



HL7 v2.5.1 Inbound ADT
Specification

Version 3.0

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1. Overview

This specification is for organizations preparing HL7 interfaces to Virginia Health Information (VHI), the organization recognized as the source for health data reporting in Virginia. VHI utilizes the technology infrastructure of a technology vendor for the health information exchange data repository. This guide dictates the format and context of *required* and *required if available* ADT message types, segments, and fields. VHI prefers HL7 version 2.5.1 messages but will accept well-formed HL7 2.x messages.

VHI requires data providers to include all required data elements in their feeds (denoted by an **R** in the “use” column of the segment tables). VHI also requires data providers to include all ‘required if available’ data elements, if they are available, (denoted by an **E** in the “use” column of the segment tables). VHI would like all optional data elements sent when available (denoted by an **O** in the “use” column of the segment tables). The value of VHI is directly related to the quality of accurate, consistent, and complete information. The inclusion of all required data elements increases the value of VHI to users and patients. Consequently, it is imperative that participants send all required and ‘required if available’ data elements through the interfaces.

This specification is for ADT message types only.

1.1. USCDI Standards

VHI requires facilities to share data that meets the latest USCDI standards. The USCDI is a standardized set of health data classes and constituent data elements for nationwide, interoperable health information exchange.

Please refer to <https://www.healthit.gov/isa/united-states-core-data-interoperability-uscdi> for complete details regarding USCDI standards and latest requirements.

If any USCDI data elements are unable to be sent via HL7 ADT V2, they must/should send data in C-CDA V3. Examples include AL1, DG1, PR1, OBX, PV2, etc.

1.2. Identifiers

1.2.1. Patient Identifiers

VHI patient encounters are identified by Visit Numbers. Corresponding and consistent Visit Numbers must be present in all related ADT, result, medication order, and medical document messages to tie all information to the visit.

VHI uses the following identifier hierarchy:

Internal Patient ID	= Unique MRN from a site (PID-3)
Encounter ID	= Unique visit number from a site (PV1-19)

- A single patient can have different MRNs from different sites
- A single patient can have multiple encounters from one site

Healthcare information systems may use Account Numbers or Case Numbers for billing purposes and consequently an encounter number, as well. In these cases, an encounter number may reside in PID-18 and/or PV1-19. If PID-18 is used consistently for an encounter instead of PV1-19, the Account Number in PID-18 should be copied to the Visit Number in PV1-19. A *case* or *account* may correspond to multiple visits. In that instance, the encounter is either a single visit or series of visits associated with a single *case* or *account*. Either way, the unique identifier for the encounter must reside in PV1-19.

If encounter-based CCDs are sent via a V3 CCD feed, it is recommended that the CCD encounter IDs match the ADT encounter ID.

1.2.2. Provider Identifiers

VHI prefers that NPI IDs are sent for all segment provider fields. When NPI IDs are sent, "NPI" should be sent in the XXX-X.13 field.

This is the format recommended for all XCN provider type fields:

```
<NPI #>^<Last Name>^<First Name>^<Middle
Name>^<Suffix>^<Prefix>^<Degree>^^<Assigning Authority>^^^NPI
```

As a minimum, these are required:

```
<NPI #>^<Last Name>^<First Name>^^^^^^NPI
```

Examples:

```
1234567890^JONES^ROBERT^D^JR^DR^MD^^MYEMR^^^NPI
```

or

```
1234567890^JONES^ROBERT^^^^^^NPI
```

1.3. Getting Started

1.3.1. Client Contacts

Client to provide both business and technical contacts during the initial setup. Client to also provide the ongoing technical support contact that is alerted when messages are not received, or errors reported. It is recommended a group distribution list is used for the ongoing technical support as best practice to eliminate a single point of failure if the contact is out or leaves the company.

1.3.2. Volume / Frequency

Client to provide the following information as part of the initial setup.

- Identify frequency (daily, weekly, monthly, other)
- Weekends
- Expected volume of messages
- Will you send a backload of data and if so, what is the timeframe and expected volume?

1.3.3. Format

VHI can accept ADT versions 2.3, 2.5 and 2.8 with a preference for 2.5 or later. Client to identify the event types (ie A01, A03) expected.

1.3.4. Translation Tables

Client to provide mapping tables where applicable. Examples provided in Section 4: Segment Attribute Tables.

2. Summary of Supported Inbound Message Types and Segments

For this section - only R: Required Segment, C: Conditional, O: Optional Segment, i: Repeating Segment, G: Grouped Segment

