Integrating the Healthcare Enterprise



IHE IT Infrastructure Technical Framework

Volume 4 IHE ITI TF-4 National Extensions

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Revision 15.0 – Final Text July 24, 2018

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1 Introduction

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This document, Volume 4, of the IHE IT Infrastructure (ITI) Technical Framework describes the country-specific extensions to ITI transactions and content modules.

1.1 Introduction to IHE

Integrating the Healthcare Enterprise (IHE) is an international initiative to promote the use of standards to achieve interoperability among health information technology (HIT) systems and effective use of electronic health records (EHRs). IHE provides a forum for care providers, HIT experts and other stakeholders in several clinical and operational domains to reach consensus on standards-based solutions to critical interoperability issues.

The primary output of IHE is system implementation guides, called IHE Profiles. IHE publishes each profile through a well-defined process of public review and trial implementation and gathers profiles that have reached final text status into an IHE Technical Framework, of which this volume is a part.

For more general information regarding IHE, refer to www.ihe.net. It is strongly recommended that, prior to reading this volume, readers familiarize themselves with the concepts defined in the IHE Technical Frameworks General Introduction.

135 **1.2 Intended Audience**

The intended audience of IHE Technical Frameworks Volume 4 is:

- Those interested in integrating healthcare information systems and workflows on an international or country basis
- IT departments of healthcare institutions
- Technical staff of vendors participating in the IHE initiative
 - Experts involved in standards development

1.3 Overview of Volume 4

This volume contains information about the scope of national extensions to the transactions and/or content modules defined in the IHE IT Infrastructure (ITI) Technical Framework. Section 2 describes the permitted scope of national extensions and the process by which national IHE initiatives can propose such extensions for approval by the IHE Technical Committee and documentation in the IHE Technical Framework. Section 3 and beyond describe the national extensions, per country, which have been defined. Examples include specific transaction or content changes for IHE Canada, IHE Germany, IHE Japan.

1.4 Comment Process

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IHE International welcomes comments on this document and the IHE initiative. They can be submitted by sending an email to the co-chairs and secretary of the IT Infrastructure domain committees. See http://ihe.net/ITI Public Comments.

1.5 Copyright Licenses

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The licenses covered by this Copyright License are only to those copyrights owned or controlled by IHE International itself. If parts of the Technical Framework are included in products that also include materials owned or controlled by other parties, licenses to use those products are beyond the scope of this IHE document and would have to be obtained from that other party.

1.5.1 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.

Health Level Seven, Inc. has granted permission to IHE to reproduce tables from the HL7^{®1} standard. The HL7 tables in this document are copyrighted by Health Level Seven, Inc. All rights reserved. Material drawn from these documents is credited where used.

1.6 Trademark

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1.7 Disclaimer Regarding Patent Rights

Attention is called to the possibility that implementation of the specifications in this document may require use of subject matter covered by patent rights. By publication of this document, no

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position is taken with respect to the existence or validity of any patent rights in connection therewith. IHE International is not responsible for identifying Necessary Patent Claims for which a license may be required, for conducting inquiries into the legal validity or scope of Patents Claims or determining whether any licensing terms or conditions provided in connection with submission of a Letter of Assurance, if any, or in any licensing agreements are reasonable or non-discriminatory. Users of the specifications in this document are expressly advised that determination of the validity of any patent rights, and the risk of infringement of such rights, is entirely their own responsibility. Further information about the IHE International patent disclosure process including links to forms for making disclosures is available at http://ihe.net/Patent_Disclosure_Process.. Please address questions about the patent disclosure process to the secretary of the IHE International Board: secretary@ihe.net.

1.8 History of Document Changes

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| Date | Document Revision | Change Summary | |
|------------|----------------------|--|--|
| 2014-09-23 | 11.0 | Newly created Volume 4 - Create and add US Data Segmentation for Privacy (DS4P) | |
| 2015-09-18 | 12.0 | Add German and French Extensions | |
| 2016-09-09 | 13.0 | Updated revision and date and removed copyright footer on each page and replaced with footnotes when applicable. | |
| 2017-07-21 | 14.0 | Updated revision and date to coincide with updates to other volumes. | |
| 2018-07-24 | 15.0 | Integrated CP-ITI-749 – Structure of the ZBE segment (PAM Profile) | |

2 Overview of National Extensions to the Technical Framework

The goal of IHE is to promote implementation of standards-based solutions to improve workflow and access to information in support of optimal patient care. To that end, IHE encourages the development of IHE National Deployment Committees to address issues specific to local health systems, policies and traditions of care. The role of these organizations and information about how they are formed is available at http://ihe.net/Governance/#National Deployment.

2.1 Scope of National Extensions

- National extensions to the IHE Technical Framework are allowed in order to address specific local healthcare needs and promote the implementation of the IHE Technical Frameworks. They may add (though not relax) requirements that apply to the Technical Framework generally or to specific transactions, actors and integration profiles. Some examples of appropriate national extensions are:
- Require support of character sets and national languages
 - Provide translation of IHE concepts or data fields from English into other national languages
 - Extensions of patient or provider information to reflect policies regarding privacy and confidentiality
- Changes to institutional information and financial transactions to conform to national health system payment structures and support specific local care practices

All national extensions shall include concise descriptions of the local need they are intended to address. They shall identify the precise transactions, actors, integration profiles and sections of the Technical Framework to which they apply. And they must provide technical detail equivalent to that contained in the Technical Framework in describing the nature of the extension.

2.2 Process for Developing National Extensions

National extension documents are to be developed, approved and incorporated in the Technical Framework in coordination with the IHE Technical Committee and its annual cycle of activities in publishing and maintaining the Technical Framework. The first prerequisite for developing a national extension document is to establish a national IHE initiative and make information regarding its composition and activities available to other IHE initiatives.

Established IHE national initiatives may draft a document describing potential national extensions containing the general information outlined above. This draft document is submitted to the IHE Technical Committee for review and comment. Based on discussion with the Technical Committee, they prepare and submit finalized version of the document in appropriate format for incorporation into the Technical Framework. The publication of National Extensions is to be coordinated with the annual publication cycle of other Technical Framework documents in the relevant domain.

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2.3 Process for Proposing Revisions to the Technical Framework

- In addition to developing national extension documents to be incorporated in the Technical Framework, national IHE initiatives may also propose revisions to the global Technical Framework. These may take the form of changes to existing transactions, actors or integration profiles or the addition of new ones. Such general changes would be subject to approval by the IHE Technical and Planning Committees.
- National extensions that are minor in scope, such as suggestions for clarifications or corrections to documentation, may be submitted throughout the year via the ongoing errata tracking process, called the Change Proposal Process.
 - More substantial revision proposals, such as proposals to add new integration profiles or major country-based extensions, should be submitted directly to the IHE Technical and Planning
- 245 Committees via the process for submitting new proposals called the <u>Profile Proposal Process</u>.

3 National Extensions for IHE USA

The national extensions documented in this section shall be used in conjunction with the definitions of integration profiles, actors and transactions provided in Volumes 1 through 3 of the IHE ITI Technical Framework. This section includes extensions and restrictions to effectively support the regional practice of healthcare in the United States.

This ITI national extension document was authored under the sponsorship and supervision of IHE USA and the IT Infrastructure Technical Committee. Comments should be directed to:

http://www.ihe.net/ITI Public Comments

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255 **3.1 Data Segmentation for Privacy (DS4P)**

This National Extension shows how to use and interpret the Document Sharing Metadata Profiles (XDS.b, XCA, XDR, XDM, and MHD) in compliance with the requirements identified for Data Segmentation for Privacy (DS4P). Data Segmentation is the privacy and security concept for differentiating between data that are to be handled differently for privacy or security reasons.

- Data Segmentation for Privacy support in this context is the interoperability constraints to enable documents of various and different privacy and sensitivity to be communicated within a trust framework in a way that the sender can communicate necessary and specific privacy and security attributes and obligations in a way that the recipient can clearly understand them and act properly.
- This national extension is intended to be used within a trust framework between communicating parties. This trust framework includes policy agreements to use this national extension to communicate segmented sensitive information. For each document that is communicated within this trust framework (PUSH or PULL) the following metadata constraints shall be used to communicate the highest sensitivity of the content as evaluated by the sender. The identified sensitivity level is then enforced by the recipient. Trust enforcement is expected to be defined and managed within that trust framework.

This USA National Extension addresses methods for sharing of segmented documents containing personally identifiable information (PII) as may be permitted by privacy policies or regulations. The privacy policies on which this National Extension is based do not explicitly address the clinical implications of giving patients control over the disclosure of their sensitive records. Standards development organizations are focused on the development of technical infrastructure specifications and remain agnostic on the appropriateness of a privacy policy.

Privacy policies are defined as limits on disclosure and use. Disclosure and use restrictions may originate from a patient, a service provider, or from jurisdictions where healthcare is delivered. Implementations should be prepared to extend functionality based on state, region, and local policies.

This USA National Extension is the result of a proposal from the US Department of Health and Human Services, Office of the National Coordinator for Health IT (ONC) to develop guidance for implementation of Data Segmentation Techniques, including RESTful patterns as defined in the MHD Profile, using the standards, building blocks and principles documented in the Use

Cases developed by the S&I DS4P stakeholder community, and the NwHIN SOAP/Exchange version of the S&I DS4P Implementation Guide. Furthermore, this specification draws upon and cites specific instances of U.S. law such as 42 CFR Part 2, 38 CFR Part 1, etc. These specific references are intended to profile a specific set of users operating under realm specific law and goals. Nothing in this supplement is intended to prevent adoption or customization to meet the needs of other realms.

This USA National Extension is based on artifacts and the findings of pilot implementations of the Data Segmentation for Privacy (DS4P) S&I Framework Initiative, specifically on the Use Cases developed by the stakeholder community, and the NwHIN SOAP/Exchange version of the S&I DS4P Implementation Guide. Additionally, content from the HL7 DS4P Profiles (HL7_IG_DS4P_R1_CH1_CONTENT_N2_2014JAN, HL7_IG_DS4P_R1_CH2_DIRECT_N2_2014JAN, and HL7_IG_DS4P_R1_CH3_EXCHANGE_N2_2014JAN) which in turn reference IHE XDS are noted as important companion documents. For a detailed description of the project, refer to the S&I Initiative DS4P Project Executive Summary found at http://wiki.siframework.org/Data+Segmentation+for+Privacy+Homepage.

This USA National Extension defines constraints according to the requirements captured in the <u>Use Cases developed</u> by the Data Segmentation for Privacy (DS4P) S&I Framework Initiative stakeholder community and additional requirements that were identified by <u>pilot projects</u> <u>engaged</u> in validating the implementation guidance developed by the DS4P S&I Framework Initiative.

Conformance to the Document Sharing Profiles (e.g., XDS.b, XDR, XDM, XCA, and MHD) is expected with the following additional constraints based on privacy policies related to the type of document and the context of the exchange (requesting user, patient, consent, document, facility, purpose, communications mechanism, etc.).

- DocumentEntry constraints are given in Section 3.1.2 below. The constraints include:
 - Security tags (confidentialityCode) constraints
 - indicate the Confidentiality Level specified by using the designated HL7 Confidentiality vocabulary
 - indicate the Handling Caveats for Obligation Policy using a designated Obligation Policy vocabulary
 - indicate the Handling Caveats for Purpose of Use using a designated Purpose of Use vocabulary
 - indicate Handling Caveats for Refrain Policy using a designated Refrain Policy vocabulary
 - indicate the Authoring healthcare facility type using a designated restricted healthcare facility type vocabulary
 - indicate the Document practice setting type using a designated restricted practice setting vocabulary

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- indicate the Low-level classification of the document (typeCode) using a designated restricted type code vocabulary
 - SubmissionSet constraints are given in the Section 3.1.3 below. The constraints include:
 - Indicated as necessary the Targeted intended recipient (intendedRecipient)
 - Indicate the SubmissionSet creator

330 3.1.1 DS4P Document Content

Any CDA^{®2} document SHOULD comply with the CDA constraints defined in the HL7 CDA Privacy Segmented Document template (templateId: 2.16.840.1.113883.3.3251.1.1)

Other content types MAY be carried.

3.1.2 DS4P DocumentEntry

The following constraints apply to all documents in the SubmissionSet.

All the designated vocabulary and value sets are defined by HL7.

3.1.2.1 DS4P DocumentEntry.confidentialityCode

The confidentialityCode metadata SHALL use the "HL7 Healthcare Privacy and Security Classification System (HCS)" as defined in ITI TF-3: 4.2.3.2.5

340 3.1.2.1.1 DS4P Confidentiality Security Classification Label

The confidentialityCode element SHALL contain exactly one value from the codesystem 2.16.840.1.113883.5.25 (i.e., U, L, M, N, R, or V) (aka, http://hl7.org/implement/standards/fhir/v3/Confidentiality/index.html), to indicate the Confidentiality coding of the content.

The confidentialityCode may also contain other values from other codesystems for which Sections 3.1.2.1.2 and 3.1.2.1.3 below are two examples.

The value represents the most restrictive content in the identified document (aka, High water mark).

3.1.2.1.2 DS4P Sensitivity Security Classification Label

The confidentialityCode SHOULD NOT contain a sensitivity indicator unless the trust framework policies indicate otherwise.

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² CDA is the registered trademark of Health Level Seven International.

3.1.2.1.3 DS4P Handling Caveats Security Category

The confidentialityCode element SHALL contain any Obligation Handling Caveats deemed necessary.

355 If present, the Obligation values SHALL be selected from the ValueSet

HL7 ObligationPolicyCode 2.16.840.1.113883.1.11.20445

Also found at http://hl7.org/implement/standards/fhir/v3/vs/ObligationPolicy/index.html

If present, the Purpose Of Use values SHALL be selected from the ValueSet

HL7 PurposeOfUse 2.16.840.1.113883.1.11.20448

Also found at http://hl7.org/implement/standards/fhir/v3/vs/PurposeOfUse/index.html

If present, the Refrain Policy values SHALL be selected from the ValueSet

HL7 RefrainPolicy 2.16.840.1.113883.1.11.20446

Also found at http://hl7.org/implement/standards/fhir/v3/vs/RefrainPolicy/index.html

3.1.2.2 DS4P DocumentEntry.healthcareFacilityTypeCode

The healthcareFacilityTypeCode element contains an indicator of the type of facility that authored the document. The ValueSet designated is restricted to the subset of practice setting codes that will not disclose details about the healthcare facility that may be protected in a specific affinity domain, directed exchange, Health Information Exchange, etc. The HL7 RestrictedHealthcareFacilityTypeCode ValueSet meets this definition and is designated for this purpose.

The healthcareFacilityTypeCode element's value SHALL be selected from the ValueSet

HL7 RestrictedHealthcareFacilityTypeCode 2.16.840.1.113883.3.3251.3.2.1

This HL7 ValueSet is a dynamic ValueSet. An HL7 'dynamic' ValueSet is one that can change over time to adjust to changing policy landscapes, but is a managed ValueSet.

375 **3.1.2.3 DS4P DocumentEntry.practiceSettingCode**

The practiceSettingCode element contains an indicator of the type of practice setting. The ValueSet designated is restricted to the subset of practice setting codes that will not disclose details about the practice that may be protected in a specific affinity domain, directed exchange, Health Information Exchange, etc. The HL7 RestrictedPracticeSettingCode ValueSet meets this definition and is designated for this purpose. The ValueSet is derived from SNOMED-CT codes in a way consistent with prevailing privacy policies.

The practiceSettingCode element's value SHALL be selected from the ValueSet

RestrictedPracticeSettingCode 2.16.840.1.113883.3.3251.3.2.2

This HL7 ValueSet is a dynamic ValueSet. An HL7 'dynamic' ValueSet is one that can change over time to adjust to changing policy landscapes, but is a managed ValueSet.

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3.1.2.4 DS4P DocumentEntry.typeCode

The typeCode element identifies the type of document. The ValueSet designated avoids disclosing protected information. The HL7 RestrictedTypeCode ValueSet meets this definition and is designated for this purpose.

390 The typeCode element's value SHALL be selected from the ValueSet

RestrictedTypeCode 2.16.840.1.113883.3.3251.3.2.3

This HL7 ValueSet is a dynamic ValueSet. An HL7 'dynamic' ValueSet is one that can change over time to adjust to changing policy landscapes, but is a managed ValueSet.

3.1.3 DS4P SubmissionSet

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The following constraints apply to the submissionSet containing the document entries

3.1.3.1 DS4P SubmissionSet.intendedRecipient

The intended recipient element's value MAY contain the intended recipient. When the exchange requires an intended recipient constraint, this element SHALL be populated. This element SHALL contain the e-mail address of that intended recipient unless the trust framework identifies an alternative encoding that is acceptable.

3.1.3.2 DS4P SubmissionSet.author

The SubmissionSet Author element's value SHALL contain at least the author of the submission set.

This element SHALL contain the e-mail address of the author of the submission set unless the trust framework identifies an alternative encoding that is acceptable.

The recipient utilizes the SubmissionSet author as the indicator of the sender for PUSH transactions, and as the provenance identifier of the submission. This information may be used by the recipient in policy decisions and enforcement.

4 National Extensions for France

4.1 French requirements related to Patient and Patient Administration

HL7 v2.5 events and segments used by the PAM Profile are detailed in the IHE ITI Technical Framework which will be referred to as ITI TF-2b in the remainder of this section.

This section describes constraints on HL7 v2.5 events and segments used in the French environment. Some of these constraints apply to all HL7 transactions. Others only affect the [ITI-30] and [ITI-31] transactions.

