Integrating the Healthcare Enterprise

IHE Patient Care Coordination (PCC) White Paper

Patient Registration Demographic Data Capture and Exchange

Rev. 1.0 – Draft for Public Comment

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Foreword

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 Frameworks.

This white paper is published on June 16, 2017 for public comment. Comments are invited and can be submitted at http://www.ihe.net/PCC_Public_Comments. In order to be considered in development of the subsequent version of the white paper, comments must be received by July 24, 2017.

General information about IHE can be found at http://ihe.net.

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

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

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

CONTENTS

1 Introduction

The IHE PCC Patient Registration Demographic Data Capture and Exchange White Paper describes the requirements and constraints for patient demographic data that should be collected and exchanged for patient registration. However, these data requirements may be proposed to be published as future IHE Technical Framework Volume 4 US National Extension to the IHE ITI Patient Administration Management (PAM) Profile for the message-based data exchange.

In addition to patient demographic data, encounter demographics, insurance and payment data are also captured and exchanged during patient registration. We propose that the US National Extension to the IHE ITI PAM Profile also include detailed requirements and constraints on these other data elements.

1.1 Purpose of the White Paper

This white paper is focused on specifying patient demographic data elements that should be collected and exchanged for patient registration during an emergency visit at a healthcare organization. This white paper provides the detailed requirements and constraints on the relevant HL7®[1] v2.5.1 segments from the IHE ITI PAM Profile for the patient demographic data.

1.2 Intended Audience

The intended audience of the IHE PCC Patient Registration Demographics Capture and Exchange white paper is:

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

[1] HL7 is the registered trademark of Health Level Seven International.

2 Patient Registration

2.1 Overview

Patient Registration is the process of checking-in a person to initiate the episode of care. Patient registration takes place in various healthcare settings and at the various functions of the episode of care. The Registration Department, Patient Access, Admitting Departments, Call Centers, or Online Scheduling Services, are responsible for management of patient registration activities. In some emergent situations when the identity of a patient is unknown, for example, trauma unknown patient, unconscious patient, patient with acute condition (stroke, heart attack), child who was brought up to the emergency department without a representative, patient registration can be conducted by other authorized staff, e.g., clinicians. In some cases, pre-registration may take place prior to the actual registration process at the healthcare organization. Pre-registration may happen as a part of emergency management service (EMS) transport of the patient, pre-registration of the patient before arriving to the emergency department, scheduling a procedure prior to the episode of care and/or a follow-up visit, etc.

During the patient registration, insurance verification and pre-authorization may take place. In this case, insurance verifier is involved in verifying payment information as a part of the patient registration process.

Patient registration information is provided by the patient and/or by the designated (authorized, legal) patient's representative (guardian) (parent, caregiver, decision-maker, etc.) to the registration staff. Information may also be received/uploaded from various data sources, e.g., Electronic Health Record (EHR) systems, Payor systems, Health Information Exchanges (HIE).

The patient registration information can be provided verbally, via facility registration portal/kiosk, or phone interview.

Information collected at the registration initiates the creation of a new episode of care record. This information will be further used at the next functions of the episode of care (triage/assessment, testing, treatment, medication management and discharge/transfer).

The following is the list of scenarios that involve patient registration:

A. Emergency department(ED) visit:
    1. Registration of walk-in/patient presentation in ED
    2. Registration initiated/conducted by clinicians for life threatening situations
    3. Registration for diagnostic testing during ED stay
    4. Registration for medication administration
    5. Registration for pre-admission of patients into the hospital
    6. Registration for follow-up care

B. In-patient setting visit (hospitals):
   1. Registration for planned admission
   2. Registration for unplanned admission
   3. Registration for diagnostic testing during hospital stay
   4. Registration for medication administration
   5. Registration for treatment during hospital stay
   6. Registration/Scheduling for post-acute care follow-up

C. Out-patient setting visit:
   1. Registration for walk-in/patient presentation
   2. Registration/Scheduling for planned visit
   3. Registration/Scheduling for diagnostic testing (during the visit, and after the visit)
   4. Registration/Scheduling for treatment (during the visit, and after the visit)
   5. Registration for medication administration
   6. Registration for post-visit follow-up

This white paper focuses on **Scenario A1: Registration of Walk-in/Patient Presentation in ED.**

2.2 Use Case

2.2.1 Use Case #1: Registration of Walk-in/Patient Presentation in ED

Patient presents themselves to the ED, conscious and able to provide identification. Registration staff collects identifying information necessary to register patient. Registration is completed, patient registration information is captured in EHR.

