Integrating the Healthcare Enterprise

IHE Patient Care Coordination Technical Framework Supplement

International Patient Summary (IPS)

HL7® FHIR® R4

Using Resources at FMM Level 0-N

Revision 1.1 – Trial Implementation

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Author: PCC Technical Committee

Email: pcc@ihe.net

Please verify you have the most recent version of this document. See here for Trial Implementation and Final Text versions and here for Public Comment versions.

Foreword

This is a supplement to the IHE Patient Care Coordination Technical Framework V11.0. Each supplement undergoes a process of public comment and trial implementation before being incorporated into the volumes of the Technical Frameworks.

This supplement is published on June 17, 2020 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 Patient Care Coordination Technical Framework. Comments are invited and can be submitted at https://www.ihe.net/PCC_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 www.ihe.net.

Information about the IHE Patient Care Coordination domain can be found at ihe.net/IHE_Domains.

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

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

CONTENTS

Introduction to this Supplement 7
Open Issues and Questions 8
Closed Issues 12
IHE Technical Frameworks General Introduction 13
9 Copyright Licenses 13
9.1 Copyright of Base Standards 13
9.1.1 DICOM (Digital Imaging and Communications in Medicine) 13
9.1.2 HL7 (Health Level Seven) 13
9.1.3 LOINC (Logical Observation Identifiers Names and Codes) 13
9.1.4 SNOMED CT (Systematized Nomenclature of Medicine -- Clinical Terms) 14
9.1.5 CEN (European Committee for Standardization) 14
10 Trademark 15
IHE Technical Frameworks General Introduction Appendices 16
Appendix A – Actor Summary Definitions 16
Appendix B – Transaction Summary Definitions 16
Appendix D – Glossary 16
Volume 1 – Profiles 17
Domain-specific additions 17
X International Patient Summary (IPS) Profile 17
X.1 IPS Actors, Transactions, and Content Modules 17
X.1.1 Actor Descriptions and Actor Profile Requirements 18
X.1.1.1 Content Creator 18
X.1.1.1.1 Trigger Events 18
X.1.1.2 Content Consumer 18
X.2 IPS Actor Options 18
X.2.1 CDA Option 19
X.2.2 CDA Complete Option 19
X.2.3 FHIR Option 19
X.2.4 FHIR Complete Option 20
X.2.5 CDA Occupational Data for Health Option 20
X.2.6 FHIR Occupational Data for Health Option 20
X.2.7 Complete Discrete Data Import Option 20
X.3 IPS Required Actor Groupings 21
X.4 IPS Overview 21
X.4.1 Concepts 21
X.4.2 Use Cases 21
X.4.2.1 Use Case #1: Emergency Care Abroad 21
X.4.2.1.1 Emergency Care Abroad Use Case Description 21
X.4.2.1.2 Emergency Care Abroad Process Flow 21
X.4.2.2 Use Case #2: Elective Surgery Abroad 22

X.4.2.2.1 Elective Surgery Abroad Use Case Description 22
X.4.2.2.2 Elective Surgery Abroad Process Flow 22
X.4.2.3 Use Case #3: Managing Work-Related Illness While Working Abroad 23
X.4.2.3.1 Managing Work-Related Illness While Working Abroad Use Case Description 23
X.4.2.3.2 Managing Work-Related Illness While Working Abroad Process Flow 24
X.4.2.4 Use Case #4: Within Border Emergency Care 25
X.4.2.4.1 Within Border Emergency Care Use Case Description 25
X.4.2.4.2 Within Border Emergency Care Process Flow 25
X.5 IPS Security Considerations 26
X.6 IPS Cross Profile Considerations 26
Appendices to Volume 1 28
Volume 2 – Transactions 29
Volume 3 – Content Modules 30
5 IHE Namespaces, Concept Domains and Vocabularies 30
5.1 IHE Patient Care Coordination Namespaces 30
5.2 IHE Patient Care Coordination Concept Domains 30
5.3 IHE Patient Care Coordination Format Codes and Vocabularies 30
5.3.1 IHE Format Codes 30
5.3.2 IHEActCode Vocabulary 30
5.3.3 IHERoleCode Vocabulary 30
6 PCC HL7 V3 CDA Content Modules 31
6.1 Conventions 31
6.2 Folder Modules 31
6.3 Content Modules 31
6.3.1 CDA Document Content Modules 31
6.3.1.D International Patient Summary (IPS) Document Content Module 31
6.3.1.D.1 Format Code 31
6.3.1.D.2 Parent Template 31
6.3.1.D.3 Referenced Standards 31
6.3.1.D.4 Data Element Requirement Mappings to CDA 32
6.3.1.D.5 International Patient Summary (IPS) Document Content Module Specification 41
6.3.2 CDA Header Content Modules 45
6.3.3 CDA Section Content Modules 45
6.3.3.10 CDA Section Content Modules 45
6.3.3.10.S1 IPS Advance Directives Section Content Module 46
6.3.3.10.S2 IPS History of Pregnancy Section Content Module 47
6.3.3.10.S3 IPS Vital Signs Section Content Module 48
6.3.3.10.S4 IPS Functional Status Section Content Module 49
6.3.3.10.S5 IPS Plan of Care Section Content Module 50
6.3.3.10.S6 IPS Social History Section Content Module 51

6.3.4 CDA Entry Content Modules 51
6.3.4.E1 IPS Survey Panel 51
6.3.4.E2 IPS Survey Observation 52
6.3.4.E3 IPS Vital Signs Organizer 52
6.3.4.E4 IPS Vital Signs Observation 53
6.3.4.E5 IPS Planned Observation 53
6.3.4.E6 IPS Planned Procedure 54
6.3.4.E7 IPS Planned Encounter 55
6.3.4.E8 IPS Planned Immunization 56
6.3.4.E9 IPS Planned Act 56
6.3.4.E10 IPS Pregnancy Status Observation 57
6.3.4.E11 IPS Pregnancy Observation 57
6.3.4.E12 IPS Advance Directive Organizer 58
6.3.4.E13 IPS Advance Directive Observation 58
6.3.4.E14 IPS Social History Observation 59
6.4 Section not applicable 60
6.5 PCC Value Sets and Concept Domains 60
6.6 HL7 FHIR Content Module 60
6.6.X.1 FHIR Resource Bundle Content 60
6.6.X.1.2 FHIR Resource Data Specifications 62
6.6.X.1.2.1 FHIR IPS Patient Attributes Section 63
6.6.X.1.2.2 FHIR IPS Patient's Address Book Section 63
6.6.X.1.2.3 FHIR IPS Advanced Directives Section 64
6.6.X.1.2.3.Z Advanced directives Resource References 64
6.6.X.1.2.4 FHIR IPS Allergy Intolerance Section 65
6.6.X.1.2.5 FHIR IPS Functional Status Section 66
6.6.X.1.2.6 FHIR IPS History of Past Problems Section 67
6.6.X.1.2.6.Z IPS History of Past Problems References 67
6.6.X.1.2.7 FHIR IPS History of Pregnancy Section 68
6.6.X.1.2.8 FHIR IPS History of Procedures Section 69
6.6.X.1.2.9 FHIR IPS Immunizations Section 69
6.6.X.1.2.10 FHIR IPS Medical Devices Section 70
6.6.X.1.2.11 FHIR IPS Medication Summary Section 71
6.6.X.1.2.12 FHIR IPS Plan of Care Section 72
6.6.X.1.2.13 FHIR IPS Problems Section 73
6.6.X.1.2.14 FHIR IPS Results Section 74
6.6.X.1.2.15 FHIR IPS Social History Section 75
6.6.X.1.2.16 FHIR IPS Vital Signs Section 75
6.6.X.1.2.17 FHIR IPS Cross Border Section 76
6.6.X.1.2.18 FHIR IPS Provenance Metadata 76
7 DICOM Content Definitions 77
Appendices to Volume 3 78

Appendix A – IPS Gherkin Test Scripts 79
A.1 IPS Content Creator CDA Option Test Script 79
A.1.1 Test Steps 79
A.2 IPS Content Creator FHIR Option Test Script 79
A.2.1 Test Steps 79
A.5 IPS Content Consumer View Option Test Script 79
A.5.1 Test Steps 79
A.6 IPS Content Consumer Document Import Option Test Script 80
A.6.1 Test Steps 80
A.7 IPS Content Consumer Section Import Option Test Script 80
A.7.1 Test Steps 80
A.8 IPS Content Consumer Discrete Data Import Option Test Script 80
A.8.1 Test Steps 81
Volume 4 – National Extensions 82

Introduction to this Supplement

Whenever possible, IHE profiles are based on established and stable underlying standards. However, if an IHE domain determines that an emerging standard has high likelihood of industry adoption, and the standard offers significant benefits for the use cases it is attempting to address, the domain may develop IHE profiles based on such a standard. During Trial Implementation, the IHE domain will update and republish the IHE profile as the underlying standard evolves.

Product implementations and site deployments may need to be updated in order for them to remain interoperable and conformant with an updated IHE profile.

This IPS Profile incorporates content from Release 4 of the emerging HL7 FHIR specification. HL7 describes FHIR Change Management and Versioning at https://www.hl7.org/fhir/versions.html.

HL7 provides a rating of the maturity of FHIR content based on the FHIR Maturity Model (FMM): level 0 (draft) through N (Normative). See http://hl7.org/fhir/versions.html#maturity.

The FMM levels for FHIR content used in this profile are:

FHIR Content (Resources, Profiles, etc.)	FMM Level
Documents	3
Patient	N
Practitioner	3
MedicationStatement	3
Medication	3
AllergyIntolerance	3
Condition	3
Immunization	3
Procedure	3
Organization	3
DeviceUseStatement	0
Device	2
Observation	N
Specimen	2
Imaging Study	3
DiagnosticReport	3
CarePlan	2
Consent	2
VitalSigns	N/A

This IPS directly follows the CEN project that includes CEN, HL7 and IHE experts and produces a content specification (CEN) with a global perspective and two Implementation Guides (HL7) for CDA and FHIR developed by HL7 in conformity with the CEN IPS dataset. ISO TC/215 has agreed to submit ISO 27269 Health Informatics – The International Patient Summary (EN 17269:2019) for DIS ballot. The CEN TS 17288 Health informatics — The International Patient Summary: Guideline for European Implementation will be likely published on April 2020. The HL7 CDA IG has been completed and published as STU, the HL7 FHIR IG, already positively balloted, will be likely published as STU April 2020. IHE International has been encouraged to both profile this work, and to contribute efforts towards Connectathon testing, Conformity Assessment, and demonstration opportunities. This profile describes how to use the IPS to support multiple international use cases, allowing for testing and deployment in commercial products. This IPS Profile uses the HL7's IPS Implementation Guides that realize the CEN EN 17269 IPS dataset. This encourages implementation and testing among vendors to provide additional feedback and real-world use of the standard. Candidates for recommended changes to the underlying Implementation Guides (IGs) will be submitted to HL7 for further consideration. Candidates for recommended changes to the underlying standard will be submitted to CEN for further consideration and recommendations.

This work effort will also include specification considerations for testing. Structure of such documentation is pending further consideration and has yet to be specified.

This supplement also references and draws upon the following documents. The reader should review these documents as needed:

1. System of Concepts for Continuity of Care ISO 13940:2015 (2019/10/28)

Open Issues and Questions

1. Formalizing the process of iterative updates to HL7 and CEN and associated modifications to the profile (2019/09/30).
2. Volume 1 needs test language for content creator and content consumer (2019/11/13).
3. Workflow considerations have been discussed, but is currently out of scope. (2019/10/24).
4. Level of specificity for volume 3 content is pending further research (2019/11/13).
5. SNOMED-CT Copyright language needs to be updated because the "International Health Terminology Standards Development Organization" is Now known as SNOMED International. Note also that the IPS HL7 IGs utilize SNOMED's recently-released Global Patient Set https://www.snomed.org/news-and-events/articles/global-patient-set-(1) (2019/10/28).
6. The optionality terminology used in this profile are taken directly from the CEN IPS Standard. Alignment between CEN/HL7 conformance and IHE conformance is (0 = 0, R = RE/R2, M = R, C = C, F = fixed value, NP = Not present).

7. IHE is anticipating continued updates to the HL7 CDA IPS specification, corresponding updates will be made to this document once the HL7 Specification document is published and publicly available this IHE profile will be updated to point to that final content.
8. The IPS CDA specification constructs will be updated to reflect alignment with CDA updates in HL7. Public comment version describes the intended modeling, but template identifiers and conformance statement identifiers will be updated to align with the HL7 IPS CDA anticipated updates.
9. HL7 CDA pg.58 Patient Contact's / Preferred HP's Address role element = error, are these tool errors (2020/02/11)?
10. The 2018 version of HL7's IPS CDA Care plan only supports 1 narrative. It does not specify support for a coded care plan, but this is specified as optional in CEN. This is available in IHE: 6.3.3.6.15 Coded Care Plan Section 1.3.6.1.4.1.19376.1.5.3.1.3.36 (2020/02/11).
11. The Complete options described in Section X.2 (e.g., Complete CDA Option and Complete FHIR Option) currently are not modeled in Volume 3. This will be updated after public comment.
12. There are 2 value sets defined for problem list (only the first is specified by the IG) below. What is the difference? The name implies that only disorders are in the specified list, and not clinical findings. : CORE Problem List 2.16.840.1.113883.11.22.7 ('The CORE Problem List Subset of SNOMED CT

The Clinical Observations Recordings and Encoding (CORE) Problem List Subset is a UMLS CORE Project with the purpose of defining a UMLS subset that is most useful for documenting and encoding clinical information at a summary level. The CORE Problem List Subset includes SNOMED CT concepts and codes that can be used for the problem list, discharge diagnoses, or reason of encounter. https://www.nlm.nih.gov/research/umls/Snomed/core_subset.html}There are 2 value sets defined for problem list (only the first is specified by the IG) below. What is the difference? The name implies that only disorders are in the specified list, and not clinical findings. : CORE Problem List 2.16.840.1.113883.11.22.7 ('The CORE Problem List Subset of SNOMED CT (2020/02/16).

13. Allergy Intolerance category (e.g., food, medication, environment, biologic) needs a new LOINC Code (2020/02/28).
14. Until HL7 assigns new OIDs for the restructured IPS CDA sections, their OIDs will remain as TBD within this profile.
15. HL7 CDA IPS Advance Directives Section only supports directive description. It does not specify support for coded Advance Directives, but this is specified as optional in CEN. Draft modeling is provided in this profile.
16. HL7 CDA IPS Allergies and Intolerances Section Value sets do not match value sets in the FHIR IPS.