Message Type/ Trigger	Description	MSH	EVN	PID	PD1	NK1	PV1	PV2	OBX	IAM	AL1	NTE	DG1	PR1	GT1	IN1	IN2	IN3	ACC	UB2
ADT_A01	Admit / Visit notification	R	R	R	O	R,i	R	R	R,i		R,i,G	O,i,G	R,i	C,G	O,i	C,G	O,G	O,i,G	O	O
ADT_A02	Transfer	R	R	R	O		R	O	O,i											
ADT_A03	Discharge / End visit	R	R	R	O	R,i	R	R			R,i,G	O,i,G	R,i	CG	O,i	C,G	O,G	O,i,G	O	
ADT_A04	Register a patient	R	R	R	O	R,i	R	R	R,i		R,i,G	O,i,G	R,i	C,G	O,i	C,G	O,G	O,i,G	O	O
ADT_A05	PreAdmit	R	R	R	O	O,i	R	O	O,i		O,I,G		O,i		O,i	R	O,G	O,i, G	O	O
ADT_A06	Change an outpatient to an inpatient	R	R	R	O		R	O	R,i		R,i,G	O,i,G	R,i	C,G	O,i	C,G	O,G	O,i,G	O	O
ADT_A07	Change an inpatient to an outpatient	R	R	R	O	O,i	R	O			O,i,G		O,i	R	O,i	R	O,G	O,i, G	O	O
ADT_A08	Update patient information	R	R	R	O	R,i	R	O	R,i		R,i,G	O,i,G	R,i	C,G	O,i	C,G	O,G	O,i,G	O	O
ADT_A11	Cancel Patient Admit	R	R	R	O		R	O	O,i				O,i							
ADT_A12	Transfer Cancellation	R	R	R	O		R	O	O,i				O,i							
ADT_A13	Cancel Patient Discharge	R	R	R	O	O,i	R	O	O,i		O,i,G		O,i	R	O,i	R,G	O,G	O,i,G	O	O
ADT_A28	Add person information	R	R	R	O	R,i	R	O	O,i		O,i,G	O,i,G	O,i	O,i	O,i	O,G	O,G	O,i,G	O	O
ADT_A29	Delete Person Information	R	R	R	O		R	O	O, i											
ADT_A31	Update person information	R	R	R	O	R,i	R	O	R,i		O,i,G	O,i,G	O,i	C,G	O,i	C,G	O,G	O,i,G	O	O
ADT_A38	Cancel PreAdmit	R	R	R	O		R	O	O, i				O,i							

3. Message Details

[] – Optional

{ } – Repeating

3.1. A01 – Admit/Visit Notification

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
[{ROL}]	Role	Optional, Repeating
{NK1}	Next of Kin/Associated Party	Required, Repeating
PV1	Patient Visit	Required
PV2	Patient Visit-Additional Info	Required
{OBX}	Observation/Result	Required, Repeating
{AL1}	Patient Allergy Information	Required, Repeating, Group
[{NTE}]	Notes and Comments - Allergy specific	Optional, Repeating, Group
{DG1}	Diagnosis	Required, Repeating
{PR1}	Procedures	Conditional, Repeating, Group
[{GT1}]	Guarantor	Optional, Repeating
IN1	Insurance	Conditional, Group
[IN2]	Insurance-Additional Info	Optional, Group
[{IN3}]	Insurance-Additional Info-Certification	Optional, Repeating, Group
[ACC]	Accident Info	Optional
[UB2]	Universal Bill 92 Information	Optional

3.2. A02 – Transfer

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating

3.3. A03 – Discharge/End Visit

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
[{ROL}]	Role	Optional, Repeating

Segment	Description	Required, Optional, Repeating, Grouped
{NK1}	Next of Kin/Associated Party	Required, Repeating
PV1	Patient Visit	Required
PV2	Patient Visit-Additional Info	Required
{AL1}	Patient Allergy Information	Required, Repeating, Group
[{NTE}]	Notes and Comments - Allergy specific	Optional, Repeating, Group
{DG1}	Diagnosis	Required, Repeating
{PR1}	Procedures	Conditional, Repeating, Group
[{OBX}]	Observation/Result	Optional, Repeating
[{GT1}]	Guarantor	Optional, Repeating
[{ZG1}]	Guarantor-Additional Info	Optional, Repeating
IN1	Insurance	Conditional, Group
[IN2]	Insurance-Additional Info	Optional, Group
[{IN3}]	Insurance-Additional Info-Certification	Optional, Repeating, Group
[ACC]	Accident Info	Optional

3.4. A04 – Register a Patient

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
[{ROL}]	Role	Optional, Repeating
{NK1}	Next of Kin/Associated Party	Required, Repeating
PV1	Patient Visit	Required
PV2	Patient Visit-Additional Info	Required
{OBX}	Observation/Result	Conditional Repeating
{AL1}	Patient Allergy Information	Conditional, Repeating, Group
[{NTE}]	Notes and Comments - Allergy specific	Optional, Repeating, Group
{DG1}	Diagnosis	Conditional, Repeating
{PR1}	Procedures	Conditional, Repeating, Group
[{GT1}]	Guarantor	Optional, Repeating
[{ZG1}]	Guarantor-Additional Info	Optional, Repeating
IN1	Insurance	Conditional, Group
[IN2]	Insurance-Additional Info	Optional, Group
[{IN3}]	Insurance-Additional Info-Certification	Optional, Repeating, Group
[ACC]	Accident Info	Optional
[UB2]	Universal Bill 92 Information	Optional

3.5. A05 – PreAdmit

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
[{NK1}]	Next of Kin/Associated Party	Optional, Repeating
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating
[{AL1}]	Patient Allergy Information	Optional, Repeating, Group
[{DG1}]	Diagnosis	Optional, Repeating
[{GT1}]	Guarantor	Optional, Repeating
IN1	Insurance	Required
[IN2]	Insurance-Additional Info	Optional, Group
[{IN3}]	Insurance-Additional Info-Certification	Optional, Repeating, Group
[ACC]	Accident Info	Optional
[UB2]	Universal Bill 92 Information	Optional

