Foreword

This is a supplement to the forthcoming IHE Pharmacy Technical Framework. Each supplement undergoes a process of public comment and trial implementation before being incorporated into the volumes of the Technical Frameworks.

This supplement is published on October 11, 2017 for trial implementation and may be available for testing at subsequent IHE Connectathons. The supplement may be amended based on the results of testing. Following successful testing it will be incorporated into the forthcoming Pharmacy Technical Framework. Comments are invited and may be submitted at http://www.ihe.net/Pharmacy_Public_Comments.

This supplement describes changes to the existing technical framework documents. “Boxed” instructions like the sample below indicate to the Volume Editor how to integrate the relevant section(s) into the relevant Technical Framework volume.

Amend Section X.X by the following:

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

General information about IHE can be found at http://www.ihe.net. Information about the IHE Pharmacy domain can be found at http://www.ihe.net/IHE_Domains. Information about the organization of IHE Technical Frameworks and Supplements and the process used to create them can be found at http://www.ihe.net/IHE_Process and http://www.ihe.net/Profiles.

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

The Community Pharmaceutical Advice Document Profile (PADV) describes the content and format of a Community Pharmaceutical Advice document generated during the process in which a health care professional (in most cases, but not necessarily always, a pharmacist) …

1) … validates a Medication Treatment Plan- or Prescription Item against pharmaceutical knowledge and regulations or
2) … manages a Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item.

The validation of Medication Treatment Plan- or Prescription Items can be with regard to conflicts with other Prescription Items, the current medication of the patient or other reasons which affect the further processing of the Medication Treatment Plan- or Prescription Item (may be dispensed, dispensed with change, etc.).

The managing of an item may include changes, cancellations, comments or suspending/resuming the processing of the item.

Documents created according to this profile are intended to be used in the context of the “Community Medication Prescription and Dispense” Integration Profile (CMPD). This supplement also references other documents1. The reader should have already read and understood these documents:

1. PHARM Common parts document
2. PHARM Community Medication Prescription and Dispense Integration Profile (CMPD)
3. PCC Technical Framework Volume 1
4. PCC Technical Framework Volume 2
5. IT Infrastructure Technical Framework Volume 1
6. IT Infrastructure Technical Framework Volume 2
7. IT Infrastructure Technical Framework Volume 3
8. HL7®2 and other standards documents referenced in this document

1 The first seven documents can be located on the IHE Website at http://ihe.net/Technical_Frameworks/. The remaining documents can be obtained from their respective publishers.

2 HL7 is the registered trademark of Health Level Seven International.
Open Issues and Questions

Closed Issues

- Shall the Community Pharmaceutical Advice document also be applicable to be related to Dispense Items (instead of Prescription Items) for e.g., cancelling already dispensed items.
  - Yes, this possibility was introduced in CP-PHARM-054
Volume 1 – Profiles

Add the following to Section 1.n

1.n Copyright Permission

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

Add the following to Section 2.5

2.5 Dependencies of the Pharmacy Integration Profiles

| Community Pharmaceutical Advice (PADV) | PCC | Content definition | This profile includes Section and Entry Content Modules of the Patient Care Coordination (PCC) domain. |

Add the following to Section 2.7

2.7 History of Annual Changes

In the 2016-2017 cycle of the IHE Pharmacy initiative, the following major changes were introduced to this supplement (please see the list of this year’s change proposals for the complete set of changes at ftp://ftp.ihe.net/Pharmacy/Technical_Framework/CP%20Overview):

- Profile has been renamed from “Pharmacy Pharmaceutical Advice” to “Community Pharmaceutical Advice”
- Medication Administration Items, introduced by the new Community Medication Administration (CMA) profile can now be referenced by a PADV
- Parent template CCD on section level removed
- Title and text elements have been added on section level
- Constraint that section id has to be equal to document id has been removed
- New observation code “COMMENT” introduced for all types of referenced items to allow a PADV being used for recording comments to an item
- Observation code “REFUSE” is now also allowed if MTP items is referenced
- Reporting of authors into the entry-level refined
The chapter which describes to which item the PADV is referencing to has been refined and combined into one chapter “Referenced Medication Treatment Plan, Prescription-, Dispense- or Medication Administration Item”

References to external items triggering the concern (Medication Treatment Plan Items, Prescription Items, …) refined and reorganized at “Reference to …” Content Modules in located in PRE profile

Pharm-Namespace “ihe:pharm:medication” changed to “ihe:pharm” (see Medicine Entry Content Module located in PRE profile)

**Important note:** Due to the nature of some of the changes, this profile version is no longer downward compatible to the former versions.

Add Section 3
3 Community Pharmaceutical Advice Content Profile

The Community Pharmaceutical Advice Document Profile (PADV) describes the content and format of a Community Pharmaceutical Advice document generated during the process in which a health care professional (in most cases, but not necessarily always, a pharmacist) …

1) … validates a Medication Treatment Plan- or Prescription Item against pharmaceutical knowledge and regulations or

2) … manages a Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item.

The validation of Medication Treatment Plan- or Prescription Items can be with regard to conflicts with other Prescription Items, the current medication of the patient or other reasons which affect the further processing of the Medication Treatment Plan- or Prescription Item (may be dispensed, dispensed with change, etc.).

The managing of an item may include changes, cancellations, comments or suspending/resuming the processing of the item.

Documents created according to this profile are intended to be used in the context of the “Community Medication Prescription and Dispense” Integration Profile (CMPD).

3.1 Purpose and Scope

The Community Medication Prescription and Dispense workflow includes the stage of validation of a prescription by a health care professional, usually different from the prescriber, possibly also supported by expert systems.

A Community Pharmaceutical Advice document is the outcome of the validation or review of one Prescription- or Dispense Item. It contains the overall result of the validation or review which affects the further processing as well as additional information such as Intolerances, Contra-indications and Allergies (ICAs) and all other information which was discovered during validation.

A Community Pharmaceutical Advice document is also used to manage Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Items (e.g., change, cancel, etc.) as well as to document Medication Interaction Checking Issues and their resolutions.

This profile defines the content and format of such a Community Pharmaceutical Advice document.

For a detailed overview on the whole Pharmacy domain business processes, please refer to the “Common parts” document, which is accompanying this profile.
3.2 Process Flow

3.2.1 Use Case 1: Validating a prescribed item

A patient enters the community pharmacy and requests a Prescription Item to be dispensed. The requested Prescription Item has not yet been validated by the Pharmaceutical Adviser.

Usually the pharmacist uses the pharmacy information system for validating the Prescription Item. After the process the result of the validation is stated in a Community Pharmaceutical Advice document. If the result was successful, the prescription is allowed to be dispensed by a Medication Dispenser.

3.2.2 Use Case 2: Reviewing and manage a dispensed item (stopping)

After getting Penicillin prescribed by a physician, the patient retrieves the prescribed medication from the pharmacy and takes it for three days. He then re-visits the physician because the illness had improved. The physician performs another physical examination to confirm the improved health status.

The physician decides to discontinue the Penicillin because the illness no longer requires an antibiotic. The physician issues a Community Pharmaceutical Advice document to record the stopping and instructs the patient to stop the intake.

Note 1: The same use case can be applied to a prescribed item (which has not yet been fully dispensed); with the difference that in this case the prescribed item shall no longer be dispensed.

Note 2: The same use case can be applied to a planned item for documenting the end of the treatment.

3.2.3 Use Case 3: Reviewing and manage a dispensed item (changing)

After getting Penicillin prescribed by a physician, the patient retrieves the prescribed medication from the pharmacy and takes it for three days. He then re-visits the physician because the illness had worsened. The physician performs another physical examination to confirm the worsened health status.

The physician decides to increase the dosage of the Penicillin from 1000mg once a day to 1000mg twice a day. The physician issues a Community Pharmaceutical Advice document to record the change and instructs the patient about the new dosage.

Note 1: The same use case can be applied to a prescribed item (which has not yet been fully dispensed); with the difference that in this case the prescribed item shall be dispensed with the changed dosage instructions.

Note 2: The same use case can be applied to a planned item for documenting the changed dosage instructions.
3.2.4 Use Case 4: Reviewing and manage a dispensed item (suspend/reactivate)

After getting Penicillin prescribed by a physician, the patient retrieves the prescribed medication from the pharmacy and takes it for three days. After that, he was taken to the hospital because the illness became critical. At admission, the physician recognizes the dispense of the 1000mg of Penicillin from three days earlier and decides to change this Dispense Item to "suspended" during the patient's hospital stay because other antibiotics will be given to the patient. The physician issues a Community Pharmaceutical Advice document to record the suspension.

Upon discharge of the patient, the physician decides to continue the treatment of the patient with the formerly dispensed medication and changes the Dispense Item to "active". The physician issues a Community Pharmaceutical Advice document to record the reactivation and the patient is instructed to continue with the medication.