17. HL7 CDA IPS Allergies and Intolerances Section does not support Allergy Severity and Allergy Category. Draft modeling is provided in this profile.
18. HL7 CDA IPS Functional Status only supports a text section, but none of the other functional status elements specified by CEN are supported. Including the elements that are specified as required if known. Draft modeling is provided in this profile.
19. HL7 CDA IPS History of Past Illness has differences in naming between element between HL7 and CEN, 'History of Past Illness' name is different (this is HL7), CEN/ISO uses 'History of Past Problems'.
20. HL7 CDA IPS History of Pregnancy does not support a time stamp for outcome date, required by CEN, and does not support specialist contact, optional by CEN. Draft modeling is provided in this profile.
21. HL7 CDA IPS History of Pregnancy does not allow for Null value to be represented.
22. HL7 CDA IPS Care Plan only supports 1 narrative. No support for coded care plan, but not required by CEN. Draft modeling is provided in this profile.
23. IPS Results is R in HL7 and RK in CEN. HL7's optionality used for this profile.
24. HL7 CDA IPS Social History section Lifestyle Factor Observation specified for Alcohol and Smoking but does not support other social history metrics listed as the types of social history metrics identified by the standards. Value set for Social History Type defined but not used. Lifestyle factor description, Text description not supported at entry level for the social history observation. Draft modeling is provided in this profile.
25. HL7 CDA IPS Coded Vital Signs Section available in HL7 IPS but defined in CEN as Optional. Draft modeling is provided in this profile.
26. HL7 CDA IPS Immunization does not support substanceAdministration. Draft modeling is provided in this profile.
27. Why is the Patient-uv-ips Structure definition Resource (*http://hl7.org/fhir/uv/ips/StructureDefinition/Patient-uv-ips*) a 0..* cardinality? You should not have more than one patient for a patient summary.
28. Review the FHIR modeling for the specialist contact located in the table in Section 6.6.X.1.2.4.
29. The value set for Problem type in History of Past Problems (sectionPastIllnessHx.entry.pastProblem.Condition-uv-ips.category) is not really what CEN/ISO was looking for: A means of categorizing the different types of problem. This can be represented by a value set, for example it could be findings, preliminary diagnosis, diagnosis, clinical risks and medical alerts. Note, 'Medical Alerts', i.e., one type of alert, are represented here in this first iteration of this standard.

30. Problem type in History of Past Problems (sectionPastIllnessHx.entry.pastProblem.Condition-uv-ips.category) has no SNOMED-CT qualifier value for Medical Alert.
31. Add a slice for current Observation-pregnancy-status-uv-ips pregnancy composition. section:sectionPregnancyHx.entry to include a space for pregnancy details in IPS FHIR IG.
32. For current Observation-pregnancy-status-uv-ips pregnancy status.code - provide guidance list - 3rd entry with a pregnancyHistory (sister hasMember.Reference(Observation (list)) (IF PREGNANT) add slice - immediately for current pregnancy: permitted behavior, not required behavior.
33. For Composition.Section.sectionPlanOfCare there should be more than 1 plan care type and it should be able to represent dates.
34. Review input on the FHIR modeling or specialist contact in 6.6.X.1.2.11 IPS Problems
35. Gherkin Language for the test scripts exist in the Appendix, however the scripts on the Cucumber tool need to be updated and specified.
36. SNOMED Terminology - Is there a specific link for the internationally available subset and does it have a name?
37. Proposed CDA entry for IPS Coded Vital Signs constraints should be incorporated into Art-Décor to be consistent with the HL7 CDA IPS tooling.
38. Until such time that HL7 includes coded functional status it will exist within this profile.
39. Table 6.3.1.D.3-1 When ISO publishes this will need to be changed to ISO/IS 27269
40. IHE and HL7 are still working on the collaborative approach to the evolution of the IPS Template. For now IHE and HL7 have agreed that this will be an evolving document and the OIDs will remain the same with Versioning included. Further harmonization to align HL7 and IHE is still under consideration.
41. There is no proper way to reference the specialist contact in the HL7 FHIR IPS IG at this point. When the specialist contact is supported in the HL7 implementation Guide the proper reference will be included in this profile.
42. Pregnancy observations may be needed for future uses of the section, however there is no process agreement with IHE and CEN about adding elements that are not specified in the base standard. An optional Pregnancy observation is added to fulfill the future need of this, but no requirements of its use are added.
43. Current Mapping and support for immunization Target disease needs further discussion and will remain as unknown until it can be officially supported in CDA.

Closed Issues

1. For the trigger events – is this triggered only in anticipation of international travel or might this be a routine patient summary (2019/09/30)?

   The IPS is for both planned and planned care (2019/11/12).

2. Consideration to relationship to other international standards (e.g., ISO 22857:2013 Health informatics — Guidelines on data protection to facilitate trans-border flows of personal health data) (2019/10/24).

   This ISO 22857:2013 Health informatics — Guidelines on data protection to facilitate trans-border flows of personal health data will be referenced in the security considerations in Section X.5 (2019/11/12).

3. Consider referencing relationship to System of Concepts for Continuity of Care ISO 13940:2015 (2019/10/28).

   The reference to System of Concepts for Continuity of Care ISO 13940:2015 will be put into the introduction (2019/11/12).

4. How to specify the Test plan documentation (2019/09/30).

   The test plan language will be included within the appropriate sections using test language that will then be extracted into gazelle after publication (2019/11/13).

5. Use Case #3: Managing Work-Related Illness While Working Abroad, includes content that is not in the current version of the HL7/CEN/ISO IPS specifications, how and when to incorporate additional content needs to be determined and agreed upon (2019/10/24).

   Upon further research there is reference to work history in these underlying standards. The removal of the specific Occupational Data for Health reference and just referencing work history makes this use case in line with the baseline standards (2019/11/13).

IHE Technical Frameworks General Introduction

The IHE Technical Framework General Introduction is shared by all of the IHE domain technical frameworks. Each technical framework volume contains links to this document where appropriate.

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9.1 Copyright of Base Standards

IHE technical documents refer to and make use of a number of standards developed and published by several standards' development organizations. All rights for their respective base standards are reserved by these organizations. This agreement does not supersede any copyright provisions applicable to such base standards. Copyright license information for frequently referenced base standards is provided below.

9.1.1 DICOM (Digital Imaging and Communications in Medicine)

DICOM® is the registered trademark of the National Electrical Manufacturers Association for its standards publications relating to digital communications of medical information.

9.1.2 HL7 (Health Level Seven)

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9.1.3 LOINC (Logical Observation Identifiers Names and Codes)

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9.1.4 SNOMED CT (Systematized Nomenclature of Medicine -- Clinical Terms)

Some IHE Profiles incorporate SNOMED® CT, which is used by permission of the International Health Terminology Standards Development Organisation. SNOMED CT© was originally created by the College of American Pathologists. SNOMED CT is a registered trademark of the International Health Terminology Standards Development Organisation, all rights reserved.

The Global Patient Set (GPS) is a managed collection of existing SNOMED CT reference sets released by SNOMED International. The GPS is comprised of unique identifiers, fully specified names (FSN), preferred terms in international English, and active/inactive status flags. The GPS excludes SNOMED CT's inherent relationships and hierarchies; fundamental to the nature of an ontology and its ability to enable clinical data analytics, decision support, artificial intelligence, etc. Further, concept synonyms and definitions are not provided as part of the GPS.

9.1.5 CEN (European Committee for Standardization)

You may participate in drafting ISO and ISO/IEC standards and you may submit content to the ISO and ISO/IEC standards development process. By participating in the ISO standards development process you get access to all kinds of information filed during this process such as standards and their drafts, content, etc. Content can be any kind of content submitted in the standards development process, such as publications, documents, text, figures, images, software, etc., to be considered for inclusion in ISO and ISO/IEC standards. You agree that:

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IHE Technical Frameworks General Introduction Appendices

The IHE Technical Framework General Introduction Appendices are components shared by all of the IHE domain technical frameworks. Each technical framework volume contains links to these documents where appropriate.

Appendix A – Actor Summary Definitions

No new actors.

Appendix B – Transaction Summary Definitions

No new transactions.

Appendix D – Glossary

No new glossary terms.

Volume 1 – Profiles

Domain-specific additions

N/A

X International Patient Summary (IPS) Profile

This IPS profiles uses the HL7's IPS Implementation Guides that realize the CEN EN 17269 IPS dataset. Additional options pertaining to occupational Data for health and section constrains for a complete IPS sections support are specified within this profile.

X.1 IPS Actors, Transactions, and Content Modules

This section defines the actors, transactions, and/or content modules in this profile. General definitions of actors are given in the Technical Frameworks General Introduction Appendix A. IHE Transactions can be found in the Technical Frameworks General Introduction Appendix B. Both appendices are located at http://ihe.net/Technical_Frameworks/#GenIntro

Figure X.1-1 shows the actors directly involved in the IPS Profile and the direction that the content is exchanged.

A product implementation using this profile may group actors from this profile with actors from a workflow or transport profile to be functional. The grouping of the content module described in this profile to specific actors is described in more detail in Required Actor Groupings PCC TF-1: X.6 or in Cross Profile Considerations PCC TF-1: X.6.

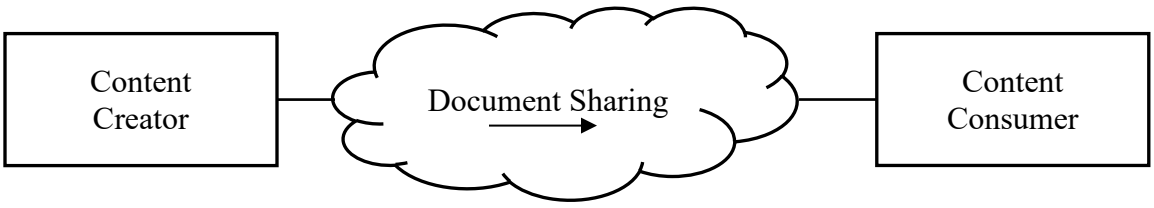

Figure X.1-1: IPS Actor Diagram

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

Table X.1-1: IPS – Actors and Content Modules

Actors	Content Modules	Optionality	Reference
Content Creator	Document Sharing [PCC-1] See Note 1	R	PCC TF-2: 3.1

Actors	Content Modules	Optionality	Reference
Content Consumer	Document Sharing [PCC-1] See Note 1	R	PCC TF-2: 3.1

Note 1: For FHIR transactions, see the MHD Profile [ITI-65] (https://www.ihe.net/uploadedFiles/Documents/ITI/IHE_ITI_Suppl_MHD.pdf) which is referenced by [PCC-1]

X.1.1 Actor Descriptions and Actor Profile Requirements

Content module requirements are documented in PCC TF-3 Content Modules. This section documents any additional requirements on profile's actors.

X.1.1.1 Content Creator

The Content Creator shall be responsible for the creation of content of an International Patient Summary document containing the data elements defined in PCC TF-3: 6.3.1.D.5 or, where the FHIR is used, containing the FHIR Document Bundle defined TF-3: 6.6.x.1.

X.1.1.1.1 Trigger Events

Upon the request to prepare an IPS Document.

X.1.1.2 Content Consumer

A Content Consumer is responsible for viewing, importing, or other processing options for an International Patient Summary document content created by an IPS Content Creator. This is specified in Document Sharing [PCC-1] transaction in PCC TF-2: 3.1.

X.2 IPS Actor Options

Options that may be selected for each actor in this profile, if any, are listed in the Table X.2-1. Dependencies between options, when applicable, are specified in notes.

Table X.2-1: International Patient Summary – Actors and Options

Actor	Option Name	Reference
Content Creator	CDA Option Note 1	Section X.2.1
	CDA Complete Option Note 1	Section X.2.2
	FHIR Option Note 1	Section X.2.3
	FHIR Complete Option Note 1	Section X.2.4
	CDA Occupational Data for Health Option	Section X.2.5
	FHIR Occupational Data for Health Option	Section X.2.5
Content Consumer	View Option Note 2	PCC TF-2: 3.1.1
	Document Import Option Note 2	PCC TF-2: 3.1.2

Actor	Option Name	Reference
	Section Import Option Note 2	PCC TF-2: 3.1.3
	Discrete Data Import Option Note 2	PCC TF-2: 3.1.4
	Complete Discrete Data Import Option *Note 2*	Section X.2.7

Note 1: The Content Creator must be able to support at least one of these options.

Note 2: The Content Consumer must implement at least one of these options.

X.2.1 CDA Option

This option defines the processing requirements placed on the Content Creators for producing a CDA structured document version of the International Patient Summary document. The CDA details are in Volume 3, Section 6.3.1.

X.2.2 CDA Complete Option

This option defines the International Patient Summary where all of the optional components (e.g., Advanced Directives, Functional Status, History of Past Illnesses, History of Pregnancy, Plan of Care, Social History, and Vital Signs) will become required if known. The processing requirements placed on the Content Creators for producing a Complete CDA structured document version of the International Patient Summary document are in are detailed in TF-3: 6.6.x.1.

This option reflects the CDA Option where all the optional sections in the template have a new optionality requirement of RE (required if known). This applies to the following sections:

- IPS Advance Directives
- IPS Functional Status
- IPS History of Past Illness
- IPS History of Pregnancy
- IPS Plan of Care
- IPS Social History
- IPS Vital Signs

X.2.3 FHIR Option

This option defines the processing requirements placed on the Content Creators for producing a FHIR document bundle version of the International Patient Summary document. The FHIR bundle details are in TF-3: 6.6.x.1.

X.2.4 FHIR Complete Option

This option defines the processing requirements placed on the Content Creators for producing a FHIR document bundle version of the International Patient Summary document. The FHIR bundle details are in TF-3: 6.6.x.1.

This option reflects the FHIR Option where all the optional sections in the template have a new optionality requirement of RE (required if known). This applies to the following sections:

- IPS Advance Directives
- IPS Functional Status
- IPS History of Past Illness
- IPS History of Pregnancy
- IPS Plan of Care
- IPS Social History
- IPS Vital Signs

X.2.5 CDA Occupational Data for Health Option

Content Creators implementing this option shall create Occupational Data for Health information that complies with the Occupational Data for Health Section specified in PCC CDA Supplement: 6.3.3.10.5 as a sub-section to the Coded Social History Section as specified in PCC CDA Supplement: 6.3.3.2.36.

The Social history observation entry template supports any social history observation available through LOINC codes, including, current/past job(s), usual (longest-held) work, employment status, retirement date(s), combat zone period(s), occupational data for household member, occupations, lifestyle, exercise, exposure risks, environmental health risk factors

X.2.6 FHIR Occupational Data for Health Option

Content Creators implementing this option shall create Occupational Data for Health information that complies with the Occupational Data for Health Section specified in PCC CDA Supplement: 6.3.3.10.5 as a sub-section to the Coded Social History Section as specified in PCC CDA Supplement: 6.3.3.2.36.

Any social history observation may be represented in the open entry under section:socialHistory, including alternate metrics for smoking and alcohol use, as well as work information (e.g., current/past job(s), longest-held occupation, etc.).

X.2.7 Complete Discrete Data Import Option

The Content Consumer implementing this option shall be able to discretely import all relevant content provided by the content creator.

X.3 IPS Required Actor Groupings

No required actor groupings

X.4 IPS Overview

This profile describes how to use the IPS to support multiple international use cases, allowing for testing and deployment in commercial products. This IPS profiles uses the HL7's IPS Implementation Guides that realize the CEN EN 17269 IPS.

X.4.1 Concepts

Patients that are traveling to other jurisdictions may be seeking care or in need of care during their travel. The listed use case scenarios describe a variety of care needs that can be supported by this content profile.

X.4.2 Use Cases

X.4.2.1 Use Case #1: Emergency Care Abroad

This Use case describes an Unscheduled, Cross Border care scenario where the healthcare provider is able to leverage the IPS summary record of the person to be treated where they otherwise would not have such information available.

X.4.2.1.1 Emergency Care Abroad Use Case Description

A student is attending University and is taking a semester abroad. He has fallen off his bike on his way to class, breaking his left arm, and was taken to the local hospital. The IPS shows that the patient is severely allergic to NSAIDs and the attending clinician provides an alternative method of pain management for the patient.

