



HL7 CDA® R2 Implementation Guide: Pharmacy Templates

**Edition 1 (Universal Realm)
Standard for Trial use**

1.2.0

April 2023

Publication of this standard for trial use (STU) has been approved by Health Level Seven International (HL7). This STU is not an accredited American National Standard. The comment period for use of this STU shall end 24 months from the date of publication. Suggestions for revision should be submitted at <http://www.hl7.org/stucomments/index.cfm>. Following this 24 month evaluation period, this STU, revised as necessary, will be submitted to a normative ballot in preparation for approval by ANSI as an American National Standard. Implementations of this STU shall be viable throughout the normative ballot process and for up to six months after publication of the relevant normative standard.

Important Notes

HL7 licenses its standards and select IP free of charge. **If you did not acquire a free license from HL7 for this document**, you are not authorized to access or make any use of it. To obtain a free license, please visit <http://www.HL7.org/implement/standards/index.cfm>.

If you are the individual that obtained the license for this HL7 Standard, specification or other freely licensed work (in each and every instance "Specified Material"), the following describes the permitted uses of the Material.

A. HL7 INDIVIDUAL, STUDENT AND HEALTH PROFESSIONAL MEMBERS, who register and agree to the terms of HL7's license, are authorized, without additional charge, to read, and to use Specified Material to develop and sell products and services that implement, but do not directly incorporate, the Specified Material in whole or in part without paying license fees to HL7.

INDIVIDUAL, STUDENT AND HEALTH PROFESSIONAL MEMBERS wishing to incorporate additional items of Special Material in whole or part, into products and services, or to enjoy additional authorizations granted to HL7 ORGANIZATIONAL MEMBERS as noted below, must become ORGANIZATIONAL MEMBERS of HL7.

B. HL7 ORGANIZATION MEMBERS, who register and agree to the terms of HL7's License, are authorized, without additional charge, on a perpetual (except as provided for in the full license terms governing the Material), non-exclusive and worldwide basis, the right to (a) download, copy (for internal purposes only) and share this Material with your employees and consultants for study purposes, and (b) utilize the Material for the purpose of developing, making, having made, using, marketing, importing, offering to sell or license, and selling or licensing, and to otherwise distribute, Compliant Products, in all cases subject to the conditions set forth in this Agreement and any relevant patent and other intellectual property rights of third parties (which may include members of HL7). No other license, sublicense, or other rights of any kind are granted under this Agreement.

C. NON-MEMBERS, who register and agree to the terms of HL7's IP policy for Specified Material, are authorized, without additional charge, to read and use the Specified Material for evaluating whether to implement, or in implementing, the Specified Material, and to use Specified Material to develop and sell products and services that implement, but do not directly incorporate, the Specified Material in whole or in part. NON-MEMBERS wishing to incorporate additional items of Specified Material in whole or part, into products and services, or to enjoy the additional authorizations granted to HL7 ORGANIZATIONAL MEMBERS, as noted above, must become ORGANIZATIONAL MEMBERS of HL7. Please see <http://www.HL7.org/legal/ippolicy.cfm> for the full license terms governing the Material.

Ownership. Licensee agrees and acknowledges that **HL7 owns** all right, title, and interest, in and to the Materials. Licensee shall **take no action contrary to, or inconsistent with**, the foregoing.

Licensee agrees and acknowledges that **HL7 may not own all right, title, and interest, in and to the Materials and that the Materials may contain and/or reference intellectual property owned by third parties (“Third Party IP”). Acceptance of these License Terms does not grant Licensee any rights with respect to Third Party IP. Licensee alone is responsible for identifying and obtaining any necessary licenses or authorizations to utilize Third Party IP in connection with the Materials or otherwise. Any actions, claims or suits brought by a third party resulting from a breach of any Third Party IP right by the Licensee remains the Licensee’s liability.**

Following is a non-exhaustive list of third-party terminologies that may require a separate license:

Terminology	Owner/Contact
Current Procedures Terminology (CPT) code set	American Medical Association https://www.ama-assn.org/practice-management/cpt-licensing
SNOMED CT	SNOMED International http://www.snomed.org/snomed-ct/get-snomed-ct or info@ihtsdo.org
Logical Observation Identifiers Names & Codes (LOINC)	Regenstrief Institute, Inc.
International Classification of Diseases (ICD) codes	World Health Organization (WHO)
NUCC Health Care Provider Taxonomy code set	American Medical Association. Please see www.nucc.org . AMA licensing contact: 312-464-5022 (AMA IP services)

Co-Chair, Primary Editor	Melva Peters Jenaker Consulting melva@jenakerconsulting.com
Co-Chair, Primary Editor	John Hatem jnhatem@hotmail.com
Co-Chair	Scott Robertson PharmD scott.m.robertson@kp.org
Co-Chair	Jean Duteau jean@duteaudesign.com
Contributor	Dr Kai U. Heitmann Heitmann Consulting and Services, ART-DECOR Open Tools GmbH, HL7 Germany info@kheitmann.de
Contributor	Giorgio Cangioli, PhD Consultant, HL7 Italy giorgio.cangioli@gmail.com
Contributor	Tom de Jong VZVZ, HL7 The Netherlands tom@nova-pro.nl
Contributor	Dr Christof Geßner Gematik GmbH, HL7 Germany christof.gessner@gematik.de

0.1 Contents

1 Introduction.....	8
1.1 Purpose.....	8
1.1.1 Background.....	8
1.2 Scope.....	8
1.3 Ballot Status of the Document	8
1.4 Audience.....	8
1.5 Relationships with other projects and guides	9
2 Principles and background	10
3 Technical Background.....	11
3.1 What is a CDA	11
3.2 Templatized CDA.....	11
3.3 Open and Closed Templates.....	12
3.4 Template versioning.....	12
3.5 Identifiers for Templates and Value Sets	12
3.6 Namespace Identifier	13
3.7 How to read this document.....	13
3.8 Reading Publication Artifacts.....	14
4 Functional requirements and high-level use cases.....	15
5 Templates.....	16
5.1 Use Case Entry Level Templates.....	16
5.1.1 UV Medication Order.....	16
5.1.2 UV Medication Statement	35
5.1.3 UV Medication Administration	54
5.1.4 UV Medication Dispense.....	73
5.2 Entry Level Templates	81
5.2.1 UV ClinicalStatement Encounter.....	81
5.2.2 UV ClinicalStatement Observation.....	82
5.2.3 UV Comment Activity	86
5.2.4 UV Content	87
5.2.5 UV Dispense Request	91

5.2.6 UV Dispense Event Reference.....	94
5.2.7 UV Generalized Medicine Class.....	95
5.2.8 UV Ingredient.....	97
5.2.9 UV Medication Information (detail).....	98
5.2.10 UV Medication Information (simple).....	129
5.2.11 UV Medication Order Reference	131
5.2.12 UV Subordinate Substance Administration.....	133
5.2.13 UV Substitution Event Adminstration.....	137
5.2.14 UV Substitution Permission.....	139
5.2.15 UV Use Period	141
6 Appendix (Informative)	146
6.1 Acronyms and abbreviations.....	146
6.2 Glossary.....	146
6.3 Integrated examples.....	147
6.4 Validation artifacts	147
6.5 Operational information.....	147
6.6 Licenses	147
7 List of all artifacts used in this guide.....	148
7.1 CDA Templates	148
7.2 Unconstrained Templates from the original CDA specification.....	148
7.3 Value Sets	149
7.3.1 Medication Time Units (UCUM)	149
7.3.2 ActStatusCodeActiveCompletedAbortedSuspended	150
7.3.3 Mood Code Evn Int Rqo	150
7.3.4 Unknown or absent medication	151
7.4 Referenced HL7 Version 3 Value Sets	153
7.5 Datatypes.....	153
7.6 Extensions.....	154
7.6.1 Detailed medications information.....	154
8 How to read the table view for templates	156
8.1 Template Meta data	156

8.2 Table view of Template Design.....	157
8.2.1 Details of the table view.....	159
8.3 How to read the Templates hierarchical graph view.....	160
8.4 How to read the <i>where</i> criteria	161
9 References	162
9.1 Literature	162
9.2 Links.....	162
9.3 Figures	162

1 Introduction

This Implementation Guide provides CDA R2 templates for *Medication Order* and *Medication Statement*, *Medication Dispense* and *Medication Administration* that can be used by HL7 standards developers and external projects to develop models for pharmacy related content. The implementation guide is intended to provide consistency of pharmacy related models across all uses regardless of the method of transport by **creating a library of Universal (UV) Pharmacy Templates that can be used by other Work Groups to derive constrained versions.**

1.1 Purpose

1.1.1 Background

Historically multiple HL7 Work Groups have developed specifications for pharmacy related content and as a result, there is inconsistency in how medication related content is represented in HL7 V2, V3, CDA and FHIR. The Pharmacy Work Group often receives questions as to how to model pharmacy related content but in some cases, the use case cannot be met with the existing models.

This Implementation Guide provides a CDA R2 library of pharmacy templates that can be used by HL7 Work Groups or external projects to derive constrained versions of models for pharmacy related content.

1.2 Scope

This Pharmacy Templates Implementation Guide defines common pharmacy artifacts (order, dispense, administration and statement) in CDA R2 format. The scope of the Implementation Guide is limited to *Medication Order* and *Medication Statement*, *Medication Dispense* and *Medication Administration*. The content was developed by aligning and harmonizing the existing specifications for Consolidated CDA (C-CDA Release 2.1^[1]).

1.3 Ballot Status of the Document

The Implementation Guide was balloted as Standard for Trial Use (STU) and then goes to Normative.

1.4 Audience

- Clinical and Public Health laboratories
- Immunization Registries
- Pharmaceutical Vendors
- EHR/PHR vendors
- Clinical Decision Support Systems
- HIS Vendors
- Emergency Services Providers
- Healthcare Institutions
- Pharmacists

- Physicians and other Clinicians

1.5 Relationships with other projects and guides

- Consolidated CDA (C-CDA)
- HL7 Version 3 Pharmacy Models
- HL7 FHIR® Pharmacy Resources
- International Patient Summary (IPS), where all pharmacy related templates are specialisations of the corresponding templates defined in this guide

2 Principles and background

The Pharmacy Work Group has a set of rich set of existing models that were used as the basis for the implementation guide including HL7 V3 models and FHIR resources.

This implementation guide was created by the Pharmacy Work Group using the following approach:

- Review of Consolidated CDA (C-CDA^[1]) to identify templates that include pharmacy related content
- Compare C-CDA templates to existing Pharmacy HL7 V3 models and Pharmacy FHIR resources to identify differences and gaps
- Create universal templates to that can be constrained for use for new templates.

For the Medication Model reflected in template 2.16.840.1.113883.10.21.4.11 UV Medication Information (detail), the Common Message Element Type CMET R_Medication Universal” (COCT_MT230100UV02), Release 2 (as published in HL7 V3 2017, V2.0.2 Dec 2010, derived from Common Product Model) was used to construct the CDA extension elements (see also "Extensions" used in this guide in the appendix).

The template rules are formalized using the computable format defined by the HL7 Templates Standard: Specification and Use of Reusable Information Constraint Templates, Release 1^[2] in order to facilitate also the automatic generation of consistent testing and validation capabilities.

3 Technical Background

3.1 What is a CDA

CDA R2 is "... a document markup standard that specifies the structure and semantics of *clinical documents* for the purpose of exchange" [CDA R2, Section 1.1]. Clinical documents, according to CDA, have the following characteristics:

- Persistence
- Stewardship
- Potential for authentication
- Context
- Wholeness
- Human readability

CDA defines a header for classification and management and a document body that carries the clinical record. While the header metadata are prescriptive and designed for consistency across all instances, the body is highly generic, leaving the designation of semantic requirements to implementation.

3.2 Templated CDA

CDA R2 can be constrained by mechanisms defined in the "Refinement and Localization" section of the HL7 Version 3 Interoperability Standards. The mechanism most commonly used to constrain CDA is referred to as "templated CDA". This specification created a set of artifacts containing modular CDA templates (and associated value sets) for the purpose of the International Patient Summary, and the templates can be reused across any number of CDA document types.

There are different kinds of templates that might be created. Among them, the most common ones are:

- CDA **Document Level Templates** constrain fields in the Clinical Document Architecture (CDA) header, and define containment relationships to CDA sections.

For example, a History-and-Physical document-level template might require that the patient's name be present, and that the document contain a Physical Exam section.

- CDA **Header Level Templates** constrain fields for parts of the CDA header, like the patient (record target), the author, participations or the service event.

- CDA **Section Level Templates** constrain fields in the CDA section, and define containment relationships to CDA entries.

For example, a Physical-exam section-level template might require that the section/code be fixed to a particular LOINC code, and that the section contain a Systolic Blood Pressure observation.

- CDA **Entry Level Templates** constrain the CDA clinical statement model in accordance with real world observations and acts.

For example, a Systolic-blood-pressure entry-level template defines how the CDA Observation class is constrained (how to populate observation/code, how to populate observation/value, etc.) to represent the notion of a systolic blood pressure.

3.3 Open and Closed Templates

Open templates permit anything to be done in the underlying standard that is not explicitly prohibited. This allows templates to be built up over time that extend and go beyond the original use cases for which they were originally designed.

Closed templates only permit what has been defined in the template, and do not permit anything beyond that. There are good reasons to use closed templates, sometimes having to do with local policy. For example, in communicating information from a healthcare provider to an insurance company, some information may need to be omitted to ensure patient privacy laws are followed. Most templates developed for CDA are of the open sort.

3.4 Template versioning

Template versioning is needed to enable template designs to evolve over time.

Template versioning enables template designers to control and shape the conformance statements that make up a template's design over time tailoring the design to fit the template's intended purpose.

Each template version is associated with a particular template. The template – as a whole – has a mandatory globally unique, non-semantic, identifier. The identifier serves as the identifier of the original intent of the template and as the identifier of the set of versions that represent the template over time.

Template versions have a mandatory timestamp (date and optional time), called the “effective date”. The date can be seen as the point in time when the template version “came into being”, i.e. was recognized as existent by the governance group. Use of the template prior to this date would be considered an invalid use of the template.

For further information on Templates, Template Versions and related topics refer to the HL7 Templates Standard^[2].

3.5 Identifiers for Templates and Value Sets

This specification specifies CDA **Entry Level Templates** only. They can be re-used in any appropriate context, such as an Entry of a *medication* section.

Two "root" Entry Templates are provided as entry points for the four described use cases:

- UV Medication Order (2.16.840.1.113883.10.21.4.1)
- UV Medication Statement (2.16.840.1.113883.10.21.4.7)
- UV Medication Administration (2.16.840.1.113883.10.21.4.13)
- UV Medication Dispense (2.16.840.1.113883.10.21.4.15)

These templates use other Entry Level Templates that are all listed in a subsequent section of this document.

This specification uses the following OIDs for the artifacts that are registered at the HL7 OID registry.

- The root OID for templates is 2.16.840.1.113883.10.21
 - Entry Level templates are summarized under 2.16.840.1.113883.10.21.4, e.g. 2.16.840.1.113883.10.21.4.5 *UV Substitution Permission*
 - “other” assistance templates are summarized under 2.16.840.1.113883.10.21.9, e.g. 2.16.840.1.113883.10.22.9.1 *UV Use Period*
- The root OID for Value Sets is 2.16.840.1.113883.11

The sub branches for templates follow the recommendations of HL7 International and ISO 13582^[3].

3.6 Namespace Identifier

The CDA extensions for Pharmacy defined by the Pharmacy Workgroup are handled under the XML namespace identifier

`urn:hl7-org:pharm`

and typically use the namespace prefix

`pharm:`

3.7 How to read this document

All artifacts (templates, value sets etc.) listed with the status  *Draft* or  *Pending* are subject to ballot comments.

Artifacts with other status information, especially  *Final* or *Active* are not (directly) part of the ballot and some artifacts actually even come from external sources. Reference artifacts are indicated by the symbol

`ref`

. These reference artifacts are also not subject to the ballot, as they might be balloted elsewhere already.

The PDF version contains a ruler on the left side of the pages. A ruler has the page number on top of it and allows locating a line at the page by simply specifying the number at the scale tick. This is more precise and allows also commenting on graphics and pictures.

For example if you have a comment on page 29 because of a typo (see figure), you simply specify the error with its location p0029-04.

Of course you can also refer by classical chapter and section numbers. The use of the ruler has the ballot team's preference, though.



[Figure 1] To locate a typo on page 29 as a ballot comment, simply specify the location p0029-04.

3.8 Reading Publication Artifacts

A reading guide is available that explains the formalisms used to express the publication artifacts, i.e. template meta data and template design. For convenience the guide is included in the appendix.

4 Functional requirements and high-level use cases

The following use cases are relevant to the pharmacy domain for both community and institutional settings:

- Prescribing a medication (aka Prescription or Order or Request)
- Dispensing a medication
- Recording the administration of a medication
- Recording the use of a medication (in the past, current or future)

The following definitions are relevant to this Implementation Guide:

- *Prescribing* is an activity that can be performed by a variety of healthcare professionals and involves a variety of orderable items (see glossary entry). For the purposes of the following Implementation Guide, prescribing is defined as the act of authorizing the usage of a medication in various settings for example, inpatient, community, and long term care. This could include initiating a new medication order or making all kinds of modifications to existing orders.
- *Dispensing* is the provision of a medication or other material to a caregiver in fulfillment of a prescription or medication order. It supplies the materials needed to perform the prescribed actions by those who will perform them. Examples of dispensing include eyeglasses, contact lenses and medications. Dispensing is defined as supplying a medication in fulfillment of a prescription or medication order. While dispensing is usually performed by a pharmacist, other health care providers such as nurses or physicians may also dispense.
- *Administration* is an activity undertaken to give medication to the patient. In the community, this process is usually not recorded, since the majority occurs in the patient's home; only administrations undertaken by a healthcare professional, such as vaccination, tend to be formally documented. Administration of medication in the institutional setting is usually recorded on a dose-by-dose basis, and may be messaged on that basis, or a summary of all the administrations occurring during an inpatient stay may be described.
- *Medication Statement* is an activity that can be performed by a variety of healthcare professionals, or the patient, or non-healthcare professionals. Examples of recording medication statements include taking a patient's medication history, recording reported use of medications where the source of the patient information is from a third party and not the patient e.g. a family member when the patient is unable to communicate their medication history.

5 Templates

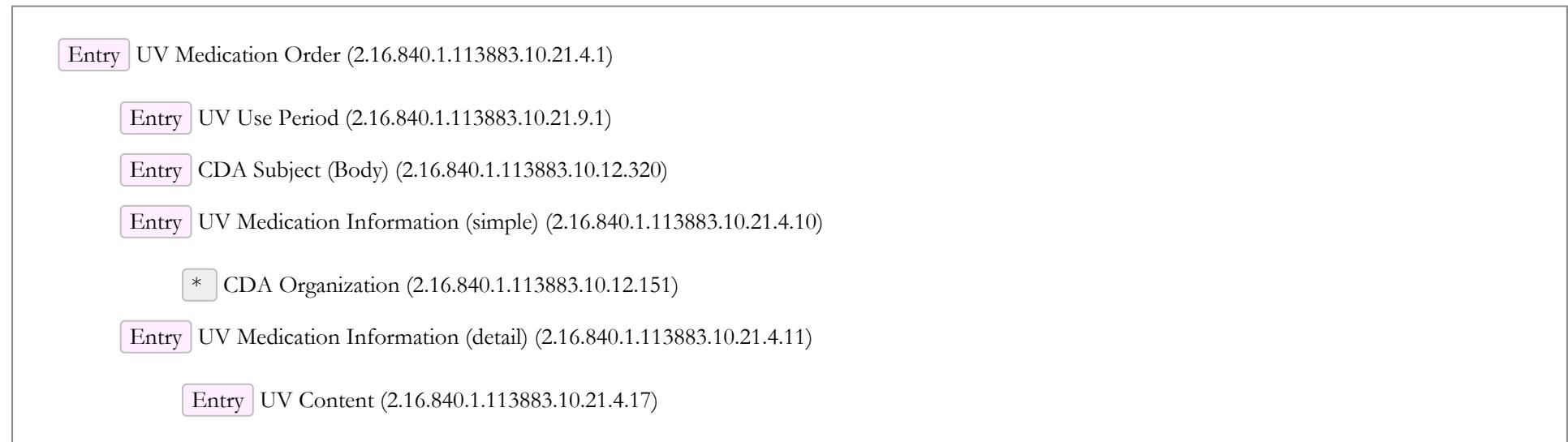
5.1 Use Case Entry Level Templates

As mentioned before, this specification defines two "root" Entry Level Templates, one for each of the covered use cases. All entry templates are used in the context of a CDA section.

5.1.1 UV Medication Order

The following graph gives an overview of the high-level template components of this template, followed by the actual definition.

Note: If you need to include multiple ordered medications as part of a single order, you can include multiple CDA entries under one CDA section. CDA Section definitions are not part of this guide.



Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)

Entry UV Content (2.16.840.1.113883.10.21.4.17)

Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)

Entry UV Content (2.16.840.1.113883.10.21.4.17)

Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)

Entry UV Content (2.16.840.1.113883.10.21.4.17)

Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)

Entry UV Ingredient (2.16.840.1.113883.10.21.4.18)

Entry UV Ingredient (2.16.840.1.113883.10.21.4.18)

Entry UV Ingredient (2.16.840.1.113883.10.21.4.18)

Entry UV Ingredient (2.16.840.1.113883.10.21.4.18)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Device (2.16.840.1.113883.10.12.315)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry UV Subordinate Substance Administration (2.16.840.1.113883.10.21.4.6)

Entry UV Dispense Request (2.16.840.1.113883.10.21.4.2)

Entry CDA Subject (Body) (2.16.840.1.113883.10.12.320)

Entry CDA ManufacturedProduct (2.16.840.1.113883.10.12.312)

Entry CDA LabeledDrug (2.16.840.1.113883.10.12.310)

Entry CDA Material (2.16.840.1.113883.10.12.311)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Performer (Body) (2.16.840.1.113883.10.12.323)

* CDA AssignedEntity (2.16.840.1.113883.10.12.153)

* CDA Person (2.16.840.1.113883.10.12.152)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

- Entry** CDA PlayingEntity (2.16.840.1.113883.10.12.313)
- Entry** UV ClinicalStatement Observation (2.16.840.1.113883.10.21.4.3)
 - Entry** CDA Subject (Body) (2.16.840.1.113883.10.12.320)
 - Entry** CDA Specimen (2.16.840.1.113883.10.12.322)
 - Entry** CDA Performer (Body) (2.16.840.1.113883.10.12.323)
 - * CDA AssignedEntity (2.16.840.1.113883.10.12.153)
 - * CDA Person (2.16.840.1.113883.10.12.152)
 - * CDA Organization (2.16.840.1.113883.10.12.151)
 - Entry** CDA Author (Body) (2.16.840.1.113883.10.12.318)
 - * CDA Person (2.16.840.1.113883.10.12.152)
 - Entry** CDA Device (2.16.840.1.113883.10.12.315)
 - * CDA Organization (2.16.840.1.113883.10.12.151)
 - Entry** CDA Informant (Body) (2.16.840.1.113883.10.12.319)
 - * CDA AssignedEntity (2.16.840.1.113883.10.12.153)

* CDA Person (2.16.840.1.113883.10.12.152)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA RelatedEntity (2.16.840.1.113883.10.12.316)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry CDA Reference (2.16.840.1.113883.10.12.324)

Entry CDA ExternalAct (2.16.840.1.113883.10.12.325)

Entry CDA ExternalObservation (2.16.840.1.113883.10.12.326)

Entry CDA ExternalProcedure (2.16.840.1.113883.10.12.327)

Entry CDA ExternalDocument (2.16.840.1.113883.10.12.328)

Entry CDA Precondition (2.16.840.1.113883.10.12.329)

Entry IPS Internal Reference (2.16.840.1.113883.10.22.4.31)

Entry UV ClinicalStatement Observation (2.16.840.1.113883.10.21.4.3)

Entry CDA Subject (Body) (2.16.840.1.113883.10.12.320)

Entry CDA Specimen (2.16.840.1.113883.10.12.322)

Entry CDA Performer (Body) (2.16.840.1.113883.10.12.323)

* CDA AssignedEntity (2.16.840.1.113883.10.12.153)

* CDA Person (2.16.840.1.113883.10.12.152)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Device (2.16.840.1.113883.10.12.315)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Informant (Body) (2.16.840.1.113883.10.12.319)

* CDA AssignedEntity (2.16.840.1.113883.10.12.153)

* CDA Person (2.16.840.1.113883.10.12.152)

* CDA Organization (2.16.840.1.113883.10.12.151)

- Entry CDA RelatedEntity (2.16.840.1.113883.10.12.316)
 - * CDA Person (2.16.840.1.113883.10.12.152)
- Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)
 - Entry CDA Device (2.16.840.1.113883.10.12.315)
 - Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)
- Entry CDA Reference (2.16.840.1.113883.10.12.324)
 - Entry CDA ExternalAct (2.16.840.1.113883.10.12.325)
 - Entry CDA ExternalObservation (2.16.840.1.113883.10.12.326)
 - Entry CDA ExternalProcedure (2.16.840.1.113883.10.12.327)
 - Entry CDA ExternalDocument (2.16.840.1.113883.10.12.328)
- Entry CDA Precondition (2.16.840.1.113883.10.12.329)
- Entry UV Substitution Permission (2.16.840.1.113883.10.21.4.5)
- Entry UV ClinicalStatement Encounter (2.16.840.1.113883.10.21.4.4)
- Entry UV Comment Activity (2.16.840.1.113883.10.21.4.12)

Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Device (2.16.840.1.113883.10.12.315)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Precondition (2.16.840.1.113883.10.12.329)

The boxes reflect the CDA Template Types. Symbols: * denotes templates with more than one classification, @ indicates a recursion in the definition

Id	2.16.840.1.113883.10.21.4.1	Effective Date	2023-01-31 11:29:28 Other versions this id:
Status	 Draft	Version Label	2023
Name	UVSubstanceadministrationrequest	Display Name	UV Medication Order

Description	Universal Medication Order (Substance Administration Request)			
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.1			
Label	MedicationOrder			
Classification	CDA Entry Level Template			
Open/Closed	Open (other than defined elements are allowed)			
Uses	Uses 14 templates			
	Uses	as	Name	Version
	2.16.840.1.113883.10.21.9.1	Include	UV Use Period (2023)	DYNAMIC
	2.16.840.1.113883.10.12.320	Containment	CDA Subject (Body)	DYNAMIC
	2.16.840.1.113883.10.21.4.10	Containment	UV Medication Information (simple) (R1-STU2-ballot)	DYNAMIC
	2.16.840.1.113883.10.21.4.11	Containment	UV Medication Information (detail) (2023)	DYNAMIC
	2.16.840.1.113883.10.12.318	Containment	CDA Author (Body)	DYNAMIC
	2.16.840.1.113883.10.12.321	Containment	CDA Participant (Body)	DYNAMIC
	2.16.840.1.113883.10.21.4.6	Containment	UV Subordinate Substance Administration (2023)	DYNAMIC
	2.16.840.1.113883.10.21.4.2	Containment	UV Dispense Request (R1-STU2-ballot)	DYNAMIC
	2.16.840.1.113883.10.21.4.3	Containment	UV ClinicalStatement Observation (R1-STU2-ballot)	DYNAMIC
	2.16.840.1.113883.10.22.4.31	Containment	IPS Internal Reference (STU1)	DYNAMIC
	2.16.840.1.113883.10.21.4.5	Containment	UV Substitution Permission (R1-STU2-ballot)	DYNAMIC
	2.16.840.1.113883.10.21.4.4	Containment	UV ClinicalStatement Encounter (R1-STU2-ballot)	DYNAMIC
	2.16.840.1.113883.10.21.4.12	Containment	UV Comment Activity (R1-STU2-ballot)	DYNAMIC
	2.16.840.1.113883.10.12.329	Containment	CDA Precondition	DYNAMIC
Relationship	Version: template 2.16.840.1.113883.10.21.4.1 <i>UV Medication Order</i> (2015-10-07) Specialization: template 2.16.840.1.113883.10.12.308 <i>CDA SubstanceAdministration</i> (2005-09-07) ref ad1bbr-			

Example

Example

```

<substanceAdministration classCode="SBADM" moodCode="RQO">
  <templateId root="2.16.840.1.113883.10.21.4.1"/>
  <id root="1.2.3.99.99.99" extension="58768437489739"/>
  <code code="..." codeSystem="..."/>
  <text>...</text>
  <statusCode code="active"/>
  <effectiveTime value="..."/>
  <repeatNumber value="..."/>
  <routeCode code="IPINHL" codeSystem="2.16.840.1.113883.5.112" displayName="Inhalation, respiratory Inhalation, intrapulmonary Inhalation, oral"/>
  <approachSiteCode code="..." codeSystem="2.16.840.1.113883.5.1052"/>
  <administrationUnitCode code="PUFF" codeSystem="2.16.840.1.113883.5.85" displayName="Puff"/>
  <consumable typeCode="CSM">
    <!-- Consumable -->
  </consumable>
  <participant typeCode="DEV">
    <!-- Device -->
  </participant>
  <participant typeCode="LOC">
    <!-- Location -->
  </participant>
  <entryRelationship typeCode="COMP">
    <!-- Subordinate Substance Administrations -->
  </entryRelationship>
  <entryRelationship typeCode="COMP">
    <!-- Annotations -->
  </entryRelationship>
  <precondition>
    <!-- Precondition -->
  </precondition>
</substanceAdministration>