The document narrows or specifies the use of events and segments mentioned in ITI TF-2b. It also specifies the use of HL7 v2.5 events and segments that are still not detailed in ITI TF-2b.

Each segment is displayed as a table which rows are the items and which "Usage" and "Card." Columns respectively specify the use of the item and its cardinalities in the French environment.

- The "Usage" column follows the common codification to HL7 and IHE:
 - R Required. The item must be provided in the French environment
 - RE Must be provided if the sending application owns the information. The sending application must be able to supply that item.
 - O Optional: IHE France doesn't impose any restriction on that item which may or may not be managed by sending and receiving applications.
 - C Conditional. The condition for using in the French environment is specified below the table.
 - X Forbidden in France.

The "Card." column includes the bracketed highest and lowest cardinalities.

- An "IHE Fr" column was added to the tables. Such a column is marked with an asterisk when the constraint on the use established by IHE France is different from the one set up by IHE International or by HL7 v2.5 standard for the particular item. In other words, no asterisk means that the French use is exactly the same than the international one.
- Some of the items are detailed below the data type table. Especially, IHE France can provide values lists for some of those items. These lists (restricted, extended or even edited as compared with the original ones established by HL7) include values that are strictly permitted in France. None of these lists can be edited without having to update the present document.

4.1.1 Requirements on all HL7 V2.x transactions

4.1.1.1 HL7 character set

The ISO 8859/1 and ISO 8859/15 character sets shall be supported.

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4.1.1.2 Forbidden fields in France

The following fields are forbidden in all HL7 messages.

• Patient race: PID-10; NK1-35

• Patient religion: PID-17; NK1-25

• Patient ethnic group: PID-22; NK1-28

4.1.1.3 EVN Segment

• Pending events shall use EVN with empty EVN-3 and EVN-6,

• Planned events shall use EVN with planned date time in EVN-3 and empty EVN-6,

• Past events shall use EVN with date time in EVN-6 and EVN-3 empty.

450 **4.1.1.4 MSH Segment rules**

The MSH-12 field shall be fully populated. When part of [ITI-30] and [ITI-31] transactions, it shall be populated as follows:

• MSH-12.1: HL7 version number

• MSH-12.2: Internationalization code (Table #399) shall be FRA

• MSH-12.3: HL7 Profile version number shall be 2.5

4.1.1.5 PID Segment

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All transactions that contain a PID segment shall support the changes made to PID-3, PID-5, PID-6, PID-8, PID-10, PID-16, PID-17, PID-32.

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | | IHE FR |
|--------|-----|-----|-------|-------|-------------|----------------------------|---|-----------------------|
| PID-1 | 4 | SI | О | [01] | | Set ID - PID | | |
| PID-2 | 20 | CX | X | [00] | | Patient ID | | |
| PID-3 | 250 | CX | R | [1*] | | Patient Identifier List | * | National identifier |
| PID-4 | 20 | CX | X | [00] | | Alternate Patient ID - PID | | |
| PID-5 | 250 | XPN | R | [1*] | | Patient Name | * | French legal policy |
| PID-6 | 250 | XPN | О | [0*] | | Mother's Maiden Name | * | |
| PID-7 | 26 | TS | О | [01] | | Date/Time of Birth | | |
| PID-8 | 1 | IS | О | [01] | 1 | Administrative Sex | * | Restricted User table |
| PID-9 | 250 | XPN | X | [00] | | Patient Alias | | |
| PID-10 | 250 | CE | X | [00] | 5 | Race | * | forbidden |
| PID-11 | 250 | XAD | С | [0*] | | Patient Address | | |
| PID-12 | 4 | IS | X | [00] | 289 | County Code | | |
| PID-13 | 250 | XTN | 0 | [0*] | | Phone Number - Home | | |

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | | IHE FR |
|--------|-----|-----|-------|-------|-------------|--------------------------------------|---|-------------------|
| PID-14 | 250 | XTN | 0 | [0*] | | Phone Number - Business | | |
| PID-15 | 250 | CE | О | [01] | 296 | Primary Language | | |
| PID-16 | 250 | CE | О | [01] | 2 | Marital Status | * | User table |
| PID-17 | 250 | CE | X | [00] | 6 | Religion | * | forbidden |
| PID-18 | 250 | CX | С | [01] | | Patient Account Number | | |
| PID-19 | 16 | ST | X | [00] | | SSN Number - Patient | | |
| PID-20 | 25 | DLN | X | [00] | | Driver's License Number - Patient | | |
| PID-21 | 250 | CX | О | [0*] | | Mother's Identifier | | |
| PID-22 | 250 | CE | X | [00] | 189 | Ethnic Group | | |
| PID-23 | 250 | ST | О | [01] | | Birth Place | | |
| PID-24 | 1 | ID | О | [01] | 136 | Multiple Birth Indicator | | |
| PID-25 | 2 | NM | С | [01] | | Birth Order | | |
| PID-26 | 250 | CE | О | [0*] | 171 | Citizenship | | |
| PID-27 | 250 | CE | О | [01] | 172 | Veterans Military Status | | |
| PID-28 | 250 | CE | X | | 212 | Nationality | | |
| PID-29 | 26 | TS | О | [01] | | Patient Death Date and Time | | |
| PID-30 | 1 | ID | О | [01] | 136 | Patient Death Indicator | | |
| PID-31 | 1 | ID | CE | | 136 | Identity Unknown Indicator | | |
| PID-32 | 20 | IS | RE | [0*] | 445 | Identity Reliability Code | * | French user table |
| PID-33 | 26 | TS | С | [01] | | Last Update Date/Time | | |
| PID-34 | 241 | HD | О | [01] | | Last Update Facility | | |
| PID-35 | 250 | CE | С | [01] | 446 | Species Code | | |
| PID-36 | 250 | CE | С | [01] | 447 | Breed Code | | |
| PID-37 | 80 | ST | О | [01] | | Strain | | |
| PID-38 | 250 | CE | 0 | 2 | 429 | Production Class Code | | |
| PID-39 | 250 | CWE | О | [0*] | 171 | Tribal Citizenship | | |

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PID-3: Patient Identifier List

This field is used to carry the patient's identifiers, IPP (Permanent Patient identifier), INS-A, INS-C (Patient's National Health Identifiers) among others.

Each identifier is carried with its type (CX-5) and its assigning authority (CX-4).

The INS-C number is calculated. If any INS-C changes; this list shall contain all the known INS-C with their calculation dates in CX-7. The most recently calculated INS-C shall be used as the current INS-C.

For each patient's identifier, the CX type allows specifying the legal entity, the establishment, the ward or the department that produced or had it. This list shall include all of the patient's known INS.

PID-5: Patient Name

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Three types of name can be conveyed in the PID-5 field, which is repeatable. They comply with the HL-7 name structure, and differ in their use of family name.

- The family name which is the legal name according to the Art.311-21 of the Code Civil is also defined as the "name of birth" in the DGOS N°DGOS/MSIOS/2013/281 instruction from 7 June 2013. Last name and name of birth are then regarded as similar. The patronymic name is obsolete. The legal name should be present if known. This shall be a name type "L".
 - The use name, defined by the circular of 26 June 1986: this name is variable through a person's life. It also may have been defined and may not be defined any longer a moment later (a married person who had a marital name may get divorced without conserving it.) A use name is optional. This shall have a name type "D".
 - A nickname: this name is an assumed name a patient is entitled to ask for if he fulfills certain conditions, related to his notoriety. Such a name has no legal standing. A nickname is optional. This shall have a name type "S".

Reference on the name definition is available on the French administration website: http://vosdroits.service-public.fr/N151.xhtml

In France, allowed HL7 types (L, D, S and U).

The last name (L type) is automatically conveyed in HL7 messages. The use name (D type) will only be transmitted if it was defined (spouse's marital name).

The surname prefix shall be in XPN-1 and not separated out as a sub-component. Other prefixes, e.g., "Dr." shall be in XPN-5

Examples (the ~ character separates two occurrences):

NOZIERE^Violette^^^^L

Violette NOZIERE (last name, frequently known as birth name)

DE GUERMANTES^Orianne^^^^D~DES LAUMES^Orianne^^^^^L

Orianne DE GUERMANTES (use name), born DES LAUMES (last name)

Caesar^Julius^^^^S

VIP registered under the pseudonym Julius Caesar

PID-6: Mother's Maiden Name

"Mother's Maiden Name" PID-6 is used to convey the mother's birth name not the patient's birth name.

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PID-8: Patient Sex

The following values shall be used:

HL7 table 0001 – Administrative Sex

| Value IHE FR | Description | Display France | IHE fr Comments |
|-----------------|-------------|-------------------|-----------------|
| F | Female | Féminin | |
| M | Male | Masculin | |
| О | Other | Autre | |
| U | Unknown | Inconnu | |

510 PID-16: Marital Status

The following values shall be used:

PID-16: Marital Status

| Value IHE FR | Description | Display France | IHE fr Comments |
|-----------------|------------------|-------------------|-----------------|
| A | Separated | Séparé | |
| D | Divorced | Divorcé | |
| G | Living together | Concubin | |
| M | Married | Marié | |
| P | Domestic partner | PACS | |
| S | Single | Célibataire | |
| U | Unknown | Inconnu | |
| W | Widowed | Veuf/Veuve | |

PID-18 Patient Account Number

515 See below in [ITI-31] for extra requirements.

Patient account number shall be present if PV1 segment is present.

The "Patient Account Number" PID-18 field is required in the context of the Patient Encounter Management [ITI-31] Transaction in France. This field is the account number that will be used by the facility to issue invoices matching the services performed for the patient.

Its duration may exceed the limits of the patient's visit to the hospital, either the beginning or the end of the stay.

Each visit in the establishment shall be associated to a patient account number.

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PID-32: Identity Reliability Code

This field is used to encode the different identity status values set out by the GMSIH³.

In France, the following 0445 table shall be used:

| Value IHE FR | Description | Recommended display | Translation | IHE France comments |
|-----------------|-------------|---|--|---------------------|
| VIDE | | Identité non encore qualifiée | Identity not qualified | |
| PROV | | Provisoire | Provisional identity | |
| VALI | | Validé | Validated Identity | |
| DOUB | | Doublon ou esclave | Duplicated identity | |
| DESA | | Désactivé | Disabled identity | |
| DPOT | | Doublon potentiel | Potential duplicated identity | |
| DOUA | | Doublon avéré | Real duplicated identity | |
| COLP | | Collision potentielle | Potential collision | |
| COLV | | Collision validée | Validated collision | |
| FILI | | Filiation | filiation | |
| CACH | | Cachée | Hidden identity | |
| ANOM | | Anonyme | Anonym | |
| IDVER | | Identité vérifiée par le patient | Identity checked by the patient | |
| RECD | | Reçue d'un autre domaine | Identity received from another identification domain | |
| IDRA | | Identité rapprochée dans un autre domaine | Identity cross- referenced in another domain | |
| USUR | | Usurpation | Identity theft | |
| HOMD | | Homonyme détecté | Detected homonym | |
| HOMA | | Homonyme avéré | Real homonym | |

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³ GMSIH : Groupement de Modernisation des Systèmes d'Information Hospitaliers

4.1.2 Segments that apply only to [ITI-30] and [ITI-31]

4.1.2.1 PD1 Segment

PD1-2: Living Arrangement

| Value IHE FR | Description | Recommended display | IHE France comments |
|-----------------|-------------|---------------------|---|
| A | Alone | Seul | |
| F | Family | | |
| I | Institution | | |
| R | Relative | | |
| S | Spouse Only | | |
| U | Unknown | | |
| Н | Homeless | Sans domicile fixe | Added by IHE France for homeless people |

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4.1.2.2 ROL Segment

The role that a physician takes when interacting with the patient is represented by a ROL segment. This segment shall not be used to identify next of kin or responsible persons. The NK1 segment is used for that.

| 5 | 2 | 5 |
|---|---|---|
| J | J | J |

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | | IHE FR |
|-----|-----|-----|-------|-------|-------------|-----------------------------------|---|---|
| 1 | 60 | EI | С | [01] | | Role Instance ID | | |
| 2 | 2 | ID | R | [11] | 287 | Action Code | * | User table defined |
| 3 | 250 | CE | R | [11] | 443 | Role-ROL | * | User table completed with French values |
| 4 | 250 | XCN | R | [1*] | | Role Person | | |
| 5 | 26 | TS | 0 | [01] | | Role Begin Date/Time | | |
| 6 | 26 | TS | О | [01] | | Role End Date/Time | | |
| 7 | 250 | CE | 0 | [01] | | Role Duration | | |
| 8 | 250 | CE | 0 | [01] | | Role Action Reason | | |
| 9 | 250 | CE | О | [01] | | Provider Type | | |
| 10 | 250 | CE | 0 | [01] | 406 | Organization Unit Type | | |
| 11 | 250 | XAD | 0 | [01] | | Office/Home Address/Birthplace | | |
| 12 | 250 | XTN | О | [01] | | Phone | | |

ROL-2: Action Code

HL7 Table 0287 - Problem/goal action code

| Value IHE FR | Description | Display France | IHE fr Comments |
|-----------------|-------------|----------------|--|
| AD | ADD | | New physician role |
| DE | DELETE | | Cancellation of the physician role |
| UC | UNCHANGED | | Notification of the physician to be taken into account for the defined role in the current context |
| UP | UPDATE | | Updating of the physician's role |

ROL-3 Role Nature (CE)

This element defines the role played by the physician.

Here follow values that are allowed by this national extension:

HL7 Table 0443 - Provider role

| Value IHE FR | Description | Display France | IHE fr Comments |
|-----------------|--|--|---|
| AD | Admitting | | PV1-17 Admitting doctor Physician from the institution that decides to admit |
| AT | Attending | PV1-7 Attending doctor Physician responsible for the patient durir the visit | |
| CP (note3) | Consulting Provider | | Consulted physician for a second opinion, in the scope of the visit |
| FHCP | Family Health Care Professional | | Family physician. Used in the few cases he is different from the officially declared referring doctor |
| RP | Referring Provider | | PV1-8 Referring doctor |
| RT | Referred to Provider | | Correspondence physician (National Health Insurance definition) |
| ODRP (note1) | Officially Declared Referring Physician | Value added by IHE-France | Declared Referring Physician (National Health Insurance definition) |
| SUBS (note2) | Substitute | Value added by IHE-France | Declared Referring physician replacement |

1st note: ODRP: « Declared Referring Physician ». Value added to the HL7 0443 table. Indeed, none of the existing values in the table was likely to represent the Declared Referring Physician. "FHCP" is a family physician that might go into a

ROL segment but that is not necessarily the declared referring physician. "RP" is the patient's referring physician and may be different from the declared referring physician (for instance a medical specialist).

2nd note: SUBS: "Substitute". Value added to the HL7 0443 table (user defined). Corresponds to the physician who substitutes the declared referring physician, currently absent.

3rd note: CP: "Consulting Provider". The consulting physician is entirely detailed in a ROL segment, under the PV1/PV2 combination. The PV1-9 (Consulting doctor) field, which usage is X in the PAM Profile and downgraded by HL7 v2.5, must not be used.

4.1.2.3 NK1 Segment

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[ITI-30] (A28 and A31 messages) and [ITI-31] (A05, A01, A04 and Z99 messages) transactions convey the NK1 segment except if the NK1 segment corresponds to the trustworthy person (NK1-3=K). The latter shall be transmitted only using the [ITI-31] transaction.

Each next of kin is described by a NK1 segment.