3.6. A06 – Change an Outpatient to an Inpatient

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
[{ROL}]	Role	Optional, Repeating
{NK1}	Next of Kin/Associated Party	Required, Repeating
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
{OBX}	Observation/Result	Required, Repeating
[{AL1}]	Patient Allergy Information	Optional, Repeating, Group
[{NTE}]	Notes and Comments - Allergy specific	Optional, Repeating, Group
{DG1}	Diagnosis	Required, Repeating
[{PR1}]	Procedures	Optional, Repeating, Group
[{GT1}]	Guarantor	Optional, Repeating
IN1	Insurance	Conditional, Group
[IN2]	Insurance-Additional Info	Optional, Group
[{IN3}]	Insurance-Additional Info-Certification	Optional, Repeating, Group
[ACC]	Accident Info	Optional
[UB2]	Universal Bill 92 Information	Optional

3.7. A07 – Change an inpatient to an outpatient

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
[{NK1}]	Next of Kin/Associated Party	Optional, Repeating
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
[{AL1}]	Patient Allergy Information	Optional, Repeating, Group
[{DG1}]	Diagnosis	Optional, Repeating
PR1	Procedures	Required
[{GT1}]	Guarantor	Optional, Repeating
IN1	Insurance	Required
[IN2]	Insurance-Additional Info	Optional, Group
[{IN3}]	Insurance-Additional Info-Certification	Optional, Repeating, Group
[ACC]	Accident Info	Optional
[UB2]	Universal Bill 92 Information	Optional

3.8. A08 – Update Patient Information

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
[{ROL}]	Role	Optional, Repeating
{NK1}	Next of Kin/Associated Party	Required, Repeating
PV1	Patient Visit	Required
PV2	Patient Visit-Additional Info	Required
{OBX}	Observation/Result	Required, Repeating
{AL1}	Patient Allergy Information	Required, Repeating, Group
[{NTE}]	Notes and Comments - Allergy specific	Optional, Repeating, Group
{DG1}	Diagnosis	Required, Repeating
{PR1}	Procedures	Required, Repeating, Group
[{GT1}]	Guarantor	Optional, Repeating
IN1	Insurance	Conditional, Group
[IN2]	Insurance-Additional Info	Optional, Group
[{IN3}]	Insurance-Additional Info-Certification	Optional, Repeating, Group
[ACC]	Accident Info	Optional
[UB2]	Universal Bill 92 Information	Optional

3.9. A11 – Cancel Patient Admit

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating
[{DG1}]	Diagnosis	Optional, Repeating

3.10. A12 – Transfer Cancellation

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating
[{DG1}]	Diagnosis	Optional, Repeating

3.11. A13 – Cancel Patient Discharge

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
[{NK1}]	Next of Kin/Associated Party	Optional, Repeating
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating
[{AL1}]	Patient Allergy Information	Optional, Repeating, Group
[{DG1}]	Diagnosis	Optional, Repeating
PR1	Procedures	Required
[{GT1}]	Guarantor	Optional, Repeating
IN1	Insurance	Required, Group
[IN2]	Insurance-Additional Info	Optional, Group
[{IN3}]	Insurance-Additional Info-Certification	Optional, Repeating, Group
[ACC]	Accident Info	Optional
[UB2]	Universal Bill 92 Information	Optional

3.12. A28 – Add Person Information

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
[{ROL}]	Role	Optional, Repeating
[{NK1}]	Next of Kin/Associated Party	Required, Repeating
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating
[{AL1}]	Patient Allergy Information	Optional, Repeating, Group
[{NTE}]	Notes and Comments - Allergy specific	Optional, Repeating, Group
[{DG1}]	Diagnosis	Optional, Repeating
[{PR1}]	Procedures	Optional, Repeating
[{GT1}]	Guarantor	Optional, Repeating
[IN1]	Insurance	Optional, Group
[IN2]	Insurance-Additional Info	Optional, Group
[{IN3}]	Insurance-Additional Info-Certification	Optional, Repeating, Group
[ACC]	Accident Info	Optional
[UB2]	Universal Bill 92 Information	Optional

3.13. A29 – Delete Person Information

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating

3.14. A31 – Update Person Information

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
[{ROL}]	Role	Optional, Repeating
{NK1}	Next of Kin/Associated Party	Required, Repeating
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
{OBX}	Observation/Result	Required, Repeating
[{AL1}]	Patient Allergy Information	Optional, Repeating, Group
[{NTE}]	Notes and Comments - Allergy specific	Optional, Repeating, Group
[{DG1}]	Diagnosis	Optional, Repeating
{PR1}	Procedures	Conditional, Repeating
[{GT1}]	Guarantor	Optional, Repeating
[{ZG1}]	Guarantor-Additional Info	Optional, Repeating
IN1	Insurance	Conditional, Group
[IN2]	Insurance-Additional Info	Optional, Group
[{IN3}]	Insurance-Additional Info-Certification	Optional, Repeating, Group
[ACC]	Accident Info	Optional
[UB2]	Universal Bill 92 Information	Optional

3.15. A38 – Cancel PreAdmit

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[PD1]	Additional Demographics	Optional
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating
[{DG1}]	Diagnosis	Optional, Repeating

4. Segment Attribute Tables

4.1. Segment Attribute Table Abbreviations

The abbreviated terms and their definitions, as used in the segment table headings, are as follows:

KEY - SEGMENT ATTRIBUTES																	
Abbreviation	Definition																
Len	Maximum length of the element. Length of an element is calculated using the following rules: <ul style="list-style-type: none"> • Field length = (Sum of all supported component lengths) + (component number of the last supported component) – 1. • Component length = (Sum of all supported sub-component lengths) + (sub-component number of the last supported component) – 1. 																
DT	Data type used for HL7 element. (Refer to Chapter 2A of HL7 V2.5 standard)																
Use	Usage indicates that the field or sub-field is required, expected, or optional. <table border="1"> <tr> <td>R</td><td>Required</td><td>Element must be sent with sub-elements populated according to the definition</td></tr> <tr> <td>RE</td><td>Required, May be Empty</td><td>If the sender captures the data, the data must be sent in the specified segment.</td></tr> <tr> <td>C (R/E)</td><td>Conditional</td><td> When conditionality predicate evaluates to "True", the segment usage is in effect. If CR, the usage is R when the condition is true. If CE, the usage is RE if the condition is met </td></tr> <tr> <td>O</td><td>Optional</td><td>The following elements are optional</td></tr> <tr> <td>P</td><td>Preferred</td><td>The following element is optional, but the HIE prefers to collect it.</td></tr> </table>		R	Required	Element must be sent with sub-elements populated according to the definition	RE	Required, May be Empty	If the sender captures the data, the data must be sent in the specified segment.	C (R/E)	Conditional	When conditionality predicate evaluates to "True", the segment usage is in effect. If CR, the usage is R when the condition is true. If CE, the usage is RE if the condition is met	O	Optional	The following elements are optional	P	Preferred	The following element is optional, but the HIE prefers to collect it.
R	Required	Element must be sent with sub-elements populated according to the definition															
RE	Required, May be Empty	If the sender captures the data, the data must be sent in the specified segment.															
C (R/E)	Conditional	When conditionality predicate evaluates to "True", the segment usage is in effect. If CR, the usage is R when the condition is true. If CE, the usage is RE if the condition is met															
O	Optional	The following elements are optional															
P	Preferred	The following element is optional, but the HIE prefers to collect it.															
HL7 Element Name	HL7 descriptor of the element in the segment.																

4.2. MSH - Message Header Segment

The message header is mandatory for every message.

Seq	Len	DT	Use	HL7 Element Name
MSH.1	1	ST	R	Field Separator
MSH.2	4	ST	R	Encoding Characters
MSH.3	227	HD	R	Sending Application
MSH.4	227	HD	R	Sending Facility
MSH.5	227	HD	R	Receiving Application
MSH.6	227	HD	R	Receiving Facility
MSH.7	26	TS	R	Date/Time of Message
MSH.8	40	ST	O	Security
MSH.9	15	MSG	R	Message Type
MSH.9.1	3	ID	R	Message Code
MSH.9.2	3	ID	R	Trigger Event
MSH.9.3	7	ID	R	Message Structure
MSH.10	50	ST	R	Message Control ID
MSH.11	3	PT	R	Processing ID
MSH.12	60	VID	R	Version ID (v2.5.1)

*Expected MSH Field Values

VHI expects the values below in the following MSH Fields:

Field	Value
MSH.3.1 Sending Application	(EMR Name/Mnemonic)
MSH.4.1 Inbound Sending Facility ID	Source code provided by VHI at time of onboarding
MSH.5.1 (Receiving Application)	VHI
MSH.6.1 (Receiving Facility)	VHI

4.3. EVN - Event Type Segment

The Event Type Segment conveys information about the event that triggered the message and is required in all ADT messages.

Seq	Len	DT	Use	HL7 Element Name
EVN.1	3	ID	R	Event Type Code
EVN.2	26	TS	R	Recorded Date/Time
EVN.3	26	TS	O	Date/Time Planned Event
EVN.4	3	IS	O	Event Reason Code
EVN.5	250	XCN	O	Operator ID
EVN.6	26	TS	O	Event Occurred
EVN.7	241	HD	O	Event Facility
EVN.7.1	20	IS	O	Namespace ID

Seq	Len	DT	Use	HL7 Element Name
EVN.7.2	199	ST	O	Treating Facility ID
EVN.7.3	6	ID	O	Universal ID Type

4.4. PID – Patient Identification Segment

The Patient Identification Segment is used as the primary means of conveying patient identification information.

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
PID.1	4	SI	O		Set ID - PID
PID.2	20	CX	O		Patient ID
PID.3	250	CX	R		Patient Identifier List
PID.3.1	15	ST	R		Patient Medical Record Number MPI only allows up to 40 characters. Must be alphanumeric.
PID.3.2	1	ST	O		Check Digit
PID.3.3	3	ID	O		Check Digit Scheme
PID.3.4	227	HD	R		Assigning Authority
PID.3.5	5	ID	R		Identifier Type Code (default "MR")
PID.4	20	CX	O		Alternate Patient ID - PID
PID.5	250	XPN	R		Patient Name
PID.5.1	194	ST	R	USCDI	Last Name (cannot include 'test')
PID.5.2	30	ST	R	USCDI	First Name
PID.5.3	30	ST	R	USCDI	Middle Name or initial
PID.5.4	20	ST	RE	USCDI	Suffix
PID.6	250	XPN	O		Mother's Maiden Name
PID.7	26	TS	R	USCDI	Date/Time of Birth Format: yyyyMMdd
PID.8	1	IS	R	0001*	Administrative Sex*
PID.9	250	XPN	RE		Patient Alias (Previous Name *USCDI Requirement)
PID.10	250	CE	R	USCDI/ 0005*	Race*
PID.10.1	20	ST	R	USCDI/ 0005*	Race – Identifier
PID.10.2	199	ST	RE	USCDI/ 0005*	Race – Text
PID.11	250	XAD	R	USCDI	Patient Address
PID.11.1	184	SAD	R	USCDI	Street Address
PID.11.2	120	ST	CE		Other Designation
PID.11.3	50	ST	R	USCDI	City
PID.11.4	50	ST	R	USCDI	State or Province
PID.11.5	12	ST	R	USCDI	Zip or Postal Code
PID.11.6	3	ID	R		Country
PID.12	20	IS	O		County Code