```

Item	DT	Card	Conf	Description	Label
h17:substanceAdministration					Medi...rder
└ @classCode	CS	1 ... 1	F	SBADM	
└ @moodCode	CS	1 ... 1	F	RQO	
└ h17:templateId	II	1 ... 1	M		Medi...rder

<code>└ @root</code>	uid	1 ... 1 F	2.16.840.1.113883.10.21.4.1				
<code>└ hl7:id</code>	II	1 ... * R		Medi...rder			
<code>└ hl7:code</code>	CD (extensible)	0 ... 1 R		Medi...rder			
	CONF	The value of @code should be drawn from value set 2.16.840.1.113883.1.11.19708 <i>ActSubstanceAdministrationCode</i> (DYNAMIC)					
<code>└ hl7:text</code>	ED	0 ... 1		Medi...rder			
<code>└ hl7:statusCode</code>	CS (required)	1 ... 1 M		Medi...rder			
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.11.21.2 <i>ActStatusActiveCompletedAbortedSuspended</i> (DYNAMIC)					
<i>Included</i>							
from 2.16.840.1.113883.10.21.9.1 <i>UV Use Period</i> (DYNAMIC)							
The effectiveTime element encodes the use period of the medication, it is always expressed as an interval of time.							
It may be expressed using the low and high OR with the width element.							
The first is used to indicate a specified interval (e.g. from march 15th, 2017); the latter for indicating a 'floating' period (e.g. 2 weeks).							
Elements to choose from:							
<ul style="list-style-type: none"> ▪ hl7:effectiveTime[hl7:low hl7:high] ▪ hl7:effectiveTime[hl7:width] ▪ hl7:effectiveTime[hl7:low hl7:width] 							
Case 1: specified interval							
<code>└ hl7:effectiveTime</code>	IVL_TS	0 ... 1 C		Medi...rder			

		<p>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.</p> <p>In case of unbounded period (continuous therapy) the high element will be valued with the nullFlavor attribute to NA.</p> <p>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 a prescription that has not been refilled 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.</p>
where [hl7:low or hl7:high]		
 @nullFlavor	CS	0 ... 1
Example		<p>Known Interval</p> <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high value="20140321"/> </effectiveTime></pre>
Example		<p>Information not available about the period</p> <pre><effectiveTime type="IVL_TS" nullFlavor="NI"/></pre>
Example		<p>Unknown end date</p> <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high nullFlavor="UNK"/> </effectiveTime></pre>

	Example	continuous therapy <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high nullFlavor="NA"/> </effectiveTime></pre>	
└ h17:low	IVXB_TS	1 ... 1 R	Medi...rder
└ h17:high	IVXB_TS	0 ... 1 R	Medi...rder
└ h17:effectiveTime	IVL_TS	0 ... 1 C Case 2: 'floating' period: The width element is used to specify a period of (actual or intended) administration that is not anchored to any specific date (e.g. a two weeks therapy)	Medi...rder
where [h17:width]			
	Example	2 week period <pre><effectiveTime type="IVL_TS"> <width value="2" unit="w"/> </effectiveTime></pre>	
└ h17:low		NP	Medi...rder
└ h17:high		NP	Medi...rder
└ h17:center		NP	Medi...rder
└ h17:width	PQ	1 ... 1 R	Medi...rder
└ @unit	CS	1 ... 1 R	
	CONF	The value of @unit shall be drawn from value set 2.16.840.1.113883.11.21.1 Medication Time Units (UCUM) (DYNAMIC)	
└ h17:effectiveTime	IVL_TS	0 ... 1 C Case 3: anchored period: The width element is used to specify a period of (actual or intended) administration anchored to a specific date (e.g. a two weeks therapy starting today)	Medi...rder
where [h17:low or h17:width]			
	Example	2 week period starting on 2013-03-21	

			<effectiveTime type="IVL_TS"> <low value="20130321"/> <width value="2" unit="w"/> </effectiveTime>
└ h17:low	IVXB_TS	0 ... 1 C	Medi...rder
└ h17:width	PQ	1 ... 1 R	Medi...rder
└ @unit	CS	1 ... 1 R	
	CONF	The value of @unit shall be drawn from value set 2.16.840.1.113883.11.21.1 Medication Time Units (UCUM) (DYNAMIC)	
└ h17:repeatNumber	IVL_INT	0 ... 1	Medi...rder
└ h17:routeCode	CE (example)	0 ... 1	Medi...rder
	CONF	Examples of the value of @code are in the value set 2.16.840.1.113883.1.11.14581 RouteOfAdministration (DYNAMIC)	
└ h17:approachSiteCode	CD (example)	0 ... *	Medi...rder
	CONF	Examples of the value of @code are in the value set 2.16.840.1.113883.1.11.19724 HumanSubstanceAdministrationSite (DYNAMIC)	
└ h17:doseQuantity	IVL_PQ	NP	Medi...rder
└ h17:rateQuantity	IVL_PQ	NP	Medi...rder
└ h17:maxDoseQuantity	RTO_PQ_PQ	0 ... 1	Medi...rder
└ h17:administrationUnitCode	CE	NP	Medi...rder
└ h17:subject	0 ... 1 C	The patient, subject to requested dispenses or subject to substances being administered to. Contains 2.16.840.1.113883.10.12.320 CDA Subject (Body) (DYNAMIC)	Medi...rder
	Constraint	Condition: This can be omitted if the patient context that is provided in the CDA header is identical to the	

		subject	
		Elements to choose from:	
Choice	1 ... 1		<ul style="list-style-type: none"> ▪ hl7:consumable containing template 2.16.840.1.113883.10.21.4.10 <i>UV Medication Information (simple)</i> (DYNAMIC) ▪ hl7:consumable containing template 2.16.840.1.113883.10.21.4.11 <i>UV Medication Information (detail)</i> (DYNAMIC)
└ h17:consumable	0 ... 1 R	Consumable: The medication that is administered (simple) Contains 2.16.840.1.113883.10.21.4.10 <i>UV Medication Information (simple)</i> (DYNAMIC)	Medi...rder
└ @typeCode	cs	1 ... 1 F	CSM
└ h17:consumable	0 ... 1 R	Consumable: The medication that is administered (detail) Contains 2.16.840.1.113883.10.21.4.11 <i>UV Medication Information (detail)</i> (DYNAMIC)	Medi...rder
└ @typeCode	cs	1 ... 1 F	CSM
└ h17:author	0 ... *	Prescriber: A party that originates the order and therefore has responsibility for the information given in the order. Contains 2.16.840.1.113883.10.12.318 <i>CDA Author (Body)</i> (DYNAMIC)	Medi...rder
└ h17:participant	0 ... 1	Record Target: indicates the person who's medical record holds the documentation of this medication statement. This element is only populated when the document is placed in a medical record of someone other than the patient (subject). Contains 2.16.840.1.113883.10.12.321 <i>CDA Participant (Body)</i> (DYNAMIC)	Medi...rder
where [@typeCode='RCT']			
└ @typeCode	cs	1 ... 1 F	RCT
└ h17:participant	0 ... 1	Verifier: The person or organization that has primary responsibility for the order. The responsible party is not necessarily present in an action, but is accountable for the action through the power to delegate. Contains 2.16.840.1.113883.10.12.321 <i>CDA Participant (Body)</i> (DYNAMIC)	Medi...rder

where `[@typeCode='VRF']`

`@typeCode`

cs

1 ... 1 F

VRF

Subordinate Substance Administration Request as a component of the overall order.

At least one subordinated Substance Administration should be present to convey information about dosages (dose, frequency of intakes,...) unless dosage is unknown.

Subordinated Substance Administration elements can be also used either to handle split dosing, or to support combination medications.

Contains 2.16.840.1.113883.10.21.4.6 UV Subordinate Substance Administration (DYNAMIC)

Medi...rder

`h17:entryRelationship`

0 ... * C

where `[h17:substanceAdministration]`

`@typeCode`

cs

1 ... 1 F

COMP

Constraint

At least one subordinate element SHALL be present.

```
<entryRelationship typeCode="COMP">
  <!-- component: Subordinate Substance Administration Request. -->
  <substanceAdministration classCode="SBADM" moodCode="RQO">
    <templateId root="2.16.840.1.113883.10.21.4.6"/>
    <!-- .. -->
  </substanceAdministration>
</entryRelationship>
```

Example

`h17:sequenceNumber`

INT

0 ... 1

Sequence number of the Subordinate Substance Administration.

Medi...rder

`h17:entryRelationship`

0 ... 1 R

Dispense Request as a component of the overall order. This element is used in the medication order when the dispense request information contains additional information to support a fully specified medication prescription. For example, to include the validity period of the dispense or the organization to dispense the medication.

Contains 2.16.840.1.113883.10.21.4.2 UV Dispense Request (DYNAMIC)

Medi...rder

where `[h17:supply]`

`@typeCode`

cs

1 ... 1 F

COMP

Example

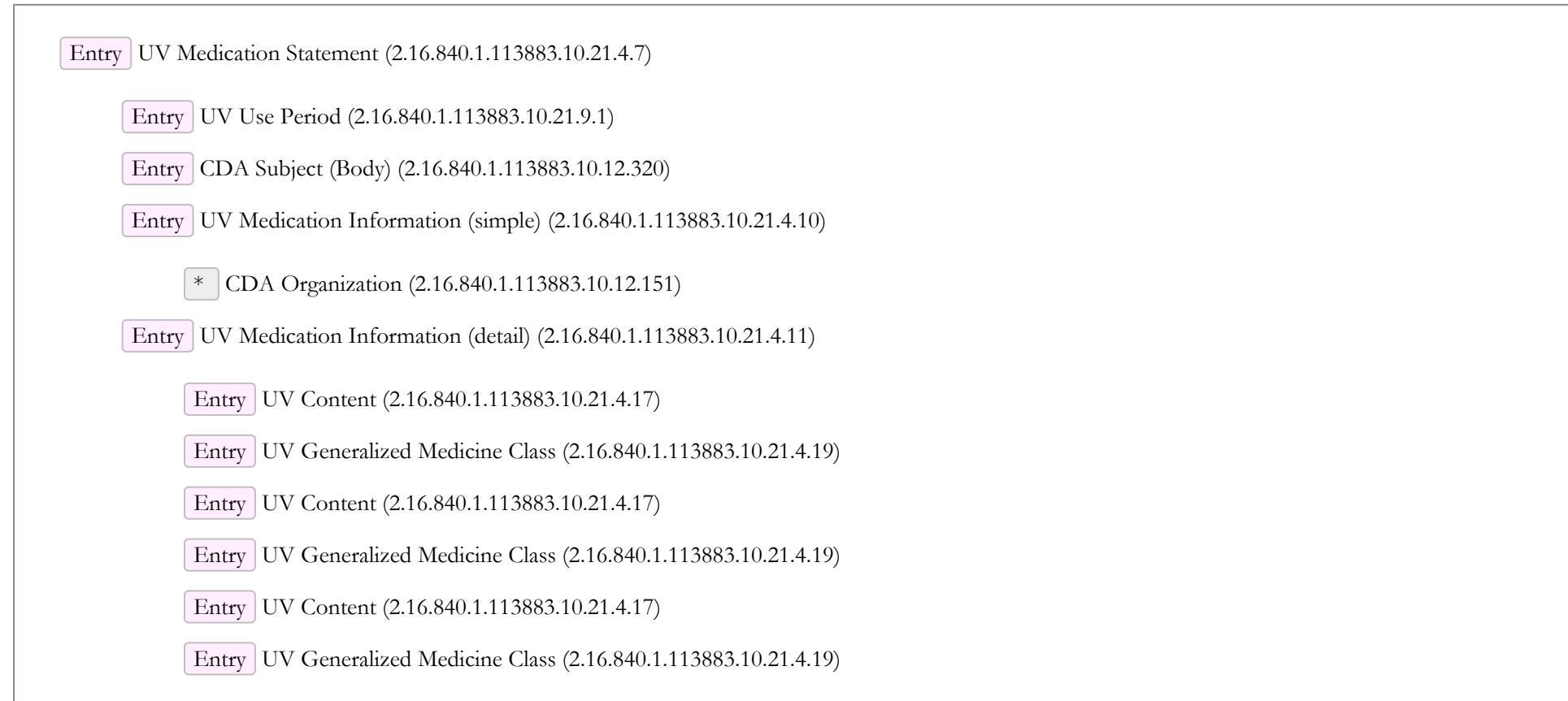
```
<entryRelationship typeCode="COMP">
  <!-- component: The Dispense Request is a component of the overall order. -->
```

<i>Choice</i>	<pre><supply classCode="SPLY" moodCode="RQO"> <templateId root="2.16.840.1.113883.10.21.4.2"/> <!-- .. --> </supply> </entryRelationship></pre> <p>Elements to choose from:</p> <ul style="list-style-type: none"> ▪ hl7:entryRelationship containing template 2.16.840.1.113883.10.21.4.3 <i>UV ClinicalStatement Observation</i> (DYNAMIC) ▪ hl7:entryRelationship containing template 2.16.840.1.113883.10.22.4.31 <i>IPS Internal Reference</i> (DYNAMIC) 		
	0 ... *		
└ hl7:entryRelationship	0 ... * R		Reason: Specifies the reason (indication) for authoring the order. Contains 2.16.840.1.113883.10.21.4.3 <i>UV ClinicalStatement Observation</i> (DY- Medi...rder NAMIC)
└ @typeCode	cs	1 ... 1 F	RSON
Example			<pre><hl7:entryRelationship typeCode="RSON"> <priorityNumber value="1"/> <!-- template 2.16.840.1.113883.10.21.4.3 'UV ClinicalStatement Observation' (2016-05-01T00:00:00) --> </hl7:entryRelationship></pre>
└ pharm:priorityNumber	INT.NONNEG	0 ... 1 R	Indicates the priority of this reason for the order in relation to its sibling rea- sons.
└ hl7:entryRelationship	0 ... * R		Reason: Specifies the reason (indication) for authoring the order. Contains 2.16.840.1.113883.10.22.4.31 <i>IPS Internal Reference</i> (DYNAMIC)
└ @typeCode	cs	1 ... 1 F	RSON
Example			<pre><entryRelationship typeCode="RSON"> <priorityNumber value="1"/> <act> <!-- Clinical Statement Minimal --> </act> </entryRelationship></pre>
└ pharm:priorityNumber	INT.NONNEG	0 ... 1 R	Indicates the priority of this reason for the order in relation to its sibling rea- sons.

L h17:entryRelationship		0 ... * R	Pertinent Information: Specifies any pertinent information (observation) relevant to the order. Contains 2.16.840.1.113883.10.21.4.3 <i>UV ClinicalStatement Observation</i> (DYNAMIC)	Med...rder
L @typeCode	cs	1 ... 1 F	PERT	
	Example		<pre><entryRelationship typeCode="PERT"> <observation> <!-- Clinical Statement Observation --> </observation> </entryRelationship></pre>	
L h17:entryRelationship		0 ... 1 R	Permission: The order can be the subject of the permissions related to substitution. Contains 2.16.840.1.113883.10.21.4.5 <i>UV Substitution Permission</i> (DYNAMIC)	Med...rder
where [h17:act]				
L @typeCode	cs	1 ... 1 F	COMP	
L h17:entryRelationship		0 ... 1 R	Encounter: Used to link an order to a specific encounter. Contains 2.16.840.1.113883.10.21.4.4 <i>UV ClinicalStatement Encounter</i> (DYNAMIC)	Med...rder
where [h17:encounter]				
L @typeCode	cs	1 ... 1 F	COMP	
	Example		<pre><encounter classCode="ENC" moodCode="EVN"> <id/> <code code="..."/> </encounter></pre>	
L h17:entryRelationship		0 ... *	Annotations: The Medication Order can be the subject of annotations. Contains 2.16.840.1.113883.10.21.4.12 <i>UV Comment Activity</i> (DYNAMIC)	Med...rder
L @typeCode	cs	1 ... 1 F	COMP	
L h17:precondition		0 ... *	Precondition: A requirement to be true before the SubstanceAdministration is performed. Contains 2.16.840.1.113883.10.12.329 <i>CDA Precondition</i> (DYNAMIC)	Med...rder

5.1.2 UV Medication Statement

The following graph gives an overview of the high-level template components of this template, followed by the actual definition.



- Entry UV Content (2.16.840.1.113883.10.21.4.17)
- Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)
- Entry UV Ingredient (2.16.840.1.113883.10.21.4.18)
- * CDA Organization (2.16.840.1.113883.10.12.151)
- Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)
 - * CDA Person (2.16.840.1.113883.10.12.152)
 - Entry CDA Device (2.16.840.1.113883.10.12.315)
 - * CDA Organization (2.16.840.1.113883.10.12.151)
- * CDA AssignedEntity (2.16.840.1.113883.10.12.153)
 - * CDA Person (2.16.840.1.113883.10.12.152)
 - * CDA Organization (2.16.840.1.113883.10.12.151)
- Entry CDA RelatedEntity (2.16.840.1.113883.10.12.316)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry UV Subordinate Substance Administration (2.16.840.1.113883.10.21.4.6)

Entry UV Medication Order Reference (2.16.840.1.113883.10.21.4.8)

Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Device (2.16.840.1.113883.10.12.315)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry UV Dispense Event Reference (2.16.840.1.113883.10.21.4.9)

Entry UV ClinicalStatement Observation (2.16.840.1.113883.10.21.4.3)

Entry CDA Subject (Body) (2.16.840.1.113883.10.12.320)

Entry CDA Specimen (2.16.840.1.113883.10.12.322)

Entry CDA Performer (Body) (2.16.840.1.113883.10.12.323)

* CDA AssignedEntity (2.16.840.1.113883.10.12.153)

* CDA Person (2.16.840.1.113883.10.12.152)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Device (2.16.840.1.113883.10.12.315)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Informant (Body) (2.16.840.1.113883.10.12.319)

* CDA AssignedEntity (2.16.840.1.113883.10.12.153)

* CDA Person (2.16.840.1.113883.10.12.152)

* CDA Organization (2.16.840.1.113883.10.12.151)

- Entry CDA RelatedEntity (2.16.840.1.113883.10.12.316)
 - * CDA Person (2.16.840.1.113883.10.12.152)
- Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)
 - Entry CDA Device (2.16.840.1.113883.10.12.315)
 - Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)
- Entry CDA Reference (2.16.840.1.113883.10.12.324)
 - Entry CDA ExternalAct (2.16.840.1.113883.10.12.325)
 - Entry CDA ExternalObservation (2.16.840.1.113883.10.12.326)
 - Entry CDA ExternalProcedure (2.16.840.1.113883.10.12.327)
 - Entry CDA ExternalDocument (2.16.840.1.113883.10.12.328)
- Entry CDA Precondition (2.16.840.1.113883.10.12.329)
- Entry IPS Internal Reference (2.16.840.1.113883.10.22.4.31)

The boxes reflect the CDA Template Types. Symbols: * denotes templates with more than one classification, @ indicates a recursion in the definition

Id	2.16.840.1.113883.10.21.4.7	Effective Date	2023-01-30 08:32:34 Other versions this id:
Status	Draft	Version Label	2023
Name	UVMedicationstatement	Display Name	UV Medication Statement
Description			
Universal Medication Statement: Recording a "medication statement" is an activity that can be performed by a variety of healthcare professionals, or the patient, or non-healthcare professionals. Examples of recording medication statements include taking a patient's medication history, recording reported use of medications where the source of the patient information is from a third party and not the patient e.g. a family member when the patient is unable to communicate their medication history.			
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.7		
Label	MedicationStatement		
Classification	CDA Entry Level Template		
Open/Closed	Open (other than defined elements are allowed)		
Uses	Uses 13 templates		
	Uses	as	Name
	2.16.840.1.113883.10.21.9.1	Include	UV Use Period (2023) DYNAMIC
	2.16.840.1.113883.10.12.320	Containment	CDA Subject (Body) DYNAMIC
	2.16.840.1.113883.10.21.4.10	Containment	UV Medication Information (simple) (R1-STU2-ballot) DYNAMIC
	2.16.840.1.113883.10.21.4.11	Containment	UV Medication Information (detail) (2023) DYNAMIC
	2.16.840.1.113883.10.12.318	Containment	CDA Author (Body) DYNAMIC
	2.16.840.1.113883.10.12.153	Containment	CDA AssignedEntity DYNAMIC

	2.16.840.1.113883.10.12.316 Containment  CDA RelatedEntity 2.16.840.1.113883.10.12.321 Containment  CDA Participant (Body) 2.16.840.1.113883.10.21.4.6 Containment  UV Subordinate Substance Administration (2023) 2.16.840.1.113883.10.21.4.8 Containment  UV Medication Order Reference (R1-STU2-ballot) 2.16.840.1.113883.10.21.4.9 Containment  UV Dispense Event Reference (R1-STU2-ballot) 2.16.840.1.113883.10.21.4.3 Containment  UV ClinicalStatement Observation (R1-STU2-ballot) 2.16.840.1.113883.10.22.4.31 Containment  IPS Internal Reference (STU1)	DYNAMIC
Relationship	Version: template 2.16.840.1.113883.10.21.4.7 <i>UV Medication Statement</i> (2021-08-04 14:09:15) Version: template 2.16.840.1.113883.10.21.4.7 <i>UV Medication Statement</i> (2017-05-01) Specialization: template 2.16.840.1.113883.10.12.308 <i>CDA SubstanceAdministration</i> (2005-09-07) [ref ad1bbr]	
Example	<p>Example</p> <pre> <substanceAdministration classCode="SBADM" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.7"/> <id root="1.2.3.99.99.99" extension="988437489739"/> <code code="..." codeSystem="..."/> <text>...</text> <statusCode code="active"/> <effectiveTime value="..."/> <repeatNumber value="..."/> <routeCode code="SOAK" codeSystem="2.16.840.1.113883.5.112" displayName="Immersion (soak)"/> <approachSiteCode code="..." codeSystem="2.16.840.1.113883.5.1052"/> <administrationUnitCode code="PUFF" displayName="Puff" codeSystem="2.16.840.1.113883.5.85"/> <consumable typeCode="CSM"> <!-- Consumable --> </consumable> <participant typeCode="DEV"> <!-- Device --> </participant> <participant typeCode="LOC"> <!-- Location --> </participant> <entryRelationship typeCode="COMP"> <!-- Subordinate Substance Administrations --> </entryRelationship> <entryRelationship typeCode="COMP"> <!-- Annotations --> </entryRelationship> </pre>	

	<pre> <precondition> <!-- Precondition --> </precondition> </substanceAdministration> </pre>
Example	<p>Example</p> <pre> <substanceAdministration classCode="SBADM" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.7"/> <id root="1.2.3.999" extension="--example only--"/> <code code="DRUG" displayName="Drug therapy" codeSystem="2.16.840.1.113883.5.4"/> <text/> <statusCode code="active"/> <!-- include template 'UV Use Period' (dynamic) .. 0 --> <repeatNumber/> <routeCode code="SOAK" displayName="Immersion (soak)" codeSystem="2.16.840.1.113883.5.112"/> <approachSiteCode code="--code--" codeSystem="2.16.840.1.113883.5.1052"/> <administrationUnitCode code="APPFUL" displayName="Applicatorful" codeSystem="2.16.840.1.113883.5.85"/> <subject> <!-- template 'CDA Subject (Body)' (dynamic) --> </subject> <consumable typeCode="CSM"> <!-- template 2.16.840.1.113883.10.12.312 'CDA ManufacturedProduct' (dynamic) --> </consumable> <!-- choice: 1..1 element hl7:author element hl7:participant[@typeCode='AUT'] --> <!-- choice: 0..1 element hl7:informant[exists(hl7:assignedEntity)] element hl7:participant[@typeCode='INF'] element hl7:informant[exists(hl7:relatedEntity)] --> <participant typeCode="RCT"> <!-- template 2.16.840.1.113883.10.12.321 'CDA Participant (Body)' (dynamic) --> </participant> <participant typeCode="VRF"> <!-- template 2.16.840.1.113883.10.12.321 'CDA Participant (Body)' (dynamic) --> </participant> <entryRelationship typeCode="COMP"> <sequenceNumber value="1"/> <!-- template 2.16.840.1.113883.10.21.4.6 'Subordinate Substance Administration' (dynamic) --> </entryRelationship> <entryRelationship typeCode="REFR"> <!-- template 2.16.840.1.113883.10.21.4.8 'UV Medication Order Reference' (dynamic) --> </entryRelationship> <entryRelationship typeCode="REFR"> <!-- template 2.16.840.1.113883.10.21.4.9 'UV Dispense Event Reference' (dynamic) --> </entryRelationship> </pre>

	</entryRelationship> </substanceAdministration>
Example	<p>Example</p> <pre><substanceAdministration classCode="SBADM" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.7"/> <id root="1.2.3.99.99.99" extension="988437489739"/> <code code="..." codeSystem="..."/> <text>...</text> <statusCode code="active"/> <effectiveTime value="..."/> <repeatNumber value="..."/> <routeCode code="SOAK" codeSystem="2.16.840.1.113883.5.112" displayName="Immersion (soak)"/> <approachSiteCode code="..." codeSystem="2.16.840.1.113883.5.1052"/> <administrationUnitCode code="PUFF" displayName="Puff" codeSystem="2.16.840.1.113883.5.85"/> <consumable typeCode="CSM"> <!-- Consumable --> </consumable> <participant typeCode="DEV"> <!-- Device --> </participant> <participant typeCode="LOC"> <!-- Location --> </participant> <entryRelationship typeCode="COMP"> <!-- Subordinate Substance Administrations --> </entryRelationship> <entryRelationship typeCode="COMP"> <!-- Annotations --> </entryRelationship> <precondition> <!-- Precondition --> </precondition> </substanceAdministration></pre>

Item	DT	Card	Conf	Description	Label
h17:substanceAdministration					Medi...ment
└ @classCode	cs	1 ... 1	F	SBADM	
└ @moodCode	cs	1 ... 1	R	EVN will be used to record a medication statement where the patient is currently taking or has taken the medication in the past. INT will be used to record a medication statement where the patient plans to take the med-	

			ication or be administered the medication in the future.	
	CONF		@moodCode shall be "EVN" or @moodCode shall be "INT"	
└ h17:templateId	II	1 ... 1 M		Med...ment
└ @root	uid	1 ... 1 F	2.16.840.1.113883.10.21.4.7	
└ h17:id	II	0 ... * R		Med...ment
└ h17:code	CD (preferred)	0 ... 1 R	The code element is valorized with the ACT code DRUG; FD or IMMUNIZ unless it is used for asserting the known absence of medication treatments or no information about them.	Med...ment
	CONF		The value of @code comes preferably from value set 2.16.840.1.113883.1.11.19708 <i>ActSubstanceAdministrationCode</i> (DYNAMIC) or The value of @code comes preferably from value set 2.16.840.1.113883.11.21.5 <i>Unknown or absent medication</i> (DYNAMIC)	
└ h17:text	ED	0 ... 1		Med...ment
└ h17:statusCode	CS (required)	1 ... 1 M		Med...ment
	CONF		The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.15933 <i>ActStatus</i> (DYNAMIC) from 2.16.840.1.113883.10.21.9.1 <i>UV Use Period</i> (DYNAMIC)	
Included			The effectiveTime element encodes the use period of the medication, it is always expressed as an interval of time.	
Choice		1 ... 1	It may be expressed using the low and high OR with the width element. The first is used to indicate a specified interval (e.g. from march 15th, 2017); the latter for indicating a 'floating' period (e.g. 2 weeks). Elements to choose from:	

- hl7:effectiveTime[hl7:low | hl7:high]
- hl7:effectiveTime[hl7:width]
- hl7:effectiveTime[hl7:low | hl7:width]

Case 1: specified interval

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.

hl7:effectiveTime

IVL_TS

0 ... 1 C

In case of unbounded period (continuous therapy) the high element will be Med...ment valued with the nullFlavor attribute to NA.