An NK1 segment transmits identities of next of kin or trustworthy persons.

| SEQ | LEN | DT | OPT | R P/# | TBL# | ITEM# | ELEMENT NAME | | IHE FR |
|-----|-----|-----|-----|----------|-----------|-------|--|---|-------------------------------------|
| 1 | 4 | SI | R | | | 00190 | Set ID - NK1 | | |
| 2 | 250 | XPN | О | Y | | 00191 | Name | | |
| 3 | 250 | CE | О | | 0063 | 00192 | Relationship | * | User table translated and completed |
| 4 | 250 | XAD | 0 | Y | | 00193 | Address | | |
| 5 | 250 | XTN | О | Y | | 00194 | Phone Number | | |
| 6 | 250 | XTN | 0 | Y | | 00195 | Business Phone Number | | |
| 7 | 250 | CE | О | | 0131 | 00196 | Contact Role | * | User table translated and completed |
| 8 | 8 | DT | 0 | | | 00197 | Start Date | | |
| 9 | 8 | DT | 0 | | | 00198 | End Date | | |
| 10 | 60 | ST | 0 | | | 00199 | Next of Kin / Associated Parties Job Title | | |
| 11 | 20 | JCC | 0 | | 0327/0328 | 00200 | Next of Kin / Associated Parties Job Code/Class | | |
| 12 | 250 | CX | О | | | 00201 | Next of Kin / Associated Parties Employee Number | | |
| 13 | 250 | XON | О | Y | | 00202 | Organization Name - NK1 | | |
| 14 | 250 | CE | О | | 0002 | 00119 | Marital Status | | |
| 15 | 1 | IS | О | | 0001 | 00111 | Administrative Sex | | |
| 16 | 26 | TS | О | | | 00110 | Date/Time of Birth | | |

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| SEQ | LEN | DT | ОРТ | R P/# | TBL# | ITEM# | ELEMENT NAME | | IHE FR | |
|-----|-------|-----|-----|----------|------|-------|--|---|-----------------------------------|----|
| 17 | 2 | IS | О | Y | 0223 | 00755 | Living Dependency | | | |
| 18 | 2 | IS | О | Y | 0009 | 00145 | Ambulatory Status | | | |
| 19 | 250 | CE | О | Y | 0171 | 00129 | Citizenship | | | |
| 20 | 250 | CE | О | | 0296 | 00118 | Primary Language | | | |
| 21 | 2 | IS | О | | 0220 | 00742 | Living Arrangement | | | |
| 22 | 250 | CE | О | | 0215 | 00743 | Publicity Code | | | |
| 23 | 1 | ID | О | | 0136 | 00744 | Protection Indicator | | | |
| 24 | 2 | IS | О | | 0231 | 00745 | Student Indicator | | | |
| 25 | 25080 | CE | X | | 0006 | 00120 | Religion | | Forbidden | |
| 26 | 250 | XPN | О | Y | | 00109 | Mother's Maiden Name | | | |
| 27 | 250 | CE | О | | 0212 | 00739 | Nationality | | | |
| 28 | 250 | CE | X | Y | 0189 | 00125 | Ethnic Group | | Forbidden | |
| 29 | 250 | CE | О | Y | 0222 | 00747 | Contact Reason | | | |
| 30 | 250 | XPN | О | Y | | 00748 | Contact Person's Name | | | |
| 31 | 250 | XTN | О | Y | | 00749 | Contact Person's Telephone Number | | | |
| 32 | 250 | XAD | О | Y | | 00750 | Contact Person's Address | | | |
| 33 | 250 | CX | R | Y | | 00751 | Next of Kin/Associated Party's Identifiers | * | Required Identifiers France | in |
| 34 | 2 | IS | О | | 0311 | 00752 | Job Status | | | |
| 35 | 250 | CE | X | Y | 0005 | 00113 | Race | * | Forbidden | |
| 36 | 2 | IS | О | | 0295 | 00753 | Handicap | | | |
| 37 | 16 | ST | О | | | 00754 | Contact Person Social Security Number | | | |
| 38 | 250 | ST | О | | | 01905 | Next of Kin Birth Place | | | |
| 39 | 2 | IS | 0 | | 0099 | 00146 | VIP Indicator | | | |

560 NK1-3: Relationship

This field indicates the nature of the relationship of the person to the patient. This may be a familial, professional or friendly relationship.

Note: According to the French regulatory requirements, the trustworthy person is bonded to the patient's visit (article L.1111-6 of the Public Health code).

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HL7 User Defined Table 0063 - Relationship

| Value | Description | Display France |
|-------|-----------------------|-----------------------|
| ASC | Associate | Collègue |
| BRO | Brother | Frère |
| CGV | Care giver | Professionel de santé |
| CHD | Child | Enfant |
| DEP | Handicapped dependent | Dépendant handicapé |
| DOM | Life partner | Compagnon |
| EMC | Emergency contact | Contact d'urgence |
| EME | Employee | Employé |
| EMR | Employer | Employeur |
| EXF | Extended family | Proche |
| FCH | Foster child | Enfant adoptif |
| FND | Friend | Ami |
| FTH | Father | Père |
| GCH | Grandchild | Petits-enfants |
| GRD | Guardian | Tuteur |
| GRP | Grandparent | Grand-parent |
| MGR | Manager | Directeur |
| MTH | Mother | Mère |
| NCH | Natural child | Enfant naturel |
| NON | None | Aucun |
| OAD | Other adult | Autre adulte |
| OTH | Other | Autre |
| OWN | Owner | Propriétaire |
| PAR | Parent | Parent proche |
| SCH | Stepchild | Beau-fils |
| SEL | Self | Elle-même |
| SIB | Sibling | Frère et soeur |
| SIS | Sister | Soeur |
| SPO | Spouse | Epoux |
| TRA | Trainer | Entraineur |
| UNK | Unknown | Inconnu |
| WRD | Ward of court | Tutelle judiciaire |

Note: To transmit a relationship not in the table, set the NK1-3-1 field with the value "OTH" and the NK1-3-2 field with text describing the relationship.

NK1-7: Contact Role

570 IHE France identified the values list, enclosed below.

HL7 User Defined Table 0131 - Contact Role

| Values | Description | Display France |
|--------|--------------------|---------------------------------------|
| Е | Employer | Employeur |
| С | Emergency Contact | Personne à contacter en cas d'urgence |
| F | Federal Agency | Agence fédérale |
| I | Insurance Company | Compagnie d'assurances |
| N | Next-of-Kin | Parent proche |
| S | State Agency | Agence d'État |
| 0 | Other | Autre |
| U | Unknown | Inconnu |
| K | Confidence contact | Personne de confiance |

NK1-33: Next of Kin/Associated Party's Identifiers

This field is used to transmit the next of kin or trustworthy person's identifiers.

All identifiers shall have both type (CX-5) and assignment authority (CX-4).

To identify next of kin or trustworthy persons, using the identifier type PN (Person Number) is recommended.

This field NK1-33 is required.

4.1.2.4 PV1 Segment

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | | IHE FR |
|--------|-----|-----|-------|-------|-------------|------------------------------|---|-----------------------|
| PV1-1 | 4 | SI | О | [01] | | Set ID - PV1 | | |
| PV1-2 | 1 | IS | R | [11] | 4 | Patient Class | * | restricted user table |
| PV1-3 | 80 | PL | С | [01] | | Assigned Patient Location | * | explanation |
| PV1-4 | 2 | IS | 0 | [01] | 7 | Admission Type | * | User table completed |
| PV1-5 | 250 | CX | С | [01] | | Preadmit Number | * | explanation |
| PV1-6 | 80 | PL | С | [01] | | Prior Patient Location | | |
| PV1-7 | 250 | XCN | 0 | [0*] | 10 | Attending Doctor | | |
| PV1-8 | 250 | XCN | О | [0*] | 10 | Referring Doctor | | |
| PV1-9 | 250 | XCN | X | [00] | | Consulting Doctor | | |
| PV1-10 | 3 | IS | 0 | [01] | 69 | Hospital Service | * | French user table |
| PV1-11 | 80 | PL | С | [01] | | Temporary Location | | |
| PV1-12 | 2 | IS | 0 | [01] | 87 | Preadmit Test Indicator | | |
| PV1-13 | 2 | IS | 0 | [01] | 92 | Re-admission Indicator | | |
| PV1-14 | 6 | IS | 0 | [01] | 23 | Admit Source | * | French user table |
| PV1-15 | 2 | IS | 0 | [0*] | 9 | Ambulatory Status | | |

HL7 **ELEMENT NAME SEQ** LEN DT **Usage** Card. **IHE FR** TBL# PV1-16 IS O 99 * User table defined 2 [0..1]VIP Indicator O * PV1-17 250 **XCN** [0..*]10 Admitting Doctor PV1-18 2 IS O 18 [0..1]Patient Type C * PV1-19 250 CX[0..1]Visit Number Conditional value PV1-20 FC O Financial Class 50 [0..*]64 PV1-21 2 IS O [0..1]32 Charge Price Indicator * User table completed PV1-22 2 IS O [0..1]45 Courtesy Code * PV1-23 2 IS O [0..1]46 Credit Rating [0..*]PV1-24 2 IS O 44 Contract Code PV1-25 O 8 DT [0..*]Contract Effective Date PV1-26 12 NM O [0..*]Contract Amount O PV1-27 3 NM [0..*]Contract Period PV1-28 2 O IS [0..1]73 Interest Code Transfer to Bad Debt PV1-29 4 IS O 110 [0..1]Code Transfer to Bad Debt PV1-30 8 DT O [0..1]Date PV1-31 10 IS O [0..1]21 Bad Debt Agency Code Bad Debt Transfer PV1-32 12 NM O [0..1]Amount Bad Debt Recovery PV1-33 12 O NM [0..1]Amount PV1-34 1 IS O [0..1]111 Delete Account Indicator PV1-35 DT O [0..1]Delete Account Date PV1-36 O 3 IS [0..1]112 Discharge Disposition User table completed * PV1-37 47 DLD O [0..1]113 Discharged to Location PV1-38 O 114 250 CE [0..1]Diet Type PV1-39 O 115 Servicing Facility 2 IS [0..1]PV1-40 X IS [0..0]Bed Status * PV1-41 2 IS O 117 User table defined [0..1]Account Status C PV1-42 PLPending Location 80 [0..1]Prior Temporary PV1-43 O 80 PL[0..1]Location PV1-44 26 TS O [0..1]Admit Date/Time PV1-45 26 TS O [0..1] Discharge Date/Time PV1-46 12 NM O [0..1]Current Patient Balance PV1-47 12 NM O [0..1]Total Charges PV1-48 12 NM O [0..1]**Total Adjustments** PV1-49 12 O NM [0..1]**Total Payments** PV1-50 250 CXO [0..1]203 Alternate Visit ID 1 IS O 326 PV1-51 [0..1]Visit Indicator

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | IHE FR |
|--------|-----|-----|-------|-------|-------------|------------------------------|--------|
| PV1-52 | 250 | XCN | X | [00] | | Other Healthcare Provider | |

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PV1-2: Patient Class

PV1-2 Shall have a value from the following table:

| Value IHE FR | Description | Recommended display | IHE France comments |
|-----------------|-------------------|-----------------------------------|--|
| Е | Emergency | Visit to the emergency department | Arrival to the emergency department |
| I | Inpatient | Inpatient admit | Full or partial inpatient admit, all types combined, including long-term and home care retirement facilities, post-acute care and rehabilitation |
| N | Not Applicable | Not applicable | Not applicable: Value used in the « Patient Identity Feed » ITI-30 transaction |
| О | Outpatient | Outpatient admit | Outpatient admit, including delivering medicines. |
| R | Recurring patient | Recurring admit | Recurring admit |

PV1-3: Assigned Patient Location (PL)

- This field contains the geographical location of the patient and the housing ward that takes responsibility for their housing. The following elements shall be provided when known:
 - PV1-3.1: Housing ward code (housing FU)
 - PV1-3.2: room
 - PV1-3.3: bed
- PV1-3.4: healthcare facility (HD)
 - PV1-3.5: bed status (unoccupied/occupied).

HL7 Table 0116 - Bed Status

| Value IHE FR | Description | Libellé conseillé | Commentaires d'IHE France |
|-----------------|-------------|----------------------|---------------------------|
| О | Occupied | occupé | |
| U | Unoccupied | libre | |

PV1-4: Admission Type (IS)

595

HL7 Table 0007 – Admission Type

| Value IHE FR | Description | Recommended display | IHE France comments |
|-----------------|--|--|---|
| С | Elective | Comfort (plastic surgery) | |
| L | Labor and Delivery | Childbirth | |
| N | Newborn (Birth in healthcare facility) | Newborn | |
| R | Routine | Routine | Default value |
| U | Urgent | Acute emergency problem whatever is the admission ward | Example: Admission to ophthalmology department, a glass shard in the eye |
| RM | Delivery | Delivery of medicines | Value added by IHE France to define visits with delivery of medicines purposes |
| IE | | Inter-facility services | Value added by IHE France to define visits with services billed to another facility purposes. |

PV1-5: Preadmit Number (CX)

IHE recommends using the exact same pre-admission and admission numbers.

If the account number is different between the pre-admit message and the admission message, the pre-admit account number shall be recorded in the admission message PV1-5 field. Therefore, this field becomes conditional.

PV1-10: Medical price discipline/Hospital Service (IS)

Values recorded in the 0069 table correspond to the B nomenclature (services disciplines)

excerpt from the 2005 healthcare facilities annual statistic published by the French Ministry of
Health available at:

 $\frac{http://www.parhtage.sante.fr/re7/doc.nsf/VDoc/E7A685B20FF9E7A4C12576A3005BD49F/\$FILE/NOM2009.pdf}{}$

610 PV1-14: Personalized admit mode (IS)

Values shall be taken from table 0023 below when applicable. Additional items can be added when this list lacks an item that meets the facility's needs.

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HL7 User Defined Table 0023 - Admit Source

| Value IHE FR | Description | Recommended display | IHE France comments |
|-----------------|--|---|--|
| 1 | Physician referral | Referred by an external physician | |
| 3 | HMO referral | Convening to the hospital | |
| 4 | Transfer from a hospital | Transfer from another healthcare facility | |
| 6 | Transfer from another health care facility | Admit by internal transfer | |
| 7 | Emergency room | Emergency admit | The visit seems to be an emergency, which is not deductible from the fact that the patient comes from an emergency ward. This value can be used when the patient is admitted in emergency after an accident. Example: Admission to ophthalmology department, a glass shard in the eye |
| 8 | Court/law enforcement | Admit under forces of law | |
| 90 | Planned stay | Planned stay | |
| 91 | Personal decision | Personal decision | |

615 PV1-16: VIP Indicator

The PV1-16 field allows identifying a patient as a Very Important Person (VIP).

Values from user defined table 0099 shall be used in PV1-16.

User-defined table 0099 - VIP Indicator

| Value IHE FR | Description | Recommended display | IHE France comments |
|-----------------|-------------|---------------------|---------------------|
| Y | Yes | | |
| N | No | | |

620 PV1-17: Admitting Doctor

The physician working at the facility who decided to admit the patient. A ROL segment can provide further details regarding this physician, following the segment group {PV1, PV2, ...} (see above).

625 PV1-19: Visit Number

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This number corresponds to the patient's physical stay in the healthcare facility: the visit. The account number (PID-18) applies to one or more visits (PV1-19).

The PV1-19 field shall be present in [ITI-31] Transactions and may be present in other uses of the PV1 segment. The PV1-2 field (patient class) determines how the PV1-19 field (visit identifier) shall be filled out and interpreted.

- If PV1-2 equals I, then PV1-19 is required and identifies the visit for hospital or home care.
- If PV1-2 equals O, then PV1-19 is required and identifies the visit for medical acts and outpatient registration, including visits for medicine delivery.
- If PV1-2 equals R, then PV1-19 is required and identifies a recurring visit (a visit identifier for each recurring visit is necessary).
 - If PV1-2 equals E, then PV1-19 is required and identifies the number of the visit to the emergency department.
 - If PV1-2 equals N (ITI-30 Transaction), then there are no visits and the rest of the PV1 segment shall be empty.

PV1-20: Financial Class

This is the rate code of the visit within the medical ward. The terminology will generally correspond to the facility's general terminology that unequivocally defines the rate of the stay within the medical ward.

PV1-21: Charge Price Indicator

The national nomenclature, recorded in table 0032 below, corresponds to an excerpt of the nomenclature (Activity type) from the 2005 healthcare facilities annual statistics published by the French Ministry of Health. Values sent in PV1-21 shall come from this table:

HL7 User defined Table 0032 - Charge Price Indicator

| Value IHE FR | Recommended display | IHE France comments |
|-----------------|--|---------------------|
| 03 | Inpatient care (excluding week hospitalisation) | |
| 04 | Hospital day care | |
| 05 | Hospital night care | |
| 06 | Home care | |
| 07 | Consultations, outpatient care | |
| 08 | Operating unit (including obstetrical and gynaecological) | |
| 09 | Other medico-technical wards (anaesthesiology, functional explorations, physiotherapy and rehabilitation, pharmaceuticals) | |

| Value IHE FR | Recommended display | IHE France comments |
|-----------------|--|---------------------|
| 10 | Emergency department reception | |
| 11 | Complete housing/residency (excluding during the week)) | |
| 12 | Night housing in partnered structures | |
| 13 | Semi-residency | |
| 14 | Day services | |
| 15 | Host family care placement (strictly social) | |
| 16 | Services in the living area (excluding host family care) | |
| 17 | Week residency | |
| 18 | Night housing in fragmented structure | |
| 19 | Ambulatory treatments | |
| 20 | Week hospitalisation | |
| 21 | Day-care reception | |
| 23 | Ambulatory anaesthesia or surgeries | |
| 24 | Reception and management in therapeutical/psychiatric host family care departments | |
| 25 | Temporary holidays or week-ends housing | |
| 26 | Biological medical tests | |
| 28 | Dental consultations and care | |
| 32 | Radiology (radio diagnostic and radiotherapy), medical imaging | |
| 33 | Research | |
| 37 | Reception and management in psychiatric therapeutical apartment | |
| 38 | Reception and management in a psychiatric facility | |
| 39 | Reception and management in a psychiatric crisis facility | |
| 97 | Non-stated activity | |

PV1-22: Request for a private room

This field indicates to what extent the patient requested a private room.

The values in user-defined table 0045 shall be used in this field.

User-defined table 0045 - Courtesy Code

| Value IHE FR | Description | Recommended display | IHE France comments |
|-----------------|-------------|-------------------------------|---------------------|
| Y | Yes | Request for a private room | |
| N | No | No request for a private room | |

PV1-36: Discharge Disposition

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The values in table 0112 shall be used in this field.

HL7 Table User-defined 0112 – Discharge Disposition

| Value IHE FR | Descripti on | Recommended display | IHE France comments |
|-----------------|-----------------|---|---------------------|
| 2 | | Disciplinary measures | |
| 3 | | Medical decision (default value) | |
| 4 | | Against medical advice | |
| 5 | | Awaiting medical tests | |
| 6 | | Personal reasons | |
| R | | Trial (Psychiatric context) | |
| Е | | Escape | |
| F | | Fugue | |
| A | | Absence (<12h) | |
| P | | Permission (<72h) | |
| S | | Discharge with care program | |
| В | | Transfer to a MCO (Medical, Surgery, Obstetric) facility | |

PV1-37: Discharged to location

This shall be the destination establishment's FINESS code. This field is used with the A03 (discharge), A16 (pending discharge), A21 (in the scope of a transfer movement to another department for a medical act (<48h)) events as well as with the Z99 event, which corresponds to the update for each one of those events.