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
PID.13.1	250	ST	R	USCDI	Telephone Number
PID.13.2	3	ID	O	USCDI / 0201*	Telecommunication Use Code*
PID.13.3	8	ID	O	USCDI / 0202*	Telecommunication Equipment Type
PID.13.4	199	ST	R	USCDI	Email Address
PID.14	250	XTN	RE		Phone Number – Business
PID.15	250	CE	R	USCDI	Preferred Language*
PID.16	250	CE	R	0002*	Marital Status*
PID.17	250	CE	E	0006	Religion
PID.18	250	CX	R		Patient Account Number
PID.19	16	ST	O		SSN Number
PID.20	25	DLN	R		Driver's License Number
PID.21	250	CX	O		Mother's Identifier
PID.22	250	CE	R	USCDI/0189*	Ethnic Group
PID.22.1	20	ST	R	USCDI/ 0189*	Ethnicity Code
PID.22.2	199	ST	R	USCDI/ 0189*	Ethnicity Description
PID.23	250	ST	O		Birth Place
PID.24	1	ID	O	0136	Multiple Birth Indicator
PID.25	2	NM	O		Birth Order
PID.26	250	CE	O		Citizenship
PID.27	250	CE	O		Veterans Military Status
PID.28	250	CE	O		Nationality
PID.29	26	TS	CR	USCDI	Patient Death Date and Time
PID.30	1	ID	CR	0136	Patient Death Indicator
PID.31	1	ID	O	0136	Identity Unknown Indicator
PID.32	20	IS	O		Identity Reliability Code
PID.33	26	TS	O	USCDI	Last Update Date/Time
PID.34	241	HD	O	USCDI	Last Update Facility
PID.39	250	CWE	O		Tribal Citizenship

*PID-8 Administrative Sex (IS)

VHI will map user defined values provided by the Client at the time of onboarding.

VHI to determine the sex of the patient and must contain one of the following codes:

Code	Description
F	Female
M	Male
O	Other
U	Unknown

Example of Client defined values to be mapped.

Code	Description	Mapped Value
Male	Male	M
GQ	Non binary	U

*PID-10 Race (CE)

VHI uses these codes for race:

Code	Description
1002-5	American Indian or Alaska Native
2028-9	Asian
2054-5	Black or African American
2076-8	Native Hawaiian or Other Pacific Islander
2106-3	White
2131-1	Other Race
0000-0	Unknown
0000-2	Two or More Races

Example of Client defined values to be mapped.

Code	Description	Mapped Value
BLA	Black or African American	2054-5
W	White	2106-3

*PID – 13.2 Telecommunication Use Code

Code	Description
ASN	Answering Service Number
BPN	Beeper Number
EMR	Emergency Number
ORN	Other Residence Number
PRN	Primary Residence Number
VHN	Vacation Home Number
WPN	Work Number

*PID – 13.3 Telecommunication Equipment Type

Code	Description
BP	Beeper
CP	Cellular Phone
FX	Fax
Internet	Internet Address: Use Only If Telecommunication Use Code Is NET
MD	Modem
PH	Telephone
TDD	Telecommunications Device for the Deaf
TTY	Teletypewriter
X.400	X.400 email address: Use Only If Telecommunication Use Code Is NET

*PID-15 Language (CE)

VHI uses this to determine the language of the patient and must contain one of the following codes as outlined at <https://www.hl7.org/fhir/valueset-languages.html>

If language is not passed, the patient's preferred language will default to English.

Example of Client defined values to be mapped below. Client to provide their user defined value at the time of onboarding.

Code	Description	Mapped Value
NONE	Unanswered	U
Blank	Unanswered	U
ENG	English	EN
60	Polish	PL
1	English	EN
SP2	Spanish	ES
UNK	Unanswered	U
FRE	French	FR
E	English	EN

*PID-16 Marital Status (CE)

VHI uses these values for marital status and should contain one of the following codes:

Code	Description
A	Separated
B	Unmarried
C	Common law
D	Divorced
E	Legally Separated
G	Living together
I	Interlocutory
M	Married
N	Annulled
O	Other
P	Domestic partner
R	Registered domestic partner
S	Single
T	Unreported
U	Unknown
W	Widowed

*PID-22 Ethnic Group (CE)

Please refer to the following coding system that VHI will map ethnicity values.

<https://build.fhir.org/ig/HL7/UTG/ValueSet-v3-Ethnicity.html>

Example of Client defined values to be mapped below. Client to provide their user defined value at the time of onboarding.