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 a prescription that has not been refilled 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.

where [hl7:low or
hl7:high]

@nullFlavor

CS

0 ... 1

Example

Known Interval
`<effectiveTime type="IVL_TS">`
`<low value="20130321"/>`

Example		<pre><high value="20140321"/> </effectiveTime></pre> <p>Information not available about the period</p> <pre><effectiveTime type="IVL_TS" nullFlavor="NI"/></pre>	
Example		<p>Unknown end date</p> <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high nullFlavor="UNK"/> </effectiveTime></pre>	
Example		<p>continuous therapy</p> <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high nullFlavor="NA"/> </effectiveTime></pre>	
└ h17:low	IVXB_TS	1 ... 1 R	Medi...ment
└ h17:high	IVXB_TS	0 ... 1 R	Medi...ment
└ h17:effectiveTime	IVL_TS	0 ... 1 C	<p>Case 2: 'floating' period: The width element is used to specify a period of (actual or intended) administration that is not anchored to any specific date (e.g. a two weeks therapy)</p>
where [h17:width]			
Example		<p>2 week period</p> <pre><effectiveTime type="IVL_TS"> <width value="2" unit="w"/> </effectiveTime></pre>	
└ h17:low		NP	Medi...ment
└ h17:high		NP	Medi...ment
└ h17:center		NP	Medi...ment
└ h17:width	PQ	1 ... 1 R	Medi...ment
└ @unit	CS	1 ... 1 R	

		CONF	The value of @unit shall be drawn from value set 2.16.840.1.113883.11.21.1 Medication Time Units (UCUM) (DYNAMIC)	
└ h17:effectiveTime	IVL_TS	0 ... 1 C	Case 3: anchored period: The width element is used to specify a period of (actual or intended) administration anchored to a specific date (e.g. a two weeks therapy starting today)	Medi...ment
where [h17:low or h17:width]		Example	2 week period starting on 2013-03-21 <effectiveTime type="IVL_TS"> <low value="20130321"/> <width value="2" unit="w"/> </effectiveTime>	
└ h17:low	IVXB_TS	0 ... 1 C		Medi...ment
└ h17:width	PQ	1 ... 1 R		Medi...ment
└ @unit	CS	1 ... 1 R		
	CONF	The value of @unit shall be drawn from value set 2.16.840.1.113883.11.21.1 Medication Time Units (UCUM) (DYNAMIC)		
└ h17:repeatNumber	IVL_INT	0 ... 1		Medi...ment
└ h17:routeCode	CE (example)	0 ... 1		Medi...ment
	CONF	Examples of the value of @code are in the value set 2.16.840.1.113883.1.11.14581 RouteOfAdministration (DYNAMIC)		
└ h17:approachSiteCode	CD (example)	0 ... *		Medi...ment
	CONF	Examples of the value of @code are in the value set 2.16.840.1.113883.1.11.19724 HumanSubstanceAdministrationSite (DYNAMIC)		
└ h17:doseQuantity	IVL_PQ	NP		Medi...ment

└ h17:rateQuantity	IVL_PQ	NP	Medi...ment
└ h17:maxDoseQuantity	RTO_PQ_PQ	0 ... 1	Medi...ment
└ h17:administrationUnitCode	CE	NP	Medi...ment
└ h17:subject	0 ... 1 C	Patient: The patient that takes the medicine. Contains 2.16.840.1.113883.10.12.320 <i>CDA Subject (Body)</i> (DYNAMIC)	Medi...ment
	Constraint	Condition: This can be omitted if the patient context that is provided in the CDA header is identical to the subject	
<i>Elements to choose from:</i>			
<ul style="list-style-type: none"> ▪ hl7:consumable containing template 2.16.840.1.113883.10.21.4.10 <i>UV Medication Information (simple)</i> (DYNAMIC) ▪ hl7:consumable containing template 2.16.840.1.113883.10.21.4.11 <i>UV Medication Information (detail)</i> (DYNAMIC) 			
<i>Choice</i>			
└ h17:consumable	0 ... 1 R	Consumable: The medication that is administered (simple) Contains 2.16.840.1.113883.10.21.4.10 <i>UV Medication Information (simple)</i>	Medi...ment
└ @typeCode	CS	1 ... 1 F	CSM
└ h17:consumable	0 ... 1 R	Consumable: The medication that is administered (detail) Contains 2.16.840.1.113883.10.21.4.11 <i>UV Medication Information (detail)</i>	Medi...ment
└ @typeCode	CS	1 ... 1 F	CSM
<i>Required author of the medication statement: healthcare professional or patient</i>			
<i>Elements to choose from:</i>			
<i>Choice</i>			
		<ul style="list-style-type: none"> ▪ hl7:author containing template 2.16.840.1.113883.10.12.318 <i>CDA Author (Body)</i> (DYNAMIC) ▪ hl7:participant[@typeCode='AUT'] 	

└ hl7:author		Use this if the author of the medication statement is a healthcare professional Contains 2.16.840.1.113883.10.12.318 CDA Author (Body) (DYNAMIC)	Medi...ment
	Example	Author of the medication statement is a healthcare professional <pre><author> <time value="20170221"/> <assignedAuthor> <id root="1.2.3.99.99.99" extension="75487435893498"/> <assignedPerson> <name> <given qualifier="IN">Ampu</given> <prefix qualifier="VV">L.</prefix> <family>Lee</family> </name> </assignedPerson> </assignedAuthor> </author></pre>	
└ hl7:participant		Use this if the author of the medication statement is the patient	Medi...ment
where <code>[@typeCode='AUT']</code>			
└ @typeCode	CS	1 ... 1 F AUT	
	Example	Author of the medication statement is the patient <pre><participant typeCode="AUT"> <time value="20170121091548"/> <participantRole classCode="PAT"/> </participant></pre>	
└ hl7:time	TS	1 ... 1 R	Medi...ment
└ hl7:participantRole		1 ... 1 M	Medi...ment
└ @classCode	CS	1 ... 1 F PAT	
Choice		Optional informants of the medication statement: healthcare professional or patient contact party (related party) Elements to choose from:	
		▪ hl7:informant[exists(hl7:assignedEntity)]	

			<ul style="list-style-type: none"> ▪ hl7:participant[@typeCode='INF'] ▪ hl7:informant[exists(hl7:relatedEntity)] 	
h17:informant			Use this if the informant of the medication statement is a healthcare professional	Medi...ment
where [exists(hl7:assignedEntity)]				
└ @typeCode	CS	0 ... 1 F	INF	
└ @contextControlCode	CS	0 ... 1 F	OP	
Example	Informant of the medication statement is a healthcare professional <pre><informant> <assignedEntity> <id root="1.2.3.99.99.99" extension="75487435893498"/> <assignedPerson> <name> <given qualifier="IN">Ampu</given> <prefix qualifier="VV">L.</prefix> <family>Lee</family> </name> </assignedPerson> </assignedEntity> </informant></pre>			
h17:assignedEntity	1 ... 1	Contains 2.16.840.1.113883.10.12.153 CDA AssignedEntity (DYNAMIC)	Medi...ment	
h17:participant		Use this if the informant of the medication statement is the patient	Medi...ment	
where [@typeCode='INF']				
└ @typeCode	CS	1 ... 1 F	INF	
Example	Informant of the medication statement is the patient <pre><participant typeCode="INF"> <time value="20170121091548"/> <participantRole classCode="PAT"/> </participant></pre>			
h17:time	TS	1 ... 1 R	Medi...ment	

└ h17:participantRole		1 ... 1 M		Medi...ment
└ @classCode	cs	1 ... 1 F	PAT	
└ h17:informant			Use this if the informant of the medication statement is a contact party (related party)	Medi...ment
where [exists(h17:relatedEntity)]				
└ @typeCode	cs	0 ... 1 F	INF	
└ @contextControlCode	cs	0 ... 1 F	OP	
	Example		Informant of the medication statement is a contact party (related party) <pre><informant> <relatedEntity classCode="AGNT"> <relatedPerson classCode="PSN" determinerCode="INSTANCE"> <name> <!-- ... --> </name> </relatedPerson> </relatedEntity> </informant></pre>	
└ h17:relatedEntity		1 ... 1	Contains 2.16.840.1.113883.10.12.316 CDA RelatedEntity (DYNAMIC)	Medi...ment
└ h17:participant		0 ... 1	Record Target: indicates the person who's medical record holds the documentation of this medication statement. This element is only populated when the document is placed in a medical record of someone other than the patient (subject). Contains 2.16.840.1.113883.10.12.321 CDA Participant (Body) (DYNAMIC)	Medi...ment
where [@typeCode='RCT']				
└ @typeCode	cs	1 ... 1 F	RCT	
└ h17:participant		0 ... 1	Verifier: The person or organization that has primary responsibility for the medication statement. The responsible party is not necessarily present in an action, but is accountable for the action through the power to delegate. Contains 2.16.840.1.113883.10.12.321 CDA Participant (Body) (DYNAMIC)	Medi...ment
where [@typeCode='VRF']				

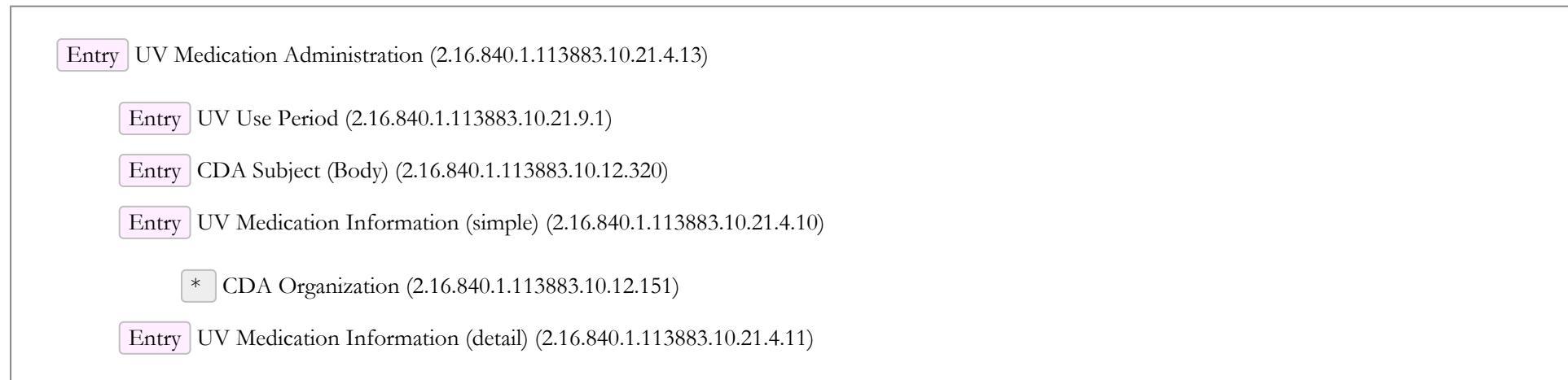
L @typeCode	cs	1 ... 1 F	VRF											
L h17:entryRelationship		0 ... * C	<p>Subordinate Substance Administration Statement as a component of the overall medication statement.</p> <p>At least one subordinated <substanceAdministration> has to be present to convey information about dosages (dose, frequency of intakes,...) unless medications are unknown or known absent.</p> <p>Subordinated <substanceAdministration> elements can be also used either to handle split dosing, or to support combination medications.</p> <p>Contains 2.16.840.1.113883.10.21.4.6 UV Subordinate Substance Administration (DYNAMIC)</p>	Medi...ment										
where [exists(hl7:substanceAdministration)]														
L @typeCode	cs	1 ... 1 F	COMP											
<table border="1"> <tr> <td>Constraint</td> <td colspan="4">At least one subordinate <substanceAdministration> element SHALL be present unless medications are unknown or known absent.</substanceAdministration></td></tr> <tr> <td>Example</td> <td colspan="4"> <pre><entryRelationship typeCode="COMP"> <!-- component: Subordinate Substance Administration Statement. --> <substanceAdministration classCode="SBADM" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.6"/> <!-- ... --> </substanceAdministration> </entryRelationship></pre> </td></tr> </table>					Constraint	At least one subordinate <substanceAdministration> element SHALL be present unless medications are unknown or known absent.</substanceAdministration>				Example	<pre><entryRelationship typeCode="COMP"> <!-- component: Subordinate Substance Administration Statement. --> <substanceAdministration classCode="SBADM" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.6"/> <!-- ... --> </substanceAdministration> </entryRelationship></pre>			
Constraint	At least one subordinate <substanceAdministration> element SHALL be present unless medications are unknown or known absent.</substanceAdministration>													
Example	<pre><entryRelationship typeCode="COMP"> <!-- component: Subordinate Substance Administration Statement. --> <substanceAdministration classCode="SBADM" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.6"/> <!-- ... --> </substanceAdministration> </entryRelationship></pre>													
L h17:sequenceNumber	INT	0 ... 1	Sequence number of the Subordinate Substance Administration.	Medi...ment										
L h17:entryRelationship		0 ... * R	<p>Medication Order Reference.</p> <p>Contains 2.16.840.1.113883.10.21.4.8 UV Medication Order Reference (DYNAMIC)</p>	Medi...ment										
where [@typeCode='REFR' and exists(hl7:substanceAdministration)]														
L @typeCode	cs	1 ... 1 F	REFR											
<table border="1"> <tr> <td>Example</td> <td colspan="4"> <pre><entryRelationship typeCode="REFR"> <substanceAdministration classCode="SBADM" moodCode="RQO"> <templateId root="2.16.840.1.113883.10.21.4.8"/> <!-- ... --> </substanceAdministration> </entryRelationship></pre> </td></tr> </table>					Example	<pre><entryRelationship typeCode="REFR"> <substanceAdministration classCode="SBADM" moodCode="RQO"> <templateId root="2.16.840.1.113883.10.21.4.8"/> <!-- ... --> </substanceAdministration> </entryRelationship></pre>								
Example	<pre><entryRelationship typeCode="REFR"> <substanceAdministration classCode="SBADM" moodCode="RQO"> <templateId root="2.16.840.1.113883.10.21.4.8"/> <!-- ... --> </substanceAdministration> </entryRelationship></pre>													

└ hl7:entryRelationship	0 ... * R	Dispense Event Reference. Contains 2.16.840.1.113883.10.21.4.9 UV Dispense Event Reference (DYNAMIC)	Medicament
where [@typeCode='REFR' and exists(hl7:supply)]			
└ @typeCode	cs	1 ... 1 F	REFR
Example <pre><entryRelationship typeCode="REFR"> <supply classCode="SPLY" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.9"/> <!-- .. --> </supply> </entryRelationship></pre>			
Elements to choose from:			
<ul style="list-style-type: none"> ▪ hl7:entryRelationship[@typeCode='RSON' and exists(hl7:observation)] containing template 2.16.840.1.113883.10.21.4.3 UV ClinicalStatement Observation (DYNAMIC) ▪ hl7:entryRelationship[@typeCode='RSON' and exists(hl7:act)] containing template 2.16.840.1.113883.10.22.4.31 IPS Internal Reference (DYNAMIC) 			
<i>Choice</i>			
└ hl7:entryRelationship	0 ... * R	Reason: Specifies the reason (indication) for authoring the order. Contains 2.16.840.1.113883.10.21.4.3 UV ClinicalStatement Observation (DYNAMIC)	Medicament
where [@typeCode='RSON' and exists(hl7:observation)]			
└ @typeCode	cs	1 ... 1 F	RSON
Example <pre><cda:entryRelationship typeCode="RSON"> <priorityNumber value="1"/> <!-- template 2.16.840.1.113883.10.21.4.3 'UV ClinicalStatement Observation' (2016-05-01T00:00:00) --> </cda:entryRelationship></pre>			
└ pharm:priorityNumber	INT.NONNEG	0 ... 1 R	Indicates the priority of this reason for the order in relation to its sibling reasons.
└ hl7:entryRelationship	0 ... * R	Reason: Specifies the reason (indication) for authoring the order. Contains 2.16.840.1.113883.10.22.4.31 IPS Internal Reference (DYNAMIC)	Medicament
where [@typeCode='RSON' and exists(hl7:act)]			

L @typeCode	CS	1 ... 1 F	RSON	
Example			<pre><entryRelationship typeCode="RSON"> <prioritNumber value="1"/> <act> <!-- Clinical Statement Minimal --> </act> </entryRelationship></pre>	
L pharm:priorityNumber	INT.NONNEG	0 ... 1 R	Indicates the priority of this reason for the order in relation to its sibling reasons.	Medi...ment

5.1.3 UV Medication Administration

The following graph gives an overview of the high-level template components of this template, followed by the actual definition.



- Entry UV Content (2.16.840.1.113883.10.21.4.17)
- Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)
- Entry UV Content (2.16.840.1.113883.10.21.4.17)
- Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)
- Entry UV Content (2.16.840.1.113883.10.21.4.17)
- Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)
- Entry UV Content (2.16.840.1.113883.10.21.4.17)
- Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)
- Entry UV Ingredient (2.16.840.1.113883.10.21.4.18)
- * CDA Organization (2.16.840.1.113883.10.12.151)
- Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)
- * CDA Person (2.16.840.1.113883.10.12.152)

- CDA Device (2.16.840.1.113883.10.12.315)
- CDA Organization (2.16.840.1.113883.10.12.151)
- CDA AssignedEntity (2.16.840.1.113883.10.12.153)
 - CDA Person (2.16.840.1.113883.10.12.152)
 - CDA Organization (2.16.840.1.113883.10.12.151)
- CDA RelatedEntity (2.16.840.1.113883.10.12.316)
 - CDA Person (2.16.840.1.113883.10.12.152)
- CDA Participant (Body) (2.16.840.1.113883.10.12.321)
 - CDA Device (2.16.840.1.113883.10.12.315)
 - CDA PlayingEntity (2.16.840.1.113883.10.12.313)
- CDA Participant (Body) (2.16.840.1.113883.10.12.321)
 - CDA Device (2.16.840.1.113883.10.12.315)
 - CDA PlayingEntity (2.16.840.1.113883.10.12.313)
- CDA Participant (Body) (2.16.840.1.113883.10.12.321)

- Entry CDA Device (2.16.840.1.113883.10.12.315)
- Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)
- Entry UV Subordinate Substance Administration (2.16.840.1.113883.10.21.4.6)
- Entry UV Substitution Event Adminstration (2.16.840.1.113883.10.21.4.14)
- Entry UV Medication Order Reference (2.16.840.1.113883.10.21.4.8)
- Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)
 - * CDA Person (2.16.840.1.113883.10.12.152)
 - Entry CDA Device (2.16.840.1.113883.10.12.315)
 - * CDA Organization (2.16.840.1.113883.10.12.151)
- Entry UV Dispense Event Reference (2.16.840.1.113883.10.21.4.9)
- Entry UV ClinicalStatement Observation (2.16.840.1.113883.10.21.4.3)
 - Entry CDA Subject (Body) (2.16.840.1.113883.10.12.320)
 - Entry CDA Specimen (2.16.840.1.113883.10.12.322)
 - Entry CDA Performer (Body) (2.16.840.1.113883.10.12.323)
 - * CDA AssignedEntity (2.16.840.1.113883.10.12.153)

* CDA Person (2.16.840.1.113883.10.12.152)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Device (2.16.840.1.113883.10.12.315)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Informant (Body) (2.16.840.1.113883.10.12.319)

* CDA AssignedEntity (2.16.840.1.113883.10.12.153)

* CDA Person (2.16.840.1.113883.10.12.152)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA RelatedEntity (2.16.840.1.113883.10.12.316)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

- Entry CDA Device (2.16.840.1.113883.10.12.315)
- Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)
- Entry CDA Reference (2.16.840.1.113883.10.12.324)
 - Entry CDA ExternalAct (2.16.840.1.113883.10.12.325)
 - Entry CDA ExternalObservation (2.16.840.1.113883.10.12.326)
 - Entry CDA ExternalProcedure (2.16.840.1.113883.10.12.327)
 - Entry CDA ExternalDocument (2.16.840.1.113883.10.12.328)
- Entry CDA Precondition (2.16.840.1.113883.10.12.329)
- Entry IPS Internal Reference (2.16.840.1.113883.10.22.4.31)

The boxes reflect the CDA Template Types. Symbols: * denotes templates with more than one classification, @ indicates a recursion in the definition

Id	2.16.840.1.113883.10.21.4.13	Effective Date	2023-01-30 08:31:37 Other versions this id:
Status	 Draft	Version Label	2023

Name	UVMedicationadministration	Display Name	UV Medication Administration	
Description				
Universal Medication Administration: This includes information about an actual administration of a medication. Medication administrations include information about medication use where the medications have been prescribed or not prescribed. Medication administrations may include "negative" statements such as "the patient was not given medication ABC". Due to implementation experience, dosage information is always put into the subordinate substance administration entries.				
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.13			
Label	MedicationAdministration			
Classification	CDA Entry Level Template			
Open/Closed	Open (other than defined elements are allowed)			
Uses 14 templates				
Uses	Uses	as	Name	Version
	2.16.840.1.113883.10.21.9.1	Include	UV Use Period (2023)	DYNAMIC
	2.16.840.1.113883.10.12.320	Containment	CDA Subject (Body)	DYNAMIC
	2.16.840.1.113883.10.21.4.10	Containment	UV Medication Information (simple) (R1-STU2-ballot)	DYNAMIC
	2.16.840.1.113883.10.21.4.11	Containment	UV Medication Information (detail) (2023)	DYNAMIC
	2.16.840.1.113883.10.12.318	Containment	CDA Author (Body)	DYNAMIC
	2.16.840.1.113883.10.12.153	Containment	CDA AssignedEntity	DYNAMIC
	2.16.840.1.113883.10.12.316	Containment	CDA RelatedEntity	DYNAMIC
	2.16.840.1.113883.10.12.321	Containment	CDA Participant (Body)	DYNAMIC
	2.16.840.1.113883.10.21.4.6	Containment	UV Subordinate Substance Administration (2023)	DYNAMIC
	2.16.840.1.113883.10.21.4.14	Containment	UV Substitution Event Adminstration (2023)	DYNAMIC
	2.16.840.1.113883.10.21.4.8	Containment	UV Medication Order Reference (R1-STU2-ballot)	DYNAMIC
	2.16.840.1.113883.10.21.4.9	Containment	UV Dispense Event Reference (R1-STU2-ballot)	DYNAMIC
	2.16.840.1.113883.10.21.4.3	Containment	UV ClinicalStatement Observation (R1-STU2-ballot)	DYNAMIC

	2.16.840.1.113883.10.22.4.31 Containment  IPS Internal Reference (STU1)	DYNAMIC
Relationship	Version: template 2.16.840.1.113883.10.21.4.13 UV Medication Administration (2019-02-17) Specialization: template 2.16.840.1.113883.10.12.308 CDA SubstanceAdministration (2005-09-07) ref ad1bbrr-	
Example	<p>Example</p> <pre><substanceAdministration classCode="SBADM" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.13"/> <id root="1.2.3.99.99.99" extension="988437489739"/> <code code="DRUG" codeSystem="2.16.840.1.113883.5.4"/> <text>...</text> <statusCode code="active"/> <effectiveTime value="..."/> <repeatNumber value="..."/> <routeCode code="SOAK" codeSystem="2.16.840.1.113883.5.112" displayName="Immersion (soak)"/> <approachSiteCode code="..." codeSystem="2.16.840.1.113883.5.1052"/> <administrationUnitCode code="PUFF" displayName="Puff" codeSystem="2.16.840.1.113883.5.85"/> <consumable typeCode="CSM"> <!-- Consumable --> </consumable> <participant typeCode="DEV"> <!-- Device --> </participant> <participant typeCode="LOC"> <!-- Location --> </participant> <entryRelationship typeCode="COMP"> <!-- Subordinate Substance Administrations --> </entryRelationship> <entryRelationship typeCode="COMP"> <!-- Annotations --> </entryRelationship> <precondition> <!-- Precondition --> </precondition> </substanceAdministration></pre>	
Example	<p>Example</p> <pre><substanceAdministration classCode="SBADM" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.13"/> <id root="1.2.3.999" extension="--example only--"/> <code code="DRUG" codeSystem="2.16.840.1.113883.5.4"/> <text>...</text> <statusCode code="active"/></pre>	

```

<!-- include template 'UV Use Period' (dynamic) .. 0 -->
<routeCode code="SOAK" displayName="Immersion (soak)" codeSystem="2.16.840.1.113883.5.112"/>
<approachSiteCode code="--code--" codeSystem="2.16.840.1.113883.5.1052"/>
<administrationUnitCode code="APPFUL" displayName="Applicatorful" codeSystem="2.16.840.1.113883.5.85"/>
<subject>
  <!-- template 'CDA Subject (Body)' (dynamic) -->
</subject>
<consumable typeCode="CSM">
  <!-- template 2.16.840.1.113883.10.12.312 'CDA ManufacturedProduct' (dynamic) -->
</consumable>
  <!-- choice: 1..1
element h17:author
element h17:participant[@typeCode='AUT']
-->
<participant typeCode="RCT">
  <!-- template 2.16.840.1.113883.10.12.321 'CDA Participant (Body)' (dynamic) -->
</participant>
<participant typeCode="VRF">
  <!-- template 2.16.840.1.113883.10.12.321 'CDA Participant (Body)' (dynamic) -->
</participant>
<entryRelationship typeCode="COMP">
  <sequenceNumber value="1"/>
  <!-- template 2.16.840.1.113883.10.21.4.6 'Subordinate Substance Administration' (dynamic) -->
</entryRelationship>
<entryRelationship typeCode="REFR">
  <!-- template 2.16.840.1.113883.10.21.4.8 'UV Medication Order Reference' (dynamic) -->
</entryRelationship>
<entryRelationship typeCode="REFR">
  <!-- template 2.16.840.1.113883.10.21.4.9 'UV Dispense Event Reference' (dynamic) -->
</entryRelationship>
</substanceAdministration>

```

Item	DT	Card	Conf	Description	Label
h17:substanceAdministration					Med...tion
└ @classCode	CS	1 ... 1	F	SBADM	
└ @moodCode	CS	1 ... 1	F	EVN	
└ h17:templateId	II	1 ... 1	M		Med...tion
└ @root	uid	1 ... 1	F	2.16.840.1.113883.10.21.4.13	

L hl7:id	II	0 ... * R	Medi...tion
	Constraint	If the use case requires updates on the order, the ID shall be made mandatory.	
L hl7:code	CD (extensible)	0 ... 1	The code element is valorized with the ACT code from the indicated value set unless it is used for asserting the known absence of medication treatments or no information about them.
	CONF	The value of @code should be drawn from value set 2.16.840.1.113883.1.11.19708 <i>ActSubstanceAdministrationCode</i> (DYNAMIC) or The value of @code should be drawn from value set 2.16.840.1.113883.11.21.5 <i>Unknown or absent medication</i> (DYNAMIC)	Medi...tion
L hl7:text	ED	0 ... 1	Medi...tion
L hl7:statusCode	CS (required)	1 ... 1 M	Medi...tion
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.15933 <i>ActStatus</i> (DYNAMIC) from 2.16.840.1.113883.10.21.9.1 <i>UV Use Period</i> (DYNAMIC)	
<i>Included</i>			
<i>Choice</i>			
		1 ... 1	The effectiveTime element encodes the use period of the medication, it is always expressed as an interval of time. It may be expressed using the low and high OR with the width element. The first is used to indicate a specified interval (e.g. from march 15th, 2017); the latter for indicating a 'floating' period (e.g. 2 weeks). Elements to choose from:
			<ul style="list-style-type: none"> ▪ hl7:effectiveTime[hl7:low hl7:high] ▪ hl7:effectiveTime[hl7:width] ▪ hl7:effectiveTime[hl7:low hl7:width]
L hl7:effectiveTime	IVL_TS	0 ... 1 C	Case 1: specified interval
			Medi...tion

where [hl7:low or
hl7:high]

@nullFlavor

CS 0 ... 1

Example	Known Interval <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high value="20140321"/> </effectiveTime></pre>
Example	Information not available about the period <pre><effectiveTime type="IVL_TS" nullFlavor="NI"/></pre>
Example	Unknown end date <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high nullFlavor="UNK"/> </effectiveTime></pre>

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.

In case of unbounded period (continuous therapy) the high element will be valued with the nullFlavor attribute to NA.

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 a prescription that has not been refilled 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.