Note 1: The same use case can be applied to a prescribed item (which has not yet been fully dispensed); with the difference that in this case the prescribed item shall not be dispensed during being suspended.

Note 2: The same use case can be applied to a planned item for documenting the medication is currently suspended / reactivated.

3.2.5 Use Case 5: Adding a comment to an item

After getting Penicillin prescribed by a physician, the patient retrieves the prescribed medication from the pharmacy and takes it for three days. After that, he revisits the physician and reports that since taking this medication he constantly feels a bit dizzy, but cannot tell whether this has its cause in the medication.

The physician decides to continue the treatment anyway, but since it might be an adverse reaction to the medication, records this issue in the system. The physician issues a Community Pharmaceutical Advice document to this Dispense Item to record this information as a comment.

Note: Comments can be generally issued in that manner to all kinds of items (Medication Treatment Plan Items, Prescription Items, etc.)

3.3 Actors/Transactions

There are two actors in this profile, the Content Creator and the Content Consumer. Content is created by a Content Creator and is to be consumed by a Content Consumer. The sharing or transmission of content from one actor to the other is addressed by the appropriate use of IHE profiles described below, and is out of scope of this profile. A Document Source or a Portable Media Creator may embody the Content Creator. A Document Consumer, a Document Recipient or a Portable Media Importer may embody the Content Consumer. The sharing or transmission of content or updates from one actor to the other is addressed by the use of appropriate IHE profiles described in the section on Content Bindings with XDS, XDM and XDR in PCC TF-2: 4.1.
3.4 Options

Options that may be selected for this content profile are listed in Table 3.4-1 along with the actors to which they apply. Dependencies between options when applicable are specified in notes.

Table 3.4-1: Community Pharmaceutical Advice Actors and Options

<table>
<thead>
<tr>
<th>Actor</th>
<th>Option</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Consumer</td>
<td>View Option (See Note 1)</td>
<td>PCC TF-2: 3.1.1</td>
</tr>
<tr>
<td></td>
<td>Document Import Option (See Note 1)</td>
<td>PCC TF-2: 3.1.2</td>
</tr>
<tr>
<td></td>
<td>Section Import Option (See Note 1)</td>
<td>PCC TF-2: 3.1.3</td>
</tr>
<tr>
<td></td>
<td>Discrete Data Import Option (See Note 1)</td>
<td>PCC TF-2: 3.1.4</td>
</tr>
<tr>
<td>Content Creator</td>
<td>No options defined</td>
<td></td>
</tr>
</tbody>
</table>

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

3.5 Groupings

Content profiles may impose additional requirements on the transactions used when grouped with actors from other IHE profiles.

3.5.1 Community Medication Prescription and Dispense

 Actors from the Pharmacy CMPD Profile embody the Content Creator and Content Consumer sharing function of this profile. A Content Creator or Content Consumer may be grouped with appropriate actors from the XDS, XDM or XDR profiles to exchange the content described therein. The metadata sent in the document sharing or interchange messages has specific relationships or dependencies (which we call bindings) to the content of the clinical document described in the content profile.

The Patient Care Coordination Technical Framework defines the bindings to use when grouping the Content Creator of this profile with actors from the Pharmacy CMPD Integration Profiles.
3.6 Security Considerations

The PADV Integration Profile assumes that a minimum security and privacy environment has been established across all participants. Security policies must exist regarding the use of training, agreements, risk management, business continuity and network security that need to be already in place prior to the implementation of PADV.

The IHE ITI ATNA Integration Profile is required of the actors involved in the IHE transactions specified in this profile to protect node-to-node communication and to produce an audit trail of the PHI related actions when they exchange messages.

In addition, the IHE ITI DSG Integration Profiles can be applied to the actors involved in the transactions specified in this profile to securely identify individuals involved in transactions and verify document integrity and authorizations (DSG).

Interested parties should also read the detailed Security Considerations sections provided for each of the aforementioned profiles in the IHE ITI Technical Framework and its supplements.

The PADV Profile does have a few security considerations of its own.

Pharmacy systems should be thoughtfully designed so that providers are able to review and verify information before it is imported into their Pharmacy system, and that positive user acknowledgements are made before import, and audit trails are recorded when imports occur.

Exported information should be traceable both to the source Pharmacy system, and the receiver that accepted it into the Pharmacy system. XDS Affinity domain policies should support policies and procedures for tracing information flows between Pharmacy systems.

Because the information being transferred is in XML, it will be common that different Pharmacy systems utilize different transformations to render the contents into human readable form. A Content Creator should make available the transforms used by the sending provider to review the documents, and a Content Consumer must support rendering the information as seen by the sending provider, allowing both providers to see what was sent in its original rendered form.

3.7 Content Modules

Content modules describe the content of a payload found in an IHE transaction. Content profiles are transaction neutral. They do not have dependencies upon the transaction that they appear in. These dependencies are reflected in the Bindings listed above.

All Community Pharmaceutical Advices shall be structured and coded as required by the Community Pharmaceutical Advice Document Content Module described in this profile. The inclusion of the specific coded attributes explicitly defined as optional, may be supported by specific implementations of Document Sources using an IHE identified coded terminology of their choice. The requirements and manner in which implementations support such capabilities is beyond the scope of this integration profile.

3.7.1 Structure of a Community Pharmaceutical Advice Document
Note: “Changed Medication Treatment Plan Item”, “Changed or Recommended Prescription Items” and “Changed Dosage Instructions” are mutually exclusive.

**Glossary**

390 The glossary of the Community Prescription is applicable to this supplement and described in the “Community Prescription (PRE)” supplement.
Volume 3 – Content Modules
5.0 Namespaces and Vocabularies

<table>
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<th>Description</th>
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</thead>
<tbody>
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<td>1.3.6.1.4.1.19376.1.9</td>
<td>IHE Pharmacy Object Identifiers</td>
<td>This is the root OID for all IHE Pharmacy objects</td>
</tr>
<tr>
<td>1.3.6.1.4.1.19376.1.5.3.4</td>
<td>Namespace OID used for IHE Extensions to CDA®³</td>
<td>Release 2.0</td>
</tr>
</tbody>
</table>

See also the Namespaces and Vocabularies of the IHE PCC Technical Framework PCC-TF2/Namespaces and Vocabularies.

5.1 IHE Format Codes

<table>
<thead>
<tr>
<th>Profile</th>
<th>Format Code</th>
<th>Media Type</th>
<th>Template ID</th>
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<td>Community Pharmaceutical Advice (PADV)</td>
<td>urn:ihe:pharm:padv:2010</td>
<td>text/xml</td>
<td>1.3.6.1.4.1.19376.1.9.1.1.2</td>
</tr>
</tbody>
</table>

³ CDA is the registered trademark of Health Level Seven International.
6.0 Pharmacy Content Modules

6.3 HL7 Version 3.0 Content Modules

6.3.1 CDA Document Content Modules

Add Section 6.3.1.2

6.3.1.2 Community Pharmaceutical Advice Specification 1.3.6.1.4.1.19376.1.9.1.1.2

A Community Pharmaceutical Advice document is the outcome of the validation or review of one Prescription Item. It contains the overall result of the validation or review which affects the further processing as well as additional information such as Intolerances, Contra-indications and Allergies (ICAs) and all other information which was discovered during validation.

A Community Pharmaceutical Advice document is also used to manage Medication Treatment Plan-, Prescription-, Dispense or Medication Administration Items (e.g., change, cancel, etc.) as well as to document Medication Interaction Checking Issues and their resolutions.

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<tr>
<td>LOINC Code</td>
<td>61356-2 (Medication pharmaceutical advice.extended)</td>
</tr>
<tr>
<td>Document Template ID</td>
<td>1.3.6.1.4.1.19376.1.9.1.1.2</td>
</tr>
<tr>
<td>Section name / template ID</td>
<td>Pharmaceutical Advice 1.3.6.1.4.1.19376.1.9.1.2.2</td>
</tr>
<tr>
<td>Entry name / template ID</td>
<td>Pharmaceutical Advice Item 1.3.6.1.4.1.19376.1.9.1.3.3</td>
</tr>
<tr>
<td>template ID</td>
<td>Pharmaceutical Advice Concern Module 1.3.6.1.4.1.19376.1.9.1.3.5</td>
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</table>

6.3.1.2.1 Format Code

The XDSDocumentEntry format code for this content is urn:ihe:pharm:padv:2010.

6.3.1.2.2 Parent Template

This document is an instance of the Medical Document template.