X.4.2.1.2 Emergency Care Abroad Process Flow

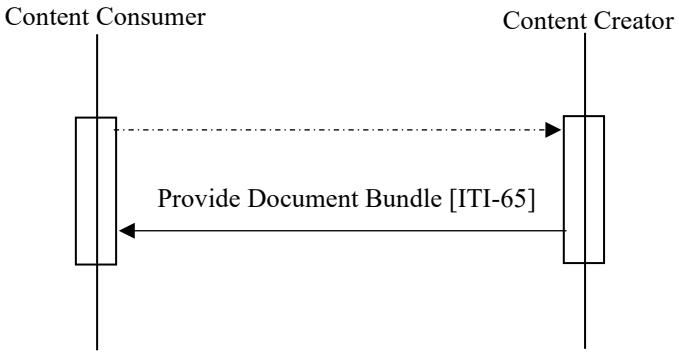

Figure X.4.2.2-1: Basic Process Flow in IPS Profile

Pre-conditions:

A student is attending University in a study abroad program.

The student is transported to the hospital.

Main Flow:

After getting access to the student's international patient summary it is discovered that he is allergic to NSAIDs.

Based on this information the provider is able to make an informed decision when prescribing medication for pain management.

Post-conditions:

The student is able to use his medication without any adverse effects.

X.4.2.2 Use Case #2: Elective Surgery Abroad

This Use case describes a scheduled, Cross Border care scenario.

X.4.2.2.1 Elective Surgery Abroad Use Case Description

A man schedules a procedure in another country for medical services that are unavailable in their own country. Since the patient lives outside of this country the patient provides an available copy of his IPS generated from his patient record to the surgeon so that the surgeon can be informed before going into the surgery about any relevant issues that may affect the surgery. In accordance with local policy information about the healthcare visit is provided in the form of a new IPS for the patient to take home.

X.4.2.2.2 Elective Surgery Abroad Process Flow

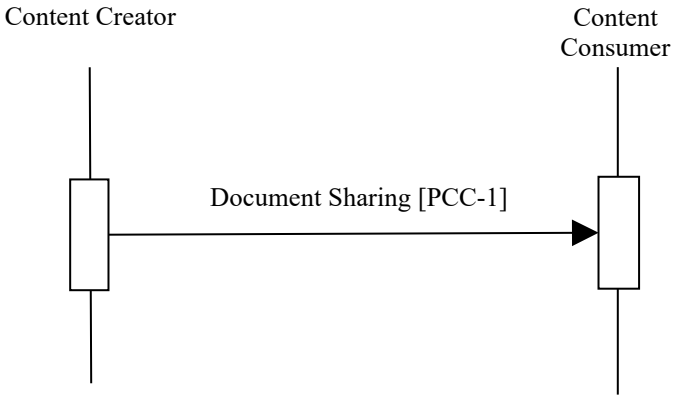

Figure X.4.2.2.2-1: Basic Process Flow in IPS Profile

Pre-conditions:

A patient is looking for elective surgery in another country.

The patient requests that a copy of his IPS be made available either in paper or electronic form.

Main Flow:

Based on this information in the IPS the surgeon is able to make informed decisions during the surgery.

Surgery is successful.

Post-conditions:

Information about the healthcare visit is provided in the form of an IPS back to patient to take home.

X.4.2.3 Use Case #3: Managing Work-Related Illness While Working Abroad

This use case describes a scheduled, cross border care scenario, with the Occupational Data for Health Option.

X.4.2.3.1 Managing Work-Related Illness While Working Abroad Use Case Description

A 43-year-old woman is assigned to train personnel in another country to demonstrate use of a polyurethane foam product in hospitals. After 4 months, she develops respiratory symptoms and is found to have new-onset asthma. The attending clinician reviews her IPS that implements the Occupational Data for Health Option, which includes information about her new job. The clinician infers the causal link between the new work and the asthma and recommends changes in her job activities. In accordance to local policy a new International Patient Summary (IPS) is created.

X.4.2.3.2 Managing Work-Related Illness While Working Abroad Process Flow

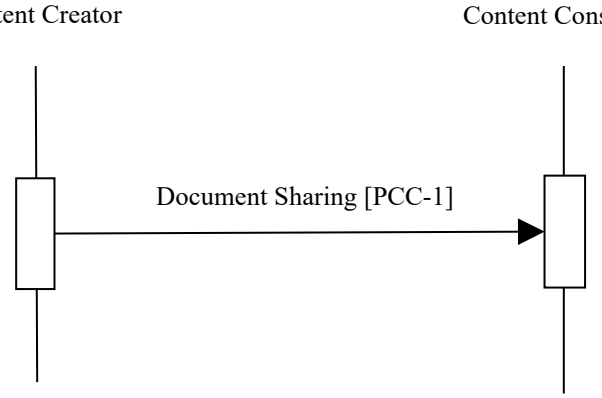

Figure X.4.2.3.2-1: Basic Process Flow in IPS Profile

Pre-conditions:

A patient is sent to another country for work by her company.

She has a medical exam prior to arriving in the new country where her medical record is updated.

Main Flow:

The patient develops asthma symptoms and consults a provider in the country she is working.

Using the patient's international patient summary with occupational health data included, the provider is able to see that exposure from work is causing these symptoms. The provider recommends a change in work practice to avoid further exposure and prescribes inhalers to the patient.

Post-conditions:

The engineering company provides portable ventilation exhaust systems to reduce exposures to other workers. The woman provides training to others without engaging in direct demonstration of foam production.

The new diagnosis of asthma related to this occupational hazard is added to the patient's EMR for the care provider's EMR.

A New IPS is created, including the original information imported by the provider plus the new diagnosis of asthma related to this occupational hazard, and made available for the patient to take home at the end of the episode of care.

X.4.2.4 Use Case #4: Within Border Emergency Care

This Use case describes an Unscheduled, Local care scenario where the healthcare provider is able to leverage the IPS summary record of the person to be treated where they otherwise would not have such information available.

X.4.2.4.1 Within Border Emergency Care Use Case Description

An elderly woman is visiting her new grandchild in another part of the country. During their visit, the woman had a stroke and was taken to the hospital. Her IPS shows a history of heart disease problems, one previous stroke, and the details of her medication. The attending clinician treats the stroke by adjusting her current medication dosages. In accordance with local policy new information about the healthcare visit is made available in an IPS.

X.4.2.4.2 Within Border Emergency Care Process Flow

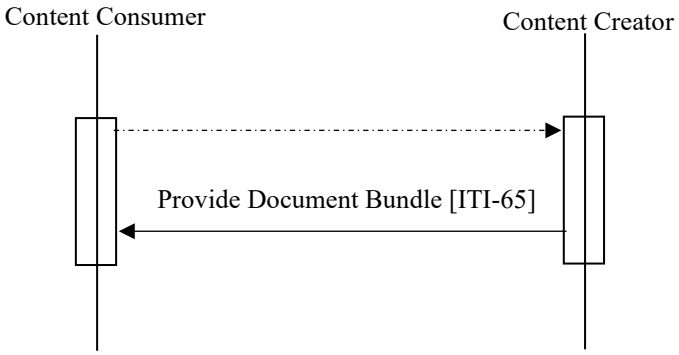

Figure X.4.2.4.2-1: Basic Process Flow in IPS Profile

Pre-conditions:

An elderly woman is traveling to another jurisdiction.

Main Flow:

The patient has a stroke.

The patient is sent to a hospital for treatment.

The hospital accesses the patient's IPS.

The hospital adjusts the patient's medications based on past medical history to prevent future episodes.

Post-conditions:

The patient is discharged.

Information about the healthcare visit is made available in an IPS format using XD*.

X.5 IPS Security Considerations

See ITI TF-2.x: Appendix Z.8 “Mobile Security Considerations”

Consider the ISO 22857:2013 Health informatics — Guidelines on data protection to facilitate trans-border flows of personal health data for trans-border information exchange security considerations.

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

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

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

Because the information being transferred is in XML, it will be common that different EMR 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.

Health Information Exchange: Enabling Document Sharing Using IHE Profiles, ITI White Paper https://www.ihe.net/Technical_Framework/upload/IHE_ITI_White-Paper_Enabling-doc-sharing-through-IHE-Profiles_Rev1-0_2012-01-24.pdf

X.6 IPS Cross Profile Considerations

The use of the IHE XD* family of transactions is encouraged to support standards-based interoperability between systems acting as the IPS Content Creator and IPS Content Consumer, including exchange of FHIR documents. However, this profile does not require any groupings with ITI XD* actors to facilitate transport of the content document it defines.

A Document Source in XDS.b, a Portable Media Creator in XDM, or a Document Source in XDR might be grouped with the IPS Content Creator. A Document Consumer in XDS.b, a Portable Media Importer in XDM, or a Document Recipient in XDR might be grouped with the PCS Content Consumer. A registry/repository-based infrastructure is defined by the IHE Cross Enterprise Document Sharing (XDS.b).

The On-Demand Documents Option of the XDS.b Profile may be considered or required by local implementations to assure summary documents include a composite summary of information for the patient.

XDW may be used to define workflow for international patient care management of trans border patient care using Cross-Enterprise Document Workflow Content Profile to manage and track the tasks related to patient-centric workflows.

A reliable messaging-based infrastructure is defined by the IHE Cross Enterprise Document Reliable Interchange (XDR) Profile. A Document Source in XDR might be grouped with the IPS Content Creator. A Document Recipient in XDR might be grouped with the IPS Content Consumer.

Detailed descriptions of these transactions can be found in the IHE IT Infrastructure Technical Framework.

Appendices to Volume 1

N/A

Volume 2 – Transactions

No new transactions

Volume 3 – Content Modules

5 IHE Namespaces, Concept Domains and Vocabularies

5.1 IHE Patient Care Coordination Namespaces

The Patient Care Coordination registry of OIDs is located at https://wiki.ihe.net/index.php/PCC_Vocabulary_Registry_and_Data_Dictionary

Additions to the Patient Care Coordination OID Registry are:

No new OIDs

5.2 IHE Patient Care Coordination Concept Domains

For a listing of the PCC Concept Domains see: (not yet listed on the IHE Wiki)

conceptDomain	conceptDomainName	Description
2.16.840.1.113883.6.96	SNOMED-CT	SNOMED Controlled Terminology
2.16.840.1.113883.6.1	LOINC	Logical Observation Identifier Names and Codes
2.16.840.1.113883.6.900	ICD10	International Classification of Diseases, Clinical Modifiers, Version 10

5.3 IHE Patient Care Coordination Format Codes and Vocabularies

5.3.1 IHE Format Codes

Profile	Format Code	Media Type	Template ID
International Patient Summary (IPS)	urn:ihe:pcc:ips:2020	text/xml	2.16.840.1.113883.10.22.1.1

The template ID is taken from the HL7 IPS and this document is a version of HL7's CDA International Patient Summary. This is an hl7 template that builds on the 2018 hl7 IPS and a collaborative document that reflects the updated items that will be harmonized.

5.3.2 IHEActCode Vocabulary

N/A

5.3.3 IHERoleCode Vocabulary

N/A

6 PCC HL7 V3 CDA Content Modules

6.1 Conventions

HL7 V3 CDA Conventions are defined in Appendix E to the *IHE Technical Frameworks General Introduction*.

6.2 Folder Modules

NA

6.3 Content Modules

This section defines each IHE Patient Care Coordination Content Modules in detail, specifying the standards used and the information defined.

6.3.1 CDA Document Content Modules

6.3.1.D International Patient Summary (IPS) Document Content Module

6.3.1.D.1 Format Code

The XDSDocumentEntry format code for this content is **urn:ihe:pcc:ips:2020**.

6.3.1.D.2 Parent Template

N/A

6.3.1.D.3 Referenced Standards

All standards which are referenced in this document are listed below with their common abbreviation, full title, and link to the standard.

Table 6.3.1.D.3-1: International Patient Summary - Referenced Standards

Abbreviation	Title	URL
EN 17269	Health informatics - Health informatics - The International Patient Summary	https://www.ehealth-standards.eu/
HL7 IPS CDA	HL7 CDA® R2 Implementation Guide International Patient Summary STU Release 1	https://www.hl7.org/implement/standards/product_brief.cfm?product_id=483
ISO/DIS 27269	ISO/DIS 27269 Health informatics — The international patient summary	https://www.iso.org/standard/79491.html
SNOMED CT	SNOMED International	http://www.snomed.org/snomed-ct/get-snomed-ct
UCUM	Unified Codes for Units of Measures, Regenstrief Institute, Inc. and the UCUM Organization	http://unitsofmeasure.org/trac/wiki/TermsOfUse

Abbreviation	Title	URL
ATC	Anatomical Therapeutic Chemical classification system World Health Organization (WHO) Collaborating Centre for Drug Statistics Methodology	-
ISO 3166 Country Code	International Organization for Standardization (ISO)	-
EDQM Standard Terms	European Directorate for the Quality of Medicines	-
NEMA	National Electrical Manufacturers Association	-
ISCO	International Standard Classification of Occupations	-
ILO	International Labour Organization	-

6.3.1.D.4 Data Element Requirement Mappings to CDA

This section identifies the mapping of data between referenced standards into the IPS CDA implementation guide.

Table 6.3.1.D.4-1: IPS – Data Element Requirement Mappings to CDA

ISO/EN 17269 Data Elements	IPS CDA
Patient Attributes	/ClinicalDocument/[IPS CDA recordTarget]
Patient's name	/ClinicalDocument/[IPS CDA recordTarget]/patientRole/patient/name
Patient's address and telecom	see below
Address	/ClinicalDocument/[IPS CDA recordTarget]/patientRole/addr
Telecoms	/ClinicalDocument/[IPS CDA recordTarget]/patientRole/telecom
Administrative gender	/ClinicalDocument/[IPS CDA recordTarget]/patientRole/patient/administrativeGenderCode
Date of birth	/ClinicalDocument/[IPS CDA recordTarget]/patientRole/patient/birthTime
Patient's preferred language	/ClinicalDocument/[IPS CDA recordTarget]/patientRole/patient/languageCommunication/languageCode
Healthcare related identifiers	see below
Patient identifier	/ClinicalDocument/[IPS CDA recordTarget]/patientRole/id
Insurance information	see below
Insurance identifier	/ClinicalDocument/[IPS CDA recordTarget]/patientRole/id
Patient's Address Book	see below
Preferred healthcare providers	/ClinicalDocument/[IPS Patient Contacts]/code
Healthcare provider (person)	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/associatedPerson
Healthcare provider Name	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/associatedPerson/name
Healthcare provider Role	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/code

ISO/EN 17269 Data Elements	IPS CDA
Healthcare provider Telecoms	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/telecom
Healthcare provider (organization)	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/scopingOrganization
Organization's name	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/scopingOrganization/name
Organization's Telecoms	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/telecom
Other's address details	see below
Addressee	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/associatedPerson /ClinicalDocument/[IPS CDA recordTarget]/patientRole/guardian
Addressee Role	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/code /ClinicalDocument/[IPS CDA recordTarget]/patientRole/guardian
Addressee Name	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/associatedPerson/name /ClinicalDocument/[IPS CDA recordTarget]/patientRole/guardian/guardianPerson/name
Addressee Address	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/addr /ClinicalDocument/[IPS CDA recordTarget]/patientRole/guardian/addr
Addressee Telecoms	/ClinicalDocument/[IPS Patient Contacts]/associatedEntity/telecom /ClinicalDocument/[IPS CDA recordTarget]/patientRole/guardian/telecom
Advance Directives Section	/ClinicalDocument/[IPS Advance Directives Section]
Advance Directives	/ClinicalDocument/[IPS Advance Directives Section]
Advance Directive	/ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer] /ClinicalDocument/[IPS Advance Directives Section]
Person Authorizing Directive	/ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer]/component/[IPS Advance Directive Observation]/participant /ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer]/component/[IPS Advance Directive Observation]/author
Person Authorizing Name	/ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer]/component/[IPS Advance Directive Observation]/participant/participantRole/playingEntity/name /ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer]/component/[IPS Advance Directive Observation]/author/assignedAuthor/assignedPerson/name
Person Authorizing Role	/ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer]/component/[IPS Advance Directive Observation]/participant/participantRole/code /ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer]/component/[IPS Advance Directive Observation]/author/assignedAuthor/code