Table 2.2.1-1 below presents the description of the use case from the user perspectives. It describes business actors (humans) and technical actors (information systems) involved in the patient registration; workflow steps; information collected; entry and exit conditions and quality requirements.

Table 2.2.1-1: Patient Registration Use Case Workflow and Corresponding Information

(Italic font and grey highlight indicates steps performed/data created by Technical Actors)

Use Case Name: Registration of Walk-in/Patient Presentation in ED	
Actors	**Business Actors**: Patient (or patient's legal representative), Registration staff, Billing staff (Insurance verifier registrar), Payor, Clinician

	***Technical Actors**: Registration-Admission/Discharge/Transfer (R-ADT) System, Health Information System (HIS), Financial System, Payor System, Electronic Health Record (EHR) system, Electronic Document Management System (EDMS), Health Information Exchange (HIE), Personal Health Record (PHR), Mobile Health Application (mHealth App).*	
Step #	**Workflow Steps**	**Information Items (Documents/Records/Data)**
1	Patient enters ED and presents to the Registration staff.	*Patient Registration Record* 1. Patient demographics (e.g., name, DoB, address) 2. Visit demographics (e.g., enterprise medical record number, date/time of encounter, reason for visit, list of barcodes, etc.), 3. Physician demographics (name, PID, department/service 4. Reason for visit 5. Consent for visit 6. Consent for information sharing 7. eSignature for Registration Staff 8. Wristband (patient ID bracelet) *Risk Management (RM)/Infection Control (IC)/ Public Health/ Population Health (PH) information* *Audit Record:* Who, When, Why, What
2	Registration staff identifies patient, asks patient to complete necessary forms (paper or electronic), and checks in/register the visit in R-ADT System. In the case of "trauma/unidentified patient", registration staff assigns a tag with the ID number to be used in the episode of care.	
3	*HIS creates an audit record of the encounter.*	
4	*R-ADT System searches and obtains patient and visit-relevant information from various systems (HIS, EHR, Financial Systems, EDMS, HIE, PHR, mHealth app).*	
5	Registration staff validates patient information, prints ID bracelet and correspondent labels with barcodes for the patient, and signs the record with e-signature or in ink.	
6	Registration staff sends patient to Insurance verifier registrar. Insurance verification may be done by the Registration staff.	*Insurance information:* 1. Payor demographic 2. Insurance ID 3. Coverage 4. Co-pay/deductible 5. eSignature for Insurance Verifier *Payment information:* 1. Invoice for service 2. Payment receipt 3. Payment plan, if needed 4. eSignature for Billing Staff *Updated Audit Record:* Who, When, Why, What
7	Insurance verifier registrar verifies patient insurance information; contacts payor, if needed; obtains authorization; and requests/collects co-pay or makes payment arrangements – Need to be developed at more granular level.	
8	*R-ADT System communicates with the payor system directly or via HIE to obtain patient insurance information. Patient information is updated in the Financial System.*	
9	*R-ADT System updates patient information in PHR via mHealth app.*	*Updated Patient Registration Record* *Updated Audit Record:* Who, When, Why, What

10	Registration staff assembles all documents necessary for the episode of care and completes the registration by signing the Episode of Care Record with e-Signature in EHR. This may be done automatically when the staff completes the record (all data are entered and verified) and closes the registration record for this patient. Staff sends patient to clinician for assessment. Clinician opens patient record to begin assessment and sends the acknowledgement of receipt.	*Updated Patient Registration Record eSignature for Registration Staff Notification of Record Availability including notification to Care Team Acknowledgement of Receipt*
11	*Registration information is uploaded into EHR. EHR sends Notification of Record Availability to clinician.*	*Updated Patient Registration Record Notification of Record Availability*
12	*EHR sends back to the R-ADT the Acknowledgement of Receipt.*	*Acknowledgement of Receipt*
13	*Audit trail for the personnel and systems involved in patient registration is completed in HIS.*	*Updated Audit Record:* Who, When, Why, What

Entry Condition	Pre-registration may happen as a part of EMS transport of the patient, pre-registration of the patient before arriving to the emergency department.
Exit Condition	After the data is available, the HIS/EHR will contain a record that can be used for the patient care function as well as the audit trail record.
Quality Requirements	Real time patient information verification.