6.3.1.2.3 Standards
### 6.3.1.2.4 Data Element Index

<table>
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<tr>
<th>Data Elements</th>
<th>CDA Release 2.0</th>
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<td><strong>Patient Information</strong></td>
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<td>Patient Administrative Identifiers</td>
<td>recordTarget/patientRole/id</td>
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<td>Patient Name</td>
<td>recordTarget/patientRole/patient/name</td>
</tr>
<tr>
<td>Patient Gender</td>
<td>recordTarget/patientRole/patient/administrativeGenderCode</td>
</tr>
<tr>
<td>Patient Birth Date</td>
<td>recordTarget/patientRole/patient/birthTime</td>
</tr>
<tr>
<td>Patient Address</td>
<td>recordTarget/patientRole/addr</td>
</tr>
<tr>
<td>Patient Telecom</td>
<td>recordTarget/patientRole/telecom</td>
</tr>
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<td>author</td>
</tr>
<tr>
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</tr>
<tr>
<td>HCP Profession</td>
<td>author/functionCode</td>
</tr>
<tr>
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<td>author/assignedAuthor/assignedPerson/name</td>
</tr>
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<td>HCP Telecom</td>
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<tr>
<td>HCP Organization Telecom</td>
<td>author/assignedAuthor/representedOrganization/telecom</td>
</tr>
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<td><strong>Service Event</strong></td>
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<td>documentationOf/serviceEvent/effectiveTime</td>
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<tr>
<td>Service Event Code</td>
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<td>componentOf/encompassingEncounter</td>
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<tr>
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<td>componentOf/encompassingEncounter/effectiveTime/low</td>
</tr>
<tr>
<td>Date of Discharge/Encounter end date</td>
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</tbody>
</table>

4. Service Event SHALL NOT be present in a Pharmaceutical Advice.

5. Encounter MAY be present and SHALL contain encounter information if applicable.
### Data Elements

<table>
<thead>
<tr>
<th>Data Elements</th>
<th>CDA Release 2.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authorization</td>
<td>authorization/consent</td>
</tr>
<tr>
<td>Pharmaceutical Advice</td>
<td>MEDICATION PHARMACEUTICAL ADVICE.BRIEF</td>
</tr>
</tbody>
</table>

#### 6.3.1.2.5 Data Element Specification

<table>
<thead>
<tr>
<th>Data Element Name</th>
<th>Opt</th>
<th>Template ID</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>R</td>
<td>1.3.6.1.4.1.19376.1.5.3.1.1.1</td>
</tr>
<tr>
<td>Personal Identification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date of Birth</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HCP Person Information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCP Identification</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HCP Organization Information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization Identifier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Patient Information</strong></td>
<td>R2</td>
<td>1.3.6.1.4.1.19376.1.5.3.1.1.1</td>
</tr>
<tr>
<td>Address</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HCP Person Information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profession</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialty</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Patient Information</strong></td>
<td>O</td>
<td>1.3.6.1.4.1.19376.1.5.3.1.1.1</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religious Affiliation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HCP Person Information</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Information</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Authorization</strong></td>
<td>R2</td>
<td>1.3.6.1.4.1.19376.1.5.3.1.2.5</td>
</tr>
<tr>
<td><strong>Pharmaceutical Advice</strong></td>
<td>R</td>
<td>1.3.6.1.4.1.19376.1.9.1.2.2</td>
</tr>
</tbody>
</table>
6.3.1.2.6 Conformance

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

```
<ClinicalDocument xmlns='urn:hl7-org:v3'>
  <typeId extension="POCD_HD000040" root="2.16.840.1.113883.1.3"/>
  <templateId root='1.3.6.1.4.1.19376.1.5.3.1.1.1'/>
  <templateId root='1.3.6.1.4.1.19376.1.9.1.1.2'/>
  <id root='' extension=''/>
  <templateId root='1.3.6.1.4.1.19376.1.9.1.3.3' codeSystem='2.16.840.1.113883.6.1' codeSystemName='LOINC'/>
  <title>Pharmaceutical Advice</title>
  <effectiveTime value='20100719012005'/>
  <confidentialityCode code='N' displayName='Normal' codeSystem='2.16.840.1.113883.5.25' codeSystemName='Confidentiality'/>
  <languageCode code='en-US'/>
  <component>
    <structuredBody>
      
    </structuredBody>
  </component>
</ClinicalDocument>
```

6.3.2 CDA Header Content Modules

6.3.3 CDA Section Content Modules

6.3.3.2 Pharmaceutical Advice Section Content Module (1.3.6.1.4.1.19376.1.9.1.2.2)

<table>
<thead>
<tr>
<th>Template ID</th>
<th>1.3.6.1.4.1.19376.1.9.1.2.2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent Template</td>
<td>-</td>
</tr>
<tr>
<td>General Description</td>
<td>The Pharmaceutical Advice section contains a pharmaceutical advice to a medication prescribed, dispensed or administered for the patient. It shall include exactly one Pharmaceutical Advice entry as described in the Pharmaceutical Advice Item Entry Content Module.</td>
</tr>
<tr>
<td>LOINC Code</td>
<td>Opt</td>
</tr>
<tr>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>61357-0</td>
<td>R</td>
</tr>
<tr>
<td>Entries</td>
<td>Opt</td>
</tr>
<tr>
<td>1.3.6.1.4.1.19376.1.9.1.3.3</td>
<td>R</td>
</tr>
</tbody>
</table>
6.3.3.2.1 Parent Templates

This section content module has no parent structure. The value for ‘section/code’ SHALL be “61357-0”, “Medication pharmaceutical advice.brief”.

6.3.3.2.2 Pharmaceutical Advice Section ID

A Pharmaceutical Advice identifier SHALL be represented in the section <id> Element. The data type of the ID is II.

6.3.3.2.4 Section title

A Pharmaceutical Advice Section title SHOULD be represented in the section <title> Element. According to CDA R2 rules for structured CDA body, “the absence of the Section.title component signifies an unlabeled section.” (see HL7 Clinical Document Architecture, Release 2.0, 1.3.1 Recipient Responsibilities).

6.3.3.2.4 Text

A <text> element SHOULD be represented in the section and contain the narrative version of the Pharmaceutical Advice Item. This narrative block SHALL present the information to the human reader and represent the Pharmaceutical Advice Item information, using the various structures available in the CDA: tables, lists, paragraphs, hyperlinks, etc.
6.3.3.2.5 Pharmaceutical Adviser

In the case the Pharmaceutical Adviser or the timestamp of a Pharmaceutical Advice is different from the author and timestamp of the Community Pharmaceutical Advice-document, the Pharmaceutical Adviser and timestamp of the Pharmaceutical Advice SHALL be represented by the <author> element of the section.

<table>
<thead>
<tr>
<th>Data element</th>
<th>HL7 V3 Data Type</th>
<th>CDA Body position (relative XPath expression)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceutical Adviser Profession</td>
<td>CE</td>
<td>author/functionCode</td>
</tr>
<tr>
<td>Timestamp of the Pharmaceutical Advice</td>
<td>TS</td>
<td>author/time</td>
</tr>
<tr>
<td>Pharmaceutical Adviser ID</td>
<td>II</td>
<td>author/assignedAuthor/id</td>
</tr>
<tr>
<td>Pharmaceutical Adviser Specialty</td>
<td>CE</td>
<td>author/assignedAuthor/code</td>
</tr>
<tr>
<td>Pharmaceutical Adviser Name</td>
<td>PN</td>
<td>author/assignedAuthor/assignedPerson/name</td>
</tr>
<tr>
<td>Pharmaceutical Adviser Organization Identifier</td>
<td>II</td>
<td>author/assignedAuthor/representedOrganization/id</td>
</tr>
<tr>
<td>Pharmaceutical Adviser Organization Name</td>
<td>ON</td>
<td>author/assignedAuthor/representedOrganization/name</td>
</tr>
<tr>
<td>Pharmaceutical Adviser Organization Address</td>
<td>AD</td>
<td>author/assignedAuthor/representedOrganization/addr</td>
</tr>
</tbody>
</table>

6.3.4 CDA Entry Content Modules

*Add Section 6.3.4.3*

6.3.4.3 Pharmaceutical Advice Item Entry Content Module

(1.3.6.1.4.1.19376.1.9.1.3.3)

A Pharmaceutical Advice Item belongs to one Pharmaceutical Advice and represents the validation outcome of a referenced Prescription Item or management command regarding the referenced Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item (e.g., change, cancel, etc.). It may also carry Medication Interaction Checking Issue information regarding the referenced item.
6.3.4.3.1 Standards

This part describes the general structure for a Pharmaceutical Advice Item. It is based on the following standards:

<table>
<thead>
<tr>
<th>HL7V3</th>
<th>NE2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HL7 V3 2009 Normative Edition</td>
</tr>
</tbody>
</table>