	Example	continuous therapy <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high nullFlavor="NA"/> </effectiveTime></pre>	
└ h17:low	IVXB_TS	1 ... 1 R	Medi...tion
└ h17:high	IVXB_TS	0 ... 1 R	Medi...tion
└ h17:effectiveTime	IVL_TS	0 ... 1 C	<p>Case 2: 'floating' period: The width element is used to specify a period of (actual or intended) administration that is not anchored to any specific date (e.g. a two weeks therapy)</p>
where [h17:width]			
	Example	2 week period <pre><effectiveTime type="IVL_TS"> <width value="2" unit="w"/> </effectiveTime></pre>	
└ h17:low		NP	Medi...tion
└ h17:high		NP	Medi...tion
└ h17:center		NP	Medi...tion
└ h17:width	PQ	1 ... 1 R	Medi...tion
└ @unit	CS	1 ... 1 R	
	CONF	The value of @unit shall be drawn from value set 2.16.840.1.113883.11.21.1 Medication Time Units (UCUM) (DYNAMIC)	
└ h17:effectiveTime	IVL_TS	0 ... 1 C	<p>Case 3: anchored period: The width element is used to specify a period of (actual or intended) administration anchored to a specific date (e.g. a two weeks therapy starting today)</p>
where [h17:low or h17:width]			
	Example	2 week period starting on 2013-03-21	

			<effectiveTime type="IVL_TS"> <low value="20130321"/> <width value="2" unit="w"/> </effectiveTime>
└ h17:low	IVXB_TS	0 ... 1 C	Medication
└ h17:width	PQ	1 ... 1 R	Medication
└ @unit	CS	1 ... 1 R	
	CONF	The value of @unit shall be drawn from value set 2.16.840.1.113883.11.21.1 Medication Time Units (UCUM) (DYNAMIC)	
└ h17:repeatNumber	IVL_INT	0 ... 1	Medication
└ h17:routeCode	CE (example)	0 ... 1	Medication
	CONF	Examples of the value of @code are in the value set 2.16.840.1.113883.1.11.14581 RouteOfAdministration (DYNAMIC)	
└ h17:approachSiteCode	CD (example)	0 ... *	Medication
	CONF	Examples of the value of @code are in the value set 2.16.840.1.113883.1.11.19724 HumanSubstanceAdministrationSite (DYNAMIC)	
└ h17:doseQuantity	IVL_PQ	NP	Medication
└ h17:rateQuantity	IVL_PQ	NP	Medication
└ h17:maxDoseQuantity	RTO_PQ_PQ	0 ... 1	Medication
└ h17:administrationUnitCode	CE	NP	Medication
└ h17:subject		0 ... 1 C	Patient: The patient that takes the medicine. Contains 2.16.840.1.113883.10.12.320 CDA Subject (Body) (DYNAMIC)
	Constraint	Condition: This can be omitted if the patient context that is provided in the CDA header is identical to the subject	Medication

			Elements to choose from:
Choice	1 ... 1		<ul style="list-style-type: none"> ▪ hl7:consumable containing template 2.16.840.1.113883.10.21.4.10 <i>UV Medication Information (simple)</i> (DYNAMIC) ▪ hl7:consumable containing template 2.16.840.1.113883.10.21.4.11 <i>UV Medication Information (detail)</i> (DYNAMIC)
		0 ... 1 R	Consumable: The medication that is administered (simple) Contains 2.16.840.1.113883.10.21.4.10 <i>UV Medication Information (simple)</i> (DYNAMIC) Medi...tion
		1 ... 1 F	CSM
		0 ... 1 R	Consumable: The medication that is administered (detail) Contains 2.16.840.1.113883.10.21.4.11 <i>UV Medication Information (detail)</i> (DY- Medi...tion NAMIC)
		1 ... 1 F	CSM
Choice	1 ... 1		<p>Required author of the medication administration: healthcare professional or patient</p> <p>Elements to choose from:</p> <ul style="list-style-type: none"> ▪ hl7:author containing template 2.16.840.1.113883.10.12.318 <i>CDA Author (Body)</i> (DYNAMIC) ▪ hl7:participant[@typeCode='AUT']
			Use this if the author of the medication statement is a healthcare professional Contains 2.16.840.1.113883.10.12.318 <i>CDA Author (Body)</i> (DYNAMIC) Medi...tion
Example			<p>Author of the medication statement is a healthcare professional</p> <pre><author> <time value="20170221"/> <assignedAuthor> <id root="1.2.3.99.99.99" extension="75487435893498"/> <assignedPerson> <name> <given qualifier="IN">Ampu</given> <prefix qualifier="VV">L.</prefix> <family>Lee</family> </name></pre>

			</assignedPerson> </assignedAuthor> </author>	
└ hl7:participant			Use this if the author of the medication administration is the patient	Med...tion
where [@typeCode='AUT']				
└ @typeCode	cs	1 ... 1 F	AUT	
	Example		Author of the medication statement is the patient <participant typeCode="AUT"> <time value="20170121091548"/> <participantRole classCode="PAT"/> </participant>	
└ hl7:time	TS	1 ... 1 R		Med...tion
└ hl7:participantRole		1 ... 1 M		Med...tion
└ @classCode	cs	1 ... 1 F	PAT	
			Optional informants of the medication administration: healthcare professional or patient contact party (related party) Elements to choose from:	
Choice		0 ... 1	<ul style="list-style-type: none"> ▪ hl7:informant[exists(hl7:assignedEntity)] ▪ hl7:participant[@typeCode='INF'] ▪ hl7:informant[exists(hl7:relatedEntity)] 	
└ hl7:informant			Use this if the informant of the medication statement is a healthcare professional	Med...tion
where [exists(hl7:assignedEntity)]			al	
└ @typeCode	cs	0 ... 1 F	INF	
└ @contextControlCode	cs	0 ... 1 F	OP	

			Informant of the medication statement is a healthcare professional	
	Example		<pre><informant> <assignedEntity> <id root="1.2.3.99.99.99" extension="75487435893498"/> <assignedPerson> <name> <given qualifier="IN">Ampu</given> <prefix qualifier="VV">L.</prefix> <family>Lee</family> </name> </assignedPerson> </assignedEntity> </informant></pre>	
	└ h17:assignedEntity	1 ... 1	Contains 2.16.840.1.113883.10.12.153 CDA AssignedEntity (DYNAMIC)	Mediation
	└ h17:participant		Use this if the informant of the medication statement is the patient	Mediation
where [@typeCode='INF']				
	└ @typeCode	CS	1 ... 1 F INF	
	Example		Informant of the medication statement is the patient	
			<pre><participant typeCode="INF"> <time value="20170121091548"/> <participantRole classCode="PAT"/> </participant></pre>	
	└ h17:time	TS	1 ... 1 R	Mediation
	└ h17:participantRole		1 ... 1 M	Mediation
	└ @classCode	CS	1 ... 1 F PAT	
	└ h17:informant		Use this if the informant of the medication statement is a contact party (related party)	Mediation
where [exists(h17:relatedEntity)]				
	└ @typeCode	CS	0 ... 1 F INF	
	└ @contextControlCode	CS	0 ... 1 F OP	

<p>Example</p> <pre> <informant> <relatedEntity classCode="AGNT"> <relatedPerson classCode="PSN" determinerCode="INSTANCE"> <name> <!-- .. --> </name> </relatedPerson> </relatedEntity> </informant></pre>	<p>Informant of the medication statement is a contact party (related party)</p>
<p>└ h17:relatedEntity</p>	<p>1 ... 1 Contains 2.16.840.1.113883.10.12.316 <i>CDA RelatedEntity (DYNAMIC)</i> Medi...tion</p>
<p>└ h17:participant</p>	<p>0 ... 1 Record Target: indicates the person who's medical record holds the documentation of this medication statement. This element is only populated when the document is placed in a medical record of someone other than the patient (subject). Contains 2.16.840.1.113883.10.12.321 <i>CDA Participant (Body) (DYNAMIC)</i> Medi...tion</p>
<p>where [<i>@typeCode='RCT'</i>]</p>	
<p>└ @typeCode</p>	<p>cs 1 ... 1 F RCT</p>
<p>└ h17:participant</p>	<p>0 ... 1 Verifier: The person or organization that has primary responsibility for the medication statement. The responsible party is not necessarily present in an action, but is accountable for the action through the power to delegate. Contains 2.16.840.1.113883.10.12.321 <i>CDA Participant (Body) (DYNAMIC)</i> Medi...tion</p>
<p>where [<i>@typeCode='VRF'</i>]</p>	
<p>└ @typeCode</p>	<p>cs 1 ... 1 F VRF</p>
<p>└ h17:participant</p>	<p>0 ... 1 Location Contains 2.16.840.1.113883.10.12.321 <i>CDA Participant (Body) (DYNAMIC)</i> Medi...tion</p>
<p>where [<i>@typeCode='LOC'</i>]</p>	
<p>└ @typeCode</p>	<p>cs 1 ... 1 F LOC</p>
<p>└ h17:entryRelationship</p>	<p>0 ... * C Subordinate Substance Administration Statement as a component of the overall medication statement. At least one subordinated <substanceAdministration> has to be present to convey information about dosages (dose, frequency of intakes,...) unless medica- Medi...tion</p>

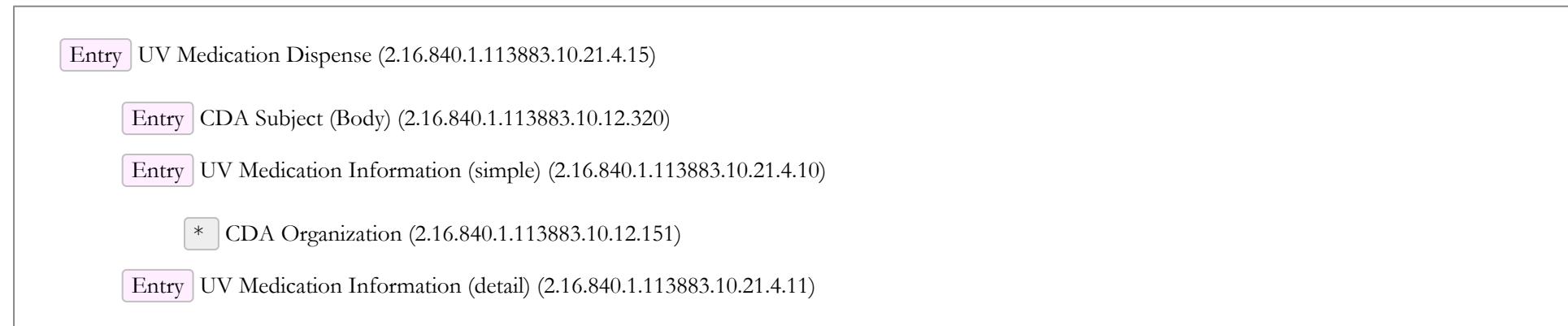
			tions are unknown or known absent. Subordinated <substanceAdministration> elements can be also used either to handle split dosing, or to support combination medications. Contains 2.16.840.1.113883.10.21.4.6 UV Subordinate Substance Administration (DYNAMIC)	
where [hl7:substanceAdministration]				
<ul style="list-style-type: none"> └ @typeCode 	cs	1 ... 1 F	COMP	
	Constraint	At least one subordinate <substanceAdministration> element SHALL be present unless medications are unknown or known absent.</substanceAdministration>		
	Example	<pre><entryRelationship typeCode="COMP"> <!-- component: Subordinate Substance Administration Statement. --> <substanceAdministration classCode="SBADM" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.6"/> <!-- .. --> </substanceAdministration> </entryRelationship></pre>		
<ul style="list-style-type: none"> └ hl7:sequenceNumber 	INT	0 ... 1	Sequence number of the Subordinate Substance Administration.	Med...tion
<ul style="list-style-type: none"> └ hl7:entryRelationship 		0 ... 1 R	Information about any substitutions in medication that have been made. Contains 2.16.840.1.113883.10.21.4.14 UV Substitution Event Adminstration (DYNAMIC)	Med...tion
where [@typeCode='COMP']				
<ul style="list-style-type: none"> └ @typeCode 	cs	1 ... 1 F	COMP	
	Example	<pre><entryRelationship typeCode="COMP"> <act classCode="ACT" moodCode="EVN"> <!-- .. --> </act> </entryRelationship></pre>		
<ul style="list-style-type: none"> └ hl7:entryRelationship 		0 ... * R	Medication Order Reference. Contains 2.16.840.1.113883.10.21.4.8 UV Medication Order Reference (DYNAMIC)	Med...tion
where [@typeCode='REFR'] [hl7:substanceAdministration]				
<ul style="list-style-type: none"> └ @typeCode 	cs	1 ... 1 F	REFR	

Example				
↳ hl7:entryRelationship	0 ... * R	Dispense Event Reference. Contains 2.16.840.1.113883.10.21.4.9 <i>UV Dispense Event Reference (DYNAMIC)</i>		Medication
where <code>[@typeCode='REFR']</code> [<code>[hl7:supply]</code>]				
↳ @typeCode	CS	1 ... 1 F	REFR	
Example				
Choice	0 ... *	Elements to choose from:		
		<ul style="list-style-type: none"> ▪ hl7:entryRelationship containing template 2.16.840.1.113883.10.21.4.3 <i>UV ClinicalStatement Observation (DYNAMIC)</i> ▪ hl7:entryRelationship containing template 2.16.840.1.113883.10.22.4.31 <i>IPS Internal Reference (DYNAMIC)</i> 		
↳ hl7:entryRelationship	0 ... * R	Reason: Specifies the reason (indication) for authoring the order. Contains 2.16.840.1.113883.10.21.4.3 <i>UV ClinicalStatement Observation (DYNAMIC)</i>		Medication
↳ @typeCode	CS	1 ... 1 F	RSON	
Example				
↳ pharm:priorityNumber	INT.NONNEG	0 ... 1 R	Indicates the priority of this reason for the order in relation to its sibling reasons.	Medication

└ h17:entryRelationship	0 ... * R	Reason: Specifies the reason (indication) for authoring the order. Contains 2.16.840.1.113883.10.22.4.31 <i>IPS Internal Reference (DYNAMIC)</i>	Medi...tion
└ @typeCode	cs	1 ... 1 F	RSON
Example	<pre><entryRelationship typeCode="RSON"> <priorityNumber value="1"/> <act> <!-- Clinical Statement Minimal --> </act> </entryRelationship></pre>		
└ pharm:priorityNumber	INT.NONNEG	0 ... 1 R	Indicates the priority of this reason for the order in relation to its sibling reasons. Medi...tion

5.1.4 UV Medication Dispense

The following graph gives an overview of the high-level template components of this template, followed by the actual definition.



- Entry UV Content (2.16.840.1.113883.10.21.4.17)
- Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)
- Entry UV Content (2.16.840.1.113883.10.21.4.17)
- Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)
- Entry UV Content (2.16.840.1.113883.10.21.4.17)
- Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)
- Entry UV Content (2.16.840.1.113883.10.21.4.17)
- Entry UV Generalized Medicine Class (2.16.840.1.113883.10.21.4.19)
- Entry UV Ingredient (2.16.840.1.113883.10.21.4.18)
- * CDA Organization (2.16.840.1.113883.10.12.151)
- Entry CDA Performer (Body) (2.16.840.1.113883.10.12.323)
- * CDA AssignedEntity (2.16.840.1.113883.10.12.153)

* CDA Person (2.16.840.1.113883.10.12.152)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry CDA Participant (Body) (2.16.840.1.113883.10.12.321)

Entry CDA Device (2.16.840.1.113883.10.12.315)

Entry CDA PlayingEntity (2.16.840.1.113883.10.12.313)

Entry UV Medication Order Reference (2.16.840.1.113883.10.21.4.8)

Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Device (2.16.840.1.113883.10.12.315)

* CDA Organization (2.16.840.1.113883.10.12.151)

Entry UV Comment Activity (2.16.840.1.113883.10.21.4.12)

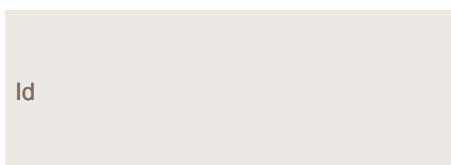
Entry CDA Author (Body) (2.16.840.1.113883.10.12.318)

* CDA Person (2.16.840.1.113883.10.12.152)

Entry CDA Device (2.16.840.1.113883.10.12.315)

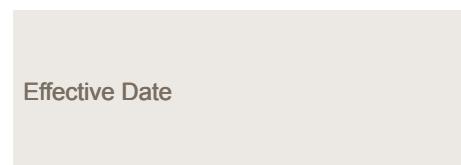
* CDA Organization (2.16.840.1.113883.10.12.151)

The boxes reflect the CDA Template Types. Symbols: * denotes templates with more than one classification, @ indicates a recursion in the definition



Id

2.16.840.1.113883.10.21.4.15



Effective Date

2023-01-30 08:33:47

Other versions this id:

- UVMedicationDispense as of 2023-01-30 08:28:25

Status	Draft	Version Label	UVMedicationDispense as of 2021-08-04 16:35:09 UVMedicationDispense as of 2019-02-17																																
Name	UVMedicationDispense	Display Name	UV Medication Dispense																																
Description	Universal Medication Dispense (Supply Event)																																		
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.15																																		
Classification	CDA Entry Level Template																																		
Open/Closed	Open (other than defined elements are allowed)																																		
Uses	<p>Uses 7 templates</p> <table border="1"> <thead> <tr> <th>Uses</th> <th>as</th> <th>Name</th> <th>Version</th> </tr> </thead> <tbody> <tr> <td>2.16.840.1.113883.10.12.320</td> <td>Containment</td> <td>CDA Subject (Body)</td> <td>DYNAMIC</td> </tr> <tr> <td>2.16.840.1.113883.10.21.4.10</td> <td>Containment</td> <td>UV Medication Information (simple) (R1-STU2-ballot)</td> <td>DYNAMIC</td> </tr> <tr> <td>2.16.840.1.113883.10.21.4.11</td> <td>Containment</td> <td>UV Medication Information (detail) (2023)</td> <td>DYNAMIC</td> </tr> <tr> <td>2.16.840.1.113883.10.12.323</td> <td>Containment</td> <td>CDA Performer (Body)</td> <td>DYNAMIC</td> </tr> <tr> <td>2.16.840.1.113883.10.12.321</td> <td>Containment</td> <td>CDA Participant (Body)</td> <td>DYNAMIC</td> </tr> <tr> <td>2.16.840.1.113883.10.21.4.8</td> <td>Containment</td> <td>UV Medication Order Reference (R1-STU2-ballot)</td> <td>DYNAMIC</td> </tr> <tr> <td>2.16.840.1.113883.10.21.4.12</td> <td>Containment</td> <td>UV Comment Activity (R1-STU2-ballot)</td> <td>DYNAMIC</td> </tr> </tbody> </table>			Uses	as	Name	Version	2.16.840.1.113883.10.12.320	Containment	CDA Subject (Body)	DYNAMIC	2.16.840.1.113883.10.21.4.10	Containment	UV Medication Information (simple) (R1-STU2-ballot)	DYNAMIC	2.16.840.1.113883.10.21.4.11	Containment	UV Medication Information (detail) (2023)	DYNAMIC	2.16.840.1.113883.10.12.323	Containment	CDA Performer (Body)	DYNAMIC	2.16.840.1.113883.10.12.321	Containment	CDA Participant (Body)	DYNAMIC	2.16.840.1.113883.10.21.4.8	Containment	UV Medication Order Reference (R1-STU2-ballot)	DYNAMIC	2.16.840.1.113883.10.21.4.12	Containment	UV Comment Activity (R1-STU2-ballot)	DYNAMIC
Uses	as	Name	Version																																
2.16.840.1.113883.10.12.320	Containment	CDA Subject (Body)	DYNAMIC																																
2.16.840.1.113883.10.21.4.10	Containment	UV Medication Information (simple) (R1-STU2-ballot)	DYNAMIC																																
2.16.840.1.113883.10.21.4.11	Containment	UV Medication Information (detail) (2023)	DYNAMIC																																
2.16.840.1.113883.10.12.323	Containment	CDA Performer (Body)	DYNAMIC																																
2.16.840.1.113883.10.12.321	Containment	CDA Participant (Body)	DYNAMIC																																
2.16.840.1.113883.10.21.4.8	Containment	UV Medication Order Reference (R1-STU2-ballot)	DYNAMIC																																
2.16.840.1.113883.10.21.4.12	Containment	UV Comment Activity (R1-STU2-ballot)	DYNAMIC																																
Relationship	<p>Version: template 2.16.840.1.113883.10.21.4.15 <i>UV Medication Dispense</i> (2021-08-04 16:35:09) Specialization: template 2.16.840.1.113883.10.12.309 <i>CDA Supply</i> (2005-09-07) [ref ad1bbr]</p>																																		
Example	<p>Example</p> <pre><supply classCode="SPLY" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.15"/></pre>																																		

```

<id root="..." extension="--example only--"/>
<code/>
<text/>
<statusCode code="active"/>
<effectiveTime value="20170601"/>
<independentInd value="false"/>
<quantity value="1"/>
<expectedUseTime>
  <low value="20170601"/>
  <low value="20170615"/>
</expectedUseTime>
<subject>
  <!-- template 'CDA Subject (Body)' (dynamic) -->
</subject>
<product typeCode="PRD">
  <!-- template 'CDA ManufacturedProduct' (dynamic) -->
</product>
<performer>
  <!-- template 'CDA Performer (Body)' (dynamic) -->
</performer>
<participant typeCode="ORG">
  <!-- template 'CDA Participant (Body)' (dynamic) -->
</participant>
<participant typeCode="DST">
  <!-- template 'CDA Participant (Body)' (dynamic) -->
</participant>
<participant typeCode="RCV">
  <!-- template 'CDA Participant (Body)' (dynamic) -->
</participant>
<participant typeCode="LOC">
  <!-- template 'CDA Participant (Body)' (dynamic) -->
</participant>
<entryRelationship typeCode="COMP">
  <!-- template 'DispenseRequest' (dynamic) -->
</entryRelationship>
</supply>

```

Item	DT	Card	Conf	Description	Label
h17:supply					(UVM...nse)
└ @classCode	CS	1 ... 1	F	SPLY	
└ @moodCode	CS	1 ... 1	F	EVN	

└ hl7:templateId	II	1 ... 1 M	(UVM...nse)
└ @root	uid	1 ... 1 F	2.16.840.1.113883.10.21.4.15
└ hl7:id	II	0 ... *	(UVM...nse)
└ hl7:code	CD (extensible)	0 ... 1	(UVM...nse)
	CONF	The value of @code should be drawn from value set 2.16.840.1.113883.1.11.16208 <i>ActPharmacySupplyType</i> (DYNAMIC)	
└ hl7:text	ED	0 ... 1	(UVM...nse)
└ hl7:statusCode	CS	0 ... 1	(UVM...nse)
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.15933 <i>ActStatus</i> (DYNAMIC)	
└ hl7:effectiveTime	TS	0 ... 1	Date/Time of Dispense (UVM...nse)
└ hl7:independentInd	BL	0 ... 1	(UVM...nse)
└ hl7:quantity	PQ	0 ... 1	(UVM...nse)
└ hl7:expectedUseTime	IVL_TS	0 ... 1	(UVM...nse)
└ hl7:subject	0 ... 1	Contains 2.16.840.1.113883.10.12.320 <i>CDA Subject (Body)</i> (DYNAMIC)	(UVM...nse)
Choice			
	0 ... 1	Elements to choose from:	
		<ul style="list-style-type: none"> ▪ hl7:product containing template 2.16.840.1.113883.10.21.4.10 <i>UV Medication Information (simple)</i> (DYNAMIC) ▪ hl7:product containing template 2.16.840.1.113883.10.21.4.11 <i>UV Medication Information (detail)</i> (DYNAMIC) 	

└ h17:product		0 ... 1 R	Consumable: The medication that is administered (simple) Contains 2.16.840.1.113883.10.21.4.10 <i>UV Medication Information (simple)</i> (DYNAMIC)	(UVM...nse)
└ @typeCode	cs	1 ... 1 F	PRD	
└ h17:product		0 ... 1 R	Consumable: The medication that is administered (detail) Contains 2.16.840.1.113883.10.21.4.11 <i>UV Medication Information (detail)</i> (DYNAMIC)	(UVM...nse)
└ @typeCode	cs	1 ... 1 F	PRD	
└ h17:performer		0 ... *	Dispenser Contains 2.16.840.1.113883.10.12.323 <i>CDA Performer (Body)</i> (DYNAMIC)	(UVM...nse)
└ h17:participant		0 ... 1	Origin Contains 2.16.840.1.113883.10.12.321 <i>CDA Participant (Body)</i> (DYNAMIC)	(UVM...nse)
└ @typeCode	cs	1 ... 1 F	ORG	
└ h17:participant		0 ... 1	Destination Contains 2.16.840.1.113883.10.12.321 <i>CDA Participant (Body)</i> (DYNAMIC)	(UVM...nse)
where [@typeCode='DST']				
└ @typeCode	cs	1 ... 1 F	DST	
└ h17:participant		0 ... *	Receiver Contains 2.16.840.1.113883.10.12.321 <i>CDA Participant (Body)</i> (DYNAMIC)	(UVM...nse)
where [@typeCode='RCV']				
└ @typeCode	cs	1 ... 1 F	RCV	
└ h17:participant		0 ... 1	Location Contains 2.16.840.1.113883.10.12.321 <i>CDA Participant (Body)</i> (DYNAMIC)	(UVM...nse)
where [@typeCode='LOC']				
└ @typeCode	cs	1 ... 1 F	LOC	
└ h17:entryRelationship		0 ... * R	Reference to the fulfilled Medication Order Contains 2.16.840.1.113883.10.21.4.8 <i>UV Medication Order Reference</i> (DY-	(UVM...nse)

			NAMIC)
where [@typeCode='REFR'] [hl7:substanceAdministration]			
└ @typeCode	cs	1 ... 1 F	REFR
Example			<pre><entryRelationship typeCode="REFR"> <substanceAdministration classCode="SBADM" moodCode="RQO"> <templateId root="2.16.840.1.113883.10.21.4.8"/> <!-- .. --> </substanceAdministration> </entryRelationship></pre>
└ hl7:entryRelationship		0 ... *	<p>Annotations: The Medication Dispense can be the subject of annotations. Contains 2.16.840.1.113883.10.21.4.12 UV Comment Activity (DYNAMIC) (UVM...nse)</p>
└ @typeCode	cs	1 ... 1 F	COMP

5.2 Entry Level Templates

These entry level templates are used Section "Use Case Entry Level Templates".