ISO/EN 17269 Data Elements	IPS CDA
Person Authorizing Telecoms	/ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer]/component/[IPS Advance Directive Observation]/participant/participantRole/telecom /ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer]/component/[IPS Advance Directive Observation]/author/assignedAuthor/telecom
Directive Category	/ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer]/component/[IPS Advance Directive Observation]/code
Directive Description	/ClinicalDocument/[IPS Advance Directives Section]/text
Reference to Legal Document	/ClinicalDocument/[IPS Advance Directives Section]/entry/[IPS Advance Directive Organizer]/component/[IPS Advance Directive Observation]/reference/externalDocument
Allergies and Intolerances	/ClinicalDocument/[IPS Allergies and Intolerances Section]
Allergies/Intolerances content status	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/observation/code
Allergies and Intolerances	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance
Allergy/Intolerance	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]
Allergy/Intolerance description	/ClinicalDocument/[IPS Allergies and Intolerances Section]/text
Allergy/Intolerance Clinical status	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/entryRelationship/[IPS Allergy Status Observation]/value
Allergy/Intolerance Onset Date	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/observation/effectiveTime/low
Allergy/Intolerance End Date	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/observation/effectiveTime/high
Allergy/Intolerance Criticality	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/entryRelationship/[IPS Criticality Observation]
Allergy/Intolerance Certainty	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/entryRelationship/[IPS Allergy Certainty Observation]
Allergy/Intolerance Type of propensity	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/observation/code
Allergy/Intolerance Diagnosis	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/value
Allergy/Intolerance Reaction	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/entryRelationship/[IPS Reaction Manifestation]

ISO/EN 17269 Data Elements	IPS CDA
Allergy/Intolerance Manifestation of the reaction	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/entryRelationship/[IPS Reaction Manifestation]/value
Allergy/Intolerance Severity	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/entryRelationship/[IPS Reaction Manifestation]/entryRelationship/[IPS Severity Observation]
Allergy/Intolerance Agent	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/participant
Allergy/Intolerance Agent code	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/participant/participantRole/playingEntity/code
Allergy/Intolerance Category	/ClinicalDocument/[IPS Allergies and Intolerances Section]/entry/[IPS Allergy and Intolerance Concern]/entryRelationship/[IPS Allergy or Intolerance]/participant/participantRole/playingEntity/code
Functional Status Section	/ClinicalDocument/[IPS Functional Status Section]
Disabilities	/ClinicalDocument/[IPS Functional Status Section]
Disability	/ClinicalDocument/[IPS Functional Status Section]
Disability Description	/ClinicalDocument/[IPS Functional Status Section]/text
Disability Code	/ClinicalDocument/[IPS Functional Status Section]/entry/observation/value
Onset Date	/ClinicalDocument/[IPS Functional Status Section]/entry/observation/effectiveTime/low
Functional assessments (determines autonomy)	/ClinicalDocument/[IPS Functional Status Section]
Functional Assessment (type performed)	/ClinicalDocument/[IPS Functional Status Section]
Functional Assessment description	/ClinicalDocument/[IPS Functional Status Section]/text
Date of assessment	/ClinicalDocument/[IPS Functional Status Section]/entry/[IPS Survey Panel]/effectiveTime /ClinicalDocument/[IPS Functional Status Section]/entry/[IPS Survey Panel]/component/[IPS Survey Observation]/effectiveTime
Functional Assessment Type	/ClinicalDocument/[IPS Functional Status Section]/entry/[IPS Survey Panel]/code /ClinicalDocument/[IPS Functional Status Section]/entry/[IPS Survey Panel]/component/[IPS Survey Observation]/code
Functional Assessment Result	/ClinicalDocument/[IPS Functional Status Section]/entry/[IPS Survey Panel]/component/[IPS Survey Observation]/value
Functional Assessment	/ClinicalDocument/[IPS Functional Status Section]/entry/[IPS Survey Panel]/component/[IPS Survey Observation]
History of Past Problems	/ClinicalDocument/[IPS History of Past Illness Section]
Past problems	/ClinicalDocument/[IPS History of Past Illness Section]/entry/[IPS Problem Concern Entry]
Past problem	/ClinicalDocument/[IPS History of Past Illness Section]/entry/[IPS Problem Concern Entry]

ISO/EN 17269 Data Elements	IPS CDA
Problem type	/ClinicalDocument/[IPS History of Past Illness Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/code
Problem Description	/ClinicalDocument/[IPS History of Past Illness Section]/text
Problem Diagnosis	/ClinicalDocument/[IPS History of Past Illness Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/value
Problem Severity	/ClinicalDocument/[IPS History of Past Illness Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/entryRelationship/[IPS Severity Observation]
Problem Onset Date	/ClinicalDocument/[IPS History of Past Illness Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/effectiveTime/low
Problem Status	/ClinicalDocument/[IPS History of Past Illness Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/entryRelationship/[IPS Problem Status Observation]
Date Problem Resolved	/ClinicalDocument/[IPS History of Past Illness Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/effectiveTime/high
Specialist Contact for problem	Not explicitly specified (see open issues #41)
History of Pregnancy Section	/ClinicalDocument/[IPS History of Pregnancy Section]
Current pregnancy status	/ClinicalDocument/[IPS History of Pregnancy Section]/entry/[IPS Pregnancy Status Observation]
Pregnancy description	/ClinicalDocument/[IPS History of Pregnancy Section]/text
Pregnancy details	see below
Date of observation	/ClinicalDocument/[IPS History of Pregnancy Section]/entry/[IPS Pregnancy Status Observation]/effectiveTime
Pregnancy state	/ClinicalDocument/[IPS History of Pregnancy Section]/entry/[IPS Pregnancy Status Observation]/value
Expected delivery date	/ClinicalDocument/[IPS History of Pregnancy Section]/entry/[IPS Pregnancy Status Observation]/entryRelationship/[IPS Pregnancy Expected Delivery Date Observation]/value
Specialist contact	Not explicitly specified (see open issues #41)
Previous history of pregnancies	/ClinicalDocument/[IPS History of Pregnancy Section]
Previous pregnancies status	/ClinicalDocument/[IPS History of Pregnancy Section]/entry/[IPS Pregnancy Observation]/value
Previous pregnancies description	/ClinicalDocument/[IPS History of Pregnancy Section]/text
Previous pregnancies	/ClinicalDocument/[IPS History of Pregnancy Section]/entry/[IPS Pregnancy Observation]
Previous pregnancy details	/ClinicalDocument/[IPS History of Pregnancy Section]/entry/[IPS Pregnancy Observation]
Outcome date	/ClinicalDocument/[IPS History of Pregnancy Section]/entry/[IPS Pregnancy Observation]/effectiveTime
Outcome	/ClinicalDocument/[IPS History of Pregnancy Section]/entry/[IPS Pregnancy Observation]/value
Specialist contact	Not explicitly specified (see open issues #41)

ISO/EN 17269 Data Elements	IPS CDA
Summary metric	/ClinicalDocument/[IPS History of Pregnancy Section]/entry/[IPS Pregnancy Outcome Observation]
History of Procedures	/ClinicalDocument/[IPS History of Procedures Section]
Procedures content status	/ClinicalDocument/[IPS History of Procedures Section]/entry/[IPS Procedure Entry]/code
Procedures	/ClinicalDocument/[IPS History of Procedures Section]/entry/[IPS Procedure Entry]
Procedure	/ClinicalDocument/[IPS History of Procedures Section]/entry/[IPS Procedure Entry]
Procedure code	/ClinicalDocument/[IPS History of Procedures Section]/entry/[IPS Procedure Entry]/code
Procedure description	/ClinicalDocument/[IPS History of Procedures Section]/text
Body site	/ClinicalDocument/[IPS History of Procedures Section]/entry/[IPS Procedure Entry]/targetSiteCode
Procedure date	/ClinicalDocument/[IPS History of Procedures Section]/entry/[IPS Procedure Entry]/effectiveTime
Immunizations	/ClinicalDocument/[IPS Immunizations Section]
Immunizations content status	/ClinicalDocument/[IPS Immunizations Section]/entry/[IPS Immunization]/consumable/[IPS Immunization Medication Information]/manufacturedProduct/manufacturedMaterial/code
Immunizations	/ClinicalDocument/[IPS Immunizations Section]/entry/[IPS Immunization]
Immunization	/ClinicalDocument/[IPS Immunizations Section]/entry/[IPS Immunization]
Vaccine for type of disease	/ClinicalDocument/[IPS Immunizations Section]/entry/[IPS Immunization]/consumable/[IPS Immunization Medication Information]/manufacturedProduct/manufacturedMaterial/code
Target diseases	
Target disease	
Date of immunization	/ClinicalDocument/[IPS Immunizations Section]/entry/[IPS Immunization]/effectiveTime
Product administered	/ClinicalDocument/[IPS Immunizations Section]/entry/[IPS Immunization]/consumable/[IPS Immunization Medication Information]/manufacturedProduct/manufacturedMaterial/code
Brand name	/ClinicalDocument/[IPS Immunizations Section]/entry/[IPS Immunization]/consumable/[IPS Immunization Medication Information]/manufacturedProduct/manufacturedMaterial/code
Product administration process	see below
Performer	/ClinicalDocument/[IPS Immunizations Section]/entry/[IPS Immunization]/performer
Route of administration	/ClinicalDocument/[IPS Immunizations Section]/entry/[IPS Immunization]/routeCode
Medical Devices	/ClinicalDocument/[IPS Medical Devices Section]
Device content status	/ClinicalDocument/[IPS Medical Devices Section]/entry/[IPS Medical Device]/participant/participantRole/playingDevice/code

ISO/EN 17269 Data Elements	IPS CDA
Devices	/ClinicalDocument/[IPS Medical Devices Section]/entry/[IPS Medical Device]
Device	/ClinicalDocument/[IPS Medical Devices Section]/entry/[IPS Medical Device]
Device type	/ClinicalDocument/[IPS Medical Devices Section]/entry/[IPS Medical Device]/participant/participantRole/playingDevice/code
Device identifier	/ClinicalDocument/[IPS Medical Devices Section]/entry/[IPS Medical Device]/participant/participantRole/id
Use start date	/ClinicalDocument/[IPS Medical Devices Section]/entry/[IPS Medical Device]/effectiveTime/low
Use end date	/ClinicalDocument/[IPS Medical Devices Section]/entry/[IPS Medical Device]/effectiveTime/high
Medication Summary	/ClinicalDocument/[IPS Medication Summary Section]
Medication summary content status	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/code
Medications	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]
Medication	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]
Reason	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/entryRelationship/[Indication (V2)]
Medicinal product	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/consumable/[IPS Medication Information]
Product code	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/consumable/[IPS Medication Information]/manufacturedMaterial/code
Product common name (and strength)	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/consumable/[IPS Medication Information]/manufacturedMaterial/asSpecializedKind/name
Pharmaceutical dose form	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/consumable/[IPS Medication Information]/manufacturedMaterial/formCode
Brand name	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/consumable/[IPS Medication Information]/manufacturedMaterial/asContent/containerPackagedProduct/name
Active ingredients	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/consumable/[IPS Medication Information]/manufacturedMaterial/ingredient
Active ingredient	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/consumable/[IPS Medication Information]/manufacturedMaterial/ingredient
Substance code	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/consumable/[IPS Medication Information]/manufacturedMaterial/ingredient/ingredientSubstance/code

ISO/EN 17269 Data Elements	IPS CDA
Strength	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/consumable/[IPS Medication Information]/manufacturedMaterial/ingredient/quantity
Administration instruction	see below
Instruction	/ClinicalDocument/[IPS Medication Summary Section]/text
Period of medication use	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/[UV Use Period]
Route of administration	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/routeCode
Dose instruction	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/entryRelationship/[IPS Subordinate SubstanceAdministration]
No. of units per intake	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/entryRelationship/[IPS Subordinate SubstanceAdministration]/doseQuantity
Frequency of intake	/ClinicalDocument/[IPS Medication Summary Section]/entry/[IPS Medication Statement]/entryRelationship/[IPS Subordinate SubstanceAdministration]/effectiveTime
Plan of Care	/ClinicalDocument/[IPS Plan of Care Section]
Plans	/ClinicalDocument/[IPS Plan of Care Section]
Plan	/ClinicalDocument/[IPS Plan of Care Section]
Plan type	Not explicitly specified
Plan date	Not explicitly specified
Plan description	/ClinicalDocument/[IPS Plan of Care Section].text
Recommendations (Core Care Plan)	/ClinicalDocument/[IPS Plan of Care Section]/entry
Recommendation	/ClinicalDocument/[IPS Plan of Care Section]/entry/[…] (several templates)
Recommendation for treatment	depends on the template used
Given recommendation date	depends on the template used
Applicable date	depends on the template used
Extensive Plan	Not explicitly specified
Problems	/ClinicalDocument/[IPS Problems Section]
Problems content status	/ClinicalDocument/[IPS Problems Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/code
Problems	/ClinicalDocument/[IPS Problems Section]/entry/[IPS Problem Concern Entry]
Problem	/ClinicalDocument/[IPS Problems Section]/entry/[IPS Problem Concern Entry]
Problem type	/ClinicalDocument/[IPS Problems Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/code
Problem description	/ClinicalDocument/[IPS Problems Section]/text
Diagnosis	/ClinicalDocument/[IPS Problems Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/value
Severity	/ClinicalDocument/[IPS Problems Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/entryRelationship/[IPS Severity Observation]/value

ISO/EN 17269 Data Elements	IPS CDA
Onset date	/ClinicalDocument/[IPS Problems Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/effectiveTime/low
Problem status	/ClinicalDocument/[IPS Problems Section]/entry/[IPS Problem Concern Entry]/entryRelationship/[IPS Problem Entry]/entryRelationship/[IPS Problem Status Observation]/value
Specialist contact	Not explicitly specified (see open issues #41)
Results	/ClinicalDocument/[IPS Results Section]
Observation results	/ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer] /ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/[…] (several observation templates)
Observation result	/ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer] /ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/[…] (several observation templates)
Date of observation	/ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/effectiveTime /ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/component/observation/effectiveTime
Observation type	/ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/code /ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/component/observation/code
Result description	/ClinicalDocument/[IPS Results Section]/text
Value	/ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/component/observation/value
Observation result	/ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/component/observation
Performer	/ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/performer /ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/component/observation/performer
Observer	/ClinicalDocument/[IPS Results Section]/entry/[IPS Result Organizer]/author
Social History	/ClinicalDocument/[IPS Social History Section]
Life style factors	/ClinicalDocument/[IPS Social History Section]/entry
Life style factor	/ClinicalDocument/[IPS Social History Section]/entry/[…] (several observation templates)
Life style factor description	/ClinicalDocument/[IPS Social History Section]/text
Life style factor details	/ClinicalDocument/[IPS Social History Section]/entry/observation/value
Reference date range	/ClinicalDocument/[IPS Social History Section]/entry/observation/effectiveTime
Vital Signs	/ClinicalDocument/[IPS Vital Signs Section]
Vital signs	/ClinicalDocument/[IPS Vital Signs Section]/entry/[IPS Vital Signs Organizer]
Vital sign	/ClinicalDocument/[IPS Vital Signs Section]/entry/[IPS Vital Signs Organizer]/component/[IPS Vital Signs Observation]
Date of observation	/ClinicalDocument/[IPS Vital Signs Section]/entry/[IPS Vital Signs Organizer]/component/[IPS Vital Signs Observation]/effectiveTime

ISO/EN 17269 Data Elements	IPS CDA
Observation type	/ClinicalDocument/[IPS Vital Signs Section]/entry/[IPS Vital Signs Organizer]/component/[IPS Vital Signs Observation]/code
Result description	/ClinicalDocument/[IPS Vital Signs Section].text
Value	/ClinicalDocument/[IPS Vital Signs Section]/entry/[IPS Vital Signs Organizer]/component/[IPS Vital Signs Observation]/value
Vital sign	/ClinicalDocument/[IPS Vital Signs Section]/entry/[IPS Vital Signs Organizer]/component/[IPS Vital Signs Observation]
Cross Border	see below
Country of affiliation	/ClinicalDocument/[IPS CDA recordTarget]/patientRole/addr/country
Country specific requirements	N/A
Provenance Metadata	see below
Asserter (source of information)	it depends on the context of use
Date of IPS Document creation	/ClinicalDocument/effectiveTime
Language of document	/ClinicalDocument/languageCode
Date of last update of IPS content	/ClinicalDocument/documentationOf/serviceEvent/effectiveTime/high
Generation of IPS content	see below
Nature of the IPS	In the current version this information is inferred by a set of IPS data (including author,attester)
Healthcare providers	see below
Authoring healthcare provider	/ClinicalDocument/[IPS CDA author]
Legitimacy	see below
Legal authenticator	/ClinicalDocument/[IPS CDA legalAuthenticator]

6.3.1.D.5 International Patient Summary (IPS) Document Content Module Specification

This section specifies the header, section, and entry content modules which comprise the International Patient Summary (IPS) Document Content Module, using the Template ID as the key identifier.