6.3.4.3.2 Parent Template

This entry content module has no parent structure.
6.3.4.3.3 Specification

```xml
<observation classCode='OBS' moodCode='EVN'>
  <templateId root='1.3.6.1.4.1.19376.1.9.1.3.3'/>
  <id root='' extension=''/>
  <!-- Outcome of the validation / Management command -->
  <code code='' displayName='' codeSystem='' codeSystemName='' />
  <!-- Narrative comment to the result of the validation -->
  <text><reference value='#comment1'/></text>
  <statusCode code='active | completed'/>
  <effectiveTime value='' />
  <!-- Author(s) in case of usage elsewhere as in a PADV document -->
  <author>...</author>
  <author>...</author>
  <!-- Referenced Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item to which this Pharmaceutical Advice is related to -->
  <entryRelationship typeCode='REFR'>
    <substanceAdministration classCode='SBADM' moodCode='INT'>
      <templateId root='1.3.6.1.4.1.19376.1.9.1.3.10'/> <!-- PHARM MTP item -->
    </substanceAdministration>
    <!-- or -->
    <substanceAdministration classCode='SBADM' moodCode='INT'>
      <templateId root='1.3.6.1.4.1.19376.1.9.1.3.11'/> <!-- PHARM PRE Item -->
    </substanceAdministration>
    <!-- or -->
    <supply classCode='SPLY' moodCode='E VN'>
      <templateId root='1.3.6.1.4.1.19376.1.9.1.3.12'/> <!-- PHARM DIS Item -->
    </supply>
    <!-- or -->
    <substanceAdministration classCode='SBADM' moodCode='INT'>
      <templateId root='1.3.6.1.4.1.19376.1.9.1.3.14'/> <!-- PHARM CMA Item -->
    </substanceAdministration>
  </entryRelationship>
  <!-- One or more Pharmaceutical Advice Concern entries, representing validation issues with the objective Prescription- or Dispense Item -->
  <entryRelationship typeCode='REFR' inversionInd='false'>
    <act classCode='ACT' moodCode='E VN'>
      <templateId root='2.16.840.1.113883.10.20.1.27'/>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.1'/>
      <templateId root='1.3.6.1.4.1.19376.1.9.1.3.5'/>
    </act>
  </entryRelationship>
  <!-- Changed Medication Treatment Plan Item
  Shall only be present if the Pharmaceutical Advice references a Medication Treatment Plan Item and the status of the Pharmaceutical Advice is set to "CHANGE". -->
  <entryRelationship typeCode='REFR' inversionInd='false'>
    <substanceAdministration classCode='SBADM' moodCode='INT'>
      <templateId root='2.16.840.1.113883.10.20.1.24'/>
      <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7'/>
      <templateId root='1.3.6.1.4.1.19376.1.9.1.3.7'/>
    </substanceAdministration>
  </entryRelationship>
</observation>
```
IHE Pharmacy Technical Framework Supplement – Community Pharmaceutical Advice (PADV)

<!--
Changed or Recommended Prescription Item Organizer
Shall only be present if the Pharmaceutical Advice references a Prescription Item
and the status of the Pharmaceutical Advice is set to “OK” or “CHANGE”.
If the status is set to OK, these Organizers shall be considered as “recommendations”
If the status is set to CHANGE, these Organizers shall be considered as “changes”

If more than one Changed or Recommended Prescription Item Organizers are given
they indicate a “choice” of change or recommendation.
-->
<entryRelationship typeCode='REFR' inversionInd='false'>
  <organizer classCode='CLUSTER' moodCode='EVN'>
    <statusCode code='completed'>
      <component>
        <seperatableInd value='false'/>
        <substanceAdministration classCode="SBADM" moodCode="INT">
          <templateId root='2.16.840.1.113883.10.20.1.24'/>
          <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7'/>
          <templateId root='1.3.6.1.4.1.19376.1.9.1.3.2'/>
          ...
        </substanceAdministration>
      </component>
    </component>
  </organizer>
</entryRelationship>

<!--
Changed Dosage Instructions
Shall only be present if the Pharmaceutical Advice references a Dispense Item
and the status of the Pharmaceutical Advice is set to “CHANGE”.
-->
<entryRelationship typeCode='REFR' inversionInd='false'>
  <substanceAdministration classCode="SBADM" moodCode="INT">
    <templateId root='1.3.6.1.4.1.19376.1.9.1.3.6'/>
    :
    <consumable>
      <manufacturedProduct>
        <manufacturedMaterial nullFlavor='NA'/>
      </manufacturedProduct>
    </consumable>
    :
  </substanceAdministration>
</entryRelationship>

6.3.4.3.3.1 Pharmaceutical Advice Item Entry General Specification

<observation classCode='OBS' moodCode='EVN'>
...
</observation>

The <observation> element SHALL be present and represents the actual Pharmaceutical Advice. The moodCode attribute SHALL be EVN to reflect that the Pharmaceutical Advice has already taken place.

The organizer contains the overall status code of the Pharmaceutical Advice, the reason for decision as well as every conflicting Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item if given.
6.3.4.3.3.2 Pharmaceutical Advice Item Entry TemplateID

<templateId root='1.3.6.1.4.1.19376.1.9.1.3.3'/> <!-- PHARM -->

6.3.4.3.3.3 Pharmaceutical Advice Item ID

<id root='' extension=''/>

This ID represents the Pharmaceutical Advice Item ID and SHALL be present.

6.3.4.3.3.4 Observation Code

<code code='' display_name='' code_system='' code_system_name=''/>

The Pharmaceutical Advice Item Entry SHALL indicate the coded result of the validation or management command regarding the referenced Medication Treatment Plan-, Prescription-, Dispense- or Mediation Administration Item, implying the further proceeding with it, out of the following list:

code: see column “Code”
codeSystem: 1.3.6.1.4.1.19376.1.9.2.1
codeSystemName: IHE Pharmaceutical Advice Status List

In case this Pharmaceutical Advice references a Medication Treatment Plan Item the following statuses may be used:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>Medication Treatment Plan Item is active (allow to document complementary information).</td>
</tr>
<tr>
<td>CHANGE</td>
<td>Change of planning.</td>
</tr>
<tr>
<td>REFUSE</td>
<td>Refusal to integrate this medication in the treatment plan until further discussion with the medication treatment planner</td>
</tr>
<tr>
<td>CANCEL</td>
<td>Definite cancelation of the Medication Treatment Plan Item (item will not be part of the treatment plan any more).</td>
</tr>
<tr>
<td>SUSPEND</td>
<td>Medication Treatment Plan Item is temporarily set to suspended with the decision on how to continue postponed to a later point of time (e.g., release it again by setting it to OK, finally cancel it by setting to CANCEL, etc.). The item shall not be part of the active treatment plan during set to suspended.</td>
</tr>
<tr>
<td>COMMENT</td>
<td>Comment on the referenced item</td>
</tr>
</tbody>
</table>

In case this Pharmaceutical Advice references a Prescription Item the following statuses may be used:

---

Rev. 1.8 – 2017-10-11

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<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>Prescription Item is active (e.g., can be dispensed, no change expected but allowed if recommended medication given).</td>
</tr>
<tr>
<td>CHANGE</td>
<td>Dispense with change expected</td>
</tr>
<tr>
<td>REFUSE</td>
<td>Refusal to dispense until further discussion with prescriber</td>
</tr>
<tr>
<td>CANCEL</td>
<td>Definite cancelation of the Prescription Item (item will not be dispensed)</td>
</tr>
<tr>
<td>SUSPEND</td>
<td>Prescription Item is temporarily set to suspended with the decision on how to continue postponed to a later point of time (e.g., release it again by setting it to OK, finally cancel it by setting to CANCEL, etc.). The item shall not be dispensed during set to suspended.</td>
</tr>
<tr>
<td>COMMENT</td>
<td>Comment on the referenced item</td>
</tr>
</tbody>
</table>

In case this Pharmaceutical Advice references a **Dispense Item** the following statuses may be used:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>Dispense Item is active (e.g., resumed from being suspended).</td>
</tr>
<tr>
<td>CHANGE</td>
<td>Change in any information element of the Dispense Item except the medication (e.g., dosage instructions, patient instructions, etc.). The original Medicine Entry Item referenced by the Dispense Item shall be unchanged.</td>
</tr>
<tr>
<td>CANCEL</td>
<td>Definite stopping of the dispensed medication (patient stops intake of the medication)</td>
</tr>
<tr>
<td>SUSPEND</td>
<td>Dispense item is temporarily set to suspended with the decision on how to continue postponed to a later point of time (e.g., release it again by setting it to OK, finally cancel it by setting to CANCEL, etc.). The medication shall not be taken by the patient during set to suspended.</td>
</tr>
<tr>
<td>COMMENT</td>
<td>Comment on the referenced item</td>
</tr>
</tbody>
</table>

In case this Pharmaceutical Advice references a **Medication Administration Item** the following statuses may be used:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMENT</td>
<td>Comment on the referenced item</td>
</tr>
</tbody>
</table>

**Detailed description of statuses**

The following detailed description explains the meaning of the status codes.