5.2.1 UV ClinicalStatement Encounter

Id	2.16.840.1.113883.10.21.4.4	Effective Date	2017-01-02
Status	🟡 Under pre-publication review	Version Label	R1-STU2-ballot
Name	UVClinicalStatementMinimalEncounter	Display Name	UV ClinicalStatement Encounter
Description	Universal Clinical Statement Minimal Encounter		

Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.4
Classification	CDA Entry Level Template
Open/Closed	Open (other than defined elements are allowed)
Relationship	Specialization: template 2.16.840.1.113883.10.12.302 CDA <i>Encounter</i> (2005-09-07) ref ad1bbref Adaptation: template 2.16.840.1.113883.10.20.22.4.49 <i>Encounter Activity (V3) (DYNAMIC)</i> ref ccda-

Item	DT	Card	Conf	Description	Label
h17:encounter					(UVC...ter)
└ @classCode	cs	1 ... 1	F	ENC	
└ @moodCode	cs	1 ... 1	F	EVN	
h17:templateId	II	1 ... 1	R		(UVC...ter)
└ @root	uid	1 ... 1	F	2.16.840.1.113883.10.21.4.4	
h17:id	II	0 ... *			(UVC...ter)

5.2.2 UV ClinicalStatement Observation

Id	2.16.840.1.113883.10.21.4.3	Effective Date	2016-05-01
Status	🟡 Under pre-publication review	Version Label	R1-STU2-ballot
Name	UVClinicalStatementMinimalObservation	Display Name	UV ClinicalStatement Observation
Description	Universal Clinical Statement Minimal Observation		

Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.3				
Classification	CDA Entry Level Template				
Open/Closed	Open (other than defined elements are allowed)				
	Uses 8 templates				
Uses	Uses	as	Name	Version	
	2.16.840.1.113883.10.12.320	Containment	● CDA Subject (Body)	DYNAMIC	
	2.16.840.1.113883.10.12.322	Containment	● CDA Specimen	DYNAMIC	
	2.16.840.1.113883.10.12.323	Containment	● CDA Performer (Body)	DYNAMIC	
	2.16.840.1.113883.10.12.318	Containment	● CDA Author (Body)	DYNAMIC	
	2.16.840.1.113883.10.12.319	Containment	● CDA Informant (Body)	DYNAMIC	
	2.16.840.1.113883.10.12.321	Containment	● CDA Participant (Body)	DYNAMIC	
	2.16.840.1.113883.10.12.324	Containment	● CDA Reference	DYNAMIC	
	2.16.840.1.113883.10.12.329	Containment	● CDA Precondition	DYNAMIC	
Relationship	Specialization: template 2.16.840.1.113883.10.12.303 CDA Observation (2005-09-07) ref ad1bbr-				
	Item	DT	Card	Conf Description	Label
	h17:observation				(UVC...ion)
	└ @classCode	cs	1 ... 1 F	OBS	
	└ @moodCode	cs	1 ... 1 F	EVN	
	└ @negationInd	bl	0 ... 1		
	└ h17:templateId	II	1 ... 1 R		(UVC...ion)
	└ @root	uid	1 ... 1 F	2.16.840.1.113883.10.21.4.3	

└ h17:id	II	0 ... *	(UVC...ion)
└ h17:code	CD	1 ... 1 R	This code (e.g. drawn from LOINC) specifies the type of observation, e.g. a lab value (creatinine) or a measurement of the body weight or a body surface. (UVC...ion)
	CONF	shall be drawn from concept domain "ObservationCode"	
└ h17:derivationExpr	ST	0 ... 1	(UVC...ion)
└ h17:text	ED	0 ... 1	(UVC...ion)
└ h17:statusCode	CS	0 ... 1	(UVC...ion)
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.15933 <i>ActStatus</i> (DYNAMIC)	
└ h17:effectiveTime	IVL_TS	0 ... 1	(UVC...ion)
└ h17:priorityCode	CE	0 ... 1	(UVC...ion)
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.16866 <i>ActPriority</i> (DYNAMIC)	
└ h17:repeatNumber	IVL_INT	0 ... 1	(UVC...ion)
└ h17:languageCode	CS	0 ... 1	(UVC...ion)
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.11526 <i>HumanLanguage</i> (DYNAMIC)	
└ h17:value	ANY	0 ... *	(UVC...ion)
└ h17:interpretationCode	CE	0 ... *	(UVC...ion)
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.78 <i>ObservationInterpretation</i> (DYNAMIC)	
└ h17:methodCode	CE	0 ... *	(UVC...ion)

	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.14079 <i>Observation-Method</i> (DYNAMIC)		
└ h17:targetSiteCode	CD	0 ... *		(UVC...ion)
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.19724 <i>HumanSubstanceAdministrationSite</i> (DYNAMIC)		
└ h17:subject		0 ... 1	Contains 2.16.840.1.113883.10.12.320 <i>CDA Subject (Body)</i> (DYNAMIC)	(UVC...ion)
└ h17:specimen		0 ... *	Contains 2.16.840.1.113883.10.12.322 <i>CDA Specimen</i> (DYNAMIC)	(UVC...ion)
└ h17:performer		0 ... *	Contains 2.16.840.1.113883.10.12.323 <i>CDA Performer (Body)</i> (DYNAMIC)	(UVC...ion)
└ h17:author		0 ... *	Contains 2.16.840.1.113883.10.12.318 <i>CDA Author (Body)</i> (DYNAMIC)	(UVC...ion)
└ h17:informant		0 ... *	Contains 2.16.840.1.113883.10.12.319 <i>CDA Informant (Body)</i> (DYNAMIC)	(UVC...ion)
└ h17:participant		0 ... *	Contains 2.16.840.1.113883.10.12.321 <i>CDA Participant (Body)</i> (DYNAMIC)	(UVC...ion)
└ h17:reference		0 ... *	Contains 2.16.840.1.113883.10.12.324 <i>CDA Reference</i> (DYNAMIC)	(UVC...ion)
└ h17:precondition		0 ... *	Contains 2.16.840.1.113883.10.12.329 <i>CDA Precondition</i> (DYNAMIC)	(UVC...ion)
└ h17:referenceRange		0 ... *		(UVC...ion)
└ @typeCode	CS	1 ... 1 F	REFV	
└ h17:observationRange		1 ... 1 R		(UVC...ion)
└ @classCode	CS	0 ... 1 F	OBS	
└ @moodCode	CS	0 ... 1 F	EVN.CRT	
└ h17:code	CD	0 ... 1		(UVC...ion)

L @codeSystem	CONF	0 ... 1 F	2.16.840.1.113883.5.4 (Act Code)
L h17:text	ED	0 ... 1	(UVC...ion)
L h17:value	ANY	0 ... 1	(UVC...ion)
L h17:interpretationCode	CE	0 ... 1	(UVC...ion)
			CONF The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.78 <i>ObservationInterpretation (DYNAMIC)</i>

5.2.3 UV Comment Activity

Id	2.16.840.1.113883.10.21.4.12	Effective Date	2018-03-21
Status	Under pre-publication review	Version Label	R1-STU2-ballot
Name	UVCommentactivity	Display Name	UV Comment Activity
Description			
Comments that the provider makes about the activity, e.g. order or dispense. Comments are free text data that cannot otherwise be recorded using data elements already defined by this specification. They are not to be used to record information that can be recorded elsewhere. For example, a free text description of the severity of an allergic reaction would not be recorded in a comment.			
Classification	CDA Entry Level Template		
Open/Closed	Open (other than defined elements are allowed)		
Uses	Uses 1 template		
	Uses	as	Name
			Version

	2.16.840.1.113883.10.12.318 Containment	 CDA Author (Body)	DYNAMIC
Relationship	Specialization: template 2.16.840.1.113883.10.12.301 CDA Act (2005-09-07) ref ad1bbr-		
Item	DT	Card	Conf Description Label
h17:act			(UVC...ity)
└ @classCode		1 ... 1 F	ACT
└ @moodCode		1 ... 1 F	EVN
└ h17:templateId	II	1 ... 1 M	(UVC...ity)
└ @root	uid	1 ... 1 F	2.16.840.1.113883.10.21.4.12
└ h17:code	CD	1 ... 1 M	(UVC...ity)
└ @code	CONF	1 ... 1 F	48767-8
└ @codeSystem		1 ... 1 F	2.16.840.1.113883.6.1 (LOINC)
└ h17:text		1 ... 1 M	(UVC...ity)
└ h17:reference	TEL	1 ... 1 R	(UVC...ity)
└ @nullFlavor	cs	0 ... 1 F	NA
└ h17:author		0 ... 1	Contains 2.16.840.1.113883.10.12.318 CDA Author (Body) (DYNAMIC) (UVC...ity)

5.2.4 UV Content

Id	2.16.840.1.113883.10.21.4.17	Effective Date	2022-03-18 08:28:51
Status	🟡 Under pre-publication review	Version Label	R1-STU2-ballot
Name	UVasContent	Display Name	UV Content
Classification	CDA Entry Level Template		
Open/Closed	Open (other than defined elements are allowed)		

Item	DT	Card	Conf	Description	Label
pharm:quantity	PQ	0 ... 1	R	The quantity which specified how many inner packaged content entities are in an outer packaging container entity.	(UVa...ent)
pharm:containerPackagedProduct		1 ... 1	R		(UVa...ent)
└ @classCode	cs	1 ... 1	F	CONT	
└ @determinerCode	cs	1 ... 1	F	KIND	
└ pharm:code	CE	0 ... 1		It represents the code of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used to convey the Packaged Medicinal Product ID.	(UVa...ent)
└ pharm:name	EN	0 ... *		It represents the Name of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used for the brand name.	(UVa...ent)
└ pharm:formCode	CE	0 ... 1		This element encodes the type of the most inner package item or of the or the Packaged Medicinal Product.	(UVa...ent)
└ pharm:capacityQuantity	PQ	0 ... 1		Captures the number of product units the package would contain if fully loaded.	(UVa...ent)
└ @value		1 ... 1	R		
└ @unit	cs	0 ... 1			
└ pharm:asContent		0 ... *		In case of multiple layers of packaging (5 vials 10 ml; box with 2 blisters of 20 tablets) this element can be used for describing the intermediate Packaged Medicin-	(UVa...ent)

nal Product Item or the Packaged Medicinal Product.

For example in the case

```
\--Box
\----2 blisters
\-----20 tablets
```

it describes the "2 blisters"

In the case of

```
\--Box
\----5 vials
```

it represents the Packaged Medicinal Product.

L @classCode	cs 1 ... 1 F	CONT	
L pharm:quantity	PQ 0 ... 1 R	The quantity which specified how many inner packaged content entities are in an outer packaging container entity.	(UVa...ent)
L pharm:containerPackagedProduct	1 ... 1 R	It represents the intermediate Package Item or the Packaged Medicinal Product	(UVa...ent)
L @classCode	cs 1 ... 1 F	CONT	
L @determinerCode	cs 1 ... 1 F	KIND	
L pharm:code	CD 0 ... 1	It represents the code of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used to convey the Packaged Medicinal Product ID.	(UVa...ent)
L pharm:name	ST 0 ... 1 R	It represents the Name of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used for the brand name.	(UVa...ent)
L pharm:formCode	CE 1 ... 1 R	This element encodes the type of the intermediate package item or of the or the Packaged Medicinal Product.	(UVa...ent)

└ pharm:capacityQuantity	PQ 0 ... 1	Captures the number of product units the package would contain if fully loaded.	(UVa...ent)
└ @value	1 ... 1 R		
└ @unit	cs 0 ... 1		
└ pharm:asContent	0 ... * R	In case of multiple layers of packaging (box with 2 blisters of 20 tablets) this element is used for describing the most outer Packaged Medicinal Product Item or the Packaged Medicinal Product. For example in the case └--Box └---2 blisters └-----20 tablets it describes the Packaged Medicinal Product.	(UVa...ent)
└ @classCode	cs 1 ... 1 F	CONT	
└ pharm:quantity	PQ 0 ... 1 R		(UVa...ent)
└ pharm:containerPackagedProduct	1 ... 1 R	When present, it represents the Packaged Medicinal Product	(UVa...ent)
└ @classCode	cs 1 ... 1 F	CONT	
└ @determinerCode	cs 1 ... 1 F	KIND	
└ pharm:code	CD 0 ... 1	When present, it can be used to convey the Packaged Medicinal Product ID.	(UVa...ent)
└ pharm:name	ST 0 ... 1 R		(UVa...ent)
└ pharm:formCode	CE 1 ... 1 R		(UVa...ent)
└ pharm:capacityQuantity	PQ 0 ... 1	Captures the number of product units the package would contain if fully loaded.	(UVa...ent)
└ @value	1 ... 1 R		

└ @unit

cs 0 ... 1

5.2.5 UV Dispense Request

Id	2.16.840.1.113883.10.21.4.2	Effective Date	2016-05-01
Status	🟡 Under pre-publication review	Version Label	R1-STU2-ballot
Name	UVDispenseRequest	Display Name	UV Dispense Request
Description	Universal Dispense Request (Supply Request)		
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.2		
Classification	CDA Entry Level Template		
Open/Closed	Open (other than defined elements are allowed)		
Uses 4 templates			
Uses	Uses	as	Name
	2.16.840.1.113883.10.12.320	Containment	🟢 CDA Subject (Body)
	2.16.840.1.113883.10.12.312	Containment	🟢 CDA ManufacturedProduct
	2.16.840.1.113883.10.12.323	Containment	🟢 CDA Performer (Body)
	2.16.840.1.113883.10.12.321	Containment	🟢 CDA Participant (Body)
Relationship	Specialization: template 2.16.840.1.113883.10.12.309 <i>CDA Supply</i> (2005-09-07) <small>ref ad1bbr-</small>		

Example

```

<supply classCode="SPLY" moodCode="RQO">
  <templateId root="2.16.840.1.113883.10.21.4.2"/>
  <id root="..." extension="--example only--"/>
  <code/>
  <text/>
  <statusCode code="active"/>
  <effectiveTime xsi:type="IVL_TS">
    <low value="20170601"/>
    <high value="20170801"/>
  </effectiveTime>
  <repeatNumber/>
  <independentInd value="false"/>
  <quantity value="1"/>
  <expectedUseTime>
    <low value="20160511153724"/>
  </expectedUseTime>
  <subject>
    <!-- template 'CDA Subject (Body)' (dynamic) -->
  </subject>
  <product typeCode="PRD">
    <!-- template 'CDA ManufacturedProduct' (dynamic) -->
  </product>
  <performer>
    <!-- template 'CDA Performer (Body)' (dynamic) -->
  </performer>
  <participant typeCode="ORG">
    <!-- template 'CDA Participant (Body)' (dynamic) -->
  </participant>
  <participant typeCode="DST">
    <!-- template 'CDA Participant (Body)' (dynamic) -->
  </participant>
  <participant typeCode="RCV">
    <!-- template 'CDA Participant (Body)' (dynamic) -->
  </participant>
  <participant typeCode="LOC">
    <!-- template 'CDA Participant (Body)' (dynamic) -->
  </participant>
  <entryRelationship typeCode="COMP">
    <!-- template 'DispenseRequest' (dynamic) -->
  </entryRelationship>
</supply>

```

Item	DT	Card	Conf	Description	Label
h17:supply					(UVD...est)

└ @classCode	CS	1 ... 1 F	SPLY	
└ @moodCode	CS	1 ... 1 F	RQO	
└ hl7:templateId	II	1 ... 1 M		(UVD...est)
└ @root	uid	1 ... 1 F	2.16.840.1.113883.10.21.4.2	
└ hl7:id	II	0 ... *		(UVD...est)
└ hl7:code	CD (extensible)	0 ... 1		(UVD...est)
	CONF	The value of @code should be drawn from value set 2.16.840.1.113883.1.11.16208 ActPharmacySupplyType (DYNAMIC)		
└ hl7:text	ED	0 ... 1		(UVD...est)
└ hl7:statusCode	CS	0 ... 1		(UVD...est)
└ @code	CONF	0 ... 1 F	active	
└ hl7:effectiveTime	IVL_TS	0 ... 1	Validity period of the Dispense Request	(UVD...est)
└ hl7:repeatNumber	IVL_INT	0 ... 1		(UVD...est)
└ hl7:independentInd	BL	0 ... 1		(UVD...est)
└ hl7:quantity	PQ	0 ... 1		(UVD...est)
└ hl7:expectedUseTime	IVL_TS	0 ... 1		(UVD...est)
└ hl7:subject		0 ... 1	Contains 2.16.840.1.113883.10.12.320 CDA Subject (Body) (DYNAMIC)	(UVD...est)
└ hl7:product		0 ... 1 R	Contains 2.16.840.1.113883.10.12.312 CDA ManufacturedProduct (DYNAMIC)	(UVD...est)

L @typeCode	cs	0 ... 1 F	PRD	
L h17:performer		0 ... *	Contains 2.16.840.1.113883.10.12.323 CDA Performer (Body) (DYNAMIC)	(UVD...est)
L h17:participant		0 ... 1	Origin Contains 2.16.840.1.113883.10.12.321 CDA Participant (Body) (DYNAMIC)	(UVD...est)
L @typeCode		1 ... 1 F	ORG	
L h17:participant		0 ... 1	Destination Contains 2.16.840.1.113883.10.12.321 CDA Participant (Body) (DYNAMIC)	(UVD...est)
where [@typeCode='DST']				
L @typeCode		1 ... 1 F	DST	
L h17:participant		0 ... *	Receiver Contains 2.16.840.1.113883.10.12.321 CDA Participant (Body) (DYNAMIC)	(UVD...est)
where [@typeCode='RCV']				
L @typeCode		1 ... 1 F	RCV	
L h17:participant		0 ... 1	Location Contains 2.16.840.1.113883.10.12.321 CDA Participant (Body) (DYNAMIC)	(UVD...est)
where [@typeCode='LOC']				
L @typeCode		1 ... 1 F	LOC	

5.2.6 UV Dispense Event Reference

Id	2.16.840.1.113883.10.21.4.9	Effective Date	2017-03-30
Status	Under pre-publication review	Version Label	R1-STU2-ballot

Name	UVDispenseEventReference	Display Name	UV Dispense Event Reference		
Description	This is a reference to a Dispense Event				
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.9				
Label	DispenseEventReference				
Classification	CDA Entry Level Template				
Open/Closed	Open (other than defined elements are allowed)				
Relationship	Specialization: template 2.16.840.1.113883.10.12.309 CDA Supply (2005-09-07) ref ad1bbr-				
Example	<p>Example</p> <pre><supply classCode="SPLY" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.9"/> <id root="1.2.3.99.99.99" extension="978437489739"/> </supply></pre>				
Item	DT	Card	Conf	Description	Label
h17:supply					Disp...ence
└ @classCode	cs	1 ... 1	F	SPLY	
└ @moodCode	cs	1 ... 1	F	EVN	
h17:templateID	II	1 ... 1	M		Disp...ence
└ @root	uid	1 ... 1	F	2.16.840.1.113883.10.21.4.9	
h17:id	II	1 ... 1	R		Disp...ence

5.2.7 UV Generalized Medicine Class

Id	2.16.840.1.113883.10.21.4.19	Effective Date	2023-01-29 21:57:12 Other versions this id:		
Status	 Draft	Version Label	2023		
Name	UVgeneralizedMedicineClass	Display Name	UV Generalized Medicine Class		
Classification	CDA Entry Level Template				
Open/Closed	Open (other than defined elements are allowed)				
Relationship	Version: template 2.16.840.1.113883.10.21.4.19 UV Generalized Medicine Class (2022-03-18 08:39:53)				
Item	DT	Card	Conf	Description	Label
pharm:generalizedMedicineClass		0 ... *			(UVg...ass)
└ @classCode	cs	1 ... 1	F	MMAT	
└ @determinerCode	cs	1 ... 1	F	KIND	
└ pharm:code		1 ... 1	R		(UVg...ass)
└ pharm:name		0 ... *			(UVg...ass)

5.2.8 UV Ingredient

Id	2.16.840.1.113883.10.21.4.18	Effective Date	2022-03-18 08:34:40
Status	🟡 Under pre-publication review	Version Label	R1-STU2-ballot
Name	UVIngredient	Display Name	UV Ingredient
Classification	CDA Entry Level Template		
Open/Closed	Open (other than defined elements are allowed)		
Item	DT	Card	Conf Description Label
pharm:quantity	RTO_PQ_PQ	0 ... 1	(UVI...ent)
	Example	10 mg of the ingredient per ml <code><pharm:quantity><numerator xsi:type="PQ" value="10" unit="mg"/><denominator xsi:type="PQ" value="1" unit="ml"/></code>	
	Example	2% of the ingredient <code><pharm:quantity><numerator xsi:type="PQ" value="2" unit="%"/><denominator xsi:type="PQ" value="1"/></code>	
	Example	5mg of the ingredient <code><pharm:quantity><numerator xsi:type="PQ" value="5" unit="mg"/><denominator xsi:type="PQ" value="1"/></code>	
└ pharm:numerator	PQ	0 ... 1	(UVI...ent)
└ pharm:denominator	PQ	0 ... 1	(UVI...ent)

pharm:ingredientSubstance		0 ... 1		The substance used for this product playing the role indicated in the ingredient classCode. The <code> element contains the coded representation of the ingredient and the <name> element may be used for the plain text representation.
└ @classCode	cs	1 ... 1	F	MMAT
└ @determinerCode	cs	1 ... 1	F	KIND
└ pharm:code	CD	0 ... 1	C	(UVI...ent)
└ pharm:name	EN	0 ... 1	C	(UVI...ent)
	Schematron assert	role test	error pharm:code or pharm:name	
		Message	Either the name or the code of the substance (or both) shall be provided	

5.2.9 UV Medication Information (detail)

Id	2.16.840.1.113883.10.21.4.11	Effective Date	2023-02-03 13:03:38 Other versions this id:
Status	 Draft	Version Label	<ul style="list-style-type: none"> ▪ <input type="radio"/> UVMedicationInformationdetail as of 2021-08-04 12:39:04 ▪ <input type="radio"/> UVMedicationInformationdetail as of 2017-05-10
Name	UVMedicationInformationdetail	Display Name	UV Medication Information (detail)

Description	Universal Medication Information (detail)																								
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.11																								
Classification	CDA Entry Level Template																								
Open/Closed	Open (other than defined elements are allowed)																								
Uses	<p>Uses 4 templates</p> <table border="1"> <thead> <tr> <th>Uses</th> <th>as</th> <th>Name</th> <th>Version</th> </tr> </thead> <tbody> <tr> <td>2.16.840.1.113883.10.21.4.17</td> <td>Include</td> <td>UV Content (R1-STU2-ballot)</td> <td>DYNAMIC</td> </tr> <tr> <td>2.16.840.1.113883.10.21.4.19</td> <td>Include</td> <td>UV Generalized Medicine Class (2023)</td> <td>DYNAMIC</td> </tr> <tr> <td>2.16.840.1.113883.10.21.4.18</td> <td>Include</td> <td>UV Ingredient (R1-STU2-ballot)</td> <td>DYNAMIC</td> </tr> <tr> <td>2.16.840.1.113883.10.12.151</td> <td>Containment</td> <td>CDA Organization</td> <td>DYNAMIC</td> </tr> </tbody> </table>					Uses	as	Name	Version	2.16.840.1.113883.10.21.4.17	Include	UV Content (R1-STU2-ballot)	DYNAMIC	2.16.840.1.113883.10.21.4.19	Include	UV Generalized Medicine Class (2023)	DYNAMIC	2.16.840.1.113883.10.21.4.18	Include	UV Ingredient (R1-STU2-ballot)	DYNAMIC	2.16.840.1.113883.10.12.151	Containment	CDA Organization	DYNAMIC
Uses	as	Name	Version																						
2.16.840.1.113883.10.21.4.17	Include	UV Content (R1-STU2-ballot)	DYNAMIC																						
2.16.840.1.113883.10.21.4.19	Include	UV Generalized Medicine Class (2023)	DYNAMIC																						
2.16.840.1.113883.10.21.4.18	Include	UV Ingredient (R1-STU2-ballot)	DYNAMIC																						
2.16.840.1.113883.10.12.151	Containment	CDA Organization	DYNAMIC																						
Relationship	<p>Version: template 2.16.840.1.113883.10.21.4.11 <i>UV Medication Information (detail)</i> (2017-05-10) Specialization: template 2.16.840.1.113883.10.12.312 <i>CDA ManufacturedProduct</i> (2005-09-07) ref ad1bbref Adaptation: template 1.3.6.1.4.1.19376.1.9.1.3.1 <i>IHE MedicineEntryContentModule</i> (DYNAMIC) ref ch-pharm-</p>																								
Item	DT	Card	Conf	Description	Label																				
h17:manufacturedProduct					(UVM...ail)																				
└ @classCode	cs	1 ... 1	F	MANU																					
└ h17:templateId	II	1 ... 1	M		(UVM...ail)																				
└ @root	uid	1 ... 1	F	2.16.840.1.113883.10.21.4.11																					
└ h17:manufacturedMaterial					(UVM...ail)																				
└ @classCode	cs	0 ... 1	F	MMAT																					

		cs	0 ... 1	F	KIND
└ @determinerCode					The code describes the code of the medication. The medication may be either
└ h17:code	CE	0 ... 1	R	(UVM...ail)	<ul style="list-style-type: none"> ▪ a brand/product or ▪ described as a generic/scientific name or ▪ a descriptor of a magistral preparation/compound medicine
└ h17:originalText	ED	0 ... 1	R	(UVM...ail)	The originalText shoud contain a reference whose URI value points to the name and strength of the medication in the corresponding section.text, or just the name alone if strength is not relevant.
└ h17:reference	TEL	1 ... 1	R	(UVM...ail)	
└ h17:translation	CE	0 ... *		(UVM...ail)	Product code(s) from any organizational or jurisdictional system
	CONF	shall be drawn from concept domain "Product Code"			
└ h17:name	EN	0 ... 1	R	(UVM...ail)	The element SHOULD contain the name of the medication (e.g., "Adol 500mg Caplet"). The medication may be either <ul style="list-style-type: none"> ▪ a brand/product or ▪ described as a generic/scientific name or ▪ a descriptor of a magistral preparation/compound medicine
└ pharm:desc	ED	0 ... 1		(UVM...ail)	

L pharm:formCode	CE	0 ... 1	This code represents the pharmaceutical dose form (e.g., tablet, capsule, liquid) and SHOULD be present, if not implied by the product. It MAY be present if implied by the product. The value of this code may affect the units used in the substance administration quantity element.
L hl7:lotNumberText	ST	0 ... 1	The lotNumberText element MAY be present and is a string representation of a lot number of this specific instance of the product. The provided lot number SHALL refer to the primary packaged item described in the Packaging element.
L pharm:expirationTime	TS	0 ... 1	The pharm:expirationTime element MAY be present and SHALL contain a value attribute containing the date (e.g., specific date, specific date including time) of expiration of this specific instance of the product. The value given in the pharm:expirationTime element SHALL refer to the primary packaged item described in the Medicine Packaging element.
L @value		1 ... 1 R	
L pharm:asContent		0 ... *	This structure describes the packaging of the medication. It represents the primary description of the packaging of the medicine (e.g., the medicine is packaged in ampoules of 50ml volume each) and may include additional packaging information of how many of the primary packaged items are within an outer package (e.g., 5 ampoules are packaged in a box). The primary description of the package should be consistent with the given pharmaceutical dose form (pharm:formCode of

the medication). Example: a consistent pharmaceutical dose form to the package form "Ampoules" would be e.g., "Solution for injection".

In case the package describes a product, the pharm:code element provides the code for the product.

In case the package describes a product, and the package has a brand name, it should be described in the pharm:name element (e.g., Xylocaine 1% with Adrenaline Inj, 5 injections package).

The pharm:formCode element represents the form of the product/container (e.g., tablet container, bottle, ...).

The <pharm:capacityQuantity> element describes the capacity of the packaging, while the <pharm:quantity> the actual quantity of inner packaged items in the outer packaging container.

The product might have a single (30 pills bottle) or multiple (5 vials 10 ml; box with 2 blisters of 20 tablets) layers of packaging. In the latter case, the most inner (nested) item represents the most outer package item.

For example the case
 \--Box
 \----2 blisters
 \-----20 tablets

is described as "20 tablets" contained by "a blister"; "2 blisters" contained by one box. The most inner package represents the Packaged Medicinal Product.

@classCode

cs

1 ... 1

F

CONT

Example

Packaged Medicinal Product with formCode

```
<asContent classCode="CONT">
  <containerPackagedProduct classCode="CONT" determinerCode="KIND">
    <!-- Packaged Medicinal Product -->
    <code codeSystem="1.999.999" code="PC_ID" displayName="Packaged
Product Name"/>
    <name>100 MIRACLE PILLS(TM)</name>
    <formCode codeSystem="0.4.0.127.0.16.1.1.2.1" code="30009000"
displayName="Box" CodeSystemName="EDQM"/>
  </containerPackagedProduct>
</asContent>
```

Example

General example

```
<asContent classCode="CONT">
  <quantity value=" " unit=" "/>
  <containerPackagedProduct classCode="CONT" determinerCode="KIND">
    <!-- Medicinal product code (package-level) -->
    <code code=" " displayName=" " codeSystem=" " codeSystemName="
"/>
    <!-- Brand name (package) -->
    <name> . . . </name>
    <formCode code=" " displayName=" " codeSystem=" " codeSystem-
Name=" "/>
    <capacityQuantity value=" " unit=" "/>
    <asContent>
      <containerPackagedProduct classCode="CONT" determiner-
Code="KIND">
        <capacityQuantity value=" " unit=" "/>
      </containerPackagedProduct>
    </asContent>
  </containerPackagedProduct>
</asContent>
```

Example

Medicinal product with pharmaceutical dose form "Tablets", available as a "Tablet container" with 30 tablets

```
<asContent classCode="CONT">
  <!-- 30 tablets in the package -->
  <quantity value="30" unit="{tablet}"/>
  <containerPackagedProduct classCode="CONT" determinerCode="KIND">
    <!-- .. -->
```

Included

```

<formCode code="" displayName="Tablet container" codeSystem="" codeSystemName="" />
</containerPackagedProduct>
</asContent>

Medicinal product with pharmaceutical dose form 'Solution for injection', available as "Ampoules" with 50ml volume, packaged as 5 ampoules per box
<asContent classCode="CONT">
<quantity value="50" unit="ml"/>
<!-- 50ml per ampoule -->
<containerPackagedProduct classCode="CONT" determinerCode="KIND">
<!-- .. -->
<formCode code="" displayName="Ampoules" codeSystem="" codeSystemName="" />
<asContent>
<!-- 5 ampoules in a box -->
<quantity value="5"/>
<containerPackagedProduct classCode="CONT" determinerCode="KIND">
<!-- .. -->
</containerPackagedProduct>
</asContent>
</containerPackagedProduct>
</asContent>

Packaged Medicinal Product with multiple layers packaging
<asContent classCode="CONT">
<containerPackagedProduct>
<!-- Inner Package -->
<code codeSystem="..." code="..." displayName="..."/>
<asContent>
<containerPackagedProduct>
<!-- Intermediate Package -->
<asContent>
<containerPackagedProduct>
<!-- Outer Package / Packaged Medicinal Product -->
</containerPackagedProduct>
</asContent>
</containerPackagedProduct>
</asContent>
</containerPackagedProduct>
</asContent>

```

Example

Example

from 2.16.840.1.113883.10.21.4.17 UV Content (DYNAMIC)

└ pharm:quantity	PQ	0 ... 1	R	The quantity which specified how many inner packaged content entities are in an outer packaging container entity.	(UVM...ail)
└ pharm:containerPackagedProduct		1 ... 1	R		(UVM...ail)
└ @classCode	CS	1 ... 1	F	CONT	
└ @determinerCode	CS	1 ... 1	F	KIND	
└ pharm:code	CE	0 ... 1		It represents the code of the Package Item or of the Packaged Medicinal Product.	
				If this is also the most outer <pharm:containerPackagedProduct> than this element can be used to convey the Packaged Medicinal Product ID.	(UVM...ail)
└ pharm:name	EN	0 ... *		It represents the Name of the Package Item or of the Packaged Medicinal Product.	
				If this is also the most outer <pharm:containerPackagedProduct> than this element can be used for the brand name.	(UVM...ail)
└ pharm:formCode	CE	0 ... 1		This element encodes the type of the most inner package item or of the or the Packaged Medicinal Product.	
└ pharm:capacityQuantity	PQ	0 ... 1		Captures the number of product units the package would contain if fully loaded.	
└ @value		1 ... 1	R		
└ @unit	CS	0 ... 1			
└ pharm:asContent		0 ... *		In case of multiple layers of packaging (5 vials 10 ml; box with 2 blisters of 20 tablets) this element can be used for describing the intermediate Packaged Medicinal Product Item or the Packaged Medicinal Product.	
					(UVM...ail)

For example in the case

\--Box

\----2 blisters

\-----20 tablets

it describes the "2 blisters"

In the case of

\--Box

\----5 vials

it represents the Packaged Medicinal Product.