PV1-40: Bed Status

This field shall not be used. The value shall be sent in the "Patient Housing" PV1-3 field's 5th component. (See above).

PV1-41: Account Status

This field shall only be filled with the A03 (discharge) and Z99 (if the last discharge is updated) trigger events. The field allows detailing whether the ending visit closes the account or not.

The values in table 0117 shall be used in this field.

HL7 User-defined Table 0117 – Account Status

| Value IHE FR | Description | Recommended display | IHE France comments |
|--------------|-------------|---|---------------------|
| D | | It was the last visit for this account | |
| N | | It was not the last visit for the account | |

4.1.2.5 PV2 Segment

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | | IHE FR |
|--------|-----|-----|-------|-------|-------------|---|---|--|
| PV2-1 | 80 | PL | С | [01] | | Prior Pending Location | | |
| PV2-2 | 250 | CE | 0 | [01] | 129 | Accommodation Code | | |
| PV2-3 | 250 | СЕ | O | [01] | | Admit Reason | * | User table created for psychiatry assignment |
| PV2-4 | 250 | CE | О | [01] | | Transfer Reason | | |
| PV2-5 | 25 | ST | О | [0*] | | Patient Valuables | | |
| PV2-6 | 25 | ST | О | [01] | | Patient Valuables Location | | |
| PV2-7 | 2 | IS | О | [0*] | 130 | Visit User Code | * | User table completed |
| PV2-8 | 26 | TS | О | [01] | | Expected Admit Date/Time | | |
| PV2-9 | 26 | TS | О | [01] | | Expected Discharge Date/Time | | |
| PV2-10 | 3 | NM | О | [01] | | Estimated Length of Inpatient Stay | | |
| PV2-11 | 3 | NM | О | [01] | | Actual Length of Inpatient Stay | | |
| PV2-12 | 50 | ST | 0 | [01] | | Visit Description | | |
| PV2-13 | 250 | XCN | 0 | [0*] | | Referral Source Code | | |
| PV2-14 | 8 | DT | 0 | [01] | | Previous Service Date | | |
| PV2-15 | 1 | ID | О | [01] | 136 | Employment Illness Related Indicator | | |
| PV2-16 | 1 | IS | 0 | [01] | 213 | Purge Status Code | | |
| PV2-17 | 8 | DT | 0 | [01] | | Purge Status Date | | |
| PV2-18 | 2 | IS | О | [01] | 214 | Special Program Code | | |
| PV2-19 | 1 | ID | О | [01] | 136 | Retention Indicator | | |
| PV2-20 | 1 | NM | О | [01] | | Expected Number of Insurance Plans | | |
| PV2-21 | 1 | IS | О | [01] | 215 | Visit Publicity Code | | |
| PV2-22 | 1 | ID | 0 | [01] | 136 | Visit Protection Indicator | | |
| PV2-23 | 250 | XON | 0 | [0*] | | Clinic Organization Name | | |
| PV2-24 | 2 | IS | 0 | [01] | 216 | Patient Status Code | | |
| PV2-25 | 1 | IS | О | [01] | 217 | Visit Priority Code | | |

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | | IHE FR |
|--------|-----|----|-------|-------|-------------|---|---|--------------------|
| PV2-26 | 8 | DT | 0 | [01] | | Previous Treatment Date | | |
| PV2-27 | 2 | IS | О | [01] | 112 | Expected Discharge Disposition | | |
| PV2-28 | 8 | DT | 0 | [01] | | Signature on File Date | | |
| PV2-29 | 8 | DT | 0 | [01] | | First Similar Illness Date | | |
| PV2-30 | 250 | CE | О | [01] | 218 | Patient Charge Adjustment Code | * | User table defined |
| PV2-31 | 2 | IS | 0 | [01] | 219 | Recurring Service Code | | |
| PV2-32 | 1 | ID | 0 | [01] | 136 | Billing Media Code | | |
| PV2-33 | 26 | TS | О | [01] | | Expected Surgery Date and Time | | |
| PV2-34 | 1 | ID | 0 | [01] | 136 | Military Partnership Code | | |
| PV2-35 | 1 | ID | О | [01] | 136 | Military Non-Availability Code | | |
| PV2-36 | 1 | ID | 0 | [01] | 136 | Newborn Baby Indicator | | |
| PV2-37 | 1 | ID | 0 | [01] | 136 | Baby Detained Indicator | | |
| PV2-38 | 250 | CE | 0 | [01] | 430 | Mode of Arrival Code | * | French user table |
| PV2-39 | 250 | CE | 0 | [0*] | 431 | Recreational Drug Use Code | | |
| PV2-40 | 250 | CE | О | [01] | 432 | Admission Level of Care Code | | |
| PV2-41 | 250 | CE | 0 | [0*] | 433 | Precaution Code | | |
| PV2-42 | 250 | CE | 0 | [01] | 434 | Patient Condition Code | | |
| PV2-43 | 2 | IS | 0 | [01] | 315 | Living Will Code | | |
| PV2-44 | 2 | IS | 0 | [01] | 316 | Organ Donor Code | | |
| PV2-45 | 250 | CE | 0 | [0*] | 435 | Advance Directive Code | | |
| PV2-46 | 8 | DT | 0 | [01] | | Patient Status Effective Date | | |
| PV2-47 | 26 | TS | С | [01] | | Expected LOA Return Date/Time | | |
| PV2-48 | 26 | TS | 0 | [01] | | Expected Pre-admission Testing Date/Time | | |
| PV2-49 | 20 | IS | 0 | [0*] | 534 | Notify Clergy Code | | |

680 PV2-3: Admit Reason

This field indicates the type of assignment to psychiatry for the following events:

- A01 (Admit)
- A05 (Pre-admit)
- A06 (Change of status, outpatient or emergency to inpatient)
- A14 (Pending admit)

• Z99, if it updates one of the events above

Values allowed by this national extension are based on the "Legal care type" nomenclature, available at: http://www.atih.sante.fr/index.php?id=0002F0006EFF. This is a non-exhaustive list that may be updated according to the facility's needs.

690 IHE Table PV2-3 – Admit Reason (Psychiatry)

| Value IHE FR | Description | Recommended display | IHE France comments |
|-----------------|-------------|---|-------------------------------|
| HL | | Free Hospitalisation | Obsolete since 1 January 2012 |
| НО | | Involuntary Placement | Obsolete since 1 January 2012 |
| HDT | | Hospitalisation requested by a third party | Obsolete since 1 January 2012 |
| JPI | | Placement of a person regarded as criminally irresponsible (Penal Code 122.1 article and Public Health Code L3213-7 article) | Obsolete since 1 January 2012 |
| OPP | | Temporary placement order | |
| DET | | Prisoner (Code of Criminal Procedure D398 article) | Obsolete since 1 January 2012 |
| SPP | | Psychiatric care for imminent danger | |
| SPL | | Free Psychiatric care | |
| SPAP | | Psychiatric care with parental permission | |
| SDREP | | Psychiatric care following a request by the representative of the State, by order of the prefect (L3213-1 article) | |
| SDREM | | Psychiatric care following the request by the representative of the State, by order of the mayor (L.3213-2 article) | |
| SDREIP | | Psychiatric care following the request by the representative of the State after having regarded the person as criminally irresponsible (L.3213-7 article) | |
| SPD | | Psychiatric care of prisoners (Code of Criminal Procedure D.398 article) | |
| SDT | | Psychiatric care requested by a third party (2 certificates) (L.3212-1-II-1 article) | |
| SDTU | | Psychiatric care requested as an emergency by a third party (1 certificate) (L3213-3 article) | |
| SPI | | Psychiatric care for imminent danger (1 certificate) (L.3212-1-II-2 article) | |

PV2-7: Visit User Code

The PV2-7 field contains the care pathway indicator. The values in table 0130 shall be used in this field.

HL7 Table 0130 - Visit User Code

| Value IHE FR | Recommended display | Description | IHE France comments |
|-----------------|---------------------|--|---------------------|
| TN | | New officially declared referring physician (the patient changed his doctor or declared this doctor for the 1st time) | |
| TD | | Specific direct admit | |
| TU | | Emergency: (The patient gets to the emergency, with no recommendation from the officially declared referring doctor) | |
| TH | | Outside usual home | |
| TR | | The patient is referred by the officially declared referring doctor's substitute | |
| MR | | Consulted doctor = officially declared referring doctor's substitute | |
| ТО | | patient referred by the officially declared referring doctor (The patient sees another physician on the advice of their officially declared referring doctor: (care sequence)) | |
| ME | | consultation of the officially declared referring doctor = consulted doctor | |
| 1C | | 1ère officially declared referring doctor consultation for opinion | |
| IT | | Recurring care in accordance with the officially declared referring doctor (D162-1-6 par. 1 or 2) | |
| AG | | The patient is less than 16 at the time of the consultation | No B2 code |
| MT | | The patient is referred by the hospital company works doctor | No B2 code |
| CS | | Out coordination admit (admit on the patient's own initiative, without consulting the officially declared referring doctor) | |
| SM | | The patient has not declared any officially declared referring doctor | |
| ML | | A military person, under army medical prescription (D162-1-6 SS Article) (patient not referred by the officially declared referring doctor) | |
| EM | | Medical exclusion (smoking, alcoholism,) (D162-1-6 SS Article) (patient not referred by the officially declared referring doctor) | |
| NT | | The patient is referred by a physician who is not their officially declared physician | |
| PI | | The performer is a general practitioner who has recently been installed. | |
| ZD | | The performer is a general practitioner who has recently moved in a medical deficit area | |

| Value IHE FR | Recommended display | Description | IHE France comments |
|-----------------|---------------------|--|---------------------|
| AL | | Acts & consultations planned in the scope of ALD D162-1-6, 3rd paragraph care protocol | |
| PS | | Acts & consultations in the scope of ALD D162-1-6, 5th paragraph care protocol | |
| AM | | State Medical Support (SMS) | No B2 code |
| CI | | Foreigner taken care of in the scope of international conventions. | No B2 code |
| ET | | Foreigner taken care of – other circumstances (regular status) | |
| MI | | Passage migrant (L254-1) | |
| DT | | Non active care pathway (Care pathway that began before the implementation date of the regulation) | |
| MA | | Special case of Mayotte's fund | |
| AS | | Any other circumstances | |

The current legal context requires the coordinated care pathway indicator for the A04 (outpatient) and A07 (change of status; inpatient to outpatient) events. In other words, the indicator is required for outpatient registrations.

A Z99 event may update the indicator, updating all the events above, if needed.

- The officially declared physician: ROL segment ("ODRP") following the PID/PDI combination
- The corresponding doctor: ROL segment ("RT") following the {PV1, V2, ZBE, ... } segments combination
- The officially declared physician's substitute: ROL segment ("SUBS") following the {PV1, V2, ZBE, ...} segments combination

PV2-30: Patient Charge Adjustment Code

This field specifies whether a movement is billable or not. If present, values shall come from table 0218:

HL7 Table 0218 – Charge adjustment

| Value IHE FR | /alue IHE FR Description | | IHE France comments |
|--------------|--------------------------|--------------|---------------------|
| F | | Billable | |
| N | | Not billable | Default value |

PV2-38: Mode of Arrival Code

This field is required, if known, for the following events:

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715 • A01 (Admit)

- A05 (Pre-admit)
- A06 (Change of status, outpatient or emergency to inpatient)
- A14 (Pending admit)
- Z99, if it updates one of the events above
- 720 The values in table 0430 shall be used in this field.

HL7 User-defined Table 0430 - Mode of Arrival Code

| Value IHE FR | Description | Recommended display | IHE France comments |
|--------------|-------------|--|---------------------|
| 0 | | Police | |
| 1 | | Emergency medical assistance service, land-based | |
| 2 | | Public Ambulance service | |
| 3 | | Private Ambulance service | |
| 4 | | Taxi | |
| 5 | | Personal means | |
| 6 | | Emergency medical assistance service by helicopter | |
| 7 | | Firefighters | |
| 8 | | Lightweight health vehicle | |
| 9 | | Others | |

4.1.2.6 ACC segment

The ACC segment shall be present when a patient is admitted to a facility following an accident.

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | | IHE FR |
|-------|-----|----|-------|-------|-------------|-----------------------------------|---|--------------------|
| ACC-1 | 26 | TS | RE | [01] | | Accident Date/Time | | |
| ACC-2 | 250 | CE | R | [11] | 50 | Accident Code | * | User table defined |
| ACC-3 | 25 | ST | 0 | [01] | | Accident Location | | |
| ACC-4 | 250 | CE | X | [00] | | Auto Accident State | | |
| ACC-5 | 1 | ID | О | [01] | 136 | Accident Job Related Indicator | | |

HL7 **SEQ** LEN Card. DT Usage **ELEMENT NAME IHE FR** TBL# ACC-6 12 ID O [0..1]136 Accident Death Indicator ACC-7 250 XCN O [0..1]Entered By ACC-8 25 STO [0..1]Accident Description ACC-9 80 STO [0..1]Brought In By ACC-1 ID O 136 Police Notified Indicator [0..1]10 ACC-250 XAD O [0..1]Accident Address 11

ACC-2: Accident Code

This field details the nature of the accident according to the standard nomenclature. The values in table 0050 shall be used in this field.

730 HL7 Table User-defined 0050 – Accident Code

| Value IHE FR | Description | Recommended display | IHE France comments |
|-----------------|-------------|-------------------------|---------------------|
| P | | Accident on public road | |
| T | | Occupational accident | |
| D | | Accident in the home | |
| S | | Sport accident | |
| J | | Commuting accident | |
| С | | Assault and battery | |
| L | | School accident | |
| В | | Plan Blanc | |
| U | | Unknown accident nature | |

Example: Accident on public road, 25 December, 1:20 A.M.

ACC|200512250120|P^Accident on public road

735 **4.1.2.7 ZBE Segment: Action on a movement**

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | IHE FR | |
|-----|-----|----|----------|-------|-------------|-----------------------------|--------|---------------------|
| 1 | 427 | EI | R | [11] | | Movement ID | * | Required in France |
| 2 | 26 | TS | R | [11] | | Start of Movement Date/Time | | |
| 3 | 26 | TS | <u>X</u> | [00] | | End of Movement Date/Time | * | Forbidden in France |
| 4 | 6 | ID | R | [11] | | Movement | | |

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | IHE FR | |
|-----|-----|-----|-------|-------|-----------------|-------------------------------|--------|--------------------|
| 5 | 1 | ID | R | [11] | | Historical Movement Indicator | | |
| 6 | 3 | ID | С | [01] | | Original trigger event code | | |
| 7 | 567 | XON | О | [01] | | Responsible Medical Ward | * | |
| 8 | 567 | XON | О | [01] | | Responsible Nursing Ward | * | |
| 9 | 3 | CWE | R | [11] | Table 4.1.2.7-1 | Movement scope | * | Required in France |

This segment identifies a movement excerpt from the sequence of the movements corresponding to a patient's visit (see the definition of these terms at ITI TF-2b: 3.31.4. The segment details the action that will be implemented on this movement: Insert, Cancel, Update.

Insertion can add a new movement only at the end of a sequence. Cancellation shall only be carried out on the current movement, the last known in the sequence. Updating can be done on every movement of the sequence.

The following paragraphs reuse the ZBE-1 to ZBE-6 definitions, excerpt from IHE ITI TF-2b: 3.31.6.1.

As specified in ITI TF-2b: 3.31.5.6 (Historic Movement Management), the ZBE segment is required for the following events:

A01, A02, A03, A04, A05, A06, A07, A11, A12, A13, A14, A15, A16, A21, A22, A25, A26, A27, A38, A52, A53, A54, A55, Z99.

750 *ZBE-3: End Movement Date/Time*

Forbidden.

ZBE-7: Responsible Medical Ward

IHE-France constrains this field to the code of the ward that is medically responsible for the patient. ZBE-7 shall not be used to specify a nursing ward (see ZBE-8).

The required elements (when known) are:

- ZBE-7.1: Display name of the medical ward
- ZBE-7.6: Identifier of the assignment authority that granted the responsible medical ward an identifier.
- ZBE-7.7: The value of this field shall be "Ward"
 - ZBE-7.10: Identifier of the responsible medical ward.

ZBE-8: Responsible Nursing Ward

This IHE France-added field provides the code of the ward that is responsible for the nursing care for the patient.

The required elements (when known) are:

- ZBE-8.1: Display name of the nursing ward
- ZBE-8.6: Identifier of the assignment authority that granted the responsible nursing ward an identifier.
- ZBE-8.7: The value of this field shall be "Ward"
 - ZBE-8.10: Identifier of the responsible nursing ward.

ZBE-9: Movement scope (CWE)

This IHE France-added field details the nature of the element(s) that was (were) submitted to a change of situation since the ZBE-2 movement date/time, e.g., change of housing, change of medical ward, change of nursing ward.