**OK**

Usage in case when this Pharmaceutical Advice references a Medication Treatment Plan Item:
The status code OK shall be used to set a Medication Treatment Plan Item to active (e.g., resumed from being suspended). A planned medication is part of the active medication treatment plan of the patient during set to active.

**Usage in case when this Pharmaceutical Advice references a Prescription Item:**

The status code OK shall be used to set a Prescription Item to active, (e.g., can be dispensed, no change expected but allowed if recommended medication given). If additional information concerning alternative “recommended” medication is included in the document, according to the chapter 6.3.4.3.12 Changed or Recommended Prescription Items. The Medication Dispenser is allowed to either dispense the original prescribed item or the recommended item (or set of item).

Example: The Pharmaceutical Adviser may approve Adol 500mg Caplet as the prescribed item, but adds two alternatives, as first a genericum of Adol and as second a combination of two other medications. In this case the Medication Dispenser may either dispense the original medication, the genericum or the alternative combination of two medications other.

**Usage in case when this Pharmaceutical Advice references a Dispense Item:**

The status code OK shall be used to set a Dispense Item to active (e.g., resumed from being suspended). A dispensed medication may be taken by the patient during set to active.

**CHANGE**

**Usage in case when this Pharmaceutical Advice references a Medication Treatment Plan Item:**

The status code CHANGE shall be used, if the referred Medication Treatment Plan Item is kept in the treatment plan with required changes stated according to the chapter 6.3.4.3.13 Changed Medication Treatment Plan Item. The changes may concern all levels of information of the Planning Item (the medication itself, intake pattern, patient instructions, etc.).

Example: The Physician changes the Medication Treatment Plan Item following the decision to change the medication treatment because of some clinical reason.

**Usage in case when this Pharmaceutical Advice references a Prescription Item:**

The status code CHANGE shall be used, if the referred Prescription Item is allowed to be dispensed with required changes stated according to the chapter 6.3.4.3.14 Changed or Recommended Prescription Items. The changes may concern all levels of information of the Prescription Item (the medication itself, intake pattern, patient instructions, etc.).

Example 1: The Pharmaceutical Adviser may disapprove Adol 500mg Caplet as the prescribed item and requests a change to one of two alternatives, as first a genericum of Adol and as second a combination of two other medications. In this case the Medication Dispenser may either dispense the genericum or the alternative combination of two medications other but not the original medication.

Example 2: The Pharmaceutical Adviser may disapprove just the prescribed dosage of Adol and describes another dosage. In this case the Medication Dispenser may dispense original prescribed Adol, but has to commend the other dosage to the patient.
Example 3: The Physician changes the prescription item following the intention to change the medication treatment because of some clinical reason.

**Usage in case when this Pharmaceutical Advice references a Dispense Item:**

The status code CHANGE shall be used to document that the dosage instructions of the referred Dispense Item has been changed according to the chapter 6.3.4.3.3.11 Change Dispense Item.

The changes may concern all levels of information of the Dispense Item (intake pattern, patient instructions, etc.) except the medication itself. The medication itself shall not be different to the medication referenced in the referring Dispense Item.

Example: The Physician increases the dosage of the medication after 5 days of intake because the effectiveness is not as desired. The physician tells the patient to change the dosage of the medication accordingly.

**REFUSE**

This code is used only if this Pharmaceutical Advice references a Medication Treatment Plan Item or a Prescription Item.

The status code REFUSE shall be used, if the referred Medication Treatment Plan Item or Prescription Item is not allowed to be part of the treatment plan / dispensed by a Medication Dispenser and no allowed alternatives are available. The reasons leading to this statement are documented in the Pharmaceutical Advice. Subsequently the planning / prescription has to be further discussed with the planner or prescriber.

Example: The Pharmaceutical Adviser disapproves Paracetamol as prescribed item because there exists a contra-indication with another medication of the patient. Since no alternative can be found the therapy has to be modified by the prescriber.

**CANCEL**

**Usage in case when this Pharmaceutical Advice references a Medication Treatment Plan Item:**

The status code CANCEL shall be used to document that the referred Planned Item is stopped.

Example: The Physician stops the medication because of ineffectiveness and another medication shall be planned.

**Usage in case when this Pharmaceutical Advice references a Prescription Item:**

The status code CANCEL shall be used to cancel a prescribed medication. In difference to status code “refuse” this means a total abandonment of the Prescription Item (prescribed or dispensed) without expecting it to be refined by the prescriber.

Example: A physician wants to replace a recently prescribed medication of the patient by a new one. To keep the “current medication”-information of the patient up-to-date the physician first acts as a Pharmaceutical Adviser and cancels the current prescribed Prescription Item. Then the physician tells the patient to abandon the recent medication and prescribes a new one.
Usage in case when this Pharmaceutical Advice references a Dispense Item:

The status code CANCEL shall be used to document that the intake of the referred Dispense Item is be stopped.

Example: The Physician stops the medication after 5 days of intake because of ineffectiveness and another medication shall be prescribed. The physician tells the patient to stop the intake of the medication.

SUSPEND

Usage in case when this Pharmaceutical Advice references a Medication Treatment Plan Item:

The status code SUSPEND shall be used to set a planned medication to suspended. A Medication Treatment Plan Item shall not be part of the active treatment plan during set to suspended.

In difference to status code “cancel” (which reflects an irreversible cancelation of the Medication Treatment Plan Item) a suspended Medication Treatment Plan Item is intended to be just temporarily paused with the decision on how to continue postponed to a later point of time (e.g., release it again by setting it to OK, finally cancel it by setting to CANCEL, etc.).

Example: A patient gets admitted to the hospital and the admitting physician decides to set all medications of the active treatment plan to suspended, because the hospital entirely takes over the medication treatment during the hospital stay and it’s not clear whether or not the planned medication is continued afterwards.

Usage in case when this Pharmaceutical Advice references a Prescription Item:

The status code SUSPEND shall be used to set a prescribed medication to suspended. A Prescription Item shall not be dispensed during set to suspended.

In difference to status code “cancel” (which reflects an irreversible cancelation of the Prescription Item) a suspended Prescription Item is intended to be just temporarily paused with the decision on how to continue postponed to a later point of time (e.g., release it again by setting it to OK, finally cancel it by setting to CANCEL, etc.).

Example: A patient gets admitted to the hospital and the admitting physician decides to set all not yet dispensed community prescriptions to suspended, because the hospital entirely takes over the medication treatment during the hospital stay and it’s not clear whether or not the prescribed medication is continued afterwards.

Usage in case when this Pharmaceutical Advice references a Dispense item:

The status code SUSPEND shall be used to set a dispensed medication to suspended. A dispensed medication shall not be taken by the patient during set to suspended.

In difference to status code “cancel” (which reflects an irreversible cancelation of the Dispense Item) a suspended Dispense item is intended to be just temporarily paused with the decision on how to continue postponed to a later point of time (e.g., release it again by setting it to OK, finally cancel it by setting to CANCEL, etc.).
Example: A patient, who has a long-term medication for high blood pressure, gets admitted to the hospital and the admitting physician decides to set this long-term medication to suspended, because the hospital will take care about this during the hospital stay. It’s intended that the patient continues the long-term medication after discharge.

COMMENT

General usage:

The status code COMMENT shall be used to indicate that the Pharmaceutical Advice contains a comment on the referenced item (e.g., Prescription Item, Dispense Item, etc.), which is informational only and has not impact on the medication workflow or status of the referenced item.

6.3.4.3.5 Narrative Text

This element SHALL be present. The URI given in the value attribute of the <reference> element points to an element in the narrative content that contains the result of the validation or management command regarding the referenced Medication Treatment Plan-, Prescription- or Dispense Item (e.g., OK, CANCEL, …), implying the further proceeding with it, and other information related to it (e.g., the reason for the decision, etc.).

The narrative comment MAY contain “Human readable dosage instructions” in narrative form.

6.3.4.3.6 Status Code

The status code of a Pharmaceutical Advice SHALL be set to either “active” or “completed”, indicating whether the Pharmaceutical Advice is just a pre-release (active) or the final result (completed).