Sections that are used according to the definitions in other specifications are identified with the relevant specification document. Additional constraints on vocabulary value sets, not specifically constrained within the section template, are also identified.

The following document is a version of HL7's CDA International Patient Summary. This is an hl7 template that builds on the 2018 hl7 IPS and a collaborative document that reflects the updated items that will be harmonized. The Opt and Card column was informed by CEN/ISO IPS Standard and HL7 and the terminology used are HL7 terms. The optionality terminology used in this profile are taken directly from the CEN IPS Standard. Alignment between CEN/HL7 conformance and IHE conformance is (0 = 0, R = RE/R2, M = R, C = C, F = fixed value, NP =

Not present). According to the CEN/ISO IPS Standard CEN Conformance is obtained by the minimum of supporting the Section and Text. If structured data is provided they should adhere to the element requirements. Any Reference to R [0..1] or R[0..*] should be seen as SHOULD requirements.

Value	Description	Comment
M	Mandatory (exceptions not allowed)	A mandatory element shall always be present and where applicable, shall be valorised with valid values. No exceptions or empty/null values are allowed in this case. If it refers to a composite element (e.g., a section, a list; a label concept) the presence of the included elements is determined by the conformance rules of these sub-elements. Recipient shall understand mandatory elements. If a 'mandatory' element is missing then the document is no longer a conformant IPS. A derived model (that includes also implementable specifications) shall maintain an equivalent conformance strength.
R	Required (exceptions allowed)	A required element shall always be present and where applicable, should be valorised with valid values. Exceptions or empty/null values are allowed in this case. If it refers to a composite element (e.g., a section, a list; a label concept, a complex data type) the presence of the included elements is determined by the conformance rules of these sub-elements. Recipient shall understand required elements. If a 'required' element is missing then the document is no longer a conformant IPS. A derived model (that includes also implementable specifications) shall maintain an equivalent conformance strength; or may further constrain it (e.g., from 'R' to 'M').
RE	Required, if known	A "Required if known" element is one that should be provided. If there is information available, the element must be present and where applicable, valorised with valid values. If there is no information available, the element may be omitted, may be left empty, or may be valorised with exceptional or null values depending on the implementation. If it refers to a composite element (e.g., a section, a list, a label concept, a complex data type) the presence of the included elements is determined by the conformance rules of these sub-elements. Recipient shall understand required elements. A derived model (that includes also implementable specifications) shall maintain an equivalent conformance strength; or may further constrain it (e.g., from 'RK' to 'R').
C	Conditional (has associated condition predicates)	Depending on predicate conditions the element may assume different conformance strengths (e.g., O, R, RK) or not being present. A predicate can be simple (for example: «element A exists»; «attribute b = value1») or complex (for example: «element C exists» AND «the attribute x of element D = value2). A conditional element may be evaluated on a single condition (if predicate A then 'Required' else 'Optional') or on multiple conditions (e.g., if predicate A then 'Required'; if predicate B then 'Optional'; else 'Not Present'). The resulting conformance strength (M, R, RK, O, ...) is determined by the conditions.

		If it refers to a composite element (e.g., a section, a list, a label concept, a complex data type) the presence of the included elements is determined by the combination of the predicate conditions of this element and the conformance rules of its sub-elements. For example: 1. no exception is raised if a required sub-element is missing, when the parent is correctly omitted. 2. an exception is raised if a required sub-element is missing, when the parent is present. Derived models or implementable specifications shall maintain an equivalent conformance strength but it is allowed to modify the conformance strength if the predicate condition permits. Recipient shall understand conditional elements, when required. For example, a conditional element that could be optional or not present could be omitted by a derived model and ignored by a recipient. Or, a condition for which a conditional element become required doesn't apply to a jurisdiction, in that case a jurisdictional specification could omit that element and recipient could ignore it. Depending on the conditions, exception is or is not raised if the data are missing.
O	Optional	This data element can be omitted from a derived model, including from implementations. Recipient may ignore optional elements. If it refers to a composite element (e.g., a section, a list, a label concept, a complex data type) the presence of the included elements is determined by the presence of this element and the conformance rules of its sub-elements. For example, no exception is raised if a required sub-element is missing when the parent is omitted. The reason for specifying the optional data elements is to ensure that both sender and recipient use the appropriate semantic interpretation of these elements. No exception is raised if the data are missing.

Table 6.3.1.D.5-1: International Patient Summary (IPS) Document Content Module Specification

Template Name		International Patient Summary (IPS)			
Template ID		International Patient Summary 2.16.840.1.113883.10.22.1.1 HL7			
Parent Template		N/A			
General Description		A minimal, non-exhaustive set of data elements required for the international patient summary (EN 17269).			
Document Code		SHALL be code="60591-5" codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" displayName="Patient Summary			
Opt and Card	**Condition**	**Header Element or Section Name**	**Template ID**	**Specification Document**	**Vocabulary Constraint**
Header Elements					
M [1..*]		author	2.16.840.1.113883.10.22.2.2	HL7 IPS CDA	

M [1..1]		custodian	2.16.840.1.113883.10.22.2.3	HL7 IPS CDA	
M [1..1]		documentationOf	2.16.840.1.113883.10.22.2.6	HL7 IPS CDA	
R [0..1]		legalAuthenticator	2.16.840.1.113883.10.22.2.4	HL7 IPS CDA	
M [1..1]		recordTarget	2.16.840.1.113883.10.22.2.1	HL7 IPS CDA	
R [0..*]		relatedDocument	2.16.840.1.113883.10.22.2.7	HL7 IPS CDA	
R [0..*]		IPS Patient Contacts	2.16.840.1.113883.10.22.2.5	HL7 IPS CDA	
Sections					
O [0..1]		IPS Advance Directives	2.16.840.1.113883.10.22.3.12	PCC IPS 6.3.3.10.S.1	
M [1..1]		IPS Allergies and Intolerances	2.16.840.1.113883.10.22.3.2	HL7 IPS CDA	See Vocabulary Open Issues
O [0..1]		IPS Functional Status	2.16.840.1.113883.10.22.3.8	PCC IPS 6.3.3.10.S.4	
O [0..1]		IPS History of Past Illness	2.16.840.1.113883.10.22.3.7	HL7 IPS CDA	See Vocabulary Open Issues
O [0..1]		IPS History of Pregnancy	2.16.840.1.113883.10.22.3.11	PCC IPS 6.3.3.10.S.2	
R [0..1]		IPS History of Procedures	2.16.840.1.113883.10.22.3.4	HL7 IPS CDA	
R [0..1]		IPS Immunizations	2.16.840.1.113883.10.22.3.5	HL7 IPS CDA	
R [0..1]		IPS Medical Devices	2.16.840.1.113883.10.22.3.6	HL7 IPS CDA	See Vocabulary Open Issues
M [1..1]		IPS Medication Summary	2.16.840.1.113883.10.22.3.1	HL7 IPS CDA	See Vocabulary Open Issues
O [0..1]		IPS Plan of Care	2.16.840.1.113883.10.22.3.9	PCC IPS 6.3.3.10.S.5	
M [1..1]		IPS Problems	2.16.840.1.113883.10.22.3.3	HL7 IPS CDA	See Vocabulary Open Issues
R [0..1]		IPS Results	2.16.840.1.113883.10.22.3.14	HL7 IPS CDA	
O [0..1]		IPS Social History	2.16.840.1.113883.10.22.3.10	PCC IPS 6.3.3.10.S.6	

O [0..1]		IPS Vital Signs	2.16.840.113883.10.22.4.44	PCC IPS 6.3.3.10.S.3	

820

6.3.2 CDA Header Content Modules

Not applicable

6.3.3 CDA Section Content Modules

6.3.3.10 CDA Section Content Modules

825 **IMPORTANT NOTE:**

Per Open Issue #8, the IPS CDA specification constructs will be updated to reflect alignment with CDA updates in HL7.

6.3.3.10.S1 IPS Advance Directives Section Content Module

Table 6.3.3.10.S1-1: IPS Advance Directives Section

Template Name	IPS Advance Directives Section				
Template ID	HL7 2.16.840.1.113883.10.22.3.12 HL7 Version 2020-05-08				
Parent Template	N/A				
General Description	The advance directive section shall contain a narrative description of patient's advance directive. The optional author and informant elements are used when necessary to convey the provenance and authoring of the section content in case it is different from what is announced in the CDA header. Entries for references to consent and advance directive documents when known will be specified by future versions of this template. https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.3.12&effectiveDate=2020-05-08T16:38:49&language=en-US				
Section Code	<code code=' ' codeSystem='2.16.840.1.113883.6.96' codeSystemName='SNOMED CT'/> The <code> element records the type of advance directive. It should use one of the following SNOMED codes in the table below. Code Description Data Type 304251008 Resuscitation BL 52765003 Intubation 225204009 IV Fluid and Support 89666000 CPR 281789004 Antibiotics 78823007 Life Support 61420007 Tube Feedings 116859006 Transfusion of blood product 71388002 Other Directive <value>				
Author	May vary				
Informant	May vary				
Subject	current recordTarget				
Opt and Card	**Condition**	**Data Element or Section Name**	**Template ID**	**Specification Document**	**Vocabulary Constraint**
Entries					
R [0..*]		IPS Advance Directive Organizer	2.16.840.1.113883.10.22.4.46	6.3.4.E12	

6.3.3.10.S2 IPS History of Pregnancy Section Content Module

Table 6.3.3.10.S2-1: IPS History of Pregnancy Section

Template Name		IHE IPS History of Pregnancy Section			
Template ID		HL7 2.16.840.1.113883.10.22.3.11 HL7 Version 2020-05-07			
Parent Template		N/A			
General Description		The history of pregnancy section shall contain information about whether the patient is currently pregnant (optional with the Expected Delivery Date) or not. It may contain addition summarizing information about the outcome of earlier pregnancies. The optional author and informant elements are used when necessary to convey the provenance and authoring of the section content in case it is different from what is announced in the CDA header. https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.3.11&effectiveDate=2020-05-07T18:46:08&language=en-US			
Section Code		LOINC 10162-6 History of pregnancies Narrative			
Author		May vary			
Informant		May vary			
Subject		current recordTarget			
Opt and Card	**Condition**	**Data Element or Section Name**	**Template ID**	**Specification Document**	**Vocabulary Constraint**
Sections					
All HL7 IPS CDA subsections and entries are inherited. The only entries constrained are listed in the entries section below.					
Entries					
R [0..1]		IPS Pregnancy Status Observation	2.16.840.1.113883.10.22.4.27	HL7 IPS CDA	
O [0..*]		IPS Pregnancy Observation	2.16.840.1.113883.10.22.4.36	PCC IPS 6.3.4.E11	

6.3.3.10.S3 IPS Vital Signs Section Content Module

Table 6.3.3.10.S3-1: IPS Coded Vital Signs Section

Template Name		IPS Vital Signs Section			
Template ID		HL7 2.16.840.113883.10.22.4.44			
Parent Template		N/A			
General Description		The vital signs section contains coded measurement results of a patient's vital signs. https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.3.16&effectiveDate=2020-05-08T19:22:15&language=en-US			
Section Code		8716-3 VITAL SIGNS			
Author		May vary			
Informant		May vary			
Subject		current recordTarget			
Opt & Card	**Condition**	**Data Element or Section Name**	**Template ID**	**Specification Document**	**Vocabulary Constraint**
Entries					
R [0..1]		IPS Vital signs Organizer	2.16.840.1.113883.10.22.4.44	6.3.4.E3	

835

6.3.3.10.S4 IPS Functional Status Section Content Module

Table 6.3.3.10.S4-1: IPS Functional Status Section

Template Name		IPS Functional Status Section			
Template ID		HL7 2.16.840.1.113883.10.22.3.8 HL7, Version 2020-05-08			
Parent Template		N/A			
General Description		The functional status section shall contain a narrative description of capability of the patient to perform acts of daily living, including possible needs of the patient to be continuously assessed by third parties. The invalidity status may in fact influence decisions about how to administer treatments. The optional author and informant elements are used when necessary to convey the provenance and authoring of the section content in case it is different from what is announced in the CDA header. https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.3.8&effectiveDate=2020-05-08T19:17:37&language=en-US			
Section Code		LOINC 47420-5 Functional Status Assessment Note			
Author		May vary			
Informant		May vary			
Subject		current recordTarget			
Opt and Card	**Condition**	**Data Element or Section Name**	**Template ID**	**Specification Document**	**Vocabulary Constraint**
Subsections					
All HL7 IPS CDA subsections and entries are inherited. The only entries constrained are listed in the entries section below.					
Entries					
R [0..*]		IPS Survey Panel	2.16.840.1.113883.10.22.4.42	PCC IPS 6.3.4.E1	

6.3.3.10.S5 IPS Plan of Care Section Content Module

840 **Table 6.3.3.10.S5-1: IPS Coded Plan of Care Section**

Template Name		IPS Plan of Care Section			
Template ID		HL7 2.16.840.1.113883.10.22.3.9 Version 2020-05-08			
Parent Template		N/A			
General Description		Dynamic, personalized plan including identified needed healthcare activity, health objectives and healthcare goals, relating to one or more specified health issues in a healthcare process The care plan section contains a narrative description of the expectations for care including proposals, goals, and order requests for monitoring, tracking, or improving the condition of the patient. The optional author and informant elements are used when necessary to convey the provenance and authoring of the section content in case it is different from what is announced in the CDA header. https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.3.9&effectiveDate=2020-05-08T18:28:38&language=en-US			
Section Code		18776-5 Plan of Care Note			
Author		May vary			
Informant		May vary			
Subject		current recordTarget			
Opt and Card	**Condition**	**Data Element or Section Name**	**Template ID**	**Specification Document**	**Vocabulary Constraint**
Entries					
O [0..*]		IPS Planned Observation	2.16.840.1.113883.10.22.4.41	PCC IPS 6.3.4.E5	
O [0..*]		IPS Planned Procedure	2.16.840.1.113883.10.22.4.38	PCC IPS 6.3.4.E6	
O [0..*]		IPS Planned Encounter	2.16.840.1.113883.10.22.4.40	PCC IPS 6.3.4.E7	
O [0..*]		IPS Planned Immunization	2.16.840.1.113883.10.22.4.47	PCC IPS 6.3.4.E8	
O [0..*]		IPS Planned Act	2.16.840.1.113883.10.22.4.39	PCC IPS 6.3.4.E9	