2.2.2 Process Flow

This use case covers the process of registering a walk-in patient upon presentation in the Emergency Department. The patient may be new or known to the current healthcare facility. The following sequence of steps replicated from the IHE ITI PAM Profile, describe the typical process flow when a request is made to register the patient, or update the patient's demographic information.

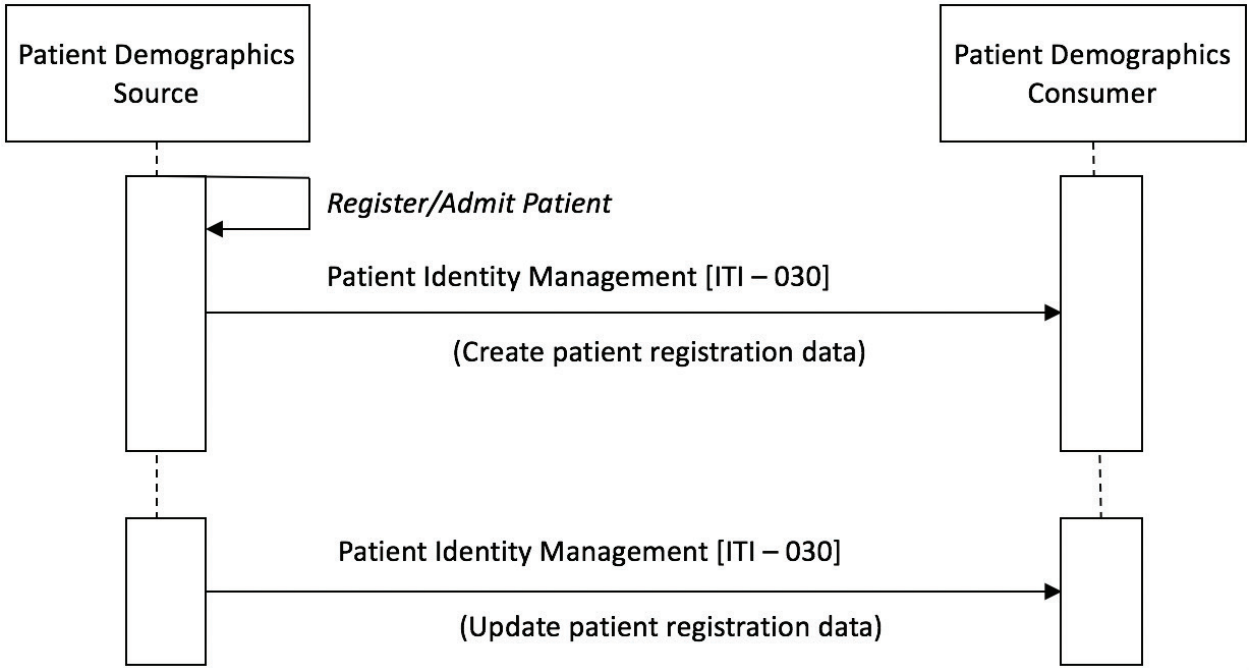

Figure 2.2.2-1: Basic Process Flow in Patient Registration Use Case

Pre-conditions:

Pre-registration may happen as a part of EMS transport of the patient, pre-registration of the patient before arriving to the emergency department.

Post-conditions:

After the data is available, the HIS will contain a record that can be used for the patient care function as well as the audit trail record.