<table>
<thead>
<tr>
<th>code</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>active</td>
<td>This Pharmaceutical Advice is a provisional result. It is considered as a pre-release advice (e.g., assembled by an automated ICA check function), intended to be a foundation for the final decision taken by another Pharmaceutical Adviser. The results stated in this Pharmaceutical Advice do NOT affect the further workflow.</td>
</tr>
<tr>
<td>completed</td>
<td>This Pharmaceutical Advice is a final result. The results stated in this Pharmaceutical Advice will possibly affect the further workflow.</td>
</tr>
</tbody>
</table>

6.3.4.3.7 Effective Time (Date of becoming effective)

The value of the element shall be either a date and/or time (e.g., "2017-10-11T00:00:00Z") or an empty string.
An `<effectiveTime>` element MAY be present to document a point of time the Pharmaceutical Advice becomes effective. It SHALL contain a value attribute representing the date the observation code provided (e.g., OK, CANCEL, etc.) becomes effective.

If this element is not present, the observation code becomes effective at the creation date of the document.

Examples for observation codes becoming effective at a later point of time:

- A patient is instructed to take the medication dispensed for another 3 days, but then abort this medication treatment and stop taking it.
  - In this case the Pharmaceutical Advice would be reference the according Dispense Item and the `<effectiveTime>` element would be set to 3 days later than the creation date of the document.

- A Prescription Item is approved to be dispensed, but not sooner than in 2 days.
  - In this case the Pharmaceutical Advice would be reference the according Prescription Item and the `<effectiveTime>` element would be set to 2 days later than the creation date of the document.

6.3.4.3.3.8 Pharmaceutical Adviser

`<author>...</author>`

In the case that the Pharmaceutical Advice Item is used within a Community Pharmaceutical Advice document according to the “Community Pharmaceutical Advice” (PADV) Profile this element SHALL NOT be present.

In all other cases (e.g., when used in a “Community Medication List” document according to the PML Profile or in medication sections of other documents as for example Discharge Summaries, etc.) this element SHALL be present and represent the issuer and timestamp of the Pharmaceutical Advice Item.

This first author element SHALL be present in case that the “Community Pharmaceutical Advice document author” is present (see chapter 6.3.4.3.3.9).

The table below shows the meaning of the data elements of this `<author>` element. It SHOULD be corresponding to the `<author>` element of the Community Pharmaceutical Advice document or, if given, the `<author>` element of the Pharmaceutical Advice section within the Community Pharmaceutical Advice document.

<table>
<thead>
<tr>
<th>Data element</th>
<th>HL7 V3 Data Type</th>
<th>CDA Body position (relative XPath expression)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceutical Adviser Profession</td>
<td>CE</td>
<td><code>author/functionCode</code></td>
</tr>
<tr>
<td>Timestamp of the Pharmaceutical Advice</td>
<td>TS</td>
<td><code>author/time</code></td>
</tr>
</tbody>
</table>
865 **6.3.4.3.3.9 Community Pharmaceutical Advice document author**

<author>…</author>

In the case that the Pharmaceutical Advice Item is used within a Community Pharmaceutical Advice document according to the “Community Pharmaceutical Advice” (PADV) Profile this element SHALL NOT be present.

870 If the author of the Community Pharmaceutical Advice document is already present in the “Pharmaceutical Adviser” element (see chapter above), this element SHALL NOT be present.

In all other cases (e.g., when used in a “Community Medication List” document according to the PML Profile or in medication sections of other documents as for example Discharge Summaries, etc.) this element MAY be present and represent the author and timestamp of the Community Pharmaceutical Advice document.

The table below shows the meaning of the data elements of this <author> element. It SHALL be corresponding to the <author> element of the Community Pharmaceutical Advice document header.

<table>
<thead>
<tr>
<th>Data element</th>
<th>HL7 V3 Data Type</th>
<th>CDA Body position (relative XPath expression)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Pharmaceutical Advice document author Profession</td>
<td>CE</td>
<td>author/functionCode</td>
</tr>
<tr>
<td>Timestamp of the document creation</td>
<td>TS</td>
<td>author/time</td>
</tr>
</tbody>
</table>
### Data element

<table>
<thead>
<tr>
<th>Data element</th>
<th>HL7 V3 Data Type</th>
<th>CDA Body position (relative XPath expression)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Pharmaceutical Advice document author ID</td>
<td>II</td>
<td><code>author/assignedAuthor/id</code></td>
</tr>
<tr>
<td>Community Pharmaceutical Advice document author Specialty</td>
<td>CE</td>
<td><code>author/assignedAuthor/code</code></td>
</tr>
<tr>
<td>Community Pharmaceutical Advice document author Name</td>
<td>PN</td>
<td><code>author/assignedAuthor/assignedPerson/name</code></td>
</tr>
<tr>
<td>Community Pharmaceutical Advice document author Organization Identifier</td>
<td>II</td>
<td><code>author/assignedAuthor/representedOrganization/id</code></td>
</tr>
<tr>
<td>Community Pharmaceutical Advice document author Organization Name</td>
<td>ON</td>
<td><code>author/assignedAuthor/representedOrganization/name</code></td>
</tr>
<tr>
<td>Community Pharmaceutical Advice document author Organization Address</td>
<td>AD</td>
<td><code>author/assignedAuthor/representedOrganization/addr</code></td>
</tr>
</tbody>
</table>

---

#### 6.3.4.3.3.9 Referenced Medication Treatment Plan, Prescription-, Dispense- or Medication Administration Item

```
<entryRelationship typeCode='REFR'>
  <substanceAdministration classCode='SBADM' moodCode='INT'>
    <templateId root='1.3.6.1.4.1.19376.1.9.1.3.10'/> <!-- PHARM MTP item -->
    :
  </substanceAdministration>

  <!-- or -->
  <substanceAdministration classCode='SBADM' moodCode='INT'>
    <templateId root='1.3.6.1.4.1.19376.1.9.1.3.11'/> <!-- PHARM PRE item -->
    :
  </substanceAdministration>
```

---

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A reference to exactly one Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item this Pharmaceutical Advice is related to SHALL be present and SHALL contain a reference to the respective item, conforming to the respective “Reference to … Item” Content Module:

- “Reference to Medication Treatment Plan Item” Content Module
  - 1.3.6.1.4.1.19376.1.9.1.3.10
- “Reference to Prescription Item” Content Module
  - 1.3.6.1.4.1.19376.1.9.1.3.11
- “Reference to Dispense Item” Content Module
  - 1.3.6.1.4.1.19376.1.9.1.3.12
- “Reference to Medication Administration Item” Content Module
  - 1.3.6.1.4.1.19376.1.9.1.3.14

See PHARM TF-3 for specification of these Content Modules.

### 6.3.4.3.3.10 Reference to Pharmaceutical Advice Concerns

<entryRelationship typeCode='REFR' inversionInd='false'>
  <act classCode='ACT' moodCode='EVN'>
    <templateId root='2.16.840.1.113883.10.20.1.27'/>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.1'/>
    <templateId root='1.3.6.1.4.1.19376.1.9.1.3.5'/>
  </act>
</entryRelationship>
One or more Pharmaceutical Advice Concern entries MAY be present in case of validation issues or comments regarding the objective Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item. They SHALL conform to the Pharmaceutical Advice Concern Entry Content Module template (1.3.6.1.4.1.19376.1.9.1.3.5).

A Pharmaceutical Advice Concern records one or more problems related to the concern. If the concern was caused by another Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item a reference to that item may be present.

6.3.4.3.3.11 Changed Medication Treatment Plan Item

(1) Only one element SHALL be present, if the status of the Pharmaceutical Advice (<code>code</code> Element) is set to “CHANGE” and a reference to a Medication Treatment Plan Item is given. In this case it shall indicate the changed Medication Treatment Plan Item, which is becoming part of the treatment plan instead of the original planned item. The changed Medication Treatment Plan Item shall be documented as complete Medication Treatment Plan Item Entry.

(2) Only one element SHALL be present, if the status of the Pharmaceutical Advice (<code>code</code> Element) is set to “CHANGE” and a reference to a Medication Treatment Plan Item is given. In this case it shall indicate the changed Medication Treatment Plan Item, which is added to the plan instead of the original planned item. The changed Medication Treatment Plan Item shall be documented as complete Medication Treatment Plan Item Entry.

(3) In all other cases this element SHALL NOT be present.
6.3.4.3.3.12 Changed or Recommended Prescription Items

<entryRelationship typeCode='REFR' inversionInd='false'>
  <organizer classCode='CLUSTER' moodCode='EVN'>
    <statusCode code='completed'>
      <component>
        <seperatableInd value='false'>
          <!-- First Prescription Item -->
          <substanceAdministration classCode='SBADM' moodCode='INT'>
            <templateId root='2.16.840.1.113883.10.20.1.24'/>
            <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.7'/>  
            <templateId root='1.3.6.1.4.1.19376.1.9.1.3.2'/>  
          </substanceAdministration>
        </component>
        <component>
          <!-- Second Prescription Item -->
          :
        </component>
      </component>
    </organizer>
  </entryRelationship>

(1) One or more elements SHALL be present, if the status of the Pharmaceutical Advice (<code>Element) is set to “CHANGE” and a reference to a Prescription Item is given.