Allowed values are:

Table 4.1.2.7-1 Movement scope

| Value IHE FR | Recommended display |
|-----------------|---|
| S | Change of nursing care responsibility only |
| Н | Change of housing responsibility only |
| M | Change of medical responsibility only |
| L | Change of bed only |
| D | Change of medico-administrative management leaving responsibilities and location for the patient unchanged. |
| SM | Change both of nursing and medical responsibilities |
| SH | Change both of nursing and housing responsibilities |
| МН | Change both of housing and medical responsibilities |
| LD | Change of bed and medico-administrative management, leaving responsibilities unchanged |
| HMS | Simultaneous change of the three responsibilities |
| С | Updating or change of patient's administrative status without generating any movement |

4.1.2.8 ZFA segment

780

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | IHE FR |
|-----|-----|----|-------|-------|----------|----------------------|--------|
| 1 | 20 | ID | RE | [01] | | Patient's PHR status | * |

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | IHE FR |
|-----|-----|----|-------|-------|----------|---|--------|
| 2 | 26 | TS | RE | [01] | | Patient's PHR status collection date | * |
| 3 | 26 | TS | RE | [01] | | Patient's PHR closing date | * |
| 4 | 1 | ID | RE | [01] | | Valid access authorization to the patient's PHR, granted to the facility | * |
| 5 | 26 | TS | RE | [01] | | Collection date of the status of the facility's access authorization to the patient's PHR | * |
| 6 | 1 | ID | RE | [01] | | Opposition of the patient to the "bris de glace" mode access (see 1st note) | * |
| 7 | 1 | ID | RE | [01] | | Opposition of the patient to the "centre 15" mode access (see 2 nd note) | * |
| 8 | 26 | TS | RE | [01] | | Collection date of the status of oppositions issued by the patient | * |

This segment is required for the following events: A01, A04, A05 and Z99. It gives some information regarding the existence of the patient's PHR.

1st note: The "bris_de_glace" value allows access to information without the patient's consent, under certain conditions defined by the target system. This value must not be used except for exceptional emergency situations.

2nd note: The value "centre 15" is uniquely reserved for emergency services call and dispatch centers.

ZFA-1 Patient PHR's status (ID)

785

This field is required if known (RE). It gives details about the existence and the usability of the patient's PHR. If valued, one of these three values shall be used:

- ACTIVE: The patient's PHR exists and is not closed.
- CLOSED: The patient's PHR exists and is closed.
- NONEXISTENT: The patient's PHR doesn't exist.

The information is not historically recorded; the Patient Encounter Supplier conveys the last known status for the patient.

ZFA-2 Patient's PHR status collection (TS)

This field is required if known (RE). It provides the patient's PHR status collection date.

800 ZFA-3 Patient's PHR closing date (TS)

This field is required if known (RE). It provides the patient's PHR closing date.

ZFA-4 Valid access authorization to the patient's PHR, granted to the organization (ID)

This field is required if known (RE). If valued, one of these two values shall be used:

Y: The organization has a valid access authorization

N: The organization does not have any valid access authorization for this PHR

ZFA-5 Collection date of the status of the organization's access authorization to the patient's PHR (TS)

810 This field is required if known (RE).

ZFA-6 Opposition of the patient to the « bris de glace » mode access (ID)

This field is required if known (RE). If valued, one of these two values shall be used:

Y: The patient is opposed to the "bris de glace" use of their PHR

N: The patient is not opposed to the 'bris de glace" use of their PHR

The "bris_de_glace" mode allows access to information without the patient's consent, under certain conditions defined by the target system. This value must not be used except for exceptional emergency situations.

820 *ZFA-7 Opposition of the patient to the « centre 15 » mode access (ID)*

This field is required if known (RE). If valued, one of these two values shall be used:

Y: The patient is opposed to the "centre 15" use of their PHR

N: The patient is not opposed to the "centre 15" use of their PHR

The "centre_15" mode access is uniquely reserved for emergency services call and dispatch centers.

ZFA-8 Collection date of the status of oppositions issued by the patient (TS)

This field is required if known (RE).

4.1.2.9 ZFV Segment: Additional information regarding the encounter

- The French ZFV segment is required in a hospital or clinical context in the Patient Encounter Management [ITI-31] Transaction for the following events:
 - A01 (Admit)
 - A02 (Transfer)
 - A03 (Discharge)

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- A04 (Outpatient)
- A05 (Pre-admit)
- A14 (Pending admit)
- A21 (Temporary discharge, absence, transfer movement to another department
- Z99, when the updated movement corresponds to one of the events above

840

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| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | IHE FR |
|-----|-----|-----|-------|-------|-------------|---|--------|
| 1 | 47 | DLD | О | [01] | | Establishment of origin and date of the last visit to this facility | * |
| 2 | 250 | СЕ | 0 | [01] | | Discharge transport mode (nomenclature displayed in the 0430 table, see above, under the PV2-28 field description) | * |
| 3 | 2 | IS | X | [00] | | Pre-admit type | * |
| 4 | 26 | TS | 0 | [01] | | Placement starting date (psy) | * |
| 5 | 26 | TS | О | [01] | | Placement ending date (psy) | * |
| 6 | 250 | XAD | О | [02] | | Establishment of origin or destination establishment address | * |
| 7 | 250 | CX | 0 | [01] | | Establishment of origin account number | * |
| 8 | 250 | CX | О | [0N] | | Archive number | * |
| 9 | 6 | IS | О | [01] | | Personalized discharge mode | * |
| 10 | 2 | IS | С | [01] | | legal care mode RIM-P code transmitted in the PV2-3 | * |

ZFV-1: Establishment of origin (DLD)

ZFV-1.1: (IS) FINESS code identifying the establishment of origin before the beginning of the visit: FINESS codes nomenclature: 0113 table

ZFV-1.2: (TS) Last inpatient admit date (if known)

ZFV-2: Discharge transport mode (CE)

Admit (PV2-38) and discharge (ZFV-2) transport modes can be used for both normal (A03) and temporary discharges like "permission" (fr) or transfer to another facility (another legal entity).

850

ZFV-3: Pre-Admission type (IS)

Forbidden. The pre-admit type is supplied by the PV1-2, PV1-4 and PV1-21 elements when the event's type is "pre-admit" (A05: "Pre-admit a patient")

855 ZFV-4: Placement starting date/time (psy) (IS)

To be provided for the placement period concerned by the message-referenced visit.

ZFV-5: Placement ending date/time (psy) (IS)

To be provided for the placement period concerned by the message-referenced visit.

860

ZFV-6: Establishment of origin or destination address (XAD)

This field of cardinality [0..2] may contain either the facility of origin/destination address or both addresses. Each address is identified by ZFV-6.7 component (Address Type) and shall be either "ORI" for origin or "DST" for destination.

See the complete XAD data type description in the "IHE France constraints on common HL7 data types for ITI Profiles" document.

ZFV-7: Establishment of origin's account number (CX)

This field may contain the establishment of origin's account number. In can be used within the scope of inter facilities services.

ZFV-9: Personalized discharge mode

This field may contain the code that corresponds to the personalized discharge mode. The "user defined" value table shall be defined according to the facility's needs.

875

ZFV-10: Legal care mode code RIMP (CE)

This conditional field shall be filled when the legal care mode is transmitted (PV2-3 field).

The values in the following table shall be used, according to the official RIM-P codes documentation:

880

IHE Table 3302 - RIMP Code

| RIM-P Code | Recommended Display |
|------------|---|
| | |
| 1 | Free psychiatric care |
| 3 | Psychiatric care following a request by the representative of the State |
| 4 | Code of Criminal Procedure 706-135 article and Code of Public Health L. 3213-7 article for persons regarded as criminally irresponsible |
| 5 | Temporary Placement Order |
| 6 | Prisoners: Code of Criminal Procedure D.398 article |
| 7 | Psychiatric care following a request by a third party (2 certificates) Or |
| | Psychiatric care following an emergency request by a third party (1 certificate) |
| 8 | Psychiatric care for Imminent danger (1 certificate, no third party) |

Since the PV2-3 field's type is "user defined", the editor shall make sure to check the correspondence between the PV2-3 field and the RIM-P code.

Example:

For the legal SDREP & SDREM care modes, defined as follows in the PV2-3 field:

PV2|||SDREP^ Psychiatric care following a request by the representative of the State, by order of the prefect |

or

890

 ${\tt PV2|||SDREM^{\ }Psychiatric\ } care\ following\ the\ request\ by\ the\ representative\ of\ the\ State,\ by\ order\ of\ the\ mayor\ |\ ,$

ZFV-10 field would take the following value:

ZFV|||||||3^Psychiatric care following a request by the representative of the State

895 **4.1.2.10 ZFM segment: DRG movement**

This segment allows conveying the information about the DRG.

DRGs: Diagnosis-related group (DRG) is a system to classify hospital cases into one of originally 467 groups,[1] with the 467th group being "Ungroupable". This system of classification was developed as a collaborative project by Robert B Fetter, PhD, of the Yale School of Management, and John D. Thompson, MPH, of the Yale School of Public Health.[2] The system is also referred to as "the DRGs", and its intent was to identify the "products" that a hospital provides.

The ZFM segment shall be present.

Note: The ZFM segment may be replaced by future HL7 developments supporting DRGs, Invoicing, etc. Until that time, the ZFM segment is used. Software should be prepared to manage a future transition from ZFM to HL7 standard segments.

905

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | IHE FR |
|-----|-----|----|-------|-------|-----------------|-----------------------------------|--------|
| 1 | 1 | IS | О | [01] | IHE ZFM-1 | PMSI admission mode | * |
| 2 | 1 | IS | О | [01] | IHE ZFM-2 | PMSI discharge mode | * |
| 3 | 1 | IS | О | [01] | IHE ZFM-3- 4 | PMSI establishment of origin mode | * |
| 4 | 1 | IS | 0 | [01] | IHE ZFM-3- | PMSI destination mode | * |

The French ZFM segment is required for the following events:

- A01 (Admit)
- 910 A02 (Transfer)
 - A03 (Discharge)
 - A04 (Outpatient)
 - A05 (Pre-admit)
 - A14 (Pending admit)
- A06 (Outpatient or emergency to inpatient)
 - A21 (Temporary discharge, absence, transfer movement to another department
 - A22 (Return following the transfer to another department for a medical act (<48H))
 - Z99 (when the updated movement corresponds to one of the events above)

920 ZFM-1: DRG admit mode (IS)

Values allowed by this national extension are:

IHE Table 3303- DRG admit mode

| Value IHE FR | Description | Recommended display | IHE France comments |
|--------------|-------------|-------------------------------|---|
| 0 | | Transfer for medical act | Temporary visit of the patient to the hospital |
| 6 | | Move (Same facility) | Arrival of the patient in the ward |
| 7 | | Arrival from another facility | Arrival of the patient to the hospital |
| 8 | | Any other cases of arrivals | Visit from home, retirement house, public place, with or without reception to the emergency department. |

ZFM-2: DRG discharge mode (IS)

925

930

The values in the following table shall be used in this field.

IHE Table 3304- DRG discharge mode

| Value IHE FR | Description | Recommended display | IHE France comments |
|--------------|-------------|--|--|
| 0 | | Transfer for medical act | Temporary discharge |
| 4 | | Fugue or discharge against medical opinion | |
| 5 | | Discharge test | Temporary discharge from the psychiatric facility. (1) |
| 6 | | Transfer (same facility) | The patient leaves the ward |
| 7 | | Transfer | |
| 8 | | Leaving to home or similar | Permanent discharge |
| 9 | | Death | Permanent discharge |

⁽¹⁾ This is an obsolete value since March 2012, date on which the methodological "collecting medical psychiatric information" production guide was released. It is available at: http://www.sante.gouv.fr/IMG/pdf/sts_20120004_0001_p000.pdf

ZFM-3: DRG origin mode (IS)

The values the following table shall be used in this field.

IHE Table 3305- DRG origin and destination modes

| Value IHE FR | Description | Origin or Destination | IHE France comments |
|-----------------|-------------|---|---------------------------------------|
| 1 | | Acute care nursing ward (MCO) except resuscitation ward | |
| 2 | | Long-term care or rehabilitation care ward | |
| 3 | | Long-term care ward | |
| 4 | | Psychiatric care ward | |
| 5 | | Reception to the facility's emergency department | Only used for the origin mode (ZFM-3) |
| 6 | | Home-based hospitalisation | |
| 7 | | Medico-social housing structure | |
| D | | Home | Empty value |

| Value IHE FR | Description | Origin or Destination | IHE France comments |
|-----------------|-------------|--------------------------------|---|
| R | | From a resuscitation care ward | This code is used in case of the admission was made by permanent or temporary transfer (Admit mode « 0 » or « 7 » code) from a neonatal, pediatric or adult resuscitation care ward. Used in the scope of the PMSI MCO. |

Allowed values are those displayed in the methodological guide "Production of summaries of DRG encounters" available at: http://www.atih.sante.fr

For example, a value of "1" in ZFM-3 would mean that the patient is transferring from an acute care nursing ward.

940 ZFM-4: DRG destination mode (IS)

See the IHE ZFM-3-4 Table – DRG origin and destination mode

Allowed values are those displayed in the methodological guide "Production of summaries of DRG encounters" available at: http://www.atih.sante.fr

For example, a value of "1" in ZFM-4 would mean that the patient is transferring to an acute care nursing ward.

4.1.2.11 IN1; IN2; IN3: Medical coverage

HL7 v2.5 chapters 3 and 6 specify the order and structure of IN1, IN2, and IN3 segments within a message. The field definitions within France are as follows.

4.1.2.11.1 Compulsory Health Insurance (CHI) coverage related to the patient's account

A [IN1, IN2, IN3] sequence from the "segment group INSURANCE" represents a Compulsory Healthcare Insurance (CHI) coverage period. Management information (medical management rate, third-party payer...) shall be repeated for each sequence.

The displayed data are:

955

| Coverag | ge information | Type[lg] HL7 | Field | Usage | Card. | Comments | Source/values |
|---------------------|----------------|-----------------|-------|-------|-------|--|---|
| CHI Organisation | Type of payer | CE[250] | IN1-2 | R | [11] | A CHI organization or the State Medical Assistance (SMA) or the Universal Health Cover (UHC) | « CHI», « SMA », « UHC » See 0068 table redefined by IHE France, Section 4.1.2.11.3. |

| Covera | ge information | Type[lg] HL7 | Field | Usage | Card. | Comments | Source/values |
|-----------------|---|-----------------|--------|-------|-------|---|---|
| | Insurance scheme + fund + paying center | CX[250] | IN1-3 | R | [11] | Scheme succession (2), management fund (3), management center (4) | Vitale smart card or legal attestation. List is available at www.sesam-vitale.fr (Beneficiary organisations codification table) |
| Insured | IRN (Insurance Register Number) | CX[250] | IN1-49 | RE | [01] | NIR | Vitale smart card or legal attestation. |
| | Management code read on the legal attestation or provided by Vitale card API. | IS[20] | IN1-35 | RE | [01] | 2 alphanumerical characters | Vitale card List available at www.sesam- vitale.fr (CDC 1.40- Workstation data dictionary) |
| | Identity | XPN[250] | IN1-16 | RE | [01] | Last name, first name | |
| | Address | XAD[250] | IN1-19 | RE | [01] | | |
| | Telephones | XTN[250] | IN2-63 | RE | [01] | | |
| Beneficiary | | | | | | | |
| | Birth order | NM | PID-25 | RE | [01] | « Birth order », a positive integer for a multiple birth. Otherwise it remains empty | Vitale card or legal attestation |
| | Beneficiary's status | CE[250] | IN1-17 | R | [11] | 2 alphanumerical characters | Vitale card or legal attestation. List available at www.sesamvitale.fr (CDC 1.40-Workstation data dictionary) |
| Coverage period | Beginning | DT[8] | IN1-12 | RE | [01] | As many [IN1, IN2, IN3] sequences as there are CHI coverage periods | |
| | End | DT[8] | IN1-13 | RE | [01] | | |
| | Exemption from co- payment | IS[3] | IN1-15 | RE | [01] | 1 alphanumerical character | B2 standard, Appendix 9 |

Coverage information Type[lg] Field Usage Card. Comments Source/values HL7 Visit IN1-45 RE 1 alphanumerical B2 standard, CHI supporting ST[2] [0..1]coverage documentation's character Appendix 8 nature O Patient AUI[239] IN1-14 [0..1]Authorisation date of delivery Management (YYYYMMDD) request IN1-31 Insurance's nature IS[2] RE [0..1]10 (disease), 13 B2 standard (type 2-(Alsace-Moselle position 77-78) disease), 30 (Maternity), 41 (Work accident), 90 (prevention) C Work accident ST[15] IN1-36 [0..1]If accident: number or common Work accident right accident date (Insurance nature or pregnancy = 41), display the starting date or n°AT childbirth date or Common right adoption date accident (with insurance nature = 10 or 13),display date (YYYYMMDD) If pregnancy, childbirth or adoption (insurance nature = 30), display corresponding date (YYYYMMDD) Date will be displayed using one character: D: Beginning of the pregnancy R: Last menses date A: Childbirth date O: adoption Care pathway PV2-7 RE [0..1]See PV2 segment B2 standard, Appendix 25 situation in French extension These values are similar for each segment recurrence

| Coveraç | ge information | Type[lg] HL7 | Field | Usage | Card. | Comments | Source/values |
|---------|------------------------------------|-----------------|--------|-------|-------|---------------------------------|---|
| | Third-party payer (Y/N) | IS[2] | IN1-20 | RE | [01] | Y / N (= refund the insured) | B2 standard, Appendix 25 These values are similar for each segment recurrence |
| | Patient Medical Management rate | MOP[23] | IN3-5 | RE | [01] | | B2 standard, Appendix 25 The information can be disaggregated into three subfields. Here, IN3-5.1 must equal 'PB' which means « percentage of the base of reimbursement (see the 0146 table in Section 4.1.2.11.3). IN3-5.2 contains the percentage (example 60). |