2.2.3 Information Content

The following information items (documents/records/data) are collected during patient registration:

Table 2.2.3-1: Patient Registration Information

Patient Registration Information	*Insurance Information*
• Patient demographics (e.g., name, DoB, address, biometrics) • Visit demographics (enterprise medical record number, date/time of encounter,	• Payor demographic • Insurance ID • Coverage • Co-pay

reason for visit, list of barcodes, etc.) • Physician demographics (name, PID, department/service) • Chief complaint, Reason for visit, ABN • Consent for visit • Consent for information sharing • eSignature for Registration Staff • Wristband (patient ID bracelet with barcodes)	• eSignature for Insurance Verifier *Payment Information* • Invoice for service • Payment receipt • Payment plan, if needed • eSignature for Billing Staff
Risk Management/Infection Control/Public Health/ Population Health Information • Have you been out of the country in the last three weeks?	• Notification of Record Availability • Acknowledgement of Receipt Audit Record: Who, When, Why, What

Please note that during patient registration, clinical information may be collected; however, this information is out of scope for the Patient Registration Use Case.

3 Overview of Proposed National Extension 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://www.ihe.net/Governance/#National_Deployment. The AHIMA Patient Registration Use Case specifies the workflow, data requirements and constraints for the proposed US National Extension to the ITI PAM Profile. The sections below capture the requirements for this proposal.

3.1 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.

3.2 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.

3.3 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 Committees via the process for submitting new proposals called the Profile Proposal Process.

4 Proposed National Extension for IHE United States

The proposed national extension documented in this section is planned to 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 United States.

This proposed ITI national extension document was developed by the AHIMA Standards Task Force was authored under the sponsorship and supervision of Patient Care Coordination Committee. Based on the public comment outcomes, the proposal for the US national Extension will be submitted to the IHE USA initiative. The point of contact for this proposal is:

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American Health Information Management Association (AHIMA)

Senior Director, Standards

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4.1 IHE United States Proposed Scope of Changes

The proposed extensions, restrictions and extensions specified apply to the following IHE ITI profiles:

- ITI: Patient Administration Module (PAM)
- ITI: Patient Demographics Query (PDQ)

HL7 v2.5.1 events and segments used by the ITI PAM Profile are detailed in the IHE ITI Technical Framework which will be referred to as ITI TF-2 in the remainder of this section.

This section describes proposed constraints on HL7 v2.5.1 events and segments used for the AHIMA Patient Registration Use Case for patient demographic data exchange only. Some of these constraints would apply to all HL7 transactions. Others would only affect the [ITI-30] and [ITI-31] transactions.

The document narrows or specifies the use of events and segments mentioned in ITI TF-2.

Each segment is displayed as a table with rows of data items for the AHIMA Patient Registration Demographic dataset. Columns respectively specify the use of the item (“Usage”) and its cardinalities (“Card”).

The “Usage” column follows the common codification of HL7 and IHE:

- R Required. The item must be provided for the AHIMA patient registration use case environment
- RE Must be provided if the sending application owns the information. The sending application must be able to supply that item.

- Optional: This extension doesn't impose any restrictions on the item which may or may not be managed by sending and receiving applications.
- C Conditional. The condition for using the item is specified below the table.
- X Forbidden for this extension.

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

The data type tables below list value sets for some of those data items. These lists (restricted, extended or even edited as compared with the original ones established by HL7) include values that are proposed for this extension.

4.1.1 Proposed Requirements on All HL7 V2.x Transactions

4.1.1.1 Patient Identification Segment

Standard Reference: HL7 Version 2.5.1, Chapter 3 (Section 3.4.2)

The PID segment is used by all applications as the primary means of communicating patient identification information. This segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change frequently. **Please note that red text in the Usage column indicates a constraint on the ITI PAM Profile specification.**