In this case it shall indicate the changed Prescription Item(s), which are allowed to be dispensed instead of the original prescribed item. The changed Prescription Item(s) shall be documented as complete Prescription Item Entry(s).

More than one Prescription Items within the organizer indicate that the original Prescription Item has to be changed with the combination of Prescription Items as a whole.

(2) One or more elements MAY be present, if the status of the Pharmaceutical Advice (<code>Element) is set to “OK” and a reference to a Prescription Item is given.
In this case it may recommend an alternative (drug, dosage, form, etc.) to the original Prescription Item.

More than one Prescription Items within the organizer indicate that the original Prescription Item can be changed with the combination of Prescription Items as a whole.

(3) In all other cases this element SHALL NOT be present.

All Prescription Items shall be given “as a whole” according to the specification of the Prescription Item Entry Content Module (1.3.6.1.4.1.19376.1.9.1.3.2).

If more than one Changed or Recommended Prescription Item elements are given they indicate a “choice” of change or recommendation.

### 6.3.4.3.3.13 Changed Dosage Instructions

```
<entryRelationship typeCode='REFR' inversionInd='false'>
  <substanceAdministration classCode="SBADM" moodCode="INT">
    <templateId root='1.3.6.1.4.1.19376.1.9.1.3.6'/>
    :
    <consumable>
      <manufacturedProduct>
        <manufacturedMaterial nullFlavor='NA'/>
      </manufacturedProduct>
    </consumable>
    :
  </substanceAdministration>
</entryRelationship>
```

The Changed Dosage Instructions are provided in a `<substanceAdministration>` element containing the dosage instructions data elements.

(1) This element SHALL be present, if all of the following conditions are met:
   - The status of the Pharmaceutical Advice (<code> Element) is set to “CHANGE”
   - A reference to a Dispense Item is given
   - No Narrative Dosage Instructions are provided in the Narrative Text element.

(2) This element MAY be present, if all of the following conditions are met:
   - The status of the Pharmaceutical Advice (<code> Element) is set to “CHANGE”
   - A reference to a Dispense Item is given
• Narrative Dosage Instructions are provided in the Narrative Text element.

(3) In all other cases this element SHALL NOT be present.

A `<substanceAdministration>` element SHALL contain a moodCode attribute set to ‘INT’ to reflect that the given instructions in the Dosage Instructions is intended to be followed.

A `<substanceAdministration>` element SHALL contain a `<consumable>` element, which SHALL contain a `<manufacturedProduct/manufacturedMaterial>` element with a nullFlavor=“NA” attribute.

A `<substanceAdministration>` element SHALL contain dosage instructions, given “as a whole” according to the specification of the dosage instructions in the Dosage Instructions Content Module (1.3.6.1.4.1.19376.1.9.1.3.6) as defined in the Community Prescription (PRE) Profile.

Note: The following elements part of the Dosage Instructions:

• Prescription Item Entry Additional Template ID
• Effective Time (Duration of Treatment)
• Medication Frequency
• Route of Administration
• Approach Site Code
• Dose Quantity
• Rate Quantity
• Related Components

6.3.4.3.3.14 ID of parent container (Community Pharmaceutical Advice document)

`<reference typeCode='XCRPT'>
  `<externalDocument>
    `<id root=' ' extension=' '/>
  `/externalDocument>
`/reference>

In the case that the Pharmaceutical Advice Item is used within a Community Pharmaceutical Advice document according to the “Community Pharmaceutical Advice” (PADV) Profile this element SHALL NOT be present.

In all other cases (e.g., when used in a “Community Medication List” document according to the PML Profile or in medication sections of other documents as for example Discharge Summaries, etc.) this element SHOULD be present and contain the identifier of the Community Pharmaceutical Advice document, the Pharmaceutical Advice Item initially has been created.
6.3.4.4 Pharmaceutical Advice Concern Entry Content Module
(1.3.6.1.4.1.19376.1.9.1.3.5)

A Pharmaceutical Advice Concern Item belongs to one Pharmaceutical Advice Item and represents the information to concerns (e.g., problems, allergies, etc.) which the Medication Treatment Plan-, Prescription-, Dispense- or Administration Item referenced by the underlying Pharmaceutical Advice Item causes.

6.3.4.4.1 Standards

This part describes the general structure for a Pharmaceutical Advice Item. It is based on the following standards:

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HL7V3 NE2009</td>
<td>HL7 V3 2009 Normative Edition</td>
</tr>
<tr>
<td>CDAR2</td>
<td>HL7 CDA Release 2.0</td>
</tr>
<tr>
<td>CCD®6</td>
<td>ASTM/HL7 Continuity of Care Document</td>
</tr>
<tr>
<td>IHE PCC</td>
<td>Concern Entry (1.3.6.1.4.1.19376.1.5.3.1.4.5.1)</td>
</tr>
</tbody>
</table>

6.3.4.4.2 Parent Template

This entry content module inherits the structure of the Concern Entry Content Module, 1.3.6.1.4.1.19376.1.5.3.1.4.5.1.

6.3.4.4.3 Specification

This section makes use of the concern entry content modules.

This specification relies on the PCC Concern Entry Content Module (1.3.6.1.4.1.19376.1.5.3.1.4.5.1) specification and only describes additional constraints.

The chapters below identify and describe these fields, and indicate the constraints on whether or not they are required to be sent. The fields are listed in the order that they appear in the CDA XML content.

---

6 CCD is the registered trademark of Health Level Seven International.
<!-- Narrative description of the problems -->
<text><reference value='#description1'/></text>
<statusCode code='active'/>
<effectiveTime>
<low value=''/>
<high value=''/>
</effectiveTime>

<!-- One or more entry relationships identifying each problem or allergy determined -->
<entryRelationship typeCode='SUBJ' inversionInd='false'>
<!-- Problem entry (1.3.6.1.4.1.19376.1.5.3.1.4.5) -->
<observation classCode='OBS' moodCode='EVN' negationInd='false'>
    ...
</observation>

<!-- Allergies and Intolerances entry (1.3.6.1.4.1.19376.1.5.3.1.4.6) -->
<observation classCode='OBS' moodCode='EVN' negationInd='false'>
    ...
</observation>

</entryRelationship>

<!-- Exactly one referenced Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item which causes the concern -->
<entryRelationship typeCode='REFR'>
<substanceAdministration classCode='SBADM' moodCode='INT'>
    ...
</substanceAdministration>

<!-- or -->
<substanceAdministration classCode='SBADM' moodCode='INT'>
    ...
</substanceAdministration>

<!-- or -->
<supply classCode='SPLY' moodCode='EVN'>
    ...
</supply>

<!-- or -->
<substanceAdministration classCode='SBADM' moodCode='EVN'>
    ...
</substanceAdministration>

<!-- or -->
<substanceAdministration classCode='SBADM' moodCode='EVN'>
    ...
</substanceAdministration>

<!-- or -->
<substanceAdministration classCode='SBADM' moodCode='EVN'>
    ...
</substanceAdministration>

<!-- or -->
<substanceAdministration classCode='SBADM' moodCode='EVN'>
    ...
</substanceAdministration>

<!-- or -->
<substanceAdministration classCode='SBADM' moodCode='EVN'>
    ...
</substanceAdministration>

<!-- or -->
<substanceAdministration classCode='SBADM' moodCode='EVN'>
    ...
</substanceAdministration>

<!-- or -->
<observation classCode='OBS' moodCode='EVN'>
    ...
</observation>

<!-- or -->
<observation classCode='OBS' moodCode='EVN'>
    ...
</observation>

<!-- or -->
<observation classCode='OBS' moodCode='EVN'>
    ...
</observation>

<!-- or -->
<observation classCode='OBS' moodCode='EVN'>
    ...
</observation>

</entryRelationship>

<!-- Optional severity of the concern -->
<entryRelationship typeCode='SUBJ' inversionInd='true'>
<observation classCode='OBS' moodCode='EVN'>
    ...
</observation>

</entryRelationship>

</act>
6.3.4.4.3.1 Pharmaceutical Advice Concern Entry General Specification

<act classCode='ACT' moodCode='EVN'>
...
</act>

See PCC TF-2, Concern Entry Module (1.3.6.1.4.1.19376.1.5.3.1.4.5.1) specification.