6.3.3.10.S6 IPS Social History Section Content Module

Table 6.3.3.10.S6-1: IPS Social History Section

Template Name	IPS Social History Section				
Template ID	HL7 2.16.840.1.113883.10.22.3.10 Version 2020-05-10				
Parent Template	N/A				
General Description	The social history section contains a description of the person's Health related "lifestyle factors" or "lifestyle observations" (e.g., smoke habits; alcohol consumption; diets, risky habits.) The optional author and informant elements are used when necessary to convey the provenance and authoring of the section content in case it is different from what is announced in the CDA header. https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.3.10&effectiveDate=2020-05-10T18:52:32&language=en-US				
Section Code	N/A				
Author	May vary				
Informant	May vary				
Subject	current recordTarget				
Opt and Card	**Condition**	**Data Element or Section Name**	**Template ID**	**Specification Document**	**Vocabulary Constraint**
Subsections					
All HL7 IPS CDA subsections and entries are inherited. The only entries constrained are listed in the entries section below.					
Entries					
R [0..*]		IPS Social History Observation	2.16.840.1.113883.10.22.4.48	6.3.4.E14	

6.3.4 CDA Entry Content Modules

6.3.4.E1 IPS Survey Panel

A survey panel collects related survey observations.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.42&effectiveDate=2020-05-08T19:02:26&language=en-US

1) SHALL contain exactly one [1..1] @classCode="CLUSTER"
2) SHALL contain exactly one [1..1] @moodCode="EVN"
3) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.42"

4) SHOULD contain [0..*] id
5) SHALL contain exactly one [1..1] code
6) SHALL contain exactly one [1..1] statusCode="completed"
7) SHOULD contain zero to one [0..1] effectiveTime
8) SHALL contain at least one or more [1..*] component
    a. SHALL contain exactly one or more [1..*] IPS Survey Observation (2.16.840.1.113883.10.22.4.43)

6.3.4.E2 IPS Survey Observation

This clinical statement represents the IPS Survey Observation.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.43&effectiveDate=2020-05-08T19:05:11&language=en-US

1) SHALL contain exactly one [1..1] @classCode="CLUSTER"
2) SHALL contain exactly one [1..1] @moodCode="EVN"
3) SHALL contain exactly one [1..1] templateId
    a. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.22.4.43"
4) SHALL contain exactly one [1..1] code
5) SHALL contain exactly one or more [1..*] value, example ValueSet CoreProblemListDisordersUvIps urn:oid:2.16.840.1.113883.11.22.16 DYNAMIC
6) CAN contain exactly zero or more [0..*] interpretationCode
7) CAN contain methodCode
8) CAN contain targetSiteCode

6.3.4.E3 IPS Vital Signs Organizer

This template provides a mechanism for grouping vital signs (e.g., grouping systolic blood pressure and diastolic blood pressure).

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.44&effectiveDate=2020-05-08T19:27:39&language=en-US

1) SHALL contain exactly one [1..1] @classCode="CLUSTER"
2) SHALL contain exactly one [1..1] @moodCode="EVN"
3) SHALL contain exactly one [1..1] templateId="2.16.840.113883.10.22.4.44"

4) SHOULD contain [0..*] id
5) SHALL contain exactly one [1..1] code="85353-1" Vital Signs (CodeSystem: LOINC:oid:2.16.840.1.113883.6.1)
6) SHALL contain exactly one [1..1] statusCode="completed"
7) SHOULD contain [0..1]

Note: The effectiveTime is an interval that spans the effectiveTimes of the contained vital signs observations.

8) SHOULD contain zero or more [0..*] author
9) SHALL contain at least one [1..*] component
    1. SHALL contain exactly one [1..1] IPS Vital Signs Observation (2.16.840.1.113.883.10.22.4.45) (Section 6.3.4.E4)

6.3.4.E4 IPS Vital Signs Observation

Specifies coded vital signs pertaining to the subject of care's health condition. It is a simple observation that uses a specific vocabulary, and inherits constraints from CCD.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.45&effectiveDate=2020-05-08T19:31:32&language=en-US

1) SHALL contain exactly one [1..1] templateId="2.16.840.1.113.883.10.22.4.45"
2) SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet Vital Sign Result urn:oid:2.16.840.1.113883.3.88.12.80.62
3) SHOULD contain zero or one [0..1] text

Note: The element if present points to the text describing the problem being recorded; including any dates, comments, et cetera. The contains a URI in value attribute. This URI points to the free text description of the problem in the document that is being described.

4) SHALL contain exactly one [1..1] reference
5) SHALL contain exactly one [1..1] value
6) SHOULD contain zero or more [0..*] interpretationCode
7) SHOULD contain zero or more [0..*] methodCode
8) SHOULD contain zero or more [0..*] targetSiteCode

6.3.4.E5 IPS Planned Observation

The observation request entry is used to record goals, plans or intention for an observation to be performed (e.g., assessment, laboratory test, imaging study, et cetera).

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.41&effectiveDate=2020-05-08T18:34:42&language=en-US

1) SHALL contain exactly one [1..1] @classCode="OBS"
2) SHALL contain exactly one [1..1] @moodCode [@moodCode="INT" OR @moodCode="PRP" OR @moodCode="GOL"]
3) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.41"
4) SHOULD contain zero or more [0..*] id
5) SHALL contain exactly one [1..1] code
6) SHOULD contain zero to one [0..1] text
7) SHALL contain exactly one [1..1] reference
8) SHALL contain exactly one [1..1] statusCode
9) SHOULD contain zero or one [1..1] effectiveTime
10) CAN contain zero or more [1..1] value
11) CAN contain zero or more [1..1] methodCode
12) CAN contain zero or more [1..1] targetSiteCode
13) CAN contain zero or more [1..1] author

6.3.4.E6 IPS Planned Procedure

The procedure entry is used to record procedures which are planned for in the future.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.38&effectiveDate=2020-05-08T17:38:48&language=en-US

1) SHALL contain exactly one [1..1] @classCode="PROC"
2) SHALL contain exactly one [1..1] @moodCode [@moodCode="INT" OR @moodCode="RQO"]
3) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.38"
4) SHOULD contain zero or more [0..*] id
5) SHALL contain exactly one [1..1] code
6) SHOULD contain zero to one [0..1] text
7) SHALL contain exactly one [1..1] reference
8) SHALL contain exactly one [1..1] statusCode

9) SHOULD contain zero or one [1..1] effectiveTime
10) CAN contain zero or more [1..1] targetSiteCode which SHOULD be selected from IPS Target Site Value Set urn:oid:2.16.840.1.113883.11.22.55 (DYNAMIC)
11) CAN contain zero or more [1..1] entryRelationship

6.3.4.E7 IPS Planned Encounter

This clinical statement represents the IPS Planned Encounter

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.40&effectiveDate=2020-05-08T18:18:38&language=en-US

1) SHALL contain exactly one [1..1] @classCode=" ENC"
2) SHALL contain exactly one [1..1] @moodCode [@moodCode="APT" OR @moodCode="ARQ" OR @moodCode="PRP"]
3) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.40"
4) SHOULD contain zero or more [0..*] id
5) SHALL contain exactly one [1..1] code
6) SHOULD contain zero to one [0..1] text
7) SHALL contain exactly one [1..1] reference
8) SHOULD contain zero to one [0..1] effectiveTime
9) SHOULD contain zero to one [0..1] priorityCode
10) SHOULD contain zero or more [0..*] performer
11) SHOULD contain zero or more [0..*] participant
    a. SHALL contain exactly one [1..1] @typeCode="LOC"
    b. SHALL contain exactly one [1..1] participantRole
        i. SHALL contain exactly one [1..1] @classCode="SDLOC"
        ii. SHOULD contain zero or more [0..*] id
        iii. SHOULD contain zero or one [0..1] code
        iv. SHOULD contain zero or more [0..*] addr
        v. SHOULD contain zero or more [0..*] telecom
        vi. SHALL contain exactly one [1..1] playingEntity
            1. SHALL contain exactly one [1..1] @classCode="PLC"
            2. SHALL contain exactly one or more [1..*] name

6.3.4.E8 IPS Planned Immunization

A Planned Immunization entry describes the intent of administrating immunization substance.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.47&effectiveDate=2020-05-08T17:29:18&language=en-US08T18:18:38&language=en-US

1) SHALL contain exactly one [1..1] @classCode="SBADM"
2) SHALL contain exactly one [1..1] @moodCode [@moodCode="INT" OR @moodCode="RQO" OR @moodCode="PRP"]
3) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.47"
4) SHOULD contain zero or more [0..*] id
5) SHALL contain exactly one [1..1] code
6) SHOULD contain zero to one [0..1] text
7) SHALL contain exactly one [1..1] reference
8) SHOULD contain zero to one [0..1] effectiveTime
9) SHOULD contain zero to one [0..1] priorityCode
10) SHOULD contain zero or more [0..*] performer
11) SHOULD contain zero or more [0..*] participant

6.3.4.E9 IPS Planned Act

This template represents a Planned Act. It may be a wrapper for intervention-type activities considered to be parts of the same intervention; or it could be used to describe planned acts not represented by the other care plan entry templates.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.39&effectiveDate=2020-05-08T18:08:52&language=en-US

1) SHALL contain exactly one [1..1] @classCode="ACT"
2) SHALL contain exactly one [1..1] @moodCode="INT", OR “RQO”, OR “PRP”
3) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.39"
4) SHOULD contain zero or more [0..*] id
5) SHALL contain exactly one [1..1] code
6) SHOULD contain zero to one [0..1] text
7) SHALL contain at least one [1..1] reference
    a. SHALL contain at least one [1..1] @value

8) SHALL contain exactly one [1..1] statusCode="completed", @code shall be drawn from value set 2.16.840.1.113883.1.11.15933 ActStatus (DYNAMIC)

9) SHOULD contain zero or one [0..1] effectiveTime

10) SHOULD contain zero or more [0..*] performer

11) SHOULD contain zero or more [0..*] author

6.3.4.E10 IPS Pregnancy Status Observation

A pregnancy observation is a Simple Observation that uses a specific vocabulary to record observations about a patient's current or historical pregnancies.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.36&effectiveDate=2020-05-07T18:36:37&language=en-US

1) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.27"

2) SHALL contain exactly one [1..1] code="82810-3" Pregnancy status (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1)

3) SHALL contain exactly one [1..1] statusCode="completed"

4) SHOULD contain zero or one [0..1] effectiveTime

   Note: The effectiveTime, also referred to as the “biologically relevant time” is the time at which the observation holds for the patient. For a provider seeing a patient in the clinic today, observing a history of heart attack that occurred five years ago, the effectiveTime is five years ago.

5) SHALL contain exactly one [1..1] value (ValueSet: IPS Pregnancy Status 2.16.840.1.113883.11.22.68 DYNAMIC)

6) SHOULD contain zero to one [0..1] entryRelationship

   1. SHALL contain exactly one [1..1] @typeCode="COMP" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC)
   2. SHALL contain exactly one [1..1] IPS Pregnancy Expected Delivery Date Observation (identifier: urn:oid: 2.16.840.1.113883.10.22.4.29)

6.3.4.E11 IPS Pregnancy Observation

A pregnancy observation is a Simple Observation that uses a specific vocabulary to record observations about a patient's current or historical pregnancies.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.36&effectiveDate=2020-05-07T18:36:37&language=en-US

1) SHALL contain exactly one [1..1] @moodCode="EVN"
2) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.36"
3) SHALL contain exactly one [1..1] code (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 DYNAMIC)
4) SHOULD contain zero or one [0..1] text
5) SHALL contain exactly one [1..1] statusCode="complete"
6) SHOULD contain zero or one [0..1] effectiveTime
7) SHALL contain at least one or more [1..*] value

6.3.4.E12 IPS Advance Directive Organizer

This clinical statement groups a set of advance directive observations.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.46&effectiveDate=2020-05-08T16:11:48&language=en-US

1) SHALL contain exactly one [1..1] @classCode="CLUSTER"
2) SHALL contain exactly one [1..1] @moodCode="EVN"
3) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.46 "
4) SHOULD contain [0..*] id
5) SHALL contain exactly one [1..1] code="85353-1" Vital Signs (CodeSystem: LOINC:oid:2.16.840.1.113883.6.1)
6) SHALL contain exactly one [1..1] statusCode="completed"
7) SHOULD contain zero or more [0..*] author
8) SHALL contain at least one [1..*] component
    1. SHALL contain exactly one [1..1] IPS Advance Directive Observation (2.16.840.1.113883.10.22.4.37) (Section 6.3.4.E14)

6.3.4.E13 IPS Advance Directive Observation

This clinical statement represents the IPS Advance Directive Observation.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.37&effectiveDate=2020-05-08T16:21:54&language=en-US

1) SHALL contain exactly one [1..1] @classCode="OBS"
2) SHALL contain exactly one [1..1] @moodCode="EVN"

3) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.37"
4) SHOULD contain [0..*] id
5) SHALL contain exactly one [1..1] code
6) SHALL contain exactly one [1..1] statusCode="completed"
7) SHALL contain exactly one [1..1] effectiveTime
    a. SHALL contain exactly one [1..1] low
    b. SHALL contain exactly one [1..1] high

Note: If the Advance Directive does not have a specified ending time, the <high> element SHALL have the nullFlavor attribute set to NA

8) SHALL contain exactly one [1..1] value
9) SHOULD contain zero or more [0..*] participant where [@typeCode='VRF']
10) SHOULD contain zero or more [0..*] participant where [@typeCode='CST']
11) SHOULD contain zero or more [0..*] reference [@typeCode='REFR']
    a. SHALL contain at least one [1..1] externalDocument
        i. SHALL contain at least one [1..*] id
        ii. CAN contain [0..1] text
            1. CAN contain [0..1] reference

6.3.4.E14 IPS Social History Observation

This template represents a patient's occupations, lifestyle, and environmental health risk factors. Demographic data (e.g., marital status, race, ethnicity, religious affiliation) are captured in the header. Though tobacco use and exposure may be represented with a Social History Observation, it is recommended to use the Current Smoking Status template or the Tobacco Use template instead, to represent smoking or tobacco habits.

The full details are located: https://art-decor.org/art-decor/decor-templates--hl7ips-?section=templates&id=2.16.840.1.113883.10.22.4.48&effectiveDate=2020-05-10T15:16:16&language=en-US

1) SHALL contain exactly one [1..1] @classCode="OBS"
2) SHALL contain exactly one [1..1] @moodCode="EVN"
3) SHALL contain exactly one [1..1] templateId="2.16.840.1.113883.10.22.4.48"
4) SHOULD contain [0..*] id
5) SHALL contain exactly one [1..1] code
6) SHOULD contain zero or one [0..1] text

a. SHALL contain zero or more [1..1] reference

7) SHALL contain exactly one [1..1] statusCode="completed"
8) SHOULD contain zero or one [1..1] effectiveTime
9)) SHALL contain exactly one [1..1] value

6.4 Section not applicable

Not applicable.