Table 4.1.1.1-1: PID - Patient Identification Segment

SEQ	LEN	DT	Usage	Card.	RP/#	TBL#	ITEM#	ELEMENT NAME	Notes
1	4	SI	O	[0..1]			00104	Set ID – PID	
2	20	CX	B	[0..0]			00105	Patient ID	
3	250	CX	R	[1..*]	Y		00106	Patient Identifier List	See Note 1
4	20	CX	B	[0..0]	Y		00107	Alternate Patient ID – PID	
5	250	XPN	R	[1..*]	Y		00108	Patient Name	See Note 2
6	250	XPN	C	[0..1]	Y		00109	Mother's Maiden Name	See Note 3
7	26	TS	R	[1..1]			00110	Date/Time of Birth	See Note 4
8	1	IS	R	[1..1]		0001	00111	Administrative Sex	See Note 5
9	250	XPN	B	[0..*]	Y		00112	Patient Alias	
10	250	CE	R	[1..*]	Y	0005	00113	Race	See Note 6
11	250	XAD	R	[1..*]	Y		00114	Patient Address	See Note 7
12	4	IS	B	[0..1]		0289	00115	County Code	

SEQ	LEN	DT	Usage	Card.	RP/#	TBL#	ITEM#	ELEMENT NAME	Notes
13	250	XTN	RE	[0..*]	Y		00116	Phone Number – Home	See Note 8
14	250	XTN	RE	[0..*]	Y		00117	Phone Number – Business	See Note 9
15	250	CE	R	[1..1]		0296	00118	Primary Language	See Note 10
16	250	CE	O	[0..1]		0002	00119	Marital Status	
17	250	CE	O	[0..1]		006	00120	Religion	
18	250	CX	O	[0..1]			00121	Patient Account Number	See Note 11
19	16	ST	B	[0..1]			00122	SSN Number – Patient	
20	25	DLN	B	[0..1]			00123	Driver's License Number	
21	250	CX	O	[0..*]	Y		00124	Mother's Identifier	
22	250	CE	R	[1..*]	Y	0189	00125	Ethnic Group	See **Note 12**
23	250	ST	O	[0..1]			00126	Birth Place	
24	1	ID	C	[0..1]		0136	00127	Multiple Birth Indicator	
25	2	NM	C	[0..1]			00128	Birth Order	
26	250	CE	O	[0..*]	Y	0171	00129	Citizenship	
27	250	CE	O	[0..1]		0172	00130	Veterans Military Status	
28	250	CE	B	[0..0]		0212	00730	Nationality	
29	26	TS	C	[0..1]			00740	Patient Death Date and Time	
30	1	ID	C	[0..1]		0136	00741	Patient Death Indicator	
31	1	ID	C	[0..1]		0136	01535	Identity Unknown Indicator	
32	20	IS	O	[0..*]	Y	0445	01536	Identity Reliability Code	
33	26	TS	O	[0..1]			01537	Last Update Date/Time	
34	241	HD	O	[0..1]			01538	Last Update Facility	
35	250	CE	O	[0..1]		0446	01539	Species Code	

SEQ	LEN	DT	Usage	Card.	RP/#	TBL#	ITEM#	ELEMENT NAME	Notes
36	250	CE	O	[0..1]		0447	01540	Breed Code	
37	80	ST	O	[0..1]			01541	Strain	
38	250	CE	O	[0..2]	2	0429	01542	Production Class Code	
39	250	CWE	O	[0..*]	Y	0171	01840	Tribal Citizenship	

In accordance with the HL7 Version 2.5.1 usage of this segment, fields PID-2 (Patient ID), PID-4 (Alternate Patient ID), PID-19 (SSN patient number) and PID-20 (Driver's license number) are superseded by field PID-3; field PID-9 (Patient Alias) is superseded by field PID-5 (Patient Name); field PID-12 (County Code) is supported by county/parish component (PID-11 – Patient Address); field PID-28 (Nationality) is superseded by field PID-26 (Citizenship) as shown below.

PID-3 – Patient Identifier List (CX), required. This field contains a list of identifiers (one or more) used by the healthcare facility to uniquely identify a patient.

Note 1: As shown in the constrained profile definition of data type CX in ITI TF-2x: Appendix N.1, subfields CX-1 "ID number", CX-4 "Assigning authority" are required, and CX-5 "Identifier Type Code" is required if known for each identifier.

This field may be populated with various identifiers assigned to the patient by various assigning authorities.

The authorized values for subfield CX-5 "Identifier Type Code" are given in HL7 Table 0203 (HL7 Version 2.5.1, Chapter 2A, Section 2A.14.5).

