

```
  <postalCode>01803</postalCode>
```

```
  <country>USA</country>
```

```
</addr>
```

```
  <telecom value='tel:(999) 555-1212' use='WP' />
```

```
  <assignedPerson>
```

```
    <name>
```

```
      <prefix>Dr.</prefix><given>Bernard</given><family>Wiseman</family><suffix>Sr.</suffix>
```

```
    </name>
```

```
  </assignedPerson>
```

```
  <sdtc:patient xmlns:sdtc='urn:hl7-org:sdtc' >
```

```
    <sdtc:id root='1.3.6.4.1.4.1.2835.2' extension='PatientMRN' />
```

```
  </sdtc:patient>
```

```
</assignedEntity>
```

9030

The <patient> element records the link between the related, assigned or associated entity and the patient. The <id> element provides the identifier for the patient. The root attribute of the <id> should be the namespace used for patient identifiers by the entity. The extension attribute of the <id> element shall be the patient's medical record number or other identifier used by the entity to identify the patient.