6.5 PCC Value Sets and Concept Domains

Not applicable.

6.6 HL7 FHIR Content Module

6.6.X.1 FHIR Resource Bundle Content

The following table reflects the IPS FHIR Composition (https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Composition-uv-ips.html). Optionality is shown as specified in HL7 as well as the modified optionality required to fulfill the IPS FHIR Complete Option of this Profile.

FHIR Resource location		HL7 Optionality	Complete Option Optionality	Cardinality	Structured Definition
Composition	Clinical Document	R	R	1..1	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Composition-uv-ips.html
type	CodeableConceptIPS	-	-	1..1	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-CodeableConcept-uv-ips.html
subject	Patient (IPS)	RE	RE	0..1	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Patient-uv-ips.html
section:sectionMedications	IPS Medication Summary Section	R	R	1..1	-
entry:medicationStatement	Medication Statement (IPS)	R	R	1..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-MedicationStatement-uv-ips.html
section:sectionAllergies	IPS Allergies and Intolerances Section	R	R	1..1	-

FHIR Resource location		HL7 Optionality	Complete Option Optionality	Cardinality	Structured Definition
entry:allergyOrIntolerance	Allergy Intolerance (IPS)	R	R	1..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-AllergyIntolerance-uv-ips.html
section:sectionProblems	IPS Problems Section	R	R	1..1	-
entry:problem	Condition (IPS)	R	R	1..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Condition-uv-ips.html
section:sectionProceduresHx	IPS History of Procedures Section	RE	RE	0..1	-
entry:procedure	Procedure (IPS)	R	R	1..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Procedure-uv-ips.html
section:sectionImmunizations	IPS Immunizations Section	RE	RE	0..1	-
entry:immunization	Immunization (IPS)	R	R	1..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Immunization-uv-ips.html
section:sectionMedicalDevices	IPS Medical Devices Section	RE	RE	0..1	-
entry:deviceStatement	Device Use Statement (IPS)	R	R	1..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-DeviceUseStatement-uv-ips.html
section:sectionResults	IPS Results Section	RE	RE	0..*	-
entry:results-observation	Observation Results: laboratory (IPS)	O	O	0..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Observation-results-laboratory-uv-ips.html
	Observation Results: pathology (IPS)	O	O	0..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Observation-results-pathology-uv-ips.html
	Observation Results: radiology (IPS)	O	O	0..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Observation-results-radiology-uv-ips.html
	Observation Results (IPS)	O	O	0..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Observation-results-uv-ips.html
entry:results-diagnosticReport	DiagnosticReport (IPS)	O	O	0..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-DiagnosticReport-uv-ips.html
section:sectionVitalSigns	IPS Vital Signs Section	O	RE	0..1	-
entry:vitalSign	Vital Signs Profile	O	O	0..*	http://hl7.org/fhir/R4/vitalsigns.html

FHIR Resource location		HL7 Optionality	Complete Option Optionality	Cardinality	Structured Definition
section:sectionPastIllnessHx	IPS History of Past Illness Section	O	RE	0..1	-
entry:pastProblem	Condition (IPS)	R	R	1..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Condition-uv-ips.html
section:sectionFunctionalStatus	IPS Functional Status	O	RE	0..1	-
entry:disability	Condition (IPS)	O	O	0..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Condition-uv-ips.html
entry:functionalAssessment	ClinicalImpression	O	O	0..*	http://hl7.org/fhir/R4/clinicalimpression.html
section:sectionPlanOfCare	IPS Plan of Care Section	O	RE	0..1	-
entry:carePlan	CarePlan	O	O	0..*	http://hl7.org/fhir/R4/careplan.html
section:sectionSocialHistory	IPS Social History Section	O	RE	0..1	-
entry:smokingTobaccoUse	Observation (SH: tobacco use)	O	O	0..1	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Observation-tobaccouse-uv-ips.html
entry:alcoholUse	Observation (SH: alcohol use)	O	O	0..1	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Observation-alcoholuse-uv-ips.html
section:sectionPregnancyHx	IPS History of Pregnancy Section	O	RE	0..1	-
entry:pregnancyStatus	Observation (Pregnancy: status)	O	O	0..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Observation-pregnancy-status-uv-ips.html
entry:pregnancyOutcomeSummary	Observation (Pregnancy: outcome)	O	O	0..*	https://build.fhir.org/ig/HL7/fhir-ips/StructureDefinition-Observation-pregnancy-outcome-uv-ips.html
section:sectionAdvanceDirectives	IPS Advance Directives Section	O	RE	0..1	-
entry:advanceDirectivesConsent	Consent	O	O	0..*	http://hl7.org/fhir/R4/consent.html

1120

6.6.X.1.2 FHIR Resource Data Specifications

The following table shows the mapping of the FHIR Resources supporting the content for International Patient Summary data Elements/Attributes defined by CEN.

6.6.X.1.2.1 FHIR IPS Patient Attributes Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Patient Attributes Section.

Cen/ISO Data Elements	FHIR Resource Location	References
Patient Attributes	Patient:PatientUvIps	
Patient's name	Patient:PatientUvIps.name	
Patient's address and telecom	see below	
Address	Patient:PatientUvIps.address	
Telecoms	Patient:PatientUvIps.telecom	
Administrative gender	Patient:PatientUvIps.gender	
Date of birth	Patient:PatientUvIps.birthDate	
Patient's preferred language	Patient:PatientUvIps.communication.language	
Healthcare related identifiers	Patient:PatientUvIps.identifier	
Patient identifier	Patient:PatientUvIps.identifier	
Insurance information	Patient:PatientUvIps.identifier	
Insurance identifier	Patient:PatientUvIps.identifier	

6.6.X.1.2.2 FHIR IPS Patient's Address Book Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Patient's Address Book Section.

Cen/ISO Data Elements	FHIR Resource Location	References
Patient Attributes	Patient:PatientUvIps	
Patient's name	Patient:PatientUvIps.name	
Patient's address and telecom	see below	
Address	Patient:PatientUvIps.address	
Telecoms	Patient:PatientUvIps.telecom	
Administrative gender	Patient:PatientUvIps.gender	
Date of birth	Patient:PatientUvIps.birthDate	
Patient's preferred language	Patient:PatientUvIps.communication.language	
Healthcare related identifiers	Patient:PatientUvIps.identifier	
Patient identifier	Patient:PatientUvIps.identifier	
Insurance information	Patient:PatientUvIps.identifier	
Insurance identifier	Patient:PatientUvIps.identifier	

6.6.X.1.2.3 FHIR IPS Advanced Directives Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Advanced Directives section.

Cen/ISO Data Elements	FHIR Resource Location	References
Advance Directives Section	Composition.section:sectionAdvanceDirectives	
Advance Directives	Composition.section:sectionAdvanceDirectives	
Advance Directive	Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent	
Person Authorizing Directive	Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent.performer:Patient Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent.performer:RelatedPerson	6.6.X.1.2.3.Z.1
Person Authorizing Name	Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent.performer.name	
Person Authorizing Role	Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent.performer:RelatedPerson.relationship	
Person Authorizing Telecoms	Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent.performer.telecom	
Directive Category	Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent.category	
Directive Description	Composition.section:sectionAdvanceDirectives.text Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent.text	
Reference to Legal Document	Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent.sourceReference:DocumentReference	

6.6.X.1.2.3.Z Advanced directives Resource References

6.6.X.1.2.3.Z.1 Person Authorizing Directive

If the person authorizing the Advanced directive is the patient then the Person Authorizing Directive element should be found in:

Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent.performer:Patient

If the person authorizing the Advanced directive is a patient representative then the Person Authorizing Directive element should be found in: Composition.section:sectionAdvanceDirectives.entry:advanceDirectivesConsent.performer:RelatedPerson

6.6.X.1.2.4 FHIR IPS Allergy Intolerance Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Allergy and Intolerance Section.

Cen/ISO Data Elements	FHIR Resource Location	References
Allergies and Intolerances	Composition.section:sectionAllergies	
Allergies/Intolerances content status	Composition.section:sectionAllergies.entry:allergyOrIntolerance.code:absentOrUnknownAllergyIntolerance	
Allergies and Intolerances	Composition.section:sectionAllergies.entry:allergyOrIntolerance	
Allergy/Intolerance	Composition.section:sectionAllergies.entry:allergyOrIntolerance	
Allergy/Intolerance description	Composition.section:sectionAllergies.text Composition.section:sectionAllergies.entry:allergyOrIntolerance.text	
Allergy/Intolerance Clinical status	Composition.section:sectionAllergies.entry:allergyOrIntolerance.clinicalStatus	
Allergy/Intolerance Onset Date	Composition.section:sectionAllergies.entry:allergyOrIntolerance.onsetDateTime	
Allergy/Intolerance End Date	Composition.section:sectionAllergies.entry:allergyOrIntolerance.extension:AbatementDateTimeUvIps	
Allergy/Intolerance Criticality	Composition.section:sectionAllergies.entry:allergyOrIntolerance.criticality	
Allergy/Intolerance Certainty	Composition.section:sectionAllergies.entry:allergyOrIntolerance.verificationStatus	
Allergy/Intolerance Type of propensity	Composition.section:sectionAllergies.entry:allergyOrIntolerance.type	
Allergy/Intolerance Diagnosis	Composition.section:sectionAllergies.entry:allergyOrIntolerance.code	
Allergy/Intolerance Reaction	Composition.section:sectionAllergies.entry:allergyOrIntolerance.reaction	
Allergy/Intolerance Manifestation of the reaction	Composition.section:sectionAllergies.entry:allergyOrIntolerance.reaction.manifestation	
Allergy/Intolerance Severity	Composition.section:sectionAllergies.entry:allergyOrIntolerance.reaction.severity	
Allergy/Intolerance Agent	see below	
Allergy/Intolerance Agent code	Composition.section:sectionAllergies.entry:allergyOrIntolerance.code	

	Allergy/Intolerance Category	Composition.section:sectionAllergies.entry:allergyOrIntolerance.category	

6.6.X.1.2.5 FHIR IPS Functional Status Section

1155 The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Functional Status Section..

Cen/ISO Data Elements	FHIR Resource Location	References
Functional Status Section	Composition.section:sectionFunctionalStatus	
Disabilities	Composition.section:sectionFunctionalStatus.entry:disability	
Disability	Composition.section:sectionFunctionalStatus.entry:disability	
Disability Description	Composition.section:sectionFunctionalStatus.text Composition.section:sectionFunctionalStatus.entry:disability.text	
Disability Code	Composition.section:sectionFunctionalStatus.entry:disability.code	
Onset Date	Composition.section:sectionFunctionalStatus.entry:disability.onsetDateTime	
Functional assessments (determines autonomy)	Composition.section:sectionFunctionalStatus.entry:functionalAssessment	
Functional Assessment (type performed)	Composition.section:sectionFunctionalStatus.entry:functionalAssessment	
Functional Assessment description	Composition.section:sectionFunctionalStatus.text Composition.section:sectionFunctionalStatus.entry:functionalAssessment.text	
Date of assessment	Composition.section:sectionFunctionalStatus.entry:functionalAssessment.effectiveDateTime	
Type	Composition.section:sectionFunctionalStatus.entry:functionalAssessment.code	
Result	Composition.section:sectionFunctionalStatus.entry:functionalAssessment.finding.itemReference.code	
Functional Assessment	Composition.section:sectionFunctionalStatus.entry:functionalAssessment	

6.6.X.1.2.6 FHIR IPS History of Past Problems Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 History of Past Problems Section.

Cen/ISO Data Elements		FHIR Resource Location	References
History of Past Problems		Composition.section:sectionPastIllnessHx	
Past problems		Composition.section:sectionPastIllnessHx.entry:pastProblem	
Past problem		Composition.section:sectionPastIllnessHx.entry:pastProblem	
	Problem type	Composition.section:sectionPastIllnessHx.entry:pastProblem.category	6.6.X.1.2.6.Z.1
	Problem Description	Composition.section:sectionPastIllnessHx.text Composition.section:sectionPastIllnessHx.entry:pastProblem.text	
	Problem Diagnosis	Composition.section:sectionPastIllnessHx.entry:pastProblem.code	
	Problem Severity	Composition.section:sectionPastIllnessHx.entry:pastProblem.severity	
	Problem Onset Date	Composition.section:sectionPastIllnessHx.entry:pastProblem.onsetDateTime	
	Problem Status	Composition.section:sectionPastIllnessHx.entry:pastProblem.clinicalStatus	
	Date Problem Resolved	Composition.section:sectionPastIllnessHx.entry:pastProblem.abatementDateTime	
	Specialist Contact for problem	Not explicitly specified	Open Issue 41

6.6.X.1.2.6.Z IPS History of Past Problems References

6.6.X.1.2.6.Z.1 Problem type

In addition to the HL7 http://terminology.hl7.org/CodeSystem/condition-category extensible value set the following additional problem types may also be documented:

- 148006 Preliminary diagnosis (contextual qualifier) (qualifier value)
- 5558000 Working diagnosis (contextual qualifier) (qualifier value)

- 30207005 Risk of (contextual qualifier) (qualifier value)
- Medical Alert SNOMED-CT qualifier value is pending (see open issues)

6.6.X.1.2.7 FHIR IPS History of Pregnancy Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 History of Pregnancy Section.

Cen/ISO Data Elements	FHIR Resource Location	References
History of Pregnancy Section	Composition.section:sectionPregnancyHx	
Current pregnancy status	Composition.section:sectionPregnancyHx.entry:pregnancyStatus	
Pregnancy description	Composition.section:sectionPregnancyHx.entry Composition.section:sectionPregnancyHx.entry:pregnancyStatus.text	
Pregnancy details	see below	
Date of observation	Composition.section:sectionPregnancyHx.entry:pregnancyStatus.effectiveDateTime	
Pregnancy state	Composition.section:sectionPregnancyHx.entry:pregnancyStatus.valueCodeableConcept	
Expected delivery date	Composition.section:sectionPregnancyHx.entry:pregnancyStatus.hasMember:ObservationPregnancyEddUvIps.valueDateTime	
Specialist contact	Not explicitly specified	Open Issue 41
Previous history of pregnancies	Composition.section:sectionPregnancyHx.entry	
Previous pregnancies status	Composition.section:sectionPregnancyHx.entry:Observation	
Previous pregnancies description	Composition.section:sectionPregnancyHx.text Composition.section:sectionPregnancyHx.entry:Observation.text	
Previous pregnancies	Composition.section:sectionPregnancyHx.entry:Observation	
Previous pregnancy details	see below	
Outcome date	Composition.section:sectionPregnancyHx.entry:Observation.effectiveDateTime	
Outcome	Composition.section:sectionPregnancyHx.entry:Observation.value[x]	
Specialist contact	Not explicitly specified	Open Issue 41

	Summary metric	Composition.section:sectionPregnancyHx.entry:pregnancyOutcomeSummary	

6.6.X.1.2.8 FHIR IPS History of Procedures Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 History of Procedures Section.

Cen/ISO Data Elements			FHIR Resource Location	References
History of Procedures			Composition.section:sectionProceduresHx	
	Procedures content status		Composition.section:sectionProceduresHx.entry:procedure.code:absentOrUnknownProcedure	
	Procedures		Composition.section:sectionProceduresHx.entry:procedure	
		Procedure	Composition.section:sectionProceduresHx.entry:procedure	
		Procedure code	Composition.section:sectionProceduresHx.entry:procedure.code	
		Procedure description	Composition.section:sectionProceduresHx.entry Composition.section:sectionProceduresHx.entry:procedure.text	
		Body site	Composition.section:sectionProceduresHx.entry:procedure.bodySite	
		Procedure date	Composition.section:sectionProceduresHx.entry:procedure.performedDateTime	

1180

6.6.X.1.2.9 FHIR IPS Immunizations Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Immunizations Section.