L @classCode		cs	1 ... 1	F	CONT
L pharm:quantity	PQ	0 ... 1	R	The quantity which specified how many inner packaged content entities are in an outer packaging container entity. (UVM...ail)	
L pharm:containerPackagedProduct		1 ... 1	R	It represents the intermediate Package Item or the Packaged Medicinal Product (UVM...ail)	
L @classCode	cs	1 ... 1	F	CONT	
L @determinerCode	cs	1 ... 1	F	KIND	
L pharm:code	CD	0 ... 1		<p>It represents the code of the Package Item or of the Packaged Medicinal Product.</p> <p>If this is also the most outer <pharm:containerPackagedProduct> than this element can be used to convey the Packaged Medicinal Product ID. (UVM...ail)</p>	

└ pharm:name	ST	0 ... 1	R	It represents the Name of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used for the brand name. (UVM...ail)
└ pharm:formCode	CE	1 ... 1	R	This element encodes the type of the intermediate package item or of the or the Packaged Medicinal Product. (UVM...ail)
└ pharm:capacityQuantity	PQ	0 ... 1		Captures the number of product units the package would contain if fully loaded. (UVM...ail)
└ @value		1 ... 1	R	
└ @unit	CS	0 ... 1		
└ pharm:asContent		0 ... *	R	In case of multiple layers of packaging (box with 2 blisters of 20 tablets) this element is used for describing the most outer Packaged Medicinal Product Item or the Packaged Medicinal Product. For example in the case └--Box └---2 blisters └-----20 tablets it describes the Packaged Medicinal Product. (UVM...ail)
└ @classCode	CS	1 ... 1	F	CONT
└ pharm:quantity	PQ	0 ... 1	R	(UVM...ail)
└ pharm:containerPackagedProduct		1 ... 1	R	When present, it represents the Packaged Medicinal Product (UVM...ail)
└ @classCode	CS	1 ... 1	F	CONT
└ @determinerCode	CS	1 ... 1	F	KIND

pharm:code	CD	0 ... 1	When present, it can be used to convey the Packaged Medicinal Product ID.	(UVM...ail)
pharm:name	ST	0 ... 1	R	(UVM...ail)
pharm:formCode	CE	1 ... 1	R	(UVM...ail)
pharm:capacityQuantity	PQ	0 ... 1	Captures the number of product units the package would contain if fully loaded.	(UVM...ail)
@value		1 ... 1	R	
@unit	CS	0 ... 1		
pharm:asSpecializedKind		0 ... *	R	The Medicinal Product can be classified according to various classification systems, which may be jurisdictional or international as for example the WHO ATC drug code, or the IDMP Pharmaceutical Product Identifier(s) (PhPID Set) when it will be available for use. The generalizedMaterialKind/code element is used to covey these codes.
@classCode	CS	1 ... 1	F	GRIC
Example		<pre><asSpecializedKind classCode="GRIC"> <generalizedMedicineClass classCode="MMAT"> <code code="" displayName="" codeSystem="" codeSystemName="" /> </generalizedMedicineClass> </asSpecializedKind></pre>		
<i>Included</i>	from 2.16.840.1.113883.10.21.4.19 UV Generalized Medicine Class (DYNAMIC)			
pharm:generalizedMedicineClass		0 ... *		(UVM...ail)
@classCode	CS	1 ... 1	F	MMAT

				KIND
└ @determinerCode		cs	1 ... 1	F
└ pharm:code			1 ... 1	R
└ pharm:name			0 ... *	(UVM...ail)
└ pharm:part			0 ... *	(UVM...ail)
└ @classCode		cs	1 ... 1	F
└ pharm:id		II	0 ... 1	(UVM...ail)
└ pharm:quantity		PQ	0 ... 1	(UVM...ail)
└ pharm:partProduct			1 ... 1	(UVM...ail)
└ pharm:code		CE	0 ... 1	(UVM...ail)
└ pharm:name		EN	0 ... 1	(UVM...ail)
└ pharm:desc		ED	0 ... 1	(UVM...ail)
└ pharm:formCode		CE	0 ... 1	(UVM...ail)
└ pharm:asContent			0 ... *	(UVM...ail)
└ @classCode		cs	1 ... 1	F
Included				from 2.16.840.1.113883.10.21.4.17 UV Content (DYNAMIC)
└ pharm:quantity	PQ	0 ... 1	R	The quantity which specified how many inner packaged content entities are in an outer packaging container entity.
└ pharm:containerPackagedProduct		1 ... 1	R	(UVM...ail)

└ @classCode	cs	1 ... 1	F	CONT
└ @determinerCode	cs	1 ... 1	F	KIND
└ pharm:code	CE	0 ... 1		It represents the code of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used to convey the Packaged Medicinal Product ID. (UVM...ail)
└ pharm:name	EN	0 ... *		It represents the Name of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used for the brand name. (UVM...ail)
└ pharm:formCode	CE	0 ... 1		This element encodes the type of the most inner package item or of the or the Packaged Medicinal Product. (UVM...ail)
└ pharm:capacityQuantity	PQ	0 ... 1		Captures the number of product units the package would contain if fully loaded. (UVM...ail)
└ @value		1 ... 1	R	
└ @unit	cs	0 ... 1		
└ pharm:asContent		0 ... *		In case of multiple layers of packaging (5 vials 10 ml; box with 2 blisters of 20 tablets) this element can be used for describing the intermediate Packaged Medicinal Product Item or the Packaged Medicinal Product. (UVM...ail)

For example in the case

\--Box

\----2 blisters

\-----20 tablets

it describes the "2 blisters"

In the case of

\--Box

\----5 vials

it represents the Packaged Medicinal Product.

<code>└ @classCode</code>	cs	1 ... 1	F	CONT	
<code>└ pharm:quantity</code>	PQ	0 ... 1	R	The quantity which specified how many inner packaged content entities are in an outer packaging container entity.	(UVM...ail)
<code>└ pharm:containerPackagedProduct</code>		1 ... 1	R	It represents the intermediate Package Item or the Packaged Medicinal Product	(UVM...ail)
<code> └ @classCode</code>	cs	1 ... 1	F	CONT	
<code> └ @determinerCode</code>	cs	1 ... 1	F	KIND	
<code> └ pharm:code</code>	CD	0 ... 1		It represents the code of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <code><pharm:containerPackagedProduct></code> than this element can be used to convey the Packaged Medicinal Product ID.	(UVM...ail)

pharm:name	ST	0 ... 1	R	It represents the Name of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used for the brand name. (UVM...ail)
pharm:formCode	CE	1 ... 1	R	This element encodes the type of the intermediate package item or of the or the Packaged Medicinal Product. (UVM...ail)
pharm:capacityQuantity	PQ	0 ... 1		Captures the number of product units the package would contain if fully loaded. (UVM...ail)
└ @value		1 ... 1	R	
└ @unit	CS	0 ... 1		
pharm:asContent		0 ... *	R	In case of multiple layers of packaging (box with 2 blisters of 20 tablets) this element is used for describing the most outer Packaged Medicinal Product Item or the Packaged Medicinal Product. For example in the case └--Box └---2 blisters └-----20 tablets it describes the Packaged Medicinal Product. (UVM...ail)
└ @classCode	CS	1 ... 1	F	CONT
pharm:quantity	PQ	0 ... 1	R	(UVM...ail)
pharm:containerPackagedProduct		1 ... 1	R	When present, it represents the Packaged Medicinal Product (UVM...ail)
└ @classCode	CS	1 ... 1	F	CONT
└ @determinerCode	CS	1 ... 1	F	KIND

	L pharm:code	CD	0 ... 1	When present, it can be used to convey the Packaged Medicinal Product ID.	(UVM...ail)
	L pharm:name	ST	0 ... 1	R	(UVM...ail)
	L pharm:formCode	CE	1 ... 1	R	(UVM...ail)
	L pharm:capacityQuantity	PQ	0 ... 1	Captures the number of product units the package would contain if fully loaded.	(UVM...ail)
	L @value		1 ... 1	R	
	L @unit	CS	0 ... 1		
	L pharm:asSpecializedKind		0 ... *		(UVM...ail)
<i>Included</i>		L @classCode	CS	1 ... 1	F GRIC
from 2.16.840.1.113883.10.21.4.19 <i>UV Generalized Medicine Class (DYNAMIC)</i>					
	L pharm:generalizedMedicineClass		0 ... *		(UVM...ail)
	L @classCode	CS	1 ... 1	F	MMAT
	L @determinerCode	CS	1 ... 1	F	KIND
	L pharm:code		1 ... 1	R	(UVM...ail)
	L pharm:name		0 ... *		(UVM...ail)
	L pharm:part		0 ... *		(UVM...ail)
	L @classCode	CS	1 ... 1	F	PART
	L pharm:id	II	0 ... 1		(UVM...ail)

└ pharm:quantity	PQ	0 ... 1	(UVM...ail)
└ pharm:partProduct		1 ... 1	(UVM...ail)
└ pharm:code	CE	0 ... 1	(UVM...ail)
└ pharm:name	EN	0 ... 1	(UVM...ail)
└ pharm:desc	ED	0 ... 1	(UVM...ail)
└ pharm:formCode	CE	0 ... 1	(UVM...ail)
└ pharm:asContent		0 ... *	(UVM...ail)
└ @classCode	cs	1 ... 1	F CONT
<i>Included</i>			from 2.16.840.1.113883.10.21.4.17 UV Content (DYNAMIC)
└ pharm:quantity	PQ	0 ... 1	R The quantity which specified how many inner packaged content entities are in an outer packaging container entity. (UVM...ail)
└ pharm:containerPackagedProduct		1 ... 1	R (UVM...ail)
└ @classCode	cs	1 ... 1	F CONT
└ @determinerCode	cs	1 ... 1	F KIND
└ pharm:code	CE	0 ... 1	It represents the code of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used to convey the Packaged Medicinal Product ID. (UVM...ail)
└ pharm:name	EN	0 ... *	It represents the Name of the Package Item or of the Packaged Medicinal Product. (UVM...ail)

				If this is also the most outer <pharm:containerPackagedProduct> than this element can be used for the brand name.
└ pharm:formCode	CE	0 ... 1		This element encodes the type of the most inner package item or of the or the Packaged Medicinal Product. (UVM...ail)
└ pharm:capacityQuantity	PQ	0 ... 1		Captures the number of product units the package would contain if fully loaded. (UVM...ail)
└ @value		1 ... 1	R	
└ @unit	CS	0 ... 1		
└ pharm:asContent		0 ... *		In case of multiple layers of packaging (5 vials 10 ml; box with 2 blisters of 20 tablets) this element can be used for describing the intermediate Packaged Medicinal Product Item or the Packaged Medicinal Product.
				For example in the case
				└--Box
				└---2 blisters
				└----20 tablets
				it describes the "2 blisters"
				In the case of
				└--Box
				└---5 vials
				it represents the Packaged Medicinal Product.

L @classCode	cs	1 ... 1	F	CONT
L pharm:quantity	PQ	0 ... 1	R	The quantity which specified how many inner packaged content entities are in an outer packaging container entity. (UVM...ail)
L pharm:containerPackagedProduct		1 ... 1	R	It represents the intermediate Package Item or the Packaged Medicinal Product (UVM...ail)
L @classCode	cs	1 ... 1	F	CONT
L @determinerCode	cs	1 ... 1	F	KIND
L pharm:code	CD	0 ... 1		It represents the code of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used to convey the Packaged Medicinal Product ID. (UVM...ail)
L pharm:name	ST	0 ... 1	R	It represents the Name of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used for the brand name. (UVM...ail)
L pharm:formCode	CE	1 ... 1	R	This element encodes the type of the intermediate package item or of the or the Packaged Medicinal Product. (UVM...ail)
L pharm:capacityQuantity	PQ	0 ... 1		Captures the number of product units the package would contain if fully loaded. (UVM...ail)
L @value		1 ... 1	R	
L @unit	cs	0 ... 1		
L pharm:asContent		0 ... *	R	In case of multiple layers of packaging (box with 2 blisters of 20 tablets) this element is used for describing the most outer Pack- (UVM...ail)

					aged Medicinal Product Item or the Packaged Medicinal Product. For example in the case \--Box \----2 blisters \-----20 tablets it describes the Packaged Medicinal Product.
	└ @classCode	cs	1 ... 1	F	CONT
	└ pharm:quantity	PQ	0 ... 1	R	(UVM...ail)
	└ pharm:containerPackagedProduct		1 ... 1	R	When present, it represents the Packaged Medicinal Product (UVM...ail)
	└ @classCode	cs	1 ... 1	F	CONT
	└ @determinerCode	cs	1 ... 1	F	KIND
	└ pharm:code	CD	0 ... 1		When present, it can be used to convey the Packaged Medicinal Product ID. (UVM...ail)
	└ pharm:name	ST	0 ... 1	R	(UVM...ail)
	└ pharm:formCode	CE	1 ... 1	R	(UVM...ail)
	└ pharm:capacityQuantity	PQ	0 ... 1		Captures the number of product units the package would contain if fully loaded. (UVM...ail)
	└ @value		1 ... 1	R	
	└ @unit	cs	0 ... 1		
	└ pharm:asSpecializedKind		0 ... *		(UVM...ail)
	└ @classCode	cs	1 ... 1	F	GRIC

Included

from 2.16.840.1.113883.10.21.4.19 UV Generalized Medicine Class (DYNAMIC)

- └ pharm:generalizedMedicineClass

0 ... *

(UVM...ail)

- └ @classCode

cs

1 ... 1

F

MMAT

- └ @determinerCode

cs

1 ... 1

F

KIND

- └ pharm:code

1 ... 1

R

(UVM...ail)

- └ pharm:name

0 ... *

(UVM...ail)

- └ pharm:part

0 ... *

(UVM...ail)

- └ @classCode

cs

1 ... 1

F

PART

- └ pharm:id

II

0 ... 1

(UVM...ail)

- └ pharm:quantity

PQ

0 ... 1

(UVM...ail)

- └ pharm:partProduct

1 ... 1

(UVM...ail)

- └ pharm:code

CE

0 ... 1

(UVM...ail)

- └ pharm:name

EN

0 ... 1

(UVM...ail)

- └ pharm:desc

ED

0 ... 1

(UVM...ail)

- └ pharm:formCode

CE

0 ... 1

(UVM...ail)

- └ pharm:asContent

0 ... *

(UVM...ail)

- └ @classCode

cs

1 ... 1

F

CONT

Included

from 2.16.840.1.113883.10.21.4.17 UV Content (DY-

					NAMIC)
└ pharm:quantity	PQ	0 ... 1	R	The quantity which specified how many inner packaged content entities are in an outer packaging container entity.	(UVM...ail)
└ pharm:containerPackagedProduct		1 ... 1	R		(UVM...ail)
└ @classCode	CS	1 ... 1	F	CONT	
└ @determinerCode	CS	1 ... 1	F	KIND	
└ pharm:code	CE	0 ... 1		It represents the code of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used to convey the Packaged Medicinal Product ID.	(UVM...ail)
└ pharm:name	EN	0 ... *		It represents the Name of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used for the brand name.	(UVM...ail)
└ pharm:formCode	CE	0 ... 1		This element encodes the type of the most inner package item or of the or the Packaged Medicinal Product.	(UVM...ail)
└ pharm:capacityQuantity	PQ	0 ... 1		Captures the number of product units the package would contain if fully loaded.	(UVM...ail)
└ @value		1 ... 1	R		
└ @unit	CS	0 ... 1			
└ pharm:asContent		0 ... *		In case of multiple layers of packaging (5 vials 10 ml; box with 2 blisters of 20 tablets) this element can be used for describing the intermediate Packaged Medi-	(UVM...ail)

nal Product Item or the Packaged Medicinal Product.

For example in the case

- \--Box
- \----2 blisters
- \-----20 tablets

it describes the "2 blisters"

In the case of

- \--Box
- \----5 vials

it represents the Packaged Medicinal Product.

L @classCode	cs	1 ... 1	F	CONT
L pharm:quantity	PQ	0 ... 1	R	The quantity which specified how many inner packaged content entities are in an outer packaging container entity. (UVM...ail)
L pharm:containerPackagedProduct		1 ... 1	R	It represents the intermediate Package Item or the Packaged Medicinal Product (UVM...ail)
L @classCode	cs	1 ... 1	F	CONT
L @determinerCode	cs	1 ... 1	F	KIND
L pharm:code	CD	0 ... 1		It represents the code of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used to convey the Packaged Medicinal Product ID. (UVM...ail)

└ pharm:name	ST	0 ... 1	R	It represents the Name of the Package Item or of the Packaged Medicinal Product. If this is also the most outer <pharm:containerPackagedProduct> than this element can be used for the brand name. (UVM...ail)
└ pharm:formCode	CE	1 ... 1	R	This element encodes the type of the intermediate package item or of the or the Packaged Medicinal Product. (UVM...ail)
└ pharm:capacityQuantity	PQ	0 ... 1		Captures the number of product units the package would contain if fully loaded. (UVM...ail)
└ @value		1 ... 1	R	
└ @unit	CS	0 ... 1		
└ pharm:asContent		0 ... *	R	In case of multiple layers of packaging (box with 2 blisters of 20 tablets) this element is used for describing the most outer Packaged Medicinal Product Item or the Packaged Medicinal Product. For example in the case └--Box └---2 blisters └-----20 tablets it describes the Packaged Medicinal Product. (UVM...ail)
└ @classCode	CS	1 ... 1	F	CONT
└ pharm:quantity	PQ	0 ... 1	R	(UVM...ail)
└ pharm:containerPackagedProduct		1 ... 1	R	When present, it represents the Packaged Medicinal Product (UVM...ail)
└ @classCode	CS	1 ... 1	F	CONT
└ @determinerCode	CS	1 ... 1	F	KIND

	L pharm:code	CD	0 ... 1	When present, it can be used to convey the Packaged Medicinal Product ID.	(UVM...ail)
	L pharm:name	ST	0 ... 1	R	(UVM...ail)
	L pharm:formCode	CE	1 ... 1	R	(UVM...ail)
	L pharm:capacityQuantity	PQ	0 ... 1	Captures the number of product units the package would contain if fully loaded.	(UVM...ail)
	L @value		1 ... 1	R	
	L @unit	CS	0 ... 1		
	L pharm:asSpecializedKind		0 ... *		(UVM...ail)
<i>Included</i>		L @classCode	CS	1 ... 1	F GRIC from 2.16.840.1.113883.10.21.4.19 UV Generalized Medicine Class (DYNAMIC)
	L pharm:generalizedMedicineClass		0 ... *		(UVM...ail)
	L @classCode	CS	1 ... 1	F MMAT	
	L @determinerCode	CS	1 ... 1	F KIND	
	L pharm:code		1 ... 1	R	(UVM...ail)
	L pharm:name		0 ... *		(UVM...ail)
	L pharm:part		0 ... *		(UVM...ail)
	L @classCode	CS	1 ... 1	F PART	
	L pharm:ingredient		0 ... *		(UVM...ail)

	L @classCode	cs	1 ... 1	R	
<i>Included</i>		CONF	The value of @classCode shall be drawn from value set 2.16.840.1.113883.1.11.10430 RoleClassIngredientEntity (DYNAMIC) from 2.16.840.1.113883.10.21.4.18 UV Ingredient (DYNAMIC)		
	L pharm:quantity	RTO_PQ_PQ	0 ... 1	(UVM...ail)	
		Example	10 mg of the ingredient per ml <p:quantity> <numerator xsi:type="PQ" value="10" unit="mg"/> <denominator xsi:type="PQ" value="1" unit="ml"/> </p:quantity>		
		Example	2% of the ingredient <p:quantity> <numerator xsi:type="PQ" value="2" unit="%"/> <denominator xsi:type="PQ" value="1"/> </p:quantity>		
		Example	5mg of the ingredient <p:quantity> <numerator xsi:type="PQ" value="5" unit="mg"/> <denominator xsi:type="PQ" value="1"/> </p:quantity>		
	L pharm:numerator	PQ	0 ... 1	(UVM...ail)	
	L pharm:denominator	PQ	0 ... 1	(UVM...ail)	
	L pharm:ingredientSubstance		0 ... 1	The substance used for this product playing the role indicated in the ingredient class- Code. The <code> element contains the coded representation of the ingredient and the <name> element may be used for the plain text representation.	(UVM...ail)
	L @classCode	cs	1 ... 1	F	MMAT

			1 ... 1	F	KIND
└ @determinerCode	cs				
└ pharm:code	CD	0 ... 1	C		(UVM...ail)
└ pharm:name	EN	0 ... 1	C		(UVM...ail)
	Schematron assert	role test Message	error pharm:code or pharm:name Either the name or the code of the substance (or both) shall be provided		
└ pharm:ingredient		0 ... *			(UVM...ail)
└ @classCode	cs	1 ... 1	R		
	CONF	The value of @classCode shall be drawn from value set 2.16.840.1.113883.1.11.10430 <i>RoleClassIngredientEntity</i> (DYNAMIC) from 2.16.840.1.113883.10.21.4.18 <i>UV Ingredient</i> (DYNAMIC)			
<i>Included</i>					
└ pharm:quantity	RTO_PQ_PQ	0 ... 1			(UVM...ail)
	Example	10 mg of the ingredient per ml <pre><pharm:quantity> <numerator xsi:type="PQ" value="10" unit="mg"/> <denominator xsi:type="PQ" value="1" unit="ml"/> </pharm:quantity></pre>			
	Example	2% of the ingredient <pre><pharm:quantity> <numerator xsi:type="PQ" value="2" unit="%"/> <denominator xsi:type="PQ" value="1"/> </pharm:quantity></pre>			
	Example	5mg of the ingredient <pre><pharm:quantity> <numerator xsi:type="PQ" value="5" unit="mg"/> <denominator xsi:type="PQ" value="1"/> </pharm:quantity></pre>			

<code>pharm:numerator</code>	PQ	0 ... 1	(UVM...ail)
<code>pharm:denominator</code>	PQ	0 ... 1	(UVM...ail)
<code>pharm:ingredientSubstance</code>		0 ... 1	The substance used for this product playing the role indicated in the ingredient class-Code. The <code><code></code> element contains the coded representation of the ingredient and the <code><name></code> element may be used for the plain text representation. (UVM...ail)
<code>@classCode</code>	cs	1 ... 1	F MMAT
<code>@determinerCode</code>	cs	1 ... 1	F KIND
<code>pharm:code</code>	CD	0 ... 1	C (UVM...ail)
<code>pharm:name</code>	EN	0 ... 1	C (UVM...ail)
	Schematron assert	role	error
		test	pharm:code or pharm:name
		Message	Either the name or the code of the substance (or both) shall be provided
<code>pharm:ingredient</code>		0 ... *	(UVM...ail)
<code>@classCode</code>	cs	1 ... 1	R
	CONF	The value of <code>@classCode</code> shall be drawn from value set 2.16.840.1.113883.1.11.10430 <i>RoleClassIngredientEntity</i> (DYNAMIC) from 2.16.840.1.113883.10.21.4.18 <i>UV Ingredient</i> (DYNAMIC)	
<code>pharm:quantity</code>	RTO_PQ_PQ	0 ... 1	(UVM...ail)

Included

<ul style="list-style-type: none"> └ pharm:quantity └ pharm:numerator └ pharm:denominator 				Example 10 mg of the ingredient per ml <pre><pharm:quantity> <numerator xsi:type="PQ" value="10" unit="mg"/> <denominator xsi:type="PQ" value="1" unit="ml"/> </pharm:quantity></pre> 2% of the ingredient <pre><pharm:quantity> <numerator xsi:type="PQ" value="2" unit="%"/> <denominator xsi:type="PQ" value="1"/> </pharm:quantity></pre> 5mg of the ingredient <pre><pharm:quantity> <numerator xsi:type="PQ" value="5" unit="mg"/> <denominator xsi:type="PQ" value="1"/> </pharm:quantity></pre>	
<ul style="list-style-type: none"> └ pharm:ingredientSubstance └ @classCode └ @determinerCode 		PQ	0 ... 1		(UVM...ail)
				The substance used for this product playing the role indicated in the ingredient class-Code. The <code> element contains the coded representation of the ingredient and the <name> element may be used for the plain text representation.	(UVM...ail)
<ul style="list-style-type: none"> └ pharm:code └ pharm:name 		cs	1 ... 1	F	MMAT
				The <code> element contains the coded representation of the ingredient and the <name> element may be used for the plain text representation.	(UVM...ail)
		cs	1 ... 1	F	KIND
				The <code> element contains the coded representation of the ingredient and the <name> element may be used for the plain text representation.	(UVM...ail)
		CD	0 ... 1	C	
				The <code> element contains the coded representation of the ingredient and the <name> element may be used for the plain text representation.	(UVM...ail)
		EN	0 ... 1	C	
				The <code> element contains the coded representation of the ingredient and the <name> element may be used for the plain text representation.	(UVM...ail)
		role		error	
		Schematron assert	test	pharm:code or pharm:name	
		Message		Either the name or the code of the substance (or	

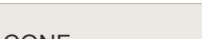
 **pharm:ingredient**

both) shall be provided

0 ... *

This module provides the list of the ingredients (substances with a role) used for this product; one or more ingredients may be present.