4.1.2.11.2 Complementary private health insurance (CPHI) or Complementary Medical Assistance (CMA), or Universal Complementary Health (UCH) coverage related to the patient's account

A [IN1, IN2, IN3] sequence following the CHI coverage represents either a Complementary Private Health Insurance (CPHI), or a Universal Complementary Health Coverage (UCHC), or a Complementary Medical Assistance coverage (CMAC). There might be several complementary organizations that share the patient's management. For each one of them, only one Entitlement period is transmitted: the one that is likely to be applied to the visit. Hence, a complementary organization is represented by only one [IN1, IN2, IN3] sequence.

| Coverage | information | Type[lg] HL7 | Field | Usage | Card. | Comments | Source/values |
|--------------------------|--|-----------------|-------|-------|-------|--|---|
| CPHI Organizatio n | Type of payer | CE[250] | IN1-2 | R | [11] | CPHI or UCHC complementary organization or CMA coverage | « CPHI », « UCHC », « CMA » See 0068 table defined by IHE France, in Section 4.1.2.11.3 |
| | Complementar y organization number | CX[250] | IN1-3 | R | [11] | « CPHI », « UCHC » or « CMA » number | Entitlement support (card or entitlement attestation) |

| Coverage | Coverage information | | Field | Usage | Card. | Comments | Source/values |
|-------------------------------|--|----------|--------|-------|-------|---|---|
| Insured | Member identifier | CX[250] | IN1-49 | RE | [01] | CPHI member | Entitlement support (card or entitlement attestation) |
| | Identity | XPN[250] | IN1-16 | RE | [01] | Last name, first name | |
| | Address | XAD[250] | IN1-19 | RE | [01] | | |
| | Telephones | XTN[250] | IN2-63 | RE | [01] | | |
| Beneficiary | Beneficiary's status | CE[250] | IN1-17 | R | [11] | 2 alphanumerical characters | Vitale card or entitlement attestation. List available at www.sesamvitale.fr (CDC 1.40-Workstation data dictionary) |
| CPHI entitlement period | | | | | | A single period per complementary organization: The one that applies to this visit. | |
| | Beginning | DT[8] | IN1-12 | RE | [01] | | |
| | End | DT[8] | IN1-13 | RE | [01] | | |
| Visit coverage | Nature of the CPHI supporting documentation | ST[2] | IN1-45 | RE | [01] | 1 numerical character | B2 standard, Appendix 8 |

| Coverage inform | pe[lg] Field | d Usa | ge Card. | Comments | Source/values |
|----------------------------------|--------------|-------|----------|--|--|
| Type contra | 2] IN1-3 | 1 RE | [01] | 85 (UCHC outgoing members managed by CHI) 87(UCHC outgoing members managed by CPHI) 88 (support for mutualizing funds outgoing members), 89 (current UCHC beneficiary) 01 (CMA) 02 (Complementary CMA) | Provided by the fund (entitlement document) |
| Patien Medic Manag rate | P[23] IN3-5 | RE | [01] | | This information can be disaggregated into three subfields. Here, IN3-5.1 displays the nature of the rate, using a value allowed by the 0146 table (see 0146 Table in Section 4.1.2.11.3). IN3-5.2 contains the percentage (example 100) |
| Manaş | 4C[82] IN2-2 | 8 O | [0*] | IN2-28.1: « DR» = Daily rate « PRI » = Private room IN2-28.2: « Y » = Covered « N » = no « L » = limited | |
| Third-payer (Yes/1 | 2] IN1-2 | 0 RE | [01] | Y / N (= refund the insured) | |

4.1.2.11.3 Other payer

970

The [ITI-31] transaction messages can transmit information regarding several other payers: the patient, the insured, the employer, an external facility, a county...

A [IN1, IN2] sequence represents such a payer

| Coverage information | | Type[lg] HL7 | Field | Usage | Card. | Comments | Source/values |
|----------------------|--|-----------------|--------|-------|-------|---|---|
| payer/drawee | Type of payer | CE[250] | IN1-2 | R | [11] | Patient Insured External Facility Employer County | PAT, INS, EMP, EXTF, COU: 0068 table defined by IHE France, see below in this section. |
| | Name or corporate name | XPN[250] | IN1-16 | RE | [01] | | |
| | First name | XPN[250] | IN1-16 | RE | [01] | | |
| | Addresses | XAD[250] | IN1-19 | RE | [01] | | |
| | Telephone s | XTN[250] | IN2-63 | RE | [01] | | |
| Entitlement period | Beginning | DT[8] | IN1-12 | RE | [01] | | |
| | End | DT[8] | IN1-13 | RE | [01] | | |
| Visit coverage | Nature of the supporting document | ST[2] | IN1-45 | RE | [01] | 1 numerical character | |

Values that shall be used for the IN1-2 field are displayed in the 0068 "user defined" table (HL7) and defined by IHE France:

Table User-defined 0068: Guarantor Type

| IHE FR value | English value | French display | Comments |
|-----------------|------------------|-----------------------------|--|
| AMO | СНІ | Compulsory Health Insurance | Introduces a [IN1, IN2, IN3] sequence that represents a coverage period by the compulsory health insurance organisation that covers the visit. |
| CMU | UCHC | CMU caisse | Introduces a [IN1, IN2, IN3] sequence that represents a coverage period of the visit by a Couverture Maladie Universelle caisse |

| IHE FR value | English value | French display | Comments |
|--------------|------------------|---|---|
| AME | SMA | State Medical Assistance | Introduces a [IN1, IN2, IN3] sequence that represents a coverage period by a State medical assistance |
| AMC | СРНІ | Complementary Private Health Insurance | Introduces a [IN1, IN2, IN3] sequence that represents a complementary private health insurance that covers the visit. |
| CMUC | UCHC | Universal Complementary Health Cover | Introduces a [IN1, IN2, IN3] sequence that represents a universal complementary health cover that manages the visit |
| AMEC | CSMA | Complementary State Medical Assistance | Introduces a [IN1, IN2, IN3] sequence that represents a complementary state medical assistance that covers the visit |
| PAT | PAT | Patient | Introduces a [IN1, IN2] sequence that provides detailed information about the patient as a payer |
| ASS | INS | Insured | In a [IN1, IN2] sequence providing details about the insured as a payer |
| EMP | EMP | Employer | In a [IN1, IN2] sequence providing details about the employer as a payer |
| ETB | EXTF | External facility | In a [IN1, IN2] sequence providing details about external facility as a payer |
| DEP | COU | County | In a [IN1, IN2] sequence providing details about the county as a payer |

Values that shall be used for the IN3-5.1 component are displayed in HL7 standard's 0146 table:

Table User defined 0146: User amount type

| IN3-5.1 IHE FR values | Implicit meaning | Comments |
|--------------------------|--|---|
| AT | Absolute amount | Amount, in absolute terms. The currency used is notified in the IN3-5.3 subfield (For instance « EUR » for a euro amount). The amount is provided in the IN3-5.2 subfield |
| РВ | Percentage of the base of reimbursement | A usable value for both a compulsory and a complementary coverage. The IN3-5.2 subfield contains a percentage of the base of reimbursement. (ex: 60 means « 60 % of the base of reimbursement ») |
| PT | Exemption from co- payment percentage | Usable value for a complementary coverage: The IN3-5.2 subfield contains an exemption from co-payment percentage (ex: 100 means « 100% of the ticket modérateur ») |

| IN3-5.1 IHE FR values | Implicit meaning | Comments |
|--------------------------|--------------------------|---|
| PF | Real costs percentage | Usable value for a complementary coverage: The IN3-5.2 subfield contains a real costs percentage (ex: 90 means « 90% of real costs ») |
| PC | Non specified percentage | The IN3-5.2 subfield contains a percentage of which the reference amount is not specified. |

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4.1.2.12 OBX segment

The OBX segment is used to transmit medical observations related to the patient. The following requirements apply when used in [ITI-30] or [ITI-31] transactions.

| SEQ | LEN | DT | Usage | Card. | HL7 TBL# | ELEMENT NAME | II | HE FR |
|------------|-----------|--------|-------|-------|-------------|------------------------|----|----------------------|
| OBX- | 4 | SI | R | [11] | | Set ID - OBX | | |
| OBX- | 2 | ID | R | [11] | 00125 | Observation type | | |
| OBX- | 250 | CE | R | [11] | | Observation identifier | * | |
| OBX- 5 | unlimited | varies | С | [11] | | Observation value | | |
| OBX- | 250 | CE | С | [01] | | Unit | | |
| OBX- 11 | 1 | ID | R | [11] | 00085 | Observation status | * | User table completed |
| OBX- 14 | 26 | TS | RE | [01] | | Observation date/time | | |
| OBX- 16 | 250 | XCN | R | [11] | | Data enterer | | |

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OBX-3: Observation Identifier, Required

The OBX-3 identifier shall be chosen from ASIP's Interoperability Framework when a suitable identifier is available. When a suitable identifier is not defined it shall be chosen from the LOINC nomenclature. The following table shows a few values:

| (1 | (1 | 11 |
|----|----|----|
| ч | ч | ı |
| , | , | v |

| Value | French display | Unit (UCUM) | Terminology |
|--------|---|----------------|-------------|
| 3142-7 | Body weight [Mass] Patient; Numeric; Declared | kg or g | LOINC |
| 8335-2 | Body weight [Mass] Patient; Numeric; Estimated result | kg or g | LOINC |
| 3141-9 | Body weight [Mass] Patient; Numeric; Measured result | kg or g | LOINC |

| Value | French display | Unit (UCUM) | Terminology |
|--------|--|----------------|-------------|
| 3137-7 | Patient's height [length]; Numeric; Measured result | cm | LOINC |
| 8301-4 | Patient's height [length]; Numeric; Estimated result | cm | LOINC |

OBX-6: Unit, Conditional

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This field shall be filled if the observation type is "NM" (Numeric) or "SN" (Structured Numeric) and if the observation is measured. The units' list shall be based on UCUM (The Unified Code for Units of Measure, http://www.unitsofmeasure.org/).

Example UCUM units

| Value | English display | French display | Terminology | |
|-------|-----------------|----------------|-----------------------------|--|
| g | Gram | Gramme | UnitsOfMeasureCaseSensitive | |
| kg | Kilogram | Kilogramme | UnitsOfMeasureCaseSensitive | |
| m | Meter | Mètre | UnitsOfMeasureCaseSensitive | |
| cm | Centimeter | Centimètre | UnitsOfMeasureCaseSensitive | |

OBX-11: Observation status

This field shall contain the observation status. The table below lists values that are usable in the scope of French extensions.

| Value | Description | Comments |
|-------|--|--|
| R | Filled but unvalidated observation | This status shall be used as long as the conveyed observation has been unsafe and has not been validated by the medical staff. |
| F | Filled and validated observation. | This status shall be used as long as the conveyed observation has been validated by the medical staff. |
| D | Deletes the observation conveyed in the OBX segment. | This status shall be used when the observation conveyed by the Patient Demographics Supplier and Patient Encounter Source Actors is wrong and must be deleted. This observation shall never be displayed or used by the receiving systems. |

OBX-11: Observation date/time

This field is required if available among the Patient Demographics Supplier and Patient

Encounter Supplier Actors, which initiate the observation transmission. Observation date & time must be as close as possible to the corresponding measured results. For instance, if the patient's

weight is entered when admitting, the observation date/time will be the one asked the patient, not the entered one.

1010 *OBX-16: Observation manager*

This field is required. It contains the identity of the person that entered or changed the observation status. For instance, if the patient's weight is entered at the admission desk, it is conveyed with an "R" status and the observation manager is the enterer. If the patient is weighed within the department, their weight will be conveyed with an "F" status and the observation manager is the medical staff conducting the weighting.

4.1.3 Requirements on PAM Profile

4.1.3.1 Minimal common data model

The figure below shows an assumption of the minimal data model established by the PAM Profile in its French extension. The HL7 v2.5 segments or parts of segments that carry this item are highlighted in blue.

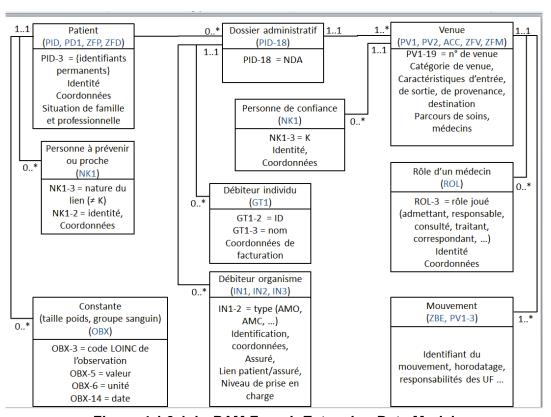


Figure 4.1.3.1-1: PAM French Extension Data Model

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¹st note: many systems have a 1-by-1 correspondence between visit and patient account. Other systems may need to bring together several visits in a single patient account. That doesn't affect the charging process that can bundle or not visits

on a single invoice, or by contrast divides a visit into several intermediary invoices. A system that merely manages an identifier, common to the visit and the patient account, will provide this identifier both in the PV1-19 and in the PID-18.

2nd note – reminder: a movement is a time and date stamped event that sets a change in the patient's situation: a change in the functional unit's responsibility, of bed, of medico-price discipline and so on. The sequence of movements that make up a visit defines a sequence of take-over situations periods (see Section 5.1.4 below).

4.1.3.1.1 The Functional Unit (FU) or Ward

The [ITI-31] "Encounter Management" transaction's French extension is based on using features from the functional unit (FU) that is responsible for the patient's care into the healthcare facility. In the United States however, responsibility for the patient is very often related to the attending doctor, in France responsibility is related to the functional unit (ward).

According to the Technical Agency for Hospital computerization (ATIH), which refers to the issue 83/8 bis of "Le Bulletin Officiel", the functional unit is the smallest one that fits management constraints, that has a simultaneous homogeneous medical activity on the following axes:

• Geographical,

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- Responsibility (medical/care)
- And for a certain kind of activity (ex: inpatient hospitalization/hospitalization day-care).

Thus, the functional unit allows deducing the various natures of patient management as well as the different kinds of hospitalization the patient may require in the healthcare facility.

A patient may be under the responsibility of several functional units (up to three), which are medical ward, nursing ward and housing ward responsibilities: for instance the patient may be located in a housing ward different from the medical ward responsible of his treatment.

Fee conditions for the patient's hospital stay or visit, which are generally tightly related to the medical ward in charge of the patient, may be subject to a specific scale taking into account particular medical treatments or accommodation policies. These specific features lead us to distinguish between general fee conditions of the care unit medically in charge of the patient from fee conditions that are actually applicable to the patient's stay within this unit.

4.1.3.1.2 The concept of patient account (informative)

The patient account records each and every medical act, product or attention dispensed to the patient in a specific visit in order to allow charging process.

A patient account can span more than one enterprise visit.

In the [ITI-31] transaction messages, the PID-18 field represents the account number.

4.1.3.1.3 The concept of visit/encounter

The word of "venue" in French transposes, for the French healthcare facilities, the notions of "visit" and "encounter" managed by the HL7 standards.

In the [ITI-31] transaction messages, the PV1-19 field represents the "visit number".

A visit is defined as an inpatient or outpatient encounter in the healthcare enterprise. The visit number identifies the time period during which the patient is taken care of by the enterprise and physically present in the enterprise (outpatient encounter, inpatient encounter, or its extensions such as home care, placement in a hosting family...). However, short absences of the patient may happen during this time period. These temporary absences, dealt with by trigger events such as "Leave of absence" (A21, A22, A51, A52...), do not terminate the visit.

The visit is related to a patient account assigned to any acts, products and services delivered to the patient in the context of this visit.

For inpatients, a visit can span more than one movement.

4.1.3.1.4 The concept of movement

This extension uses the IHE international definition of the "movement" as it appears in ITI TF-2b: 3.31.4.

A movement is an event describing a change of the situation of the patient in the context of the encounter. This concept encompasses changes such as transfers of patient location, change of patient class, new attending doctor, new consulting doctor, new encounter starting, encounter closing, etc. The concept of Movement is a superset of the HL7 concept of "Transfer".