Values commonly used for Identifier Type Code in the context of PID-3 for this extension are as follows:

- AN Account Number
- BR Birth Certificate number. Assigning authority is the birth state or national government that issues the Birth Certificate
- DL Driver's license number. Assigning authority is the state
- PI Patient Internal Identifier assigned by the healthcare organization
- PPN Passport number
- PRC Permanent Resident Card Number
- SL State License. Assigning authority is the birth state or national
- SS Social Security Number
- VN Visit Number

Additional Requirements:

- *Medical Record Number (MRN)* [2]*, required*. This is a unique number assigned to patient's medical record, maintained by the healthcare facility's information system.
- *Visit/Encounter*[3] *Number (account number), required*. A unique number assigned to patient's individual visit /encounter at the healthcare facility with unique start and end time; may be a part of a series of visits within the episode of care. This visit number should be recorded in PID 18. See Note 11 below.
- *Enterprise Master Patient Index*[4] *(EMPI) Identifier, required but may be empty*. A unique number issued by the health institution to its various facilities and their information systems to enable access to patient's information across facilities' information systems. The EMPI is a patient identifier that is not encounter-specific. It allows for the management of multiple patient identifiers across organizations and encounters.
- *Episode of Care*[5] *Number, required but may be empty*. A unique number assigned to patient's records associated with the continuous period of care related to a clinical problem. Episode of care may include several visits/encounters over a period; care may be provided at various facilities/specialists within the institution or outside of the institution. Important for quality and population health use cases.
- *Pre-Visit Number, required but may be empty*. A unique number assigned when scheduling patient's individual visit /encounter at the healthcare facility.

The following may only be used for visual verification for patient demographics validation, and will not be entered into the system:

- *Photo* - image of patient, or patient identity such as passport, driver's license, state ID card, military ID to be used to identify the patient.
- *Social Security Number*
- *Student ID* - for college clinics
- *Insurance Card*

[2] American Health Information Management Association (AHIMA). Pocket Glossary of Health Information Management and Technology. Chicago, IL. 2014. p.70: "A unique numeric or alphanumeric identifier assigned to each patient's record upon admission to a healthcare facility"

[3] American Health Information Management Association (AHIMA). Pocket Glossary of Health Information Management and Technology. Chicago, IL. 2014. p.151: "A single encounter with a healthcare professional that includes all the services supplied within the encounter"

[4] American Health Information Management Association (AHIMA). Pocket Glossary of Health Information Management and Technology. Chicago, IL. 2014. p.55: "EMPI: an index that provides access to multiple repositories of information from overlapping patient populations that are maintained in separate systems and databases"

[5] American Health Information Management Association (AHIMA). Pocket Glossary of Health Information Management and Technology. Chicago, IL. 2014. p.55: "A period of relatively continuous medical care performed by healthcare professionals in relation to a particular clinical problem or situation"

- *Passport* - for international patients.
- *Green card*
- *Visa* - for international patients.

PID-5 – Patient Name (XPN), required. This field contains one or more names for the patient.

Note 2: At least one name must be provided, with at least the first and second subfields "Family Name" and "Given Name" valued. See the constrained profile definition of data type XPN in Table 4.1.1.1-2 below. **Please note that red text in the Usage column indicates a constraint on the ITI PAM Profile specification.**

Table 4.1.1.1-2: XPN Data Type – extended person name

SEQ	LEN	DT	USAGE	CARD	TBL#	COMPONENT NAME
1	194	FN	R	[0..1]		Family Name
2	30	ST	RE	[0..1]		Given Name
3	30	ST	O	[0..1]		Second and Further Given Names or Initials Thereof
4	20	ST	O	[0..1]		Suffix
5	20	ST	O	[0..1]		Prefix
6	6	IS	X	[0..0] (See Note1)	0360	Degree
7	1	ID	R	[1..1]	0200	Name Type Code
8	1	ID	O	[0..1]	0465	Name Representation Code
9	483	CE	O	[0..1]	0448	Name Context
10	53	DR	X	[0..0] (See Note1)		Name Validity Range
11	1	ID	O	[0..1]	0444	Name Assembly Order
12	26	TS	O	[0..1]		Effective Date
13	26	TS	O	[0..1]		Expiration Date
14	199	ST	O	[0..1]		Professional Suffix

Note 1: In accordance with the HL7 Version 2.5.1 usage of this data type, "Degree" and "Name Validity Range" are provided here for completeness, but must not be used.