Code	Description	Mapped Value
HISP	Hispanic or Latino	2135-2
NH	Not Hispanic or Latino	2186-5
UNK	Unknown	0000-0
2157-6	Guatemalan	2135-2
DA	Decline to Answer	0000-0
—	Blank	0000-0
W	White, not Hispanic	2186-5

4.5. PD1- Patient Additional Demographic Segment

SEQ	LEN	DT	USE	Code/ Table	HL7 Element Name
PD1.1	2	IS	P	0223	Living Dependency
PD1.2	2	IS	P	0220	Living Arrangement
PD1.3	90	XON	R		Patient Primary Facility
PD1.4	90	XCN	R		Patient Primary Care Provider Name & ID No.
PD1.4.1		ST	CE		ID Number
PD1.4.2		ST	CE	USCDI	Family Name
PD1.4.3		ST	CE	USCDI	Given Name
PD1.4.4		ST	CE	USCDI	Middle Initial or Name
PD1.5	2	IS	O	0231	Student Indicator
PD1.6	2	IS	O		Handicap
PD1.7	2	IS	O	0315	Living Will
PD1.8	2	IS	P	0316*	Organ Donor*
PD1.9	1	ID	O	0136	Separate Bill
PD1.10	20	CX	O		Duplicate Patient
PD1.11	80	CE	O	0215	Publicity Code
PD1.12	1	ID	R	0136*	Protection Indicator*
PD1.13			R		Protection Indicator Date
PD1.13.1	8	DT	CE		Protection Indicator Start Date
PD1.13.2	8	DT	CE		Protection Indicator Stop Date
PD1.16	1	IS	O	0441*	Immunization Registry Status*
PD1.17	8	DT	O		Immunization Registry Status Effective Date
PD1.22	1	DT	CE		Advance Directive Last Verified Date

*PD1-8 Organ Donor

Code	Description
F	Yes, patient is a documented donor, but documentation is not on file
I	No, patient is not a documented donor, but information was provided
N	No, patient has not agreed to be a donor
P	Patient leaves organ donation decision to a specific person
R	Patient leaves organ donation decision to relatives
U	Unknown
Y	Yes, patient is a documented donor and documentation is on file

*PD1-16 Immunization Registry Status

Code	Description
A	Active
I	Inactive
L	Inactive - Lost to follow-up (cancel contract)
M	Inactive - Moved or gone elsewhere (cancel contract)
O	Other
P	Inactive - Permanently inactive (Do not reactivate or add new entries to the record)
U	Unknown

4.6. NK1 – Next of Kin / Associated Parties Segment

The NK1 segment contains information about the patient's other related parties. Any associated parties may be identified.

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
NK1.1	4	SI	R		Set ID – NK1
NK1.2	250	XP	R	USCDI	Name
NK1.3	250	CE	R	USCDI/ 0063*	Relationship*
NK1.4	250	XAD	O		Address
NK1.5	250	XTN	R		Phone Number
NK1.6	250	XTN	O		Business Phone Number
NK1.7	250	CE	R	0131*	Contact Role*
NK1.8	8	DT	O		Start Date
NK1.9	8	DT	O		End Date
NK1.13	250	XON	O		Organization Name – NK1
NK1.30	250	XP	O		Contact Person's Name
NK1.31	250	XTN	O		Contact Person's Telephone Number
NK1.32	250	XAD	O		Contact Person's Address

*NK1-3, GT1-11, IN1-17 Relationship

VHI uses this to determine the relationship type for Next of Kin and must contain one of the following codes or Client to provide user defined values so they can be mapped to corresponding values.

Code	Description
ASC	Associate
BRO	Brother
CGV	Care giver
CHD	Child
DEP	Handicapped dependent
DOM	Life partner
EMC	Emergency contact
EME	Employee
EMR	Employer
EXF	Extended family
FCH	Foster child
FND	Friend
FTH	Father
GCH	Grandchild
GRD	Guardian
GRP	Grandparent
MGR	Manager
MTH	Mother
NCH	Natural child
NON	None
OAD	Other adult
OTH	Other
OWN	Owner
PAR	Parent
SCH	Stepchild
SEL	Self
SIB	Sibling
SIS	Sister
SPO	Spouse
TRA	Trainer
UNK	Unknown
WRD	Ward of court

*NK1-7 Contact Role

VHI uses this to determine the contact role for Next of Kin and must contain one of the following codes or provide Client defined values so they can be mapped to corresponding values.

Code	Description
C	Emergency Contact
E	Employer
F	Federal Agency
I	Insurance Company
N	Next-of-Kin
O	Other
S	State Agency
U	Unknown

4.7. PV1 – Patient Visit Segment

The Patient Visit Segment is used to transmit encounter-specific information.

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
PV1.1	4	SI	D		Set ID - PV1
PV1.2	250	CWE	R	0004*	Patient Class*
PV1.3	80	PL	R		Assigned Patient Location
PV1.3.1	20	IS	R		Location of Care
PV1.3.2	20	IS	R		Room
PV1.3.3	20	IS	R		Bed
PV1.3.4	20	IS	R		Facility
PV1.4	250	CWE	R	USCDI/ 0007*	Admission Type*
PV1.5	250	CX	O		Pre-admit Number
PV1.6	80	PL	O		Prior Patient Location
PV1.7	250	XCN	R		Attending Doctor
PV1.8	250	XCN	R		Referring Doctor
PV1.9	250	XCN	R		Consulting Doctor
PV1.10	250	CWE	CE	0069*	Hospital Service*
PV1.10.1		ST	CE		Identifier
PV1.10.2		ST	CE		Text
PV1.11	80	PL	O		Temporary Location
PV1.12	2	IS	O		Pre-admit Test Indicator
PV1.13	2	IS	D	0092*	Re-admission Indicator
PV1.14	250	CWE	CE	0023*	Admit Source*
PV1.14.1		ST	CE		Identifier
PV1.14.2		ST	O		Text
PV1.15	2	IS	D	0009*	Ambulatory Status*