(UVM...ail)

 **@classCode**

cs

1 ... 1

R

CONF

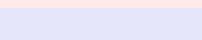
The value of @classCode shall be drawn from value set 2.16.840.1.113883.1.11.10430 *RoleClassIngredientEntity* (DYNAMIC)

Example

```
<ingredient classCode="ACTI">
  <quantity>
    <numerator type="PQ" value=" " unit=" "/>
    <denominator type="PQ" value=" " unit=" "/>
  </quantity>
  <ingredientSubstance classCode="MMAT" determinerCode="KIND">
    <code code=" " displayName=" " codeSystem="2.16.840.1.113883.6.73" codeSystemName="ATC WHO"/>
  </ingredientSubstance>
</ingredient>
```

from 2.16.840.1.113883.10.21.4.18 *UV Ingredient* (DYNAMIC)

Included

 **pharm:quantity**

RTO_PQ_PQ

0 ... 1

(UVM...ail)

Example

10 mg of the ingredient per ml

```
<pharm:quantity>
  <numerator xsi:type="PQ" value="10" unit="mg"/>
  <denominator xsi:type="PQ" value="1" unit="ml"/>
</pharm:quantity>
```

Example

2% of the ingredient

```
<pharm:quantity>
  <numerator xsi:type="PQ" value="2" unit="%"/>
  <denominator xsi:type="PQ" value="1"/>
</pharm:quantity>
```

Example

5mg of the ingredient

```
<pharm:quantity>
  <numerator xsi:type="PQ" value="5" unit="mg"/>
  <denominator xsi:type="PQ" value="1"/>
</pharm:quantity>
```

					</pharm:quantity>
└ pharm:numerator	PQ	0 ... 1			(UVM...ail)
└ pharm:denominator	PQ	0 ... 1			(UVM...ail)
└ pharm:ingredientSubstance		0 ... 1		The substance used for this product playing the role indicated in the ingredient class-Code. The <code> element contains the coded representation of the ingredient and the <name> element may be used for the plain text representation.	(UVM...ail)
└ @classCode	cs	1 ... 1	F	MMAT	
└ @determinerCode	cs	1 ... 1	F	KIND	
└ pharm:code	CD	0 ... 1	C		(UVM...ail)
└ pharm:name	EN	0 ... 1	C		(UVM...ail)
	Schematron assert	role	error		
		test	pharm:code or pharm:name		
		Message	Either the name or the code of the substance (or both) shall be provided		
└ hl7:manufacturerOrganization		0 ... 1	R	Contains 2.16.840.1.113883.10.12.151 <i>CDA Organization (DYNAMIC)</i>	(UVM...ail)

5.2.10 UV Medication Information (simple)

Id	2.16.840.1.113883.10.21.4.10	Effective Date	2021-09-29 19:15:16 Other versions this id:								
Status	Under pre-publication review	Version Label	R1-STU2-ballot								
Name	UVMedicationInformationsimple	Display Name	UV Medication Information (simple)								
Description	Universal Medication Information (simple)										
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.10										
Classification	CDA Entry Level Template										
Open/Closed	Open (other than defined elements are allowed)										
Uses	<p>Uses 1 template</p> <table border="1"> <thead> <tr> <th>Uses</th><th>as</th><th>Name</th><th>Version</th></tr> </thead> <tbody> <tr> <td>2.16.840.1.113883.10.12.151</td><td>Containment</td><td>CDA Organization</td><td>DYNAMIC</td></tr> </tbody> </table>			Uses	as	Name	Version	2.16.840.1.113883.10.12.151	Containment	CDA Organization	DYNAMIC
Uses	as	Name	Version								
2.16.840.1.113883.10.12.151	Containment	CDA Organization	DYNAMIC								
Relationship	<p>Version: template 2.16.840.1.113883.10.21.4.10 <i>UV Medication Information (simple)</i> (2017-05-10) Specialization: template 2.16.840.1.113883.10.12.312 <i>CDA ManufacturedProduct</i> (2005-09-07) ref ad1bbref Adaptation: template 2.16.840.1.113883.10.20.22.4.54 <i>Immunization Medication Information (V2)</i> (2014-06-09) ref ccda-</p>										
Example	<p>US RxNorm Code</p> <pre><hl7:manufacturedProduct classCode="MANU"></pre>										

	<pre><h17:templateId root="2.16.840.1.113883.10.21.4.10"/> <h17:manufacturedMaterial classCode="MMAT" determinerCode="KIND"> <h17:code code="243670" codeSystem="2.16.840.1.113883.6.88" displayName="Aspirin 81 MG Oral Tablet"/> </h17:manufacturedMaterial> </h17:manufacturedProduct></pre>																																										
Example	Dutch G-Standaard Artikel Code <pre><h17:manufacturedProduct classCode="MANU"> <h17:templateId root="2.16.840.1.113883.10.21.4.10"/> <h17:manufacturedMaterial classCode="MMAT" determinerCode="KIND"> <h17:code code="14145839" codeSystem="2.16.840.1.113883.2.4.4.8" codeSystemName="G-Standaard Artikel" displayName="FURESEMIDE CF 40MG TABLET"/> </h17:manufacturedMaterial> </h17:manufacturedProduct></pre>																																										
Example	German Pharmaceutical Product Code <pre><h17:manufacturedProduct classCode="MANU"> <h17:templateId root="2.16.840.1.113883.10.21.4.10"/> <h17:manufacturedMaterial classCode="MMAT" determinerCode="KIND"> <h17:code code="4213974" codeSystem="1.2.276.0.76.4.6" displayName="RAMIPRIL STADA 5 mg"/> <h17:lotNumberText>675-86574</h17:lotNumberText> </h17:manufacturedMaterial> <h17:manufacturerOrganization> <h17:name>STADA GmbH</h17:name> </h17:manufacturerOrganization> </h17:manufacturedProduct></pre>																																										
<table border="1"> <thead> <tr> <th>Item</th> <th>DT</th> <th>Card</th> <th>Conf</th> <th>Description</th> <th>Label</th> </tr> </thead> <tbody> <tr> <td>h17:manufacturedProduct</td> <td></td> <td></td> <td></td> <td></td> <td>(UVM...ple)</td> </tr> <tr> <td> └ @classCode</td> <td>CS</td> <td>1 ... 1</td> <td>F</td> <td>MANU</td> <td></td> </tr> <tr> <td> └ h17:templateId</td> <td>II</td> <td>1 ... 1</td> <td>M</td> <td></td> <td>(UVM...ple)</td> </tr> <tr> <td> └ @root</td> <td>uid</td> <td>1 ... 1</td> <td>F</td> <td>2.16.840.1.113883.10.21.4.10</td> <td></td> </tr> <tr> <td> └ h17:manufacturedMaterial</td> <td></td> <td>1 ... 1</td> <td>M</td> <td></td> <td>(UVM...ple)</td> </tr> <tr> <td> └ @classCode</td> <td>CS</td> <td>0 ... 1</td> <td>F</td> <td>MMAT</td> <td></td> </tr> </tbody> </table>		Item	DT	Card	Conf	Description	Label	h17:manufacturedProduct					(UVM...ple)	└ @classCode	CS	1 ... 1	F	MANU		└ h17:templateId	II	1 ... 1	M		(UVM...ple)	└ @root	uid	1 ... 1	F	2.16.840.1.113883.10.21.4.10		└ h17:manufacturedMaterial		1 ... 1	M		(UVM...ple)	└ @classCode	CS	0 ... 1	F	MMAT	
Item	DT	Card	Conf	Description	Label																																						
h17:manufacturedProduct					(UVM...ple)																																						
└ @classCode	CS	1 ... 1	F	MANU																																							
└ h17:templateId	II	1 ... 1	M		(UVM...ple)																																						
└ @root	uid	1 ... 1	F	2.16.840.1.113883.10.21.4.10																																							
└ h17:manufacturedMaterial		1 ... 1	M		(UVM...ple)																																						
└ @classCode	CS	0 ... 1	F	MMAT																																							

L @determinerCode	cs	0 ... 1 F	KIND	
			The code element describes the code of the medication. The medication may be either	
L h17:code	CD	1 ... 1 R	<ul style="list-style-type: none"> ▪ a brand/product or ▪ described as a generic/scientific name or ▪ a descriptor of a magistral preparation/compound medicine 	(UVM...ple)
			If the medicine has no code / is uncoded (e.g., magistral preparations, compound medicine, ...) nullFlavor="NA" SHALL be used.	
L h17:translation	CE	0 ... *		(UVM...ple)
	CONF	shall be drawn from concept domain "Product Code"		
L h17:lotNumberText		0 ... 1		(UVM...ple)
L h17:manufacturerOrganization		0 ... 1 R	Contains 2.16.840.1.113883.10.12.151 CDA Organization (DYNAMIC)	(UVM...ple)

5.2.11 UV Medication Order Reference

Id	2.16.840.1.113883.10.21.4.8	Effective Date	2017-03-30
Status	🟡 Under pre-publication review	Version Label	R1-STU2-ballot
Name	UVMedicationOrderReference	Display Name	UV Medication Order Reference
Description	Universal Medication Medication Order Reference		

Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.8			
Label	MedicationOrderReference			
Classification	CDA Entry Level Template			
Open/Closed	Open (other than defined elements are allowed)			
Uses	Uses 1 template			
	Uses	as	Name	Version
	2.16.840.1.113883.10.12.318	Containment	 CDA Author (Body)	DYNAMIC
Relationship	Specialization: template 2.16.840.1.113883.10.12.308 CDA SubstanceAdministration (2005-09-07) ref ad1bbr-			
Example	Example			
	<pre><substanceAdministration classCode="SBADM" moodCode="RQO"> <templateId root="2.16.840.1.113883.10.21.4.8"/> <id root="1.2.3.99.99.99" extension="988437489739"/> </substanceAdministration></pre>			
Item	DT	Card	Conf	Description
h17:substanceAdministration				Medicine
└ @classCode	cs	1 ... 1	F	SBADM
└ @moodCode	cs	1 ... 1	F	RQO
└ h17:templateId	II	1 ... 1	M	Medicine
└ @root	uid	1 ... 1	F	2.16.840.1.113883.10.21.4.8
└ h17:id	II	1 ... 1	R	Medicine
└ h17:author	0 ... *	Prescriber: A party that originates the order and therefore has responsibility for the information given in the order.		Medicine

Contains 2.16.840.1.113883.10.12.318 CDA Author (Body) (DYNAMIC)

5.2.12 UV Subordinate Substance Administration

Id	2.16.840.1.113883.10.21.4.6	Effective Date	2023-01-30 09:36:00
			Other versions this id:
Status	Draft	Version Label	2023
Name	UVSubordinateadministration	Display Name	UV Subordinate Substance Administration
Description	Universal Subordinate Substance Administration to convey information about dosages		
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.6		
Classification	CDA Entry Level Template		
Open/Closed	Open (other than defined elements are allowed)		
Relationship	Version: template 2.16.840.1.113883.10.21.4.6 <i>UV Subordinate Substance Administration</i> (2017-04-30) Specialization: template 2.16.840.1.113883.10.12.308 <i>CDA SubstanceAdministration</i> (2005-09-07) ref ad1bbr-		
Example	Example <pre><substanceAdministration classCode="SBADM" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.6"/> <statusCode code="active"/> <effectiveTime xsi:type="PIVL_TS" institutionSpecified="true"> <period value="12" unit="h"/> </effectiveTime> <doseQuantity xsi:type="IVL_PQ" value="2" unit="{puff}"/> <consumable> <manufacturedProduct></pre>		

	<pre> <manufacturedMaterial nullFlavor="NA"/> </manufacturedProduct> </consumable> </substanceAdministration> </pre>						
Item	DT	Card	Conf	Description	Label		
h17:substanceAdministration		1 ... 1 R					
└ @classCode	cs	1 ... 1 F		SBADM			
└ @moodCode	cs	1 ... 1 R		<p>If the subordinate substance administration refers to Medication Order then a substance administration request (moodCode is 'RQO') is used.</p> <p>If it refers to a Medication Statement, the moodCode shall be set to event/intent (moodCode is 'EVN' or 'INT').</p>	(UVS...ion)		
	CONF	The value of @moodCode shall be drawn from value set 2.16.840.1.113883.11.21.4 Mood Code Evn Int Rqo (DYNAMIC)					
	Constraint	The moodCode of this subordinate substance administration SHALL be the same of the parent substance administration					
h17:templateID	II	1 ... 1 M					
└ @root	uid	1 ... 1 F		2.16.840.1.113883.10.21.4.6	(UVS...ion)		
h17:statusCode	CS	1 ... 1 M					
	Constraint	The statusCode of this subordinate substance administration SHALL be the same of that of the parent substance administration.					
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.11.21.2 ActStatusActiveCompletedAbortedSuspended (DYNAMIC)					
Elements to choose from:							
<i>Choice</i>	1 ... 1			<ul style="list-style-type: none"> ▪ hl7:effectiveTime[@value or @nullFlavor] ▪ hl7:effectiveTime[@xsi:type='PIVL_TS'] 			

				<ul style="list-style-type: none"> ▪ hl7:effectiveTime[@xsi:type='EIVL_TS'] ▪ hl7:effectiveTime[@xsi:type='SXPRTS']
<p>L hl7:effectiveTime</p> <p>where [@value or @nullFlavor]</p>	TS	0 ... 1 C	This required element describes the frequency of intakes. If not known it shall be valued with the nullflavor "UNK"	(UVS...ion)
	Example	Once (known date) <pre><effectiveTime value="20170404"/></pre>		
	Example	Unknown <pre><effectiveTime nullFlavor="UNK"/></pre>		
<p>L hl7:effectiveTime</p> <p>where [@xsi:type='PIVL_TS']</p>	PIVL_TS	0 ... 1 C	Periodic Time Interval	(UVS...ion)
	Example	Every 4 hours <pre><effectiveTime xsi:type="PIVL_TS" institutionSpecified="false"> <period value="4" unit="h"/> </effectiveTime></pre>		
	Example	Twice a day <pre><effectiveTime xsi:type="PIVL_TS" institutionSpecified="true"> <period value="12" unit="h"/> </effectiveTime></pre>		
<p>L hl7:effectiveTime</p> <p>where [@xsi:type='EIVL_TS']</p>	EIVL_TS	0 ... 1 C	Event Related Time Interval	(UVS...ion)
	Example	After meal <pre><effectiveTime xsi:type="EIVL_TS"> <event code="PC" codeSystem="2.16.840.1.113883.5.139"/> </effectiveTime></pre>		
	Example	One hour before breakfast <pre><effectiveTime xsi:type="EIVL_TS"> <event code="ACM" codeSystem="2.16.840.1.113883.5.139"/> <offset> <low value="1" unit="h"/> </offset> </effectiveTime></pre>		

└ h17:event	EIVL.event	0 ... 1 C	(UVS...ion)
└ @code	cs	0 ... 1	
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.10706 <i>TimingEvent (DYNAMIC)</i>	
└ h17:effectiveTime	SXPR_TS	0 ... 1 R	Combined Time Interval (UVS...ion)
where [@xsi:type='SXPR_TS']			
		The doseQuantity describes the amount of the medication given (the dosage).	
		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 only one physical quantity is specified (e.g. 2 drops)	
		The dose can be in some known and measurable unit, such as grams, milligrams, or described in "administration" units (unit of presentation, such as capsules).	
└ h17:doseQuantity	IVL_PQ	0 ... 1 R	(UVS...ion)
		If the dose is in countable items (tablets, caplets, "eaches"), then the unit could be omitted or valorized using the UCUM annotations for describing the type of countable items (e.g. {tablet}, {puff},...).	
		The unit attribute – when expresses unit of measures- shall be derived from the UCUM code system.	
		The used elements should contain a <translation> element that provides a reference to the originalText found in the narrative body of the document.	
└ @unit	cs	0 ... 1	
Example	Not pre-coordinated consumable <code><doseQuantity value="25" unit="mg"/></code>		
Example	Pre-coordinated consumable - Dose Range <code><doseQuantity></code> <code> <low value="1" unit="{tablet}"/></code> <code> <high value="2" unit="{tablet}"/></code> <code></doseQuantity></code>		

Example	Pre-coordinated consumable <pre><doseQuantity value="2" unit="{puff}" /></pre>		
Example	Pre-coordinated consumable with text reference <pre><doseQuantity value="2" unit="{puff}"> <translation nullFlavor="NI"> <originalText> <reference value="#text-ref-1"/> </originalText> </translation> </doseQuantity></pre>		
Example	Textual dosage <pre><doseQuantity nullFlavor="NI"> <translation nullFlavor="NI"> <originalText> <reference value="#text-ref-1"/> </originalText> </translation> </doseQuantity></pre>		
└ h17:rateQuantity	IVL_PQ	0 ... 1	(UVS...ion)
└ h17:maxDoseQuantity	RTO_PQ_PQ	0 ... 1	(UVS...ion)
└ h17:administrationUnitCode	CE	0 ... 1	(UVS...ion)
	CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.1.11.14570 AdministrableDrug-Form (DYNAMIC)	
└ h17:consumable		1 ... 1 R	(UVS...ion)
└ h17:manufacturedProduct		1 ... 1 R	(UVS...ion)
└ h17:manufacturedMaterial		1 ... 1 R	(UVS...ion)
└ @nullFlavor	cs	1 ... 1 F NA	

5.2.13 UV Substitution Event Administration

Id	2.16.840.1.113883.10.21.4.14	Effective Date	2023-01-30 08:42:54 Other versions this id:
Status	Draft	Version Label	UVSubstitutionEventAdministration as of 2019-02-17
Name	UVSubstitutionEventAdministration	Display Name	UV Substitution Event Adminstration
Description	Information about a substitution made for this administration.		
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.14		
Classification	CDA Entry Level Template		
Open/Closed	Open (other than defined elements are allowed)		
Relationship	Version: template 2.16.840.1.113883.10.21.4.14 UV Substitution Event Administration (2019-02-17) Specialization: template 2.16.840.1.113883.10.12.301 CDA Act (2005-09-07) ref ad1bbref		
Example	<p>Example</p> <pre><act classCode="ACT" moodCode="EVN"> <templateId root="2.16.840.1.113883.10.21.4.14"/> <code code="TE" codeSystem="2.16.840.1.113883.5.1070" displayName="therapeutic alternative"/> <entryRelationship typeCode="RSON"> <act classCode="ACT" moodCode="EVN"> <!-- Reason for substitution --> </act> </entryRelationship> </act></pre>		
Item	DT	Card	Conf Description Label
h17:act		1 ... 1 M	(UVSubstitutionEventAdministration)
└ @classCode	cs	1 ... 1 F	ACT

L @moodCode	cs	1 ... 1 F	DEF	
L h17:templateId	II	1 ... 1 M		(UVS...ion)
L @root	uid	1 ... 1 F	2.16.840.1.113883.10.21.4.14	
L h17:code	CE (example)	1 ... 1	The type of substitution made.	(UVS...ion)
	CONF	Examples of the value of @code are in the value set 2.16.840.1.113883.1.11.16621 <i>ActSubstanceAdminSubstitutionCode</i> (DYNAMIC)		
L h17:entryRelationship		0 ... 1 C	Indicates the reason for substitution.	(UVS...ion)
L @typeCode	cs	1 ... 1 F	RSON	
	Example	<pre><entryRelationship typeCode="RSON"> <code code="FP" codeSystem="2.16.840.1.113883.5.8" displayName="formulary policy"> <originalText>Formulary policy</originalText> </code> </entryRelationship></pre>		
L h17:act		1 ... 1		(UVS...ion)
L @classCode	cs	1 ... 1 F	ACT	
L @moodCode	cs	1 ... 1 F	EVN	
L h17:code	CD (example)	1 ... 1		(UVS...ion)
	CONF	Examples of the value of @code are in the value set 2.16.840.1.113883.1.11.19377 <i>SubstanceAdminSubstitutionReason</i> (DYNAMIC)		

5.2.14 UV Substitution Permission

Id	2.16.840.1.113883.10.21.4.5	Effective Date	2017-01-02		
Status	Under pre-publication review	Version Label	R1-STU2-ballot		
Name	UVSubstitutionPermission	Display Name	UV Substitution Permission		
Description	Information about a substitution permission for this administration.				
Context	Parent nodes of template element with id 2.16.840.1.113883.10.21.4.5				
Classification	CDA Entry Level Template				
Open/Closed	Open (other than defined elements are allowed)				
Relationship	Specialization: template 2.16.840.1.113883.10.12.301 CDA Act (2005-09-07) ref ad1bbr-				
Example	<p>Example</p> <pre><act classCode="ACT" moodCode="DEF"> <templateId root="2.16.840.1.113883.10.21.4.5"/> <code code="TE" codeSystem="2.16.840.1.113883.5.1070" displayName="therapeutic alternative"/> <entryRelationship typeCode="RSON"> <act classCode="ACT" moodCode="EVN"> <!-- Reason no substitution --> </act> </entryRelationship> </act></pre>				
Item	DT	Card	Conf	Description	Label
h17:act		1 ... 1	M		(UVSubstitutionPermission)
└ @classCode	cs	1 ... 1	F	ACT	
└ @moodCode	cs	1 ... 1	F	DEF	
h17:templateId		1 ... 1	M		(UVSubstitutionPermission)
└ @root	uid	1 ... 1	F	2.16.840.1.113883.10.21.4.5	

L h17:code	CE (example) 1 ... 1	The type of substitution that this permission relates to.	(UVS...ion)
	CONF	Examples of the value of @code are in the value set 2.16.840.1.113883.1.11.16621 <i>ActSubstanceAdminSubstitutionCode</i> (DYNAMIC)	
L h17:entryRelationship	0 ... 1 C	Used when substitution is not allowed and may indicate the reason for why substitution is not allowed.	(UVS...ion)
L @typeCode	cs	1 ... 1 F RSON	
	Example	<pre><entryRelationship typeCode="RSON"> <code code="PAT" codeSystem="2.16.840.1.113883.5.8" displayName="Patient request"> <originalText>Patient objects</originalText> </code> </entryRelationship></pre>	
L h17:act		1 ... 1	(UVS...ion)
L @classCode	cs	1 ... 1 F ACT	
L @moodCode	cs	1 ... 1 F EVN	
L h17:code	CD (example) 1 ... 1		(UVS...ion)
	CONF	Examples of the value of @code are in the value set 2.16.840.1.113883.1.11.19719 <i>SubstanceAdminSubstitutionNotAllowedReason</i> (DYNAMIC)	

5.2.15 UV Use Period

Id	2.16.840.1.113883.10.21.9.1	Effective Date	2023-01-30 09:55:27 Other versions this id:
			<ul style="list-style-type: none"> <input checked="" type="radio"/> Use period as of 2017-05-02

Status	Draft	Version Label	2023	<input type="radio"/> Useperiod as of 2017-01-02
Name	Useperiod	Display Name	UV Use Period	
Description				
This 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.				
Classification	CDA Entry Level Template			
Open/Closed	Open (other than defined elements are allowed)			
Item	DT	Card	Conf	Description
Choice		1 ... 1		<p>The effectiveTime element encodes the use period of the medication, it is always expressed as an interval of time.</p> <p>It may be expressed using the low and high OR with the width element.</p> <p>The first is used to indicate a specified interval (e.g. from march 15th, 2017); the latter for indicating a 'floating' period (e.g. 2 weeks).</p> <p>Elements to choose from:</p> <ul style="list-style-type: none"> ▪ hl7:effectiveTime[hl7:low hl7:high] ▪ hl7:effectiveTime[hl7:width] ▪ hl7:effectiveTime[hl7:low hl7:width]
hl7:effectiveTime	IVL_TS	0 ... 1	C	<p>Case 1: specified interval</p> <p>(Use...iod)</p>

where [hl7:low or
hl7:high]

└ **@nullFlavor**

cs 0 ... 1

Example	Known Interval <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high value="20140321"/> </effectiveTime></pre>
Example	Information not available about the period <pre><effectiveTime type="IVL_TS" nullFlavor="NI"/></pre>
Example	Unknown end date <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high nullFlavor="UNK"/> </effectiveTime></pre>

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.

In case of unbounded period (continuous therapy) the high element will be valued with the nullFlavor attribute to NA.

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 a prescription that has not been refilled 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.

	Example	continuous therapy <pre><effectiveTime type="IVL_TS"> <low value="20130321"/> <high nullFlavor="NA"/> </effectiveTime></pre>		
└ h17:low	IVXB_TS	1 ... 1 R		(Use...iod)
└ h17:high	IVXB_TS	0 ... 1 R		(Use...iod)
└ h17:effectiveTime	IVL_TS	0 ... 1 C	Case 2: 'floating' period: The width element is used to specify a period of (actual or intended) administration that is not anchored to any specific date (e.g. a two weeks therapy)	(Use...iod)
where [h17:width]				
	Example	2 week period <pre><effectiveTime type="IVL_TS"> <width value="2" unit="w"/> </effectiveTime></pre>		
└ h17:low		NP		(Use...iod)
└ h17:high		NP		(Use...iod)
└ h17:center		NP		(Use...iod)
└ h17:width	PQ	1 ... 1 R		(Use...iod)
└ @unit	CS	1 ... 1 R		
	CONF	The value of @unit shall be drawn from value set 2.16.840.1.113883.11.21.1 Medication Time Units (UCUM) (DYNAMIC)		
└ h17:effectiveTime	IVL_TS	0 ... 1 C	Case 3: anchored period: The width element is used to specify a period of (actual or intended) administration anchored to a specific date (e.g. a two weeks therapy starting today)	(Use...iod)
where [h17:low or h17:width]				
	Example	2 week period starting on 2013-03-21		

			<effectiveTime type="IVL_TS"> <low value="20130321"/> <width value="2" unit="w"/> </effectiveTime>
└ h17:low	IVXB_TS	0 ... 1 C	(Use...iod)
└ h17:width	PQ	1 ... 1 R	(Use...iod)
└ @unit	CS	1 ... 1 R	
	CONF	The value of @unit shall be drawn from value set 2.16.840.1.113883.11.21.1 Medication Time Units (UCUM) (DYNAMIC)	

6 Appendix (Informative)

6.1 Acronyms and abbreviations

- **C-CDA:** Consolidated CDA
- **CDA:** Clinical Document Architecture
- **DSTU:** Draft Standard for Trial Use
- **EDQM:** European Directorate for the Quality of Medicines & Healthcare
- **EHR:** Electronic Healthcare Record
- **HL7:** Health Level Seven
- **HP:** Healthcare Professional
- **IDMP:** IDentification of Medicinal Products (ISO Standard)
- **IHE:** Integrating the Healthcare Enterprise
- **ISO:** International Organization for Standardization
- **JIC:** Joint Initiative Council on SDO Global Health Informatics Standardization
- **LOINC:** Logical Observation Identifiers Names & Codes
- **MPID:** Medicinal Product Identifier
- **PCID :** Medicinal Product Package Identifier
- **PhPID(s):** Pharmaceutical Product Identifier(s)
- **SDO:** Standard Developing Organization
- **STU:** Standard for Trial Use
- **UCUM:** Unified Code for Units of Measure

6.2 Glossary

- **Prescribing** is an activity that can be performed by a variety of healthcare professionals and involves a variety of orderable items (see glossary entry). For the purposes of the following Implementation Guide, prescribing is defined as the act of prescribing a medication in either an ambulatory or an institutional setting. This could include initiating a new medication order or making all kinds of modifications to existing orders.
- **Dispensing** is an activity undertaken to fulfill the logistical requirements of a prescription. It supplies the materials needed to perform the prescribed actions by those who will perform them. Examples of dispensing include eyeglasses, contact lenses and medications. For the purposes of the following ballot material, dispensing is defined as supplying a medication in fulfillment of a prescription or medication order. While dispensing in these circumstances would usually be performed by a pharmacist, other health care providers such as nurses or physicians might also dispense medications.
- **Administration** is an activity undertaken to give medication to the patient. In the community, this process is usually not recorded, since the majority occurs in the patient's home; only administrations undertaken by a healthcare professional, such as vaccination, tend to be formally documented. Administration of medication in the institutional setting is usually recorded on a dose-by-dose basis, and may be messaged on that basis, or a summary of all

the administrations occurring during an inpatient stay may be described.

6.3 Integrated examples

The *Medication on CDA* specification releases are published at the Pharmacy Templates Material Publication Page on HL7 GitHub^[4]. This GitHub offers XML materials (also compacted as a ZIP to download) like the W3C schemas and example CDA document instances. A set of use cases have been defined and represented in *Medication on CDA* format.

6.4 Validation artifacts

You can test your implementation (instances) against the *Medication on CDA* specification. To download materials to your computer for local testing and validation consider...

- ...the W3C schemas (actually valid for any CDA specification) located at the PHARM Materials Page on HL7 GitHub^[4].
- ..the ISO schematron, automatically generated by ART-DECOR based on the definitions, located at the Pharmacy Templates Material Publication Page on ART-DECOR^[5]. These are files to do validation locally by associating PHARM CDA instances with the main schematron using an XML editor or to use the derived XSLT conversions and apply the according XSLT derivation to your local PHARM CDA instance.

For further information you can follow the documentation.

6.5 Operational information

- The original specification is hosted on the logical ART-DECOR main server art-decor.org under the *Governance Group HL7 International*, the project is reachable at the Project Live Landing Page^[6].

6.6 Licenses

Following is a non-exhaustive list of third-party terminologies that may require a separate license:

- **SNOMED CT**: SNOMED International (formerly known as International Healthcare Terminology Standards Development Organization IHTSDO)^[7] or info@ihtsdo.org
- **Logical Observation Identifiers Names & Codes (LOINC)**: The Regenstrief Institute, Inc.
- **Unified Code for Units of Measure (UCUM)** : Regenstrief Institute, Inc. and the UCUM Organization

7 List of all artifacts used in this guide

7.1 CDA Templates

- 2.16.840.1.113883.10.21.4.1 UV Medication Order
- 2.16.840.1.113883.10.21.4.2 UV Dispense Request
- 2.16.840.1.113883.10.21.4.3 UV ClinicalStatement Observation
- 2.16.840.1.113883.10.21.4.4 UV ClinicalStatement Encounter
- 2.16.840.1.113883.10.21.4.5 UV Substitution Permission
- 2.16.840.1.113883.10.21.4.6 UV Subordinate Substance Administration
- 2.16.840.1.113883.10.21.4.7 UV Medication Statement
- 2.16.840.1.113883.10.21.4.8 UV Medication Order Reference
- 2.16.840.1.113883.10.21.4.9 UV Dispense Event Reference
- 2.16.840.1.113883.10.21.4.10 UV Medication Information (simple)
- 2.16.840.1.113883.10.21.4.11 UV Medication Information (detail)
- 2.16.840.1.113883.10.21.4.12 UV Comment Activity
- 2.16.840.1.113883.10.21.4.13 UV Medication Administration
- 2.16.840.1.113883.10.21.4.14 UV Substitution Event Adminstration
- 2.16.840.1.113883.10.21.4.15 UV Medication Dispense
- 2.16.840.1.113883.10.21.4.17 UV Content
- 2.16.840.1.113883.10.21.4.18 UV Ingredient
- 2.16.840.1.113883.10.21.4.19 UV Generalized Medicine Class
- 2.16.840.1.113883.10.21.9.1 UV Use Period

7.2 Unconstrained Templates from the original CDA specification

- 2.16.840.1.113883.10.12.151 CDA Organization
- 2.16.840.1.113883.10.12.152 CDA Person
- 2.16.840.1.113883.10.12.153 CDA AssignedEntity
- 2.16.840.1.113883.10.12.310 CDA LabeledDrug
- 2.16.840.1.113883.10.12.311 CDA Material
- 2.16.840.1.113883.10.12.312 CDA ManufacturedProduct
- 2.16.840.1.113883.10.12.313 CDA PlayingEntity
- 2.16.840.1.113883.10.12.315 CDA Device
- 2.16.840.1.113883.10.12.316 CDA RelatedEntity
- 2.16.840.1.113883.10.12.318 CDA Author (Body)

- 2.16.840.1.113883.10.12.319 CDA Informant (Body)
- 2.16.840.1.113883.10.12.320 CDA Subject (Body)
- 2.16.840.1.113883.10.12.321 CDA Participant (Body)
- 2.16.840.1.113883.10.12.322 CDA Specimen
- 2.16.840.1.113883.10.12.323 CDA Performer (Body)
- 2.16.840.1.113883.10.12.324 CDA Reference
- 2.16.840.1.113883.10.12.325 CDA ExternalAct
- 2.16.840.1.113883.10.12.326 CDA ExternalObservation
- 2.16.840.1.113883.10.12.327 CDA ExternalProcedure
- 2.16.840.1.113883.10.12.328 CDA ExternalDocument
- 2.16.840.1.113883.10.12.329 CDA Precondition

7.3 Value Sets

7.3.1 Medication Time Units (UCUM)

This terminology is a snapshot as of . Terminologies may evolve over time. If you need recent (dynamic) versions of this terminology, please retrieve it from the source.