4.1.3.2 Actor Requirements for PAM

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Table 4.1.3.2-1: PAM Profile - Actors and Options

| Actors | Option | Opt | ionality | Reference |
|-------------------------------|--|------|----------|--|
| | | Intl | French | |
| Patient | Merge | О | R | ITI TF-2b: 3.30.4.1 |
| Demographics Supplier | Link/Unlink | О | 0 | ITI TF-2b: 3.30.4.2 |
| Supplier | Acknowledgement Support | О | 0 | ITI TF-2b: 3.30.4.4 |
| | Ambulatory Patient Data | О | 0 | ITI TF-2b: 3.30.4.5 |
| Patient | Merge | О | R | ITI TF-2b: 3.30.4.1 |
| Demographics Consumer | Link/Unlink | О | 0 | ITI TF-2b: 3.30.4.2 |
| Consumer | Acknowledgement Support | О | 0 | ITI TF-2b: 3.30.4.4 |
| Patient Encounter Supplier | Inpatient / Outpatient Encounter Management | О | R | ITI TF-2b: 3.31.5.2 |
| | Pending Event Management | О | 0 | ITI TF-2b: 3.31.5.3 |
| | Advanced Encounter Management | O | R | ITI TF-2b: 3.31.5.4 |
| | Temporary Patient Transfer Tracking | О | О | ITI TF-2b: 3.31.5.5 |
| | Historic Movement | О | R | ITI TF-2b: 3.31.5.6 ITI TF-4: 4.1.2.7 |
| | Acknowledgement Support | О | О | ITI TF-2b: 3.31.5.7 |
| | Maintain Demographics | О | О | ITI TF-1: 14.3.9 ITI TF-2b: 3.31.5.8 |

| Actors | Option | Optionality | | Reference | |
|--|--|-------------|--------|--|--|
| | | Intl | French | | |
| | Ambulatory Patient Dana | О | 0 | ITI TF-2b: 3.31.5.8 | |
| Patient Encounter Inpatient / Outpatient Encount Consumer Management | | О | R | ITI TF-2b: 3.31.5.2 | |
| | Pending Event Management | О | 0 | ITI TF-2b: 3.31.5.3 | |
| | Advanced Encounter Management | О | R | ITI TF-2b: 3.31.5.4 | |
| | Temporary Patient Transfer Tracking | О | О | ITI TF-2b: 3.31.5.5 | |
| | Historic Movement | О | R | ITI TF-2b: 3.31.5.6 ITI TF-4: 4.1.2.7 | |
| | Acknowledgement Support | О | 0 | ITI TF-2b: 3.31.5.7 | |
| Maintain Demographics | | О | О | ITI TF-1: 14.3.9 ITI TF-2b: 3.31.5.8 | |

In France, the 3 required options are:

- "Inpatient / Outpatient Encounter Management": this option extends the management basis function subset adding the concepts of pre-admission, patient transfer, and change of status (outpatient vs. inpatient)
- "Advanced Encounter Management": this option adds the management of patient's leave of absence, of the doctor medically in charge of the patient and changes in their account file.
- "Historic Movement": this option introduces a specific ZBE segment that enables to identify any kind of movement and thereafter to update it using the Z99 event. Such an option allows both the current movement (the last one known regarding the admission) and an historic movement (a previous one) to be updated. However, it doesn't permit the insertion or the cancellation of an historic movement.

4.1.3.3 Transaction Specific Requirements

4.1.3.3.1 Movement management rules applicable in France

4.1.3.3.1.1 The concept of movement

The international definition of "movement" appears in ITI TF-2b: 3.31.4. A movement is an event describing a change of the situation of the patient in the context of the encounter. This concept encompasses changes such as transfers of patient location, change of patient class, new attending doctor, new consulting doctor, new encounter starting, encounter closing, etc. The concept of Movement is a superset of the HL7 concept of "Transfer".

In France, the following real world movements shall be trigger events for [ITI-31] transactions. (to be taken into account for every system that implements the Patient Encounter Supplier):

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- The pre-admission
- The admission to the hospital (the beginning of a visit),
 - The change of assigned ward's responsibility:
 - Change of the functional unit housing responsibility,
 - Change of the functional unit medical responsibility,
 - Change of the functional unit nursing responsibility,
- The temporary absence (that interrupts certain responsibilities),
 - The return from an absence,
 - The permanent discharge from the hospital (end of the visit that, besides, puts an end to all responsibilities),
 - A change of status: from outpatient or emergency to inpatient,
- A change of status: from inpatient to emergency or outpatient.

The following events, for their part, may trigger a movement (i.e., it remains the choice of the system that implements the Patient Encounter Supplier):

- The change of bed or a bed assignment to a patient (A02). Reminder: the Z99 event carries out the updating. Using an A02 can notify the assignment of a bed to a patient, especially when a delay is observed between the patient's admission and the first assignment of the bed. However, the Z99 message shall be used in case the end-user
- Wants to add or update this information. In other words, if the assignment of the bed is carried out at admission time, use the Z99 message to add or update the information.
- The change of the patient management healthcare administration conditions (healthcare specialty cost, involuntary hospitalization, and hospitalization requested by a third party...)
- The patient temporarily leaves the facility (>48h) to be transferred to another department (A21) in another facility to carry out a surgical act or a medical examination.
- The return following a transfer to another department (A22).
- Each movement is the beginning of a period of time during which the patient's situation is stable in terms of responsibilities and of patient management. The very next movement marks the end of this period, and starts a new one.
 - The first movement of a visit is the admission; the last one is the discharge. The sequence of the different movements that have arisen over the visit divides this visit into a sequence of contiguous stable periods to which acts performed on the patient will be reported.

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4.1.3.3.1.2 Granularity of messages that describe a movement

The Patient Encounter Supplier generates messages with granularity that fits its application's transactional logic. When several events occur at the same time (e.g., simultaneous change in the 3 FU responsibilities), they constitute a unique movement, starting point of a new period of responsibilities allocation. The Patient Encounter Supplier can notify of this movement (identified in the ZBE segment) either with a unique message that changes the three responsibilities or with several messages where each one of them states one responsibility change. In any case, the movement identifier remains unique.

4.1.3.3.1.3 Trigger events associated with movement

The following events that are optional in IHE Intl shall be supported, because historic movement management is required. The update event shall be supported by using the Z99 defined in ITI TF-2b: 3.31.7.30.

| Category | insert | cancel | update |
|--|--------|--------|--------|
| Pre-admit patient (Patient Class = I) | A05 | A38 | Z99 |
| Admit inpatient (Patient Class = I) | A01 | A11 | Z99 |
| Pending admission (Patient Class = I) | A14 | A27 | Z99 |
| Register outpatient (Patient Class = O or E) | A04 | A11 | Z99 |
| Change patient class (outpatient or emergency) to inpatient (Patient Class : O to I or E to I) | A06 | A07 | Z99 |
| Change patient class to outpatient (Patient Class : I to O or E to O) | A07 | A06 | Z99 |
| Change of responsible doctor (Attending Doctor) | A54 | A55 | Z99 |
| Transfer: Change of housing ward (location FU) | A02 | A12 | Z99 |
| Pending transfer | A15 | A26 | Z99 |
| Permanent discharge (end of inpatient encounter, outpatient encounter, emergency encounter, etc.) | A03 | A13 | Z99 |
| Pending discharge | A16 | A25 | Z99 |
| Leave of absence (permission) and transfer to another department for a medical act (<48H) | A21 | A52 | Z99 |
| Return from leave of absence (permission) and return following the transfer to another department for a medical act (<48H) | A22 | A53 | Z99 |

1150 **4.1.3.3.1.4 Requirements**

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- For IHE France, the unit responsible for the housing of the inpatient (or his/her hosting if he/she is an outpatient) is represented by the first component of the PV1-3 field.
- The ZBE-7 field represents the unit medically in charge of the patient.

• The ZBE-8 field represents the unit responsible for the patient's nursing care (if such a unit is different from the one medically in charge of the patient).

The functional units are required for the following [ITI-31] transaction triggering events:

| Trigger events | Required FU |
|---|--|
| A01, A04, A11, A03, A13, A05, A38, A02, A12, A14, A27, A15, A26, A16, A25, , A21, A22, A06, A07 | Housing ward (in PV1-3) |
| Z99 | Housing &/or Medical &/or Nursing, depending on ZBE-9 value |

- [ITI-31] transaction messages merely carry the functional unit's code. Applications that implement [ITI-31] transaction are assumed to be aware of the main features of the functional unit, which are:
 - Its display name,

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- The kind of activity (inpatient, partial, emergency, outpatient or recurring hospitalization),
- The kind of functional unit (medical: [dedicated to the outpatient stays/inpatient stays, combined] or not medical),
 - A simplified classification into FU categories (obstetric, short stay, follow-up care, long stay, psychiatrics...),
 - A further-detailed FU classification into medical price disciplines,
- Dates of effect, as functional units will be opened and closed.

4.1.3.3.2 [ITI-30] Extensions

The French National Extensions does not modify [ITI-30] for identity creation/update/cancellation/merge messages.

In hospital information systems where several systems can create and assign an identifier for the patient, IHE-FRANCE recommends using separate ranges of identifier values for the patients (PID-3) within the same identification domain (identified by the assigning authority).

This recommendation allows avoiding using temporary identifiers. Indeed, the patient's identifiers must remain unchanged due to their public nature.

Use case: An EHR application directly admits the patient and creates the patient account number, which will be provided to the administrative application (Administrative Management of Patients).

File number and sequences must be established and assigned by the healthcare facility to the various identity producers and consumers systems. The receiver, in that case the administrative

application, integrates these identifiers in its system without modification and conveys them to the HIS applications that subscribed to the administrative application.

In any case, IHE-FRANCE recommends that there should be a one and only identities and movements source that feeds the rest of the hospital information system applications, according to the P1.1 pre-established rules from the French governmental Digital Hospital Program.

• A40 "Merge Patient Identifier List": the merge of two patients is achieved by the A40 event, but in the scope of the [ITI-30] transaction, not in the scope of the [ITI-31] transaction. This merge is merely about patient account, and doesn't address the merge of two visits.

4.1.3.3.3 [ITI-31] Extensions

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4.1.3.3.3.1 Trigger Event Extensions

- The French extension excludes the following events from the IT-31 transaction:
 - A08 "Update patient information": the updating of demographic information is only carried out by A31 event of the [ITI-30] transaction. The updating of information related to the patient account, the visit or the movement shall exclusively be implemented thanks to the Z99 event of the [ITI-31] transaction.
- A40 "Merge Patient Identifier List": the merge of two patients is achieved by the A40 event, but in the scope of the [ITI-30] transaction, not in the scope of the [ITI-31] transaction. This merge is merely about patient account, and doesn't address the merge of two visits.
- The [ITI-31] transaction is extended in the French National Extensions. A new class of event, "rectified" is defined and two new real world events "Change medical ward" and "Change nursing ward" are added. The rectified column is added because this information is mandatory according to French regulation.

Here follows the exhaustive list of French required events to be fulfilled by the two actors of the [ITI-31] transaction:

1210 This is summarized in Table 4.1.3.3.3.1-1.

Table 4.1.3.3.3.1-1: List of French required events in France

| Real world Event | | cancelled | rectified |
|--|-----|-----------|-----------|
| Admit inpatient | A01 | A11 | Z99 |
| Register outpatient | A04 | AII | Z99 |
| Discharge patient : sortie | A03 | A13 | Z99 |
| Pre-admit patient : pré-admission | A05 | A38 | Z99 |
| Change patient class to inpatient : externe devient hospitalisé | A06 | A07 | Z99 |
| Change patient class to outpatient : hospitalisé devient externe | A07 | A06 | Z99 |
| Transfer patient : mutation | A02 | A12 | Z99 |
| Change attending doctor : changement médecin responsable | A54 | A55 | Z99 |

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| Real world Event | notified | cancelled | rectified |
|--|----------|-----------|-----------|
| Leave of absence : absence provisoire (permission) et mouvement de transfert vers plateau technique pour acte (<48H) | A21 | A52 | Z99 |
| Return from leave of absence : retour d'absence provisoire (permission) et mouvement de retour suite à transfert vers plateau technique pour acte (<48H) | | A53 | Z99 |
| Move account information (réattribution de dossier administrative) | A44 | | |

4.1.3.3.3.2 [ITI-31] French specific segments

In addition to the ZBE segment (Movement) defined by the international Patient Administration
Management Profile, the French extension adds five other segments:

- ZFA: Patient's PHR status
- ZFP: Professional occupation/Work situation
- ZFV: Additional information about the visit
- ZFM: DRGP (Diagnosis Related Group Program) movement
- The location of the local segments in the message structure is **in bold text** in Table 4.1.3.3.3.2-1:

Segment Card. Meaning Usage **IHE France remarks** MSH Message Header R [1..1]**EVN** Event Type R [1..1]PID R Patient Identification [1..1] PD1 Additional Demographics O [0..1]ROL Role O [0..*]Used to define the officially declared referring physician Next of Kin / Associated Parties O NK1 [0..*]PV1 Patient Visit R [1..1] PV2 Patient Visit - Additional Info O [0..1]ZBE Movement segment C Highlights FU's movement & responsibilities [1..1] **ZFA** PHR status RE [0..1]Patient's PHR status **ZFP Professional occupation** RE [0..1]Occupation & socio-professional category ZFV Additional information about RE [0..1]Origine Institution, period of admission, the visit transport of discharge ZFM DRPG⁴ Movement RE [0..1]DRPG modes: admission, discharge, origin, destination

Table 4.1.3.3.3.2-1: French Specific Segments

⁴ DRGs: **Diagnosis-related group (DRG)** is a system to classify hospital cases into one of originally 467 groups,[1] with the 467th group being "Ungroupable". This system of classification was developed as a collaborative project by Robert B Fetter, PhD, of the Yale School of Management, and John D. Thompson, MPH, of the Yale School of

| Segment | Meaning | Usage | Card. | IHE France remarks |
|---------|-----------------------------------|-------|-------|--|
| ROL | Role | 0 | [0*] | Used to define other physicians that interact with the patient, especially the substitute and the referred to provider doctors |
| DB1 | Disability Information | О | [0*] | |
| OBX | Observation/Result | О | [0*] | |
| AL1 | Allergy Information | О | [0*] | |
| DG1 | Diagnosis Information | О | [0*] | |
| DRG | Diagnosis Related Group | О | [01] | |
| | PROCEDURE begin | О | [0*] | |
| PR1 | Procedures | R | [11] | |
| ROL | Role | О | [0*] | |
| | PROCEDURE end | | | |
| GT1 | Guarantor | О | [0*] | |
| | INSURANCE begin | О | [0*] | |
| IN1 | Insurance | R | [11] | |
| IN2 | Insurance Additional Info. | О | [01] | |
| IN3 | Insurance Additional Info - Cert. | О | [01] | |
| ROL | Role | О | [0*] | |
| | INSURANCE end | | | |
| ACC | Accident Information | 0 | [01] | |
| UB1 | Universal Bill Information | О | [01] | |
| UB2 | Universal Bill 92 Information | 0 | [01] | |
| PDA | Patient Death and Autopsy | О | [01] | |

4.1.3.3.3.3 Historic Movement Management (from intl)

This option adds the capability to cancel or update safely any Movement.

The Movement updated can be the current Movement (currently active or pending) or a Movement in the past (i.e., historic Movement).

The Movement canceled can only be the current Movement (currently active or pending).

This capability is supported by the addition of segment ZBE below PV1/PV2. With this option, this ZBE segment is required at this position in the messages associated with the following trigger events: A01, A02, A03, A04, A05, A06, A07, A11, A12, A13, A14, A15, A16, A21, A22, A25, A26, A27, A38, A52, A53, A54, A55, Z99. In the following sections the ZBE segment is only shown in the message associated with trigger Z99 which is dedicated to the

Public Health.[2] The system is also referred to as "the DRGs", and its intent was to identify the "products" that a hospital provides.

Historic Movement Management Option. In the other messages, this segment will appear whenever this option is active.

- 1235 This segment ZBE brings the following features:
 - It enables unique identification of the Movement (including admission and discharge).
 - It carries an action code that describes the action to be performed on this Movement: The three possible actions are:
 - **INSERT**: The receiver must interpret the content of this message as a new Movement.
 - CANCEL: This action code is always associated with a "cancel" trigger event. The receiver shall delete the corresponding Movement (matched with its unique identifier). Only the current Movement can be cancelled.
 - **UPDATE**: This action code is associated with the dedicated trigger event Z99 described in ITI TF-2b: 3.31.7.30. The receiver shall update the corresponding Movement (matched with its unique identifier), which can be the current Movement or a historic Movement.
 - In the case of UPDATE or CANCEL, the ZBE segment carries the code of the original trigger event that was associated with the action INSERT of the related Movement.
 - It carries an indicator "Historic Movement" informing whether the action to perform is about the current Movement or a Historic one.
 - It provides the starting date/time of the "sub-encounter" that this Movement initiates.
 - It carries the ward to which this patient is assigned during this sub-encounter.
- This option may apply to any combination of the previous subsets, except Temporary Patient Transfers Tracking (Temporary Patient Transfers do not need to be uniquely identified).

Implementation note: The Patient Encounter Consumer must support transaction log update to maintain integrity of the Movement records.

4.1.3.3.3.4 Details regarding the account/visit/movement identifiers

4.1.3.3.3.4.1 Re-use of the account/visit/movement identifiers

Identifiers (account, visit, movement) are expected to be unique. If an IHE actor creates an identifier, is shall be unique.

Upon visit cancellation (A01/A11), the visit and account number (respectively PV1-19 and PID-18) shall not be re-used.

4.1.3.3.3.4.2 Account/Visit/Movement id management in a complex environment

An account identifier shall be transmitted in the PID-18 field (CX-type field). The fourth component shall specify the identification domain.

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The visit identifier shall be transmitted in the PV1-19 field (CX-type field). The fourth component shall specify the identification domain.

- The movement identifier shall be transmitted in the ZBE-1 field with an EI-type field (repeatable field). The identification domain shall be transmitted in components 2, or components 3 and 4, or 1270 components 2, 3, and 4.
 - IHE-FRANCE recommends that there should be one and only one determined identification domain for all the identifiers linked to accounts to feed the whole set of HIS applications, according to the P1.1 prerequisite from the governmental French Digital Hospital Programme. The identification domain allows defining separate ranges of identifiers that may be used by the different HIS applications that are likely to create the identifiers linked to the account. The whole set of identifiers created under the supervision of the identification domain constitute the unique visit and movement identifiers referential stated in the Digital Hospital Programme.
- In a complex environment in which several systems cooperate, there are several ways to manage 1280 visit and movement identifiers:
 - Either using separate identifiers ranges, assigned by the identification domain common to the whole facility. Each system likely to create those identifiers uses an identification range.
 - Or using the combination identification domain/identifier. In this case, each system likely to create those identifiers owns its identification domain.