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
PV1.16	2	IS	O		VIP Indicator
PV1.17	250	XCN	R		Admitting Doctor
PV1.18	2	IS	D		Patient Type
PV1.19	250	CX	R		Visit Number
PV1.20	50	FC	O		Financial Class
PV1.21	2	IS	O		Charge Price Indicator
PV1.22	2	IS	O		Courtesy Code
PV1.23	2	IS	O		Credit Rating
PV1.24	2	IS	O		Contract Code
PV1.25	8	DT	O		Contract Effective Date
PV1.26	12	NM	O		Contract Amount
PV1.27	3	NM	O		Contract Period
PV1.28	2	IS	O		Interest Code
PV1.29	4	IS	O		Transfer to Bad Debt Code
PV1.30	8	DT	O		Transfer to Bad Debt Date
PV1.31	10	IS	O		Bad Debt Agency Code
PV1.32	12	NM	O		Bad Debt Transfer Amount
PV1.33	12	NM	O		Bad Debt Recovery Amount
PV1.34	1	IS	O		Delete Account Indicator
PV1.35	8	DT	O		Delete Account Date
PV1.36	250	CWE	R	0112*	Discharge Disposition*
PV1.37	47	DLD	D	USCDI	Discharged to Location*
PV1.38	250	CE	O		Diet Type
PV1.39	199	IS	O		Servicing Facility
PV1.40	1	IS	O	0116	Bed Status
PV1.41	2	IS	O		Account Status
PV1.42	80	PL	O		Pending Location
PV1.43	80	PL	O		Prior Temporary Location
PV1.44	26	TS	R	USCDI	Admit Date/Time Requirement
PV1.45	26	TS	R	USCDI	Discharge Date/Time Requirement*
PV1.47	12	NM	O		Total Charges

*PV1-2 Patient Class

VHI uses this to categorize patients by class codes like the following user defined codes.

Code	Description
E	Emergency
I	Inpatient
O	Outpatient
OBS	Obstetrics

*PV1-4 Admission Type

VHI uses this to categorize patient admission type using the following user defined codes.

Code	Description
A	Accident
C	Elective
E	Emergency
L	Labor and Delivery
N	Newborn (Birth in healthcare facility)
R	Routine
U	Urgent

*PV1-10 Hospital Service

VHI uses this to categorize hospital service using the following user defined codes.

Code	Description
CAR	Cardiac Service
MED	Medical Service
PUL	Pulmonary Service
SUR	Surgical Service
URO	Urology Service

*PV1-14 Admit Source

VHI uses this to categorize admit source using the following user defined codes.

Code	Description
1	Physician Referral
2	Clinic Referral
3	HMO Referral
4	Transfer From a Hospital
5	Transfer From a Skilled Nursing Facility
6	Transfer From Another Health Care Facility
7	Emergency Room
8	Court/Law Enforcement
9	Information Not Available
10	Disaster/MCI/Triage
11	Birth in Facility
12	Birth outside of facility
13	Non-Healthcare
14	Other Institution
15	Self
16	Other

*PV1-15 Ambulatory Status

VHI uses this to categorize ambulatory status using the following user defined codes.

Code	Description
A0	No functional limitations
A1	Ambulates with assistive device
A2	Wheelchair/stretchers bound
A3	Comatose; non-responsive
A4	Disoriented
A5	Vision impaired
A6	Hearing impaired
A7	Speech impaired
A8	Non-English speaking
A9	Functional level unknown
B1	Oxygen therapy
B2	Special equipment (tubes, IVs, catheters)
B3	Amputee
B4	Mastectomy
B5	Paraplegic
B6	Pregnant

*PV1-36 Discharge Disposition

VHI uses this to categorize discharge disposition using the following codes:

Code	Description
01	Discharged to home or self care (routine discharge)
02	Discharged/transferred to another short-term general hospital for inpatient care
03	Discharged/transferred to skilled nursing facility (SNF)
04	Discharged/transferred to an intermediate care facility (ICF)
05	Discharged/transferred to another type of institution for inpatient care or referred for outpatient services to another institution
06	Discharged/transferred to home under care of organized home health service organization
07	Left against medical advice or discontinued care
08	Discharged/transferred to home under care of Home IV provider
09	Admitted as an inpatient to this hospital
20	Expired (i.e. dead)
21	Discharged/transferred to Court/Law Enforcement
30	Still patient or expected to return for outpatient services (i.e. still a patient)
40	Expired (i.e. died) at home
41	Expired (i.e. died) in a medical facility, e.g., hospital, SNF, ICF, or free-standing hospice
42	Expired (i.e. died) - place unknown

4.8. **PV2 – Patient Visit Additional Information Segment**

The Patient Visit Additional Information Segment is a continuation of visit-specific information and should contain the Admit Reason, Visit Reason, Chief Complaint information.