Additional Requirements:

- *Family Name, required*. Do not send prefix or suffix in the family name field. Capture in the format shown in the documents verifying the patient's identity. NOTE: If the patient does not have a Given Name, their single name will be sent in **Family Name**. E.g., Lightfeather, or Cher.

- *Given Name, required but may be empty*. Separate data entry. Capture in the format shown in the documents verifying the patient's identity. NOTE: If the patient does not have a Given Name, their single name will be sent in **Family Name**. E.g., Lightfeather, or Cher.
- *Second and Further Given Names or Initials Thereof, optional*. Separate data entry. Capture in the format shown in the documents verifying the patient's identity.
- *Suffix, optional*. Separate entry. Do not send in the Given Name field. Capture in the format shown in the documents verifying the patient's identity. The Weber State University Data Standards[6], and Middlebury Library & ITS Wiki Name Standards[7] are two recommended sources for corresponding codesets.
- *Prefix, optional*. Separate entry. Do not send prefix in the Family Name field. Capture in the format shown in the documents verifying the patient's identity. The Weber State University Data Standards[8], and Middlebury Library &ITS Wiki Name Standards [9] are two recommended sources for corresponding codesets.
- Patient may also provide a preferred patient name, which must also follow the above guidelines.

PID-6 – Mother's Maiden Name (XPN), conditional: Condition predicate:

Note 3: This field is required if known. It serves to help link records when other demographic data and search criteria are not the same.

PID-7 – Date/Time of Birth (TS), required.

Note 4: Date of Birth[10] format is Year, Month, Day. If the exact date of birth is not known, it can be truncated to the year of birth (e.g., 1954), or to the year and month of birth (e.g., 195411).

PID-8 – Administrative Sex (IS), required.

Note 5: The authorized values are shown in Table 4.1.1.1-3.

Table 4.1.1.1-3: Administrative Sex Values

Value	Description	Comment
F	Female	
M	Male	
O	Other	
U	Unknown	
A	Ambiguous	

[6] Weber State University Data Standards. URL: http://departments.weber.edu/qsupport&training/Data_Standards/Name.htm
[7] Middlebury Library &ITS Wiki: Name Standards. URL: https://mediawiki.middlebury.edu/wiki/LIS/Name_Standards
[8] Weber State University Data Standards. URL: http://departments.weber.edu/qsupport&training/Data_Standards/Name.htm
[9] Middlebury Library &ITS Wiki: Name Standards. URL: https://mediawiki.middlebury.edu/wiki/LIS/Name_Standards
[10] ISO 8601 Numeric Date and Time format. URL: https://www.iso.org/iso-8601-date-and-time-format.html

Value	Description	Comment
N	Not Applicable	

PID-10 – Race (CE), required.

Note 6: The authorized values are shown in the user-defined Race Values Table 4.1.1.1-4.

Table 4.1.1.1-4: Race Values

Value	Description	Comment
AI	American Indian	
AN	Alaskan Native	
A	Asian	
AA	Black or African American	
NH	Native Hawaiian	
PI	Other Pacific Islander	
W	White	
O	Other Race	
PD	Patient Declined to Answer	

PID-11 – Patient Address (XAD), required.

Note 7: This field contains one or more addresses for the patient. At least one address must be provided, with at least the "Street Address", "City", "State", and "Zip or Postal Code" subfields valued. See the constrained profile definition of data type XAD in Table 4.1.1.1-5 below. **Please note that red text in the Usage column indicates a constraint on the ITI PAM Profile specification.**

Table 4.1.1.1-5: XAD Data Type – extended address

SEQ	LEN	DT	USAGE	CARD	TBL#	COMPONENT NAME
1		SAD	R	[1..*]		Street Address
2	120	ST	O	[0..*]		Other Designation
3	50	ST	R	[1..1]		City
4	50	ST	R	[0..1]		State
5	12	ST	R	[0..1]		Zipcode or Postal Code
6	3	ID	O	[1..1]	0399	Country
7	3	ID	R	[1..1]	0190	Address Type
8		ST	O	[0..*]		Other Geographic Designation
9		IS	O	[0..1]		County/Parish Code
10		IS	O	[0..1]		Census Tract