6.3.4.4.3.2 Pharmaceutical Advice Concern Entry TemplateID

<templateId root='2.16.840.1.113883.10.20.1.27'/> <!-- CCD -->
<templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.5.1'/> <!-- PCC -->
<templateId root='1.3.6.1.4.1.19376.1.9.1.3.5'/>  <!-- PHARM -->

See PCC TF-2, Concern Entry Module (1.3.6.1.4.1.19376.1.5.3.1.4.5.1) specification.

6.3.4.4.3.3 Pharmaceutical Advice Concern ID

{id root=' ' extension=' '/>

This ID represents the Pharmaceutical Advice Concern ID and SHALL be present.

See PCC TF-2, Concern Entry Module (1.3.6.1.4.1.19376.1.5.3.1.4.5.1) specification.

6.3.4.4.3.4 Code

<code nullFlavor='NA'/>

The code is not applicable to a concern act, and so shall be recorded as shown above.

See PCC TF-2, Concern Entry Module (1.3.6.1.4.1.19376.1.5.3.1.4.5.1) specification.

6.3.4.4.3.5 Narrative description of the concern

<text><reference value='#comment1'/></text>

An optional narrative description of the concern MAY be referenced in the <text> element.

6.3.4.4.3.6 Status Code

<statusCode code='active'/>

The status of the <act> element SHALL be present and must be set to "active". The concern is still being tracked.

6.3.4.4.3.7 Effective Time

<effectiveTime>
  <low value='' />
  <high value='' />
</effectiveTime>
The `<effectiveTime>` element records the starting time from which the concern was active. The `<high>` element SHALL NOT be present. See PCC TF-2, Concern Entry Module (1.3.6.1.4.1.19376.1.5.3.1.4.5.1) specification.

### 6.3.4.4.3.8 Problems determined

```xml
<entryRelationship typeCode='SUBJ' inversionInd='false'>
  <!-- Problem entry (1.3.6.1.4.1.19376.1.5.3.1.4.5) -->
  <observation classCode='OBS' moodCode='EVN' negationInd='false'>
    :  
  </observation>
  -- OR --
  <!-- Allergies and Intolerances entry (1.3.6.1.4.1.19376.1.5.3.1.4.6) -->
  <observation classCode='OBS' moodCode='EVN' negationInd='false '>
    :  
  </observation>
</entryRelationship>
```

One or more entry relationships SHALL be present identifying each problem or allergy determined. These entries SHALL conform to the specification of the IHE PCC Problem Entry (1.3.6.1.4.1.19376.1.5.3.1.4.5) or Allergies and Intolerances (1.3.6.1.4.1.19376.1.5.3.1.4.6). See PCC TF-2, Concern Entry Module (1.3.6.1.4.1.19376.1.5.3.1.4.5.1) specification.

### 6.3.4.4.3.9 External Medication Treatment Plan-, Prescription- or Dispense Item triggering the concern

```xml
<entryRelationship typeCode='REFR'>
  <substanceAdministration classCode='SBADM' moodCode='INT'>
    <templateId root='1.3.6.1.4.1.19376.1.9.1.3.10'/>  <!-- PHARM MTP item -->
    :  
  </substanceAdministration>

  <!-- or -->
  <substanceAdministration classCode='SBADM' moodCode='INT'>
    <templateId root='1.3.6.1.4.1.19376.1.9.1.3.11'/>  <!-- PHARM PRE item -->
    :  
  </substanceAdministration>
</entryRelationship>
```
Exactly one entry relationship MAY be present identifying the external Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item, which triggers the concern (in conjunction with the Medication Treatment Plan-, Prescription-, Dispense- or Medication Administration Item the parent Pharmaceutical Advice Item is related to).

It SHALL contain a reference to the respective item, conforming to the respective “Reference to … Item” Content Module:

- “Reference to Medication Treatment Plan Item” Content Module
  - 1.3.6.1.4.1.19376.1.9.1.3.10
- “Reference to Prescription Item” Content Module
  - 1.3.6.1.4.1.19376.1.9.1.3.11
- “Reference to Dispense Item” Content Module
  - 1.3.6.1.4.1.19376.1.9.1.3.12
- “Reference to Medication Administration Item” Content Module
  - 1.3.6.1.4.1.19376.1.9.1.3.14

6.3.4.4.3.10 Severity of the concern

<entryRelationship typeCode='SUBJ' inversionInd='true'>
  <observation classCode='OBS' moodCode='EVN'>
    <templateId root='2.16.840.1.113883.10.20.1.55'/>
    <templateId root='1.3.6.1.4.1.19376.1.5.3.1.4.1'/>
  :
"/observation">
"/entryRelationship">

Exactly one Severity Observation MAY be present. This element SHALL conform to the IHE PCC Severity Entry Content Module (1.3.6.1.4.1.19376.1.5.3.1.4.1) specification.
### 6.5 PHARM Value Sets

Add Section 6.5.1

#### 6.5.1 IHE Pharmaceutical Advice Status List

The Pharmaceutical Advice Status List is used in the Pharmaceutical Advice Item Entry Content Module (1.3.6.1.4.1.19376.1.9.1.3.3) for coding the overall outcome of the validation process or management command regarding the referenced Medication Treatment Plan-, Prescription- or Dispense Item, implying the further proceeding with it.

code: see column “Code”

codeSystem: 1.3.6.1.4.1.19376.1.9.2.1

codeSystemName: IHE Pharmaceutical Advice Status List

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK</td>
<td>Usage in case when this Pharmaceutical Advice references a Medication Treatment Plan Item: Medication Treatment Plan Item is active (allow to document complementary information). Usage in case when this Pharmaceutical Advice references a Prescription Item: Prescription Item is active (e.g., can be dispensed, no change expected but allowed if recommended medication given). Usage in case when this Pharmaceutical Advice references a Dispense Item: Dispense Item is active (e.g., resumed from being suspended).</td>
</tr>
<tr>
<td>CHANGE</td>
<td>Usage in case when this Pharmaceutical Advice references a Medication Treatment Plan Item: Change of planning. Usage in case when this Pharmaceutical Advice references a Prescription Item: Dispense with change expected Usage in case when this Pharmaceutical Advice references a Dispense Item: Change in any information element of the Dispense Item except the medication (e.g., dosage instructions, patient instructions, etc.). The original Medicine Entry Item referenced by the Dispense Item shall be unchanged.</td>
</tr>
<tr>
<td>REFUSE</td>
<td>Usage in case when this Pharmaceutical Advice references a Medication Treatment Plan Item: Refusal to integrate this medication in the treatment plan until further discussion with the medication treatment planner Usage in case when this Pharmaceutical Advice references a Prescription Item: Refusal to dispense until further discussion with prescriber</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| CANCEL | **Usage in case when this Pharmaceutical Advice references a Medication Treatment Plan Item:**  
Definite cancelation of the Medication Treatment Plan Item (item will not be part of the treatment plan any more).  
**Usage in case when this Pharmaceutical Advice references a Prescription Item:**  
Definite cancelation of the Prescription Item (item will not be dispensed)  
**Usage in case when this Pharmaceutical Advice references a Dispense item:**  
Definite stopping of the dispensed medication (patient stops intake of the medication) |
| SUSPEND| **Usage in case when this Pharmaceutical Advice reference a Medication Treatment Plan Item:**  
Medication Treatment Plan Item is temporarily set to suspended with the decision on how to continue postponed to a later point of time (e.g., release it again by setting it to OK, finally cancel it by setting to CANCEL, etc.). The item shall not be part of the active treatment plan during set to suspended.  
**Usage in case when this Pharmaceutical Advice references a Prescription Item:**  
Prescription Item is temporarily set to suspended with the decision on how to continue postponed to a later point of time (e.g., release it again by setting it to OK, finally cancel it by setting to CANCEL, etc.). The item shall not be dispensed during set to suspended.  
**Usage in case when this Pharmaceutical Advice references a Dispense item:**  
Dispense item is temporarily set to suspended with the decision on how to continue postponed to a later point of time (e.g., release it again by setting it to OK, finally cancel it by setting to CANCEL, etc.). The medication shall not be taken by the patient during set to suspended. |
| COMMENT| General usage: Comment on the referenced item                                                                                                                                                                                                                                      |
Appendices

Appendices A.1 to A.4 are applicable to this profile and are described in the “Community Prescription (PRE)” supplement.
Volume 3 Namespace Additions

Add the following terms to the IHE Namespace:

- Community Pharmaceutical Advice (PADV) Document Content Module
  - 1.3.6.1.4.1.19376.1.9.1.1.2
- Pharmaceutical Advice Section Content Module
  - 1.3.6.1.4.1.19376.1.9.1.2.2
- Pharmaceutical Advice Item Entry Content Module
  - 1.3.6.1.4.1.19376.1.9.1.3.3
- Pharmaceutical Advice Concern Item Entry Content Module
  - 1.3.6.1.4.1.19376.1.9.1.3.5