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
PV2.1	80	PL	O		Prior Pending Location
PV2.2	250	CE	O		Accommodation Code
PV2.3	250	CE	R		Admit Reason
PV2.3.1		ST	RE		Identifier
PV2.3.2	199	ST	R		Text
PV2.3.4	20	ST	O		Alternate Identifier
PV2.4	250	CE	D		Transfer Reason
PV2.5	25	ST	O		Patient Valuables
PV2.6	25	ST	O		Patient Valuables Location
PV2.7	2	IS	O	0130	Visit User Code
PV2.8	26	TS	D		Expected Admit Date/Time
PV2.9	26	TS	D		Expected Discharge Date/Time*
PV2.10	3	NM	O		Estimated Length of Inpatient Stay
PV2.11	3	NM	O		Actual Length of Inpatient Stay
PV2.12	50	ST	D		Visit Description
PV2.13	250	XCN	D		Referral Source Code
PV2.23	250	XON	D		Clinic Organization Name
PV2.27	2	IS	D	0112	Expected Discharge Disposition*
PV2.33	26	TS	D		Expected Surgery Date & Time
PV2.38	250	CE	RE	0430*	Mode of Arrival*
PV2.40	250	CE	D	0432*	Level of Care Code*
PV2.45	250	CE	O	0435*	Advanced Directive Code*

***PV2-38 Mode of Arrival**

VHI uses this to categorize mode of arrival using the following codes.

Code	Description
A	Ambulance
C	Car
F	On foot
H	Helicopter
O	Other
P	Public Transport
U	Unknown

*PV2-40 Level of Care Code

VHI uses this to categorize level of care code using the following codes.

Code	Description
AC	Acute
CH	Chronic
CO	Comatose
CR	Critical
IM	Improved
MO	Moribund

*PV2-45 Advanced Directive Code

VHI uses this to categorize advanced directive code using the following codes.

Code	Description
DNR	Do not resuscitate

4.9. Additional Z Segments

All Z segments are optional and will be accepted if sent in the correct format.

4.10. OBX – Observation Result Segment

The Observation Result Segment (OBX) is used to convey observations in both ADT and result messages.

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
OBX.1	4	SI	C		Set ID – OBX
OBX.2	2	ID	C	0125	Value Type
OBX.3	250	CE	R	USCDI*	Observation Identifier
OBX.3.1	20	ST	R	USCDI*	Identifier*See below for USCDI Requirements
OBX.3.2	199	ST	R	USCDI*	Text *See Below for USCDI Requirements
OBX.3.3		ID	R	USCDI*	Name of Coding System - *See Below for USCDI Requirements
OBX.4	20	ST	O		Observation Sub-ID
OBX.5	no limit	TX	R		Text Data
OBX.6	250	CE	RE	*	Units*
OBX.7	60	ST	RE		References Range
OBX.8	5	CWE	CE	0078	Abnormal Flags
OBX.9	5	NM	O		Probability
OBX.10	2	ID	O	0080	Nature of Abnormal Test
OBX.11	1	ID	RE	0085	Observation Result Status
OBX.12	26	TS	O		Effective Date of Reference Range Values

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
OBX.13	20	ST	O		User Defined Access Checks
OBX.14	26	TS	R		Date/Time of the Observation
OBX.15	250	CE	CE		Producer's ID
OBX.15.1	20	ST	CE		Identifier
OBX.15.2		ST	CE		Text
OBX.15.3		ID	CE		Name of Coding System
OBX.15.4		ST	O		Alternate Identifier
OBX.15.5		ST	O		Alternate Text
OBX.15.6		ID	O		Name of Alternate Coding System
OBX.16	250	XCN	R		Responsible Observer
OBX.17	250	CE	O		Observation Method
OBX.19	26	TS	O		Date/Time of the Analysis
OBX.23	567	XON	O		Performing Organization Name
OBX.24	631	XAD	O		Performing Organization Address
OBX.25	3002	XCN	O		Performing Organization Medical Director

4.11. IAM – Patient Adverse Reaction Information Segment

The Event Type Segment conveys information about the event that triggered the message and is required in all ADT messages.

Seq	Len	DT	Use	HL7 Element Name
IAM.1	4	SI	C	Set ID - IAM
IAM.2	250	CE	R	Allergen Type Code
IAM.3	250	CE	R	Allergen Code/Mnemonic/Description
IAM.4	250	CE	R	Allergy Severity Code*
IAM.5	15	ST	R	Allergy Reaction Code
IAM.6	250	CNE	R	Allergy Action Code
IAM.7	427	EI	R	Allergy Unique Identifier
IAM.8	60	ST	O	Action Reason
IAM.13	8	TS	R	Reported Date/Time
IAM.14	250	XPN	R	Reported By
IAM.17	250	CE	O	Allergy Clinical Status Code
IAM.20	8	TS	O	Statused at Date/Time

*IAM-4 Allergy Severity Code

See AL1-4 Allergy Severity Code values

4.12. AL1 – Patient Allergy Information Segment

The AL1 segment contains patient allergy information of various types. This information should be derived from user-defined tables. Each AL1 segment describes a single patient allergy.

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
AL1.1	4	SI	C		Set ID – AL1
AL1.2	250	CE	R	0127*	Allergen Type Code*
AL1.3	841	CE	R		Allergen Code/Mnemonic/Description
AL1.3.1	20	ST	R		Identifier
AL1.3.2	199	ST	R	USCDI/ RxNorm**	Text**
AL1.3.3	20	ID	R	0396*	Name of Coding System*
AL1.4	250	CE	R	0128*	Allergy Severity Code*
AL1.5	15	ST	R	USCDI/ SNOMED	Allergy Reaction Code*
AL1.6	8	DT	R		Identification Date

*AL1-2 Allergy Type Code

Value	Description
AA	Animal Allergy
DA	Drug Allergy**
EA	Environmental Allergy
FA	Food Allergy
LA	Pollen Allergy
MA	Miscellaneous Allergy
MC	Miscellaneous Contraindication
PA	Plant Allergy

** **USCDI:** Acceptable Vocabulary Standard: If Drug Allergy, RxNorm Full Monthly Release, January