SEQ	LEN	DT	USAGE	CARD	TBL#	COMPONENT NAME
11		ID	O	[0..1]		Address Representation Code

Additional Requirements:

- *Address Type, required.* Use the HL7 Address Types Table 0190. For the primary address, use the constrained values in Table 4.1.1.1-6 below.
- *Address subfields*. Capture in the format shown in the documents verifying the patient's address, based on US Postal Standard[11]
- *Country, required*. All uppercase. Use HL7 Country Code table 0399.

Table 4.1.1.1-6: Address Types – Primary Address

Value	Description	Comment
C	Current	
H	Temporary Home	
L	Legal Address	
M	Mailing	
P	Permanent	

PID-13 – Phone Number – Home (XTN), required but may be empty.

Note 8: This field is required if known. This field contains one or more contact methods for the patient. It serves to help locate records when other demographic data and search criteria are not exactly the same. See the constrained profile definition of data type XTN in Table 4.1.1.1-7 below. **Please note that red text in the Usage column indicates a constraint on the ITI PAM Profile specification.**

Table 4.1.1.1-7: XTN Data Type – extended telecommunication number

SEQ	LEN	DT	USAGE	CARD	TBL#	COMPONENT NAME
1	199	TN	RE	[0..1]		Telephone Number
2	3	ID	C	[0..1]	0185	Telecommunication Use Code
3	8	ID	O	[0..1]		Telecommunication Equipment Type
4	199	ST	O	[0..1]		Email Address
5	3	SNM	O	[0..1]		Country Code
6	5	SNM	O	[0..1]		Area/City Code
7	9	SNM	O	[0..1]		Phone Number

[11] Postal Addressing Standards. 2015 URL: http://pe.usps.gov/cpim/ftp/pubs/Pub28/pub28.pdf

SEQ	LEN	DT	USAGE	CARD	TBL#	COMPONENT NAME
8	5	SNM	O	[0..1]		Extension
9		ST	O	[0..1]		Any Text

Note: A change proposal has been submitted to ITI - CP#977 for XTN datatype clarification for phone number. This change proposal may affect the datatypes shown above in this table.

Additional Requirements:

- *Telecommunication Use Code, conditional*. Must provide preferred method of contact code from Table 4.1.1.1-8 if telephone number is available. See the values from HL7 Table 0185 Preferred Method of Contact below.

Table 4.1.1.1-8: Preferred Method of Contact Values

Value	Description	Comment
B	Beeper Number	
C	Cellular Phone Number	
E	E-mail Address	
F	Fax Number	
H	Home Phone Number	
O	Office Phone Number	

PID-14 – Phone Number - Business (XTN), required but may be empty.

Note 9: This field is required if known. It serves to help locate records when other demographic data and search criteria are not exactly the same. Follow same guidelines as for Home Phone Number above.

PID-15 – Primary Language (CE), required.

Note 10: Use HL7 Language table 0296.

PID-18 – Patient Account Number (CX): Required but may be empty.

Note 11: HL7 Definition: This field contains the patient account number assigned by accounting to which all charges, payments, etc., are recorded. It is used to identify the patient's account. Relationship to encounter: A patient account can span more than one enterprise encounter.

Condition predicate: At least one of the fields PID-18 "Patient Account Number" or PV1-19 "Visit Number" shall be valued in the messages of transaction [ITI-31] that use the PV1 segment. Patient Visit Number should be entered here and not in PID-3 above.

PID-22 – Ethnic Group (CE), required.

Note 12: Use User-defined Table 4.1.1.1-9 below, extended from the HL7 Ethnic Group table 0189.

Table 4.1.1.1-9: Ethnic Group Values

Value	Description	Comment
H	Hispanic or Latino	
NH	Not Hispanic	
U	Unknown	
PD	Patient Declined to Answer	

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