The composition of the identifiers and the identification domains shall be determined and assigned by the facility to all the producer and consumer systems of visits and movements.

Transmitting the movement and visit identifiers list is not necessary. The visit or movement originator software can assign any identifier in its identification domain. Then the combination identification domain/identifier becomes the visit (PV1-19) or movement (ZBE-1) identification 1290 reference. This reference identifier is then sent to every information exchange; it's up to the different systems to manage identifiers correspondence tables.

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5 National Extensions for IHE Germany

- The national extensions documented in this section shall be used in conjunction with the definitions of integration profiles, actors and transactions provided in Volumes 1-3 of the IHE Technical Framework. This section includes extensions and restrictions to effectively support the regional practice of healthcare in Germany.
- This national extension was authored under the sponsorship and supervision of IHE Germany and the IT Infrastructure Technical Committee. Comments should be directed to:

http://www.ihe.net/ITI Public Comments and ihe-d-pam-abgleich@googlegroups.com

5.1 Referenced Standards

German HL7 Edition 2.5, German HL7 Chapter (HL7-Benutzergruppe in Deutschland e. V.), http://www.hl7.de/

1305 German National Message Profiles 2003 (Rel.1) to 2004 (Rel.2.1), http://www.hl7.de/download/documents/Profile_2.1.zip

5.2 HL7 v2 Conventions for Message Profiles

Implementations of [ITI-30] and [ITI-31] profiles that also claim support of the German National Extension shall conform to the requirements in this section and the information provided by the links.

5.2.1 HL7: Support for Character Sets

All actors with HL7 transactions shall support the value "8859/1" and "8859/15" for the field H/18 in the MSH segment.

5.2.2 Naming Conventions for Profiles

The term "profile" is used as defined by IHE and references "integration profiles" as specified by the different IHE Technical Frameworks.

In case where IHE integration profiles leverage HL7 v2 messages, they consist of one or more "HL7 message profiles" that are a specialization of the officially published HL7 v2 standard. When necessary extensions are defined. This is for example the case with the ZBE segment.

The "HL7 Message Profile Component" concept is used to specify fragments of messages, which can be used with different base messages. Such fragments are tables, data types, segments and segment groups. This way, a tedious repetition of specification details is prevented and helps to simplify and reduce development efforts.

5.3 [ITI-30] and [ITI-31]

Implementations of PAM and other profiles that use [ITI-30] and [ITI-31] that also claim support of the German National Extension shall conform to the requirements in this section.

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The names of the HL7 fields shall be as defined in the German HL7 Edition 2.5.

IHE Germany has undertaken a three year project to align the National Message Profiles published in 2003 (Rel.1) to 2004 (Rel.2.1) with the Patient Administration Management Profile.

1330 The overall project details can be found here:

http://wiki.hl7.de/index.php/PAM-Profil Abgleich (Projekt)

The additional constraints can be roughly divided into the following categories:

- data type enhancements (XPN, XAD)
- profile support with MSH-21
- software release verification
 - provision of specific table values
 - diagnosis and procedure related information

Some additional requirements have been crafted in the form of HL7 message profile components which can be combined with the HL7 base message profiles.

- insurance information (payor data with smartcards)
 - DRG-related data
 - contact persons

5.3.1 Extension Requirements: Notation and Location

Most of the requirements are not documented directly in this document, but are instead included by reference in these tables below:

- Table 5.3.2-1 Introductory Documents for German Message Profiles
- Table 5.3.2-2 Detailed German Message Profiles for PAM
- Table 5.3.3-1 Additional German Profile Components PAM
- Table 5.3.4-1 Additional German Segment Definitions
- Table 5.3.5-1 Additional German Data Type Definitions
 - Table 5.3.6-1 Additional German Table Definitions
 - Table 5.3.7-1 Additional German Profiles

Implementers are responsible for monitoring any changes to the linked tables hosted on the IHE/HL7 Germany wiki.

In the linked tables, the light blue highlights mark rows containing differences between the requirements in ITI TF-2b for [ITI-30] and [ITI-31] and German requirements.

The Verwendung (optionality) column shows the German requirements, and the requirements from ITI TF-2b have been preserved in parentheses, the Kard. (cardinality) column shows the German requirements, but the requirements form ITI TF-2b are not preserved.

All changes are SHALL-level implementation constraints for actors that want to comply with the German National Extensions.

For example:

| Segmente | Kard. | Verwendung | Beschreibung | Kapitel |
|----------|-------|------------|--------------------------------|---------|
| MSH | [11] | R | Message Header | 2.15.9 |
| [{SFT}] | [01] | C (O) | Software Segment | 2.15.12 |
| EVN | [11] | R | Event Type | 3.4.1 |
| PID | [11] | R | Patient Identification | 3.4.2 |
| [PD1] | [00] | X (O) | Patient Additional Demographic | 3.4.10 |

1365 **5.3.1.1 German Message Profile Architecture**

Figure 5.3.1.1-1 demonstrates the overall structure and relationship of the German Message Profiles as a specialization of ITI PAM:

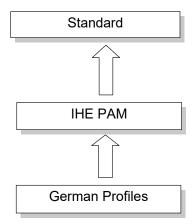


Figure 5.3.1.1-1: German Message Profiles as a National IHE Extension

The detailed architecture is depicted in Figure 5.3.1.1-2:

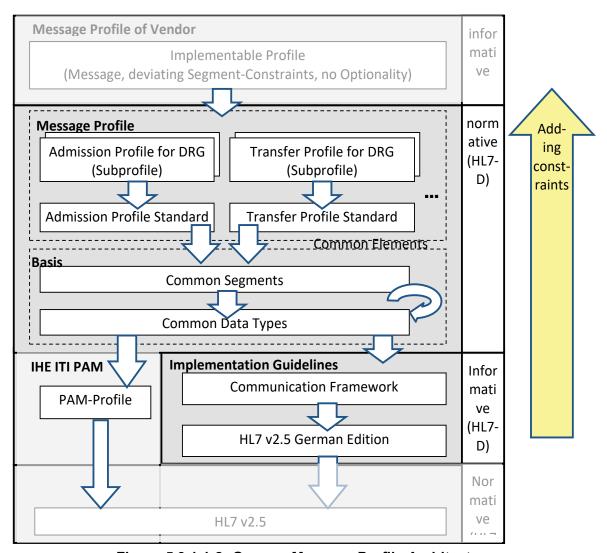


Figure 5.3.1.1-2: German Message Profile Architecture

1375 **5.3.2 German HL7 Message Profiles for PAM**

The German HL7 Message Profiles were originally created in German but all relevant details have been translated into English and interleaved in the pages linked in this section.

Table 5.3.2-1 provides an overview of the details.

Table 5.3.2-1: Introductory Documents for German HL7 Message Profiles

| Description | Link |
|---------------------------|--|
| Document Overview | http://wiki.hl7.de/index.php/HL7v2-Profile_Dokumente |
| Communication Framework | http://wiki.hl7.de/index.php/HL7v2-Profile_Rahmen |
| Common Elements | http://wiki.hl7.de/index.php/HL7v2-Profile_gemeinsame_Elemente |
| Correction of Identifiers | http://wiki.hl7.de/index.php/Korrekturen_von_Identifikatoren |

To support German National Extensions, the PAM Patient Demographics Supplier, Patient Demographics Consumer, Patient Encounter Supplier, and Patient Encounter Consumer Actors shall support the messages listed in Table 5.3.2-2 and shall support the fields and associated behaviors described in the links in the Message Profile column. Note that some Events in the table are associated with options in the PAM Profile.

Table 5.3.2-2: Detailed German HL7 Message Profiles for PAM

| Event | German HL7 Message Profile |
|-------------|---|
| A01 | Admission: http://wiki.hl7.de/index.php/HL7v2-Profile_Aufnahme |
| A02 | Transfer: http://wiki.hl7.de/index.php/HL7v2-Profile_Verlegung |
| A03 | Discharge: http://wiki.hl7.de/index.php/HL7v2-Profile_Entlassung |
| A04 | Patient registration: http://wiki.hl7.de/index.php/HL7v2-Profile_Besuchsmeldung |
| A05 | Preadmit patient: http://wiki.hl7.de/index.php/HL7v2-Profile Voraufnahme |
| A06, A07 | Switch in-/outpatient: http://wiki.hl7.de/index.php/HL7v2-Profile_Fallartwechsel |
| A08 | Update: http://wiki.hl7.de/index.php/HL7v2-Profile_Aenderung_Patient |
| A09, A10 | Patient tracking: http://wiki.hl7.de/index.php/HL7v2-Profile_Abwesenheiten_Einrichtung |
| A11 | Cancel Admission: http://wiki.hl7.de/index.php/HL7v2-Profile_Aufnahme_Storno |
| A12 | Cancel Transfer: http://wiki.hl7.de/index.php/HL7v2-Profile_Verlegung_Storno |
| A13 | Cancel Discharge: http://wiki.hl7.de/index.php/HL7v2-Profile_Entlassung_Storno |
| A21, A22 | Leave of absence: http://wiki.hl7.de/index.php/HL7v2-Profile_Abwesenheiten_Urlaub |
| A31 | Update Person: http://wiki.hl7.de/index.php/HL7v2-Profile_Aenderung_Person |
| A24, A37 | Link: http://wiki.hl7.de/index.php/HL7v2-Profile Verknüpfung |
| A40, A47 | Update Patient ID: http://wiki.hl7.de/index.php/HL7v2-Profile_Aenderung_Patienten-ID |
| Z99 | Historic Movement: http://wiki.hl7.de/index.php/HL7v2-Profile_historische_Bewegung |

5.3.3 Additional German HL7 Message Profile Components

Implementations may choose to support any of the message components listed in Table 5.3.3-1 but if supported shall support the fields and associated behaviors described in the links in the HL7 Message Profile Component column.

Table 5.3.3-1: Additional German HL7 Message Profile Components PAM

| Description | German HL7 Message Profile Component |
|--------------------------|---|
| Insurance smartcard data | http://wiki.hl7.de/index.php?title=HL7v2-Profilkomponente_Kartendaten |
| Contact Persons | http://wiki.hl7.de/index.php?title=HL7v2-Profilkomponente_Kontaktpersonen |
| Insurance | http://wiki.hl7.de/index.php?title=HL7v2-Profilkomponente_Kostenträger |

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| Description | German HL7 Message Profile Component |
|----------------------------------|---|
| Transmission of DRG related data | http://wiki.hl7.de/index.php?title=HL7v2-Profilkomponente_DRG-Rohdaten |
| Patient Photo (informative) | http://wiki.hl7.de/index.php?title=HL7v2-Profilkomponente_Patient_Photo |

5.3.4 Additional German Segment Definitions

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Implementations shall support all the segments listed in Table 5.3.4-1 and shall support the fields and associated behaviors described in the links in the HL7 Message Profile Component column.

Table 5.3.4-1: Additional German Segment Definitions

| Segment | Description | HL7 Message Profile Component |
|---------|-------------------------------|--|
| DG1 | Diagnosis | http://wiki.hl7.de/index.php/Segment_DG1 |
| ERR | Error | http://wiki.hl7.de/index.php/Segment_ERR |
| EVN | Event | http://wiki.hl7.de/index.php/Segment_EVN |
| FT1 | Financial Transaction | http://wiki.hl7.de/index.php/Segment_FT1 |
| MRG | Merge | http://wiki.hl7.de/index.php/Segment_MRG |
| MSA | Message Acknowledgement | http://wiki.hl7.de/index.php/Segment_MSA |
| MSH | Message Header | http://wiki.hl7.de/index.php/Segment_MSH |
| IN1 | Insurance | http://wiki.hl7.de/index.php/Segment IN1 |
| IN2 | Insurance (Part 2) | http://wiki.hl7.de/index.php/Segment_IN2 |
| IN3 | Insurance (Part 3) | http://wiki.hl7.de/index.php/Segment IN3 |
| NK1 | Next of Kin | http://wiki.hl7.de/index.php/Segment_NK1 |
| OBR | Observation Request | http://wiki.hl7.de/index.php/Segment_OBR |
| OBX | Observations | http://wiki.hl7.de/index.php/Segment_OBX |
| | | http://wiki.hl7.de/index.php/Segment_OBX_(Codes) |
| PID | Patient Identification | http://wiki.hl7.de/index.php/Segment_PID |
| PR1 | Procedures | http://wiki.hl7.de/index.php/Segment_PR1 |
| PV1 | Patient Visit | http://wiki.hl7.de/index.php/Segment_PV1 |
| PV2 | Patient Visit | http://wiki.hl7.de/index.php/Segment_PV2 |
| | (Addt. Inform.) | |
| ROL | Role | http://wiki.hl7.de/index.php/Segment_ROL |
| SFT | Software | http://wiki.hl7.de/index.php/Segment_SFT |
| TXA | Transcription Document Header | http://wiki.hl7.de/index.php/Segment_TXA |
| ZBE | Movement | http://wiki.hl7.de/index.php/Segment_ZBE |
| ZGK | Card Data | http://wiki.hl7.de/index.php/Segment_ZGK |

5.3.5 Additional German Data Type Definitions

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Implementations which send any of the data types listed in Table 5.3.5-1 shall support the fields and associated behaviors described in the links in the HL7 Message Profile Component column.

Table 5.3.5-1: Additional German Data Type Definitions

| Data Type | Description | HL7 Message Profile Component |
|-----------|--|--|
| CE | Coded Elements | http://wiki.hl7.de/index.php/V25dt:CE |
| CNE | Coded No Exceptions | http://wiki.hl7.de/index.php/V25dt:CNE |
| CWE | Coded With Exceptions | http://wiki.hl7.de/index.php/V25dt:CWE |
| CX | Extended Composite ID Numbers | http://wiki.hl7.de/index.php/V25dt:CX |
| DT | Date/Time | http://wiki.hl7.de/index.php/V25dt:DT |
| ED | Encapsulated Data | http://wiki.hl7.de/index.php/V25dt:ED |
| EI | Entity Identifier | http://wiki.hl7.de/index.php/V25dt:EI |
| FN | Family Name (as part of XPN) | http://wiki.hl7.de/index.php/V25dt:XPN |
| HD | Hierarchic Designator | http://wiki.hl7.de/index.php/V25dt:HD |
| PPN | Performing Person Time Stamp | http://wiki.hl7.de/index.php/V25dt:PPN |
| SAD | Street or Address (as part of XAD) | http://wiki.hl7.de/index.php/V25dt:XAD |
| SI | Sequence ID | http://wiki.hl7.de/index.php/V25dt:SI |
| ST | String | http://wiki.hl7.de/index.php/V25dt:ST |
| TS | Timestamp | http://wiki.hl7.de/index.php/V25dt:TS |
| XAD | Extended Address | http://wiki.hl7.de/index.php/V25dt:XAD |
| XCN | Extended Composite ID Number and Name for Persons | http://wiki.hl7.de/index.php/V25dt:XCN |
| XON | Extended Composite Name and Identification Number for Organization | http://wiki.hl7.de/index.php/V25dt:XON |
| XPN | Person Name | http://wiki.hl7.de/index.php/V25dt:XPN |
| XTN | Contact | http://wiki.hl7.de/index.php/V25dt:XTN |

Actors may choose to support any of the messages listed in Table 5.3.2-2 but if supported shall support the fields and associated behaviors described in the links in the HL7 Message Profile Component column.

5.3.6 Additional German Table Value Definitions

Table 5.3.6-1 provides an overview about nationally defined tables. Associated table values will be found at the end of the provided link.

Table 5.3.6-1: Additional German Table Definitions

| Table | Description | German Descr. | HL7 Message Profile Component |
|-------|---------------|-----------------|---|
| 4902 | Card Type | Kartentyp | http://wiki.hl7.de/index.php/Tabelle_4902 (Kartentyp) |
| 4903 | WOP Indicator | WOP-Kennzeichen | http://wiki.hl7.de/index.php/Tabelle_4903 (WOP-Kennzeichen) |

| Table | Description | German Descr. | HL7 Message Profile Component |
|-------|--|---|--|
| 4904 | Sample Identification | Stichproben- zuordnung | http://wiki.hl7.de/index.php/Tabelle_4904 (Stichprobenzuordnung) |
| 4905 | Location classification | Rechtskreis | http://wiki.hl7.de/index.php/Tabelle_4905 (Rechtskreis) |
| 4906 | Inpatient Services | Stationäre Leistungen | http://wiki.hl7.de/index.php/Tabelle 4906 (stationäre_Leistungen) |
| 4907 | Indication for specific person groups | Kennzeichnung besondere Personen- gruppen | http://wiki.hl7.de/index.php/Tabelle_4907 (Kennzeichnung besondere Personengruppen) |
| 4908 | Disease management program indicator (eGK) | DMP-Kennzeichen (eGK) | http://wiki.hl7.de/index.php/Tabelle_4908 (DMP- Kennzeichnung_eGK) |
| 4909 | Disease management program indicator (KVK) | DMP-Kennzeichen (KVK) | http://wiki.hl7.de/index.php/Tabelle_4909 (DMP- Kennzeichnung_KVK) |

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Appendices

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Glossary

The IHE Glossary can be found as an appendix to the *IHE Technical Frameworks General Introduction* at http://ihe.net/Technical Frameworks/#GenIntro.