Cen/ISO Data Elements		FHIR Resource Location	References
Immunizations		Composition.section:sectionImmunizations	
	Immunizations content status	Composition.section:sectionImmunizations.entry:immunization.vaccineCode:absentOrUnknownImmunization	
	Immunizations	Composition.section:sectionImmunizations.entry:immunization	

Immunization		Composition.section:sectionImmunizations.entry:immunization	
	Vaccine for type of disease	Composition.section:sectionImmunizations.entry:immunization.vaccineCode	
	Target diseases	Composition.section:sectionImmunizations.entry:immunization.protocolApplied.targetDisease	
	Target disease	Composition.section:sectionImmunizations.entry:immunization.protocolApplied.targetDisease	
	Date of immunization	Composition.section:sectionImmunizations.entry:immunization.occurrenceDateTime	
	Product administered	Composition.section:sectionImmunizations.entry:immunization.vaccineCode	
	Brand name	Composition.section:sectionImmunizations.entry:immunization.vaccineCode	
	Product administration process	see below	
	Performer	Composition.section:sectionImmunizations.entry:immunization.performer	
	Route of administration	Composition.section:sectionImmunizations.entry:immunization.route	

1185

6.6.X.1.2.10 FHIR IPS Medical Devices Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Medical Devices Section.

Cen/ISO Data Elements	FHIR Resource Location	References
Medical Devices	Composition.section:sectionMedicalDevices	
Device content status	Composition.section:sectionMedicalDevices.entry:deviceStatement.device:DeviceUvIps.type:absentOrUnknownDevice	
Devices	Composition.section:sectionMedicalDevices.entry:deviceStatement	

Device		Composition.section:sectionMedicalDevices.entry:deviceStatement	
	Device type	Composition.section:sectionMedicalDevices.entry:deviceStatement.device:DeviceUvIps.type	
	Device identifier	Composition.section:sectionMedicalDevices.entry:deviceStatement.device:DeviceUvIps.udiCarrier	
	Use start date	Composition.section:sectionMedicalDevices.entry:deviceStatement.timingPeriod	
	Use end date	Composition.section:sectionMedicalDevices.entry:deviceStatement.timingPeriod	

1190

6.6.X.1.2.11 FHIR IPS Medication Summary Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Medication Summary Section.

Cen/ISO Data Elements			FHIR Resource Location	References
Medication Summary			Composition.section:sectionMedications	
	Medication summary content status		Composition.section:sectionMedications.entry:medicationStatement.medication.code	
	Medications		Composition.section:sectionMedications.entry:medicationStatement	
		Medication	Composition.section:sectionMedications.entry:medicationStatement	
		Reason	Composition.section:sectionMedications.entry:medicationStatement.reasonCode	
		Medicinal product	Composition.section:sectionMedications.entry:medicationStatement.medication[x]	
			Composition.section:sectionMedications.entry:medicationStatement.medicationReference:MedicationIPS.code [preferred] Composition.section:sectionMedications.entry:medicationStatement.medicationCodeableConcept	
			Composition.section:sectionMedications.entry:medicationStatement.medicationReference:MedicationIPS.code Composition.section:sectionMedications.entry:medicationStatement.medicationReference:MedicationIPS.text Composition.section:sectionMedications.entry:medicationStatement.text	
			Composition.section:sectionMedications.entry:medicationStatement.medicationReference:MedicationIPS.form	
			Composition.section:sectionMedications.entry:medicationStatement.medicationReference:MedicationIPS.code Composition.section:sectionMedications.entry:medicationStatement.medicationReference:MedicationIPS.text Composition.section:sectionMedications.entry:medicationStatement.text	

	Active ingredients		Composition.section:sectionMedications.entry:medicationStatement .medicationReference:MedicationIPS.ingredient	
		Active ingredient	Composition.section:sectionMedications.entry:medicationStatement .medicationReference:MedicationIPS.ingredient	
			Substance code	Composition.section:sectionMedications.entry:medicationStatement .medicationReference:MedicationIPS.ingredient.itemCodeableConcept	
			Strength	Composition.section:sectionMedications.entry:medicationStatement .medicationReference:MedicationIPS.ingredient.strength	
	Administration instruction			Composition.section:sectionMedications.entry:medicationStatement .dosage	
		Instruction		Composition.section:sectionMedications.entry:medicationStatement .text Composition.section:sectionMedications.entry:medicationStatement .dosage.patientInstruction	
		Period of medication use		Composition.section:sectionMedications.entry:medicationStatement .effective[x].effectivePeriod Composition.section:sectionMedications.entry:medicationStatement .dosage.timing	
		Route of administration		Composition.section:sectionMedications.entry:medicationStatement .dosage.route	
		Dose instruction		Composition.section:sectionMedications.entry:medicationStatement .dosage	
			No. of units per intake	Composition.section:sectionMedications.entry:medicationStatement .dosage.doseAndRate.dose[x]	
			Frequency of intake	Composition.section:sectionMedications.entry:medicationStatement .dosage.timing	

1195

6.6.X.1.2.12 FHIR IPS Plan of Care Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Plan of Care Section.

Cen/ISO Data Elements			FHIR Resource Location	References
Plan of Care			Composition.section:sectionPlanOfCare	
	Plans		Composition.section:sectionPlanOfCare.entry:carePlan	
		Plan	Composition.section:sectionPlanOfCare.entry:carePlan	

	Plan type		Composition.section:sectionPlanOfCare.entry:carePlan.category	
	Plan date		Composition.section:sectionPlanOfCare.entry:carePlan.created	
	Plan description		Composition.section:sectionPlanOfCare.text Composition.section:sectionPlanOfCare.entry:carePlan.text Composition.section:sectionPlanOfCare.entry:carePlan.description	
	Recommendations (Core Care Plan)		Composition.section:sectionPlanOfCare.entry:carePlan.activity	
		Recommendation	Composition.section:sectionPlanOfCare.entry:carePlan.activity	
			Recommendation for treatment	Composition.section:sectionPlanOfCare.entry:carePlan.activity.detail Composition.section:sectionPlanOfCare.entry:carePlan.activity.reference
			Given recommendation date	Composition.section:sectionPlanOfCare.entry:carePlan.created
			Applicable date	Composition.section:sectionPlanOfCare.entry:carePlan.period Composition.section:sectionPlanOfCare.entry:carePlan.activity.detail.scheduled[x] Composition.section:sectionPlanOfCare.entry:carePlan.activity.reference
	Extensive Plan		Composition.section:sectionPlanOfCare.entry:carePlan	

6.6.X.1.2.13 FHIR IPS Problems Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Problems Section.

Cen/ISO Data Elements			FHIR Resource Location	References
Problems			Composition.section:sectionProblems	
	Problems content status		Composition.section:sectionProblems.entry:problem.code:absentOrUnknownProblem	
	Problems		Composition.section:sectionProblems.entry:problem	
		Problem	Composition.section:sectionProblems.entry:problem	
			Problem type	Composition.section:sectionProblems.entry:problem.category
			Problem description	Composition.section:sectionProblems.text Composition.section:sectionProblems.entry:problem.text

	Diagnosis	Composition.section:sectionProblems.entry:problem.code	
	Severity	Composition.section:sectionProblems.entry:problem.severity	
	Onset date	Composition.section:sectionProblems.entry:problem.onsetDateTime	
	Problem status	Composition.section:sectionProblems.entry:problem.clinicalStatus	
	Specialist contact	Not explicitly specified	Open Issue 41

6.6.X.1.2.14 FHIR IPS Results Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Results Section.

Cen/ISO Data Elements			FHIR Resource Location	References
Results			Composition.section:sectionResults	
	Observation results		Composition.section:sectionResults.entry	
		Observation result	Composition.section:sectionResults.entry:results-observation (this refers four profiles) : ObservationResultsLaboratoryUvIps; ObservationResultsUvIps; ObservationResultsPathologyUvIps; ObservationResultsRadiologyUvIps) Composition.section:sectionResults.entry:diagnosticReport	-
		Date of observation	Composition.section:sectionResults.entry:Observation.effective[x] Composition.section:sectionResults.entry:results-diagnosticReport.result:observation-results.effective[x]	-
		Observation type	Composition.section:sectionResults.entry:results-observation.category Composition.section:sectionResults.entry:results-diagnosticReport.result:observation-results.code	
		Result description	Composition.section:sectionResults.text Composition.section:sectionResults.entry:Observation.text	
		Value	Composition.section:sectionResults.entry:results-observation.value[x] Composition.section:sectionResults.entry:results-diagnosticReport.result:observation-results.value[x]	
		Observation result	Composition.section:sectionResults.entry:results-observation.hasMember Composition.section:sectionResults.entry:results-diagnosticReport.result:observation-results	
		Performer	Composition.section:sectionResults.entry:results-observation.performer Composition.section:sectionResults.entry:results-diagnosticReport.result:observation-results.performer	

	Observer	Composition.section:sectionResults.entry:Observation.performer Composition.section:sectionResults.entry:Observation.device:DeviceObserverUvIps Composition.section:sectionResults.entry:results-diagnosticReport.result:observation-results.performer Composition.section:sectionResults.entry:results-diagnosticReport.result:observation-results.device:DeviceObserverUvIps	

6.6.X.1.2.15 FHIR IPS Social History Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Social History Section.

Cen/ISO Data Elements	FHIR Resource Location	References
Social History	Composition.section:sectionSocialHistory	
Life style factors	Composition.section:sectionSocialHistory.entry	
Life style factor	Composition.section:sectionSocialHistory.entry:smokingTobaccoUse Composition.section:sectionSocialHistory.entry:alcoholUse	
Life style factor description	Composition.section:sectionSocialHistory.entry:smokingTobaccoUse Composition.section:sectionSocialHistory.entry:alcoholUse	
Life style factor details	Composition.section:sectionSocialHistory.tex Composition.section:sectionSocialHistory.entry:Observation.text	
Reference date range	Composition.section:sectionSocialHistory.entry:Observation.value[x]	

6.6.X.1.2.16 FHIR IPS Vital Signs Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Vital Signs Section.

Cen/ISO Data Elements	FHIR Resource Location	References
Vital Signs	Composition.section:sectionVitalSigns	
Vital signs	Composition.section:sectionVitalSigns.entry:vitalSign	
Vital sign	Composition.section:sectionVitalSigns.entry:vitalSign	
Date of observation	Composition.section:sectionVitalSigns.entry:vitalSign.effective[x]	
Observation type	Composition.section:sectionVitalSigns.entry:vitalSign.code	
Result description	Composition.section:sectionSocialHistory.text Composition.section:sectionSocialHistory.entry:Observation.text	

	Value	Composition.section:sectionVitalSigns.entry:vitalSign.value[x] Composition.section:sectionVitalSigns.entry:vitalSign.component.value[x]	
	Vital sign	Composition.section:sectionVitalSigns.entry:vitalSign.hasMember	

Note: At least one of these shall be populated

1220

6.6.X.1.2.17 FHIR IPS Cross Border Section

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Cross Border Section.

Cen/ISO Data Elements		FHIR Resource Location	References
Cross Border		N/A	
	Country of affiliation	Patient:PatientUvIps.address.country	
	Country specific requirements	N/A	

1225

6.6.X.1.2.18 FHIR IPS Provenance Metadata

The following table provides guidance on the FHIR Resource locations of the CEN/ISO data elements within the EN 17269 Provenance Metadata.

Cen/ISO Data Elements			FHIR Resource Location	References
Provenance Metadata			N/A	
	Asserter (source of information)		it depends on the context of use	
	Date of IPS Document creation		Composition.date	
	Language of document		Composition.language	
	Date of last update of IPS content		Composition.event:careProvisioningEvent.period.	
	Generation of IPS content		N/A	
		Nature of the IPS	In the curent version this information is inferred by a set of IPS data (including author,attester)	
	Healthcare providers		N/A	
		Authoring healthcare provider	Composition.author (and other resource specific elements)	
	Legitimacy		N/A	
		Legal authenticator	Composition.attester	

7 DICOM Content Definitions

Not applicable

Appendices to Volume 3

Appendix A – IPS Gherkin Test Scripts

This appendix shows the test scripts that will be used to guide the development of conformance testing.

A.1 IPS Content Creator CDA Option Test Script

The Test Script Used to carry out the test for the IPS Content Creator CDA Option

A.1.1 Test Steps

1) GIVEN a Patient with data in a health information system that implements the IPS Content Creator with the CDA Option
2) WHEN a request to prepare an IPS Document.
3) THEN the Content Creator will create a CDA Document
4) AND that document will conform to the CDA Document described in section PCC IPS TF-3: 6.3.1.

A.2 IPS Content Creator FHIR Option Test Script

The Test Script Used to carry out the test for the IPS Content Creator FHIR Option

A.2.1 Test Steps

1) GIVEN a Patient with data in a health information system that implements the Content Creator with the FHIR Option
2) WHEN a request to prepare an IPS Document.
3) THEN the Content Creator will create a FHIR Document Bundle
4) AND that document will conform to the FHIR Document described in section PCC IPS TF-3: 6.6.

A.5 IPS Content Consumer View Option Test Script

The Test Script Used to carry out the test for the IPS Content Consumer View Option.

A.5.1 Test Steps

1) GIVEN that a document has been selected for display.
2) WHEN that document is rendered
3) THEN the rendering meets the requirements for CDA Release 2 content presentation semantics (see Section 1.2.4 of the CDA Specification: Human readability and rendering CDA Documents) OR FHIR R4 content presentation semantics

4) AND CDA Header information providing context critical information shall also be rendered in a human readable manner.
5) AND the content consumer provides a mechanism to view.

A.6 IPS Content Consumer Document Import Option Test Script

The Test Script Used to carry out the test for the IPS Content Consumer Document Import Option

A.6.1 Test Steps

1) GIVEN a Content Consumer that implements the Document Import Option
2) AND a document has been selected for import
3) WHEN that document is imported
4) THEN the Content Consumer also supports the View Option
5) AND the Content Consumer supports local storage of the entire document
6) AND the document origin is tracked
7) AND the imported document can be viewed without retrieving it again

A.7 IPS Content Consumer Section Import Option Test Script

The Test Script Used to carry out the test for the IPS Content Consumer Section Import Option.

A.7.1 Test Steps

1) GIVEN a Content Consumer that implements the Section Import Option
2) AND a section/resource(s) has been selected for import
3) WHEN that section/resource(s) is imported
4) THEN the Content Consumer supports the import of one or more sections/resources of the document
5) AND the Content Consumer offers a means to copy the imported section(s) into local data structures as free text.
6) AND the section origin is tracked
7) AND the imported section can be viewed without retrieving it again

A.8 IPS Content Consumer Discrete Data Import Option Test Script

The Test Script Used to carry out the test for the IPS Content Consumer Discrete Data Import Option.

A.8.1 Test Steps

1) GIVEN a Content Consumer that implements the Document Import Option
2) AND a document has been selected for import
3) WHEN that document is imported
4) THEN the Content Consumer also supports the View Option
5) AND the Content Consumer supports local storage of the entire document
6) AND the document origin is tracked
7) AND the imported document can be viewed without retrieving it again

Volume 4 – National Extensions

Not applicable