Id	2.16.840.1.113883.11.21.1	Effective Date	2023-02-01 11:12:08
Status	Final	Version Label	3.0
Name	MedicationTimeUnits	Display Name	Medication Time Units (UCUM)
Description	Medication Time Units, expressed in UCUM		

Usage: 4

Id	Name	Type
Template		
2.16.840.1.113883.10.21.9.1	UV Use Period	DYNAMIC
2.16.840.1.113883.10.21.9.1	UV Use Period (R1-STU2-ballot)	DYNAMIC
2.16.840.1.113883.10.21.9.1	UV Use Period (2023)	DYNAMIC
2.16.840.1.113883.10.21.9.1	UV Use Period (2023)	DYNAMIC

Source Code System	2.16.840.1.113883.6.8 - Unified Code for Units of Measure - FHIR: http://unitsofmeasure.org - HL7 V2: UCUM
---------------------------	--

Level/ Type	Code	Display Name	Code System
0-L	a	Year	Unified Code for Units of Measure
0-L	d	Day	Unified Code for Units of Measure
0-L	h	Hour	Unified Code for Units of Measure

0-L	min	Minute	Unified Code for Units of Measure
0-L	mo	Month	Unified Code for Units of Measure
0-L	s	Second	Unified Code for Units of Measure
0-L	wk	Week	Unified Code for Units of Measure

Legenda: Type L=leaf, S=specializable, A=abstract, D=deprecated. NullFlavor OTH (other) suggests text in originalText. HL7 V3: NullFlavors to appear in @nullFlavor attribute instead of @code.

7.3.2 ActStatusCodeActiveCompletedAbortedSuspended

This terminology is a snapshot as of . Terminologies may evolve over time. If you need recent (dynamic) versions of this terminology, please retrieve it from the source.

Id	2.16.840.1.113883.11.21.2	Effective Date	2017-03-06
Status	Draft	Version Label	
Name	ActStatusCodeActiveCompletedAbortedSuspended	Display Name	ActStatusActiveCompletedAbortedSuspended

Usage: 6

Id	Name	Type
Template		
2.16.840.1.113883.10.21.4.1	UV Medication Order (R1-STU2-ballot)	DYNAMIC
2.16.840.1.113883.10.21.4.6	UV Subordinate Substance Administration (R1-STU2-ballot)	DYNAMIC
2.16.840.1.113883.10.21.4.1	UV Medication Order (2023)	DYNAMIC
2.16.840.1.113883.10.21.4.1	UV Medication Order (STU1)	DYNAMIC
2.16.840.1.113883.10.21.4.1	UV Medication Order (2023)	DYNAMIC
2.16.840.1.113883.10.21.4.6	UV Subordinate Substance Administration (2023)	DYNAMIC

Source Code System	2.16.840.1.113883.5.14 - ActStatus - FHIR: http://terminology.hl7.org/CodeSystem/v3-ActStatus
--------------------	--

Level/ Type	Code	Display Name	Code System
0-L	completed	Completed	ActStatus
0-L	aborted	Aborted	ActStatus
0-L	active	Active	ActStatus
0-L	suspended	Suspended	ActStatus

Legenda: Type L=leaf, S=specializable, A=abstract, D=deprecated. NullFlavor OTH (other) suggests text in originalText. HL7 V3: NullFlavors to appear in @nullFlavor attribute instead of @code.

7.3.3 Mood Code Evn Int Rqo

This terminology is a snapshot as of . Terminologies may evolve over time. If you need recent (dynamic) versions of this terminology, please retrieve it from the source.

Id	2.16.840.1.113883.11.21.4	Effective Date	2018-03-21
Status	Draft	Version Label	
Name	MoodCodeEvnIntRqo	Display Name	Mood Code Evn Int Rqo

Usage: 2

Id	Name	Type
Template		
2.16.840.1.113883.10.21.4.6	UV Subordinate Substance Administration (R1-STU2-ballot)	DYNAMIC
2.16.840.1.113883.10.21.4.6	UV Subordinate Substance Administration (2023)	DYNAMIC

Source Code System	2.16.840.1.113883.5.1001 - Act Mood - FHIR: http://terminology.hl7.org/CodeSystem/v3-ActMood		
Level/ Type	Code	Display Name	Code System
0-L	EVN	Event	Act Mood
0-L	INT	Intent	Act Mood
0-L	RQO	Request	Act Mood

Legenda: Type L=leaf, S=specializable, A=abstract, D=deprecated. NullFlavor OTH (other) suggests text in originalText. HL7 V3: NullFlavors to appear in @nullFlavor attribute instead of @code.

7.3.4 Unknown or absent medication

This terminology is a snapshot as of . Terminologies may evolve over time. If you need recent (dynamic) versions of this terminology, please retrieve it from the source.

Id	2.16.840.1.113883.11.21.5	Effective Date	2018-03-21
Status	Draft	Version Label	
Name	Unknownorabsentmedication	Display Name	Unknown or absent medication
Copyright	This artefact includes content from SNOMED Clinical Terms® (SNOMED CT®) which is copyright of the International Health Terminology Standards Development Organisation (IHTSDO). Implementers of these artefacts must have the appropriate SNOMED CT Affiliate license - for more information contact http://www.snomed.org/snomed-ct/getsnomed-ct or info@snomed.org.		

Usage: 5

Id	Name	Type
Template		

2.16.840.1.113883.10.21.4.7	UV Medication Statement (STU1)	DYNAMIC
2.16.840.1.113883.10.21.4.7	UV Medication Statement (2023)	DYNAMIC
2.16.840.1.113883.10.21.4.13	UV Medication Administration (R1-STU2-ballot)	DYNAMIC
2.16.840.1.113883.10.21.4.7	UV Medication Statement (R1-STU2-ballot)	DYNAMIC
2.16.840.1.113883.10.21.4.13	UV Medication Administration (2023)	DYNAMIC

Source Code System	2.16.840.1.113883.6.96 - SNOMED Clinical Terms - FHIR: http://snomed.info/sct - HL7 V2: SCT
--------------------	--

Level/ Type	Code	Display Name	Code System
0-L	182904002	Drug treatment unknown (finding)	SNOMED Clinical Terms
0-L	182849000	No drug therapy prescribed (situation)	SNOMED Clinical Terms

Legenda: Type L=leaf, S=specializable, A=abstract, D=deprecated. NullFlavor OTH (other) suggests text in originalText. HL7 V3: NullFlavors to appear in @nullFlavor attribute instead of @code.

7.4 Referenced HL7 Version 3 Value Sets

- 2.16.840.1.113883.1.11.13955 ActEncounterCode
- 2.16.840.1.113883.1.11.16208 ActPharmacySupplyType
- 2.16.840.1.113883.1.11.16866 ActPriority
- 2.16.840.1.113883.1.11.15933 ActStatus
- 2.16.840.1.113883.1.11.19708 ActSubstanceAdministrationCode
- 2.16.840.1.113883.1.11.16621 ActSubstanceAdminSubstitutionCode
- 2.16.840.1.113883.1.11.14570 AdministrableDrugForm
- 2.16.840.1.113883.1.11.11526 HumanLanguage
- 2.16.840.1.113883.11.20.9.18 MoodCodeEvnInt
- 2.16.840.1.113883.1.11.78 Observation Interpretation
- 2.16.840.1.113883.1.11.14079 ObservationMethod
- 2.16.840.1.113883.1.11.14581 RouteOfAdministration
- 2.16.840.1.113883.1.11.19719 SubstanceAdminSubstitutionNotAllowedReason
- 2.16.840.1.113883.1.11.19377 SubstanceAdminSubstitutionReason
- 2.16.840.1.113883.1.11.10706 TimingEvent
- 2.16.840.1.113883.1.11.19447 x_ActRelationshipEntryRelationship
- 2.16.840.1.113883.1.11.19890 x_ActStatusActiveComplete

7.5 Datatypes

Datatypes for element definitions used

- ANY – ANY
- BL – Boolean
- CD – Concept Descriptor
- CE – Coded with Equivalents
- CS – Coded Simple Value
- ED – Encapsulated Data
- EN – Entity Name
- II – Instance Identifier
- INT – Integer
- INT.NONNEG – Interval of Integer, non-negative
- IVL_INT – Interval of Integer

- IVL_PQ – Interval of Physical Quantity
- IVL_TS – Interval of Time Stamp
- IVXB_TS – Interval Boundary of Time Stamp
- PIVL_TS – Periodic Interval of Timezone
- PQ – Physical Quantity
- RTO_PQ_PQ – Ratio Physical Quantity / Physical Quantity
- ST – Character String
- TEL – Telecommunication Address
- TS – Time Stamp

Datatypes for attributes used

- bl – boolean code
- cs – code
- uid – identifier

7.6 Extensions

7.6.1 Detailed medications information

This specification uses CDA extensions in order to provide details about medications, as further described in the section on the design conventions for Medicinal Product Identification and as used in template 2.16.840.1.113883.10.21.4.11 *UV Medication Information (detail)*. The extension uses the namespace

urn:hl7-org:pharm

This is the list of elements defined for that template.

- pharm:formCode (Administrable Pharmaceutical Dose Form)
- pharm:asContent (Packaging of the medication)
 - pharm:quantity
 - pharm:containerPackagedMedicine (Most inner Package Item or the Packaged Medicinal Product)
 - pharm:code
 - pharm:name (Name of the Package Item or of the Packaged Medicinal Product)
 - pharm:formCode (type of the most inner package item or of the or the Packaged Medicinal Product)
 - pharm:capacityQuantity (the functional capacity of the container)
 - pharm:asContent (Containing package)

- pharm:quantity
- pharm:containerPackagedMedicine (Intermediate Package Item or the Packaged Medicinal Product)
 - pharm:code
 - pharm:name (Name of the Package Item or of the Packaged Medicinal Product)
 - pharm:formCode (type of the intermediate package item or of the or the Packaged Medicinal Product)
 - pharm:capacityQuantity (the functional capacity of the container)
 - pharm:asContent (Containing package)
 - pharm:quantity
 - pharm:containerPackagedMedicine (Packaged Medicinal Product)
 - pharm:code
 - pharm:name (Name of the Packaged Medicinal Product)
 - pharm:formCode (type of the Packaged Medicinal Product)
 - pharm:capacityQuantity (the functional capacity of the container)
- pharm:asSpecializedKind (used to represent any classification of the product (ATC code, future PhPIDs,..))
 - pharm:generalizedMaterialKind
 - pharm:code
 - pharm:name
- pharm:ingredient (list of active substances used for this product)
 - pharm:quantity (strength)
 - pharm:ingredientSubstance (active substance)
 - pharm:code
 - pharm:name

8 How to read the table view for templates

The template definitions are shown in a table view. It is comprised of *Template Meta data* and the *Template Design*. For further information please refer to the HL7 Templates Standard: Specification and Use of Reusable Information Constraint Templates, Release 1^[2].

Templates may also be included in the hierarchical graph view (often used for CDA), see below.

8.1 Template Meta data

The screenshot shows a table-based interface for viewing template meta data. The columns include Id, Status, Name, Effective Date, Version Label, Display Name, Description, Classification, Open/Closed, Used by / Uses, Relationship, and Example. Callouts numbered 1 through 7 point to specific parts of the interface:

- 1**: Points to the 'Id' column, showing the value 2.16.840.1.113883.10.22.2.3.
- 2**: Points to the 'Status' column, showing 'Draft' and the 'Version Label' column, showing 'IPS CDA custodian'.
- 3**: Points to the 'Description' section, which contains a plain text description and a note about required elements.
- 4**: Points to the 'Classification' section, which shows 'CDA Header Level Template'.
- 5**: Points to the 'Used by / Uses' section, which lists 'Used by' and 'Uses' entries.
- 6**: Points to the 'Relationship' section, which shows 'Adaptation: template 2.16.840.1.113883.10.12.104 CDA custodian (2005-09-07)'.
- 7**: Points to the 'Example' section, which displays an XML fragment.

The upper right part of the template table contains the template meta data. Template id, status and the template name are shown (1). Furthermore the Version (effective date), a possible version label and the display name are shown (2).

The description area (plain or an accordion) contains the template descriptions/purpose (3), followed by classifications and whether the template is defined as open or closed (4).

The usage part (5) may list templates that uses this template or what templates this templates uses. A relationship list (6) may show all relationships to other templates or models.

Examples may show the correct use of the template by an XML fragment (7).

Used by 0 transactions and 3 templates, Uses 4 templates

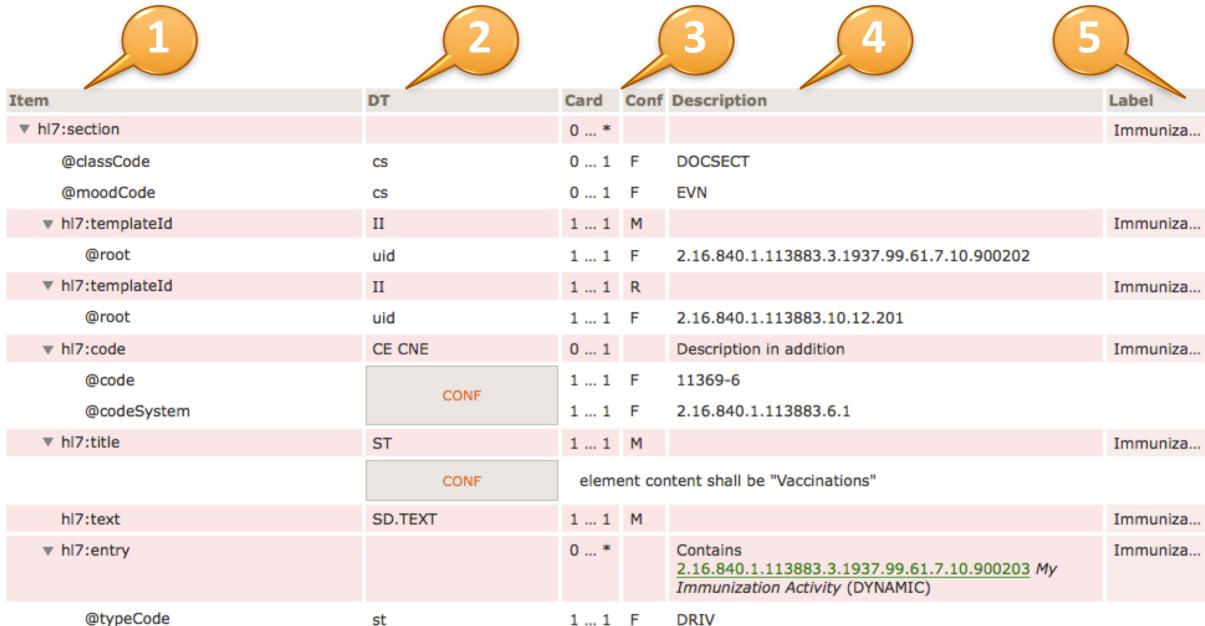
Used by	as	Name	Version
2.16.840.1.113883.10.22.4.5	Containment	IPS Allergy and Intolerance Concern	2016-11-11
2.16.840.1.113883.10.22.3.2	🔗	IPS Allergies and Intolerances Section	2016-11-11
2.16.840.1.113883.10.22.1.1	🔗	International Patient Summary	2017-04-11
Uses	as	Name	Version
2.16.840.1.113883.10.22.4.6	Containment	IPS Reaction Manifestation	DYNAMIC
2.16.840.1.113883.10.22.4.18	Containment	IPS Criticality Observation	DYNAMIC
2.16.840.1.113883.10.22.4.19	Containment	IPS Certainty Observation	DYNAMIC
2.16.840.1.113883.10.22.4.21	Containment	IPS Allergy Status Observation	2017-05-24

The relationship list shows all relationships to other templates or models for this template. It is divided in the "Used by" part listing templates that make use of this template, and a "Uses" listing all templates that are used by this template, either as inclusion or containment. Indirect relationships like the parent Document Level Template for a Section Level Template are marked with a chain symbol.

The PDF version is rendered in the same way, but maybe with different fonts etc. to fit customized publication requirements.

Id	2.16.840.1.113883.10.22.3.12	Effective Date	valid from 2017-04-13																				
Status	草案	Version Label																					
Name	IPSAdvanceDirectivesSection	Display Name	IPS Advance Directives Section																				
Description																							
The advance directive section shall contain a narrative description of patient's advance directive. Entries for references to consent and advance directive documents when known will be specified by future versions of this template.																							
Context	Parent nodes of template element with id 2.16.840.1.113883.10.22.3.12																						
Classification	CDA Section Level Template																						
Open/Closed	Open (other than defined elements are allowed)																						
Used by 0 transactions and 1 template, Uses 2 templates																							
Used by / Uses	<table border="1"> <thead> <tr> <th>Used by</th> <th>as</th> <th>Name</th> <th>Version</th> </tr> </thead> <tbody> <tr> <td>2.16.840.1.113883.10.22.1.1</td> <td>Containment</td> <td>International Patient Summary</td> <td>2017-04-11</td> </tr> <tr> <th>Uses</th> <th>as</th> <th>Name</th> <th>Version</th> </tr> <tr> <td>2.16.840.1.113883.10.22.4.14</td> <td>Containment</td> <td>IPS Body Author</td> <td>2017-03-02</td> </tr> <tr> <td>2.16.840.1.113883.10.12.319</td> <td>Containment</td> <td>CDA Informant (Body)</td> <td>DYNAMIC</td> </tr> </tbody> </table>			Used by	as	Name	Version	2.16.840.1.113883.10.22.1.1	Containment	International Patient Summary	2017-04-11	Uses	as	Name	Version	2.16.840.1.113883.10.22.4.14	Containment	IPS Body Author	2017-03-02	2.16.840.1.113883.10.12.319	Containment	CDA Informant (Body)	DYNAMIC
Used by	as	Name	Version																				
2.16.840.1.113883.10.22.1.1	Containment	International Patient Summary	2017-04-11																				
Uses	as	Name	Version																				
2.16.840.1.113883.10.22.4.14	Containment	IPS Body Author	2017-03-02																				
2.16.840.1.113883.10.12.319	Containment	CDA Informant (Body)	DYNAMIC																				
Relationship	Adaptation: template 1.3.6.1.4.1.19376.1.5.3.1.3.35 (DYNAMIC) Adaptation: template 1.3.6.1.4.1.19376.1.5.3.1.3.34 (DYNAMIC) Adaptation: template 2.16.840.1.113883.10.20.22.2.17 (DYNAMIC)																						

8.2 Table view of Template Design



Item	DT	Card	Conf	Description	Label
▼ hl7:section		0 ... *			Immuniza...
@classCode	cs	0 ... 1	F	DOCSECT	
@moodCode	cs	0 ... 1	F	EVN	
▼ hl7:templateId	II	1 ... 1	M		Immuniza...
@root	uid	1 ... 1	F	2.16.840.1.113883.3.1937.99.61.7.10.900202	
▼ hl7:templateId	II	1 ... 1	R		Immuniza...
@root	uid	1 ... 1	F	2.16.840.1.113883.10.12.201	
▼ hl7:code	CE CNE	0 ... 1		Description in addition	Immuniza...
@code	CONF		1 ... 1	F	11369-6
@codeSystem	CONF		1 ... 1	F	2.16.840.1.113883.6.1
▼ hl7:title	ST	1 ... 1	M		Immuniza...
	CONF		element content shall be "Vaccinations"		
hl7:text	SD.TEXT	1 ... 1	M		Immuniza...
▼ hl7:entry		0 ... *		Contains 2.16.840.1.113883.3.1937.99.61.7.10.900203 My Immunization Activity (DYNAMIC)	Immuniza...
@typeCode	st	1 ... 1	F	DRIV	

The headings of the table view of a template design are:

Item (1) contains the XML document tree view of all elements and attributes specified in the template design. Elements are denoted by a preceding triangle and attributes by a preceding "@".

DT (2) data types, contains the data type of the item, for more information on valid data types for element and attributes (see [2]).

Card / Conf (3) cardinality (Card) and conformance (Conf) of the item. Cardinality is the usual notion of min and max occurrences of the element. For attributes 0..1 denotes optionality, 1..1 say that the attribute is required and NP denotes prohibited attributes. Conformance may display values as shown in the following table.

Values of the conformance column

Conf	Short	Description
O	optional	Data is truly optional
R	required	If data is present and not masked (e.g. for privacy reasons), it must be provided, otherwise it may be omitted or explicitly null flavored. Sender and receiver must support this element.
M	mandatory	The data must be populated with a valid value from the associated value domain, otherwise the instance is not valid and may not be communicated. Sender and receiver must support this element.
C	conditional	There are conditions when data has to be provided (e.g. co-constraints like "information about pregnancy IF the patient is "female". Sender and receiver must support this element.
F	fixed	The data has a fixed value.
NP	not permitted	Data shall not be present

Description (4) contains a textual description of the item, may also contain constraints and values for fixed attributes.

Label (5) is a human readable label that is displayed upon errors, warnings or notes during validation.

8.2.1 Details of the table view

The diagram shows a table of HL7 template items with numbered callouts:

- 1**: Points to the "Item" column header.
- 2**: Points to an attribute entry (e.g., @classCode).
- 3**: Points to a data type entry (e.g., DT).
- 4**: Points to the "Card" column header.
- 5**: Points to a "Label" entry (e.g., Immuniza...).
- 6**: Points to a coded element entry (e.g., CE.CNE).
- 7**: Points to the "Conf" column header.
- 8**: Points to a "Description" entry (e.g., "element content shall be 'Vaccinations'").

Item	DT	Card	Conf	Description	Label
▼ hl7:section		0 ... *			Immuniza...
@classCode	cs	0 ... 1	F	DOCSECT	
@moodCode	cs	0 ... 1	F	EVN	
▼ hl7:templateId	II	1 ... 1	M		Immuniza...
@root	uid	1 ... 1	F	2.16.840.1.113883.3.1937.99.61.7.10.900202	
▼ hl7:templateId	II	1 ... 1	R		Immuniza...
@root	uid	1 ... 1	F	2.16.840.1.113883.10.12.201	
▼ hl7:code	CE CNE	0 ... 1		Description in addition	Immuniza...
@code	CONF	1 ... 1	F	11369-6	
@codeSystem		1 ... 1	F	2.16.840.1.113883.6.1	
▼ hl7:title	ST	1 ... 1	M		Immuniza...
	CONF	element content shall be "Vaccinations"			
hl7:text		SD.TEXT	1 ... 1	M	
▼ hl7:entry		0 ... *		Contains 2.16.840.1.113883.3.1937.99.61.7.10.900203 My Immunization Activity (DYNAMIC)	Immuniza...
@typeCode	st	1 ... 1	F	DRIV	

The actual template design shows the XML structure in a hierarchical list of elements (items) that are typically prefixed by the namespace "hl7:" or "cda:" (1).

Elements are denoted with a triangle, attributes with an @ sign (2).

Data types are specified according to the list of supported data types (3). They may be simple data types (lowercase), regular data types (uppercase) or flavors thereof. In case of coded elements, the coding strength (Required/CNE, Extensible/CWE, Preferred or Example) can be highlighted near the datatype (e.g. "CD.IPS (Extensible/CWE)") ; the absence of indications about the strength (e.g. "CE.IPS") shall be interpreted as "Required/CNE".

Values of the coding strength column

Strength	Displayed as	Description
Required	Required/ CNE	Coded with no exceptions; this element SHALL be from the specified value set
Extensible	Extensible/ CWE	Coded with Exceptions; this element SHALL be from the specified value set if any of the codes within the value set can apply to the concept being communicated. If the value set does not cover the concept (based on human review), alternate codings (or, data type allowing, text) may be included instead.
Preferred	Preferred	Instances are encouraged to draw from the specified codes for interoperability purposes but are not required to do so to be considered conformant.
Example	Example	Instances are not expected or even encouraged to draw from the specified value set. The value set merely provides examples of the types of concepts intended to be included.

The cardinality and conformance column is explained above (4).

Fixed values for e.g. attributes are also shown in the "description" column (5), preceded by a "F" in the Conf column.

Conformance statements are shown together with a CONF box, e.g. a @code and a @codeSystem with fixed and required values (6).

An optional label is displayed at the rightmost column (7).

Inclusion or containments of other templates, e.g. an entry within a section, are shown accordingly (8) along with their template id, display name and flexibility/stability indication, i.e. "DYNAMIC" (the most recent version) or a STATIC binding together with a version date.

	Elements to choose from:
<i>Choice</i>	1 ... 1
	<ul style="list-style-type: none"> ▪ hl7:assignedPerson ▪ hl7:representedOrganization

Choices of elements are shown as a choice list with the elements in questions summarised in a bullet point list.

CONF	The value of @code shall be drawn from value set 2.16.840.1.113883.11.22.25 <i>Medicine Doseform</i> (2017-05-03)
------	---

A typical Conformance Statement is the binding of a coded element to a value set. This is expressed in the way shown. The value set is represented with the id, display name and the flexibility/stability of the binding.

Constraint	At least one subordinate <substanceAdministration> element SHALL be present unless medications are unknown or known absent.
------------	---

In case a constraint is expressed in words, a box "Constraint" accompanies the textual expression of the constraint.

Schematron assert	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">role</td><td style="color: red; font-size: small;">error</td></tr> <tr> <td>test</td><td style="font-size: small;">not(@value) or starts-with(@value, '#')</td></tr> <tr> <td>Message</td><td style="font-size: small;">This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1)</td></tr> </table>	role	error	test	not(@value) or starts-with(@value, '#')	Message	This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1)
role	error						
test	not(@value) or starts-with(@value, '#')						
Message	This reference/@value SHALL begin with a '#' and SHALL point to its corresponding narrative (using the approach defined in CDA Release 2, section 4.3.5.1)						

In cases where constraints are expressed by formalised rules in ISO Schematron, the rule along with the role (error, warning), the test and the assertion message is shown.

8.3 How to read the Templates hierarchical graph view

Section	IPS Results Section (2.16.840.1.113883.10.22.3.14)
Entry	IPS Result Organizer (2.16.840.1.113883.10.22.4.9)
Entry	IPS Laboratory Result Observation (2.16.840.1.113883.10.22.4.13)

Templates are often included in the hierarchical graph view (often used for CDA). It gives an overview of e.g. section and entries and their nesting/relationships.

* CDA Person (2.16.840.1.113883.10.12.152)

@ UV Dispense Request (2.16.840.1.113883.10.21.4.2)

In case a template has more than one type (CDA Person for header, section and entry templates), it is denoted with a *, if a recursive definition is detected, this is shown with the symbol @.

8.4 How to read the where criteria

Templates sometimes include criteria for identifying distinct elements from a list (e.g. in a choice).

The criteria used to identify the items are shown in square brackets using the assertion *where [criteria]*

Criteria can be:

1. an **xpath expression** as in the example : *where [hl7:low or hl7:high]*
2. or an **integer** indexing the items of the list: e.g. *where [1]; where [2]*

9 References

9.1 Literature

- Boone KW: The CDA Book. Springer 2011, ISBN 978-0-85729-336-7

9.2 Links

1. http://www.hl7.org/implement/standards/product_brief.cfm?product_id=379
2. HL7 Templates Standard: Specification and Use of Reusable Information Constraint Templates, Release 1
http://www.hl7.org/implement/standards/product_brief.cfm?product_id=377
3. ISO/TS 13582:2013 Health informatics -- Sharing of OID registry information
4. Pharmacy Templates Material Publication Page on HL7 GitHub <https://github.com/HL7/CDA-pharma>
5. Pharmacy Templates Material Publication Page on ART-DECOR <https://hl7intl.art-decor.pub/index.php?prefix=pharmcda->
6. Pharmacy Templates Project Live Landing Page <https://art-decor.org/ad/#/pharmcda-/project/overview>
7. Get SNOMED CT <http://www.ihtsdo.org/snomed-ct/get-snomed-ct>

9.3 Figures

1. Locating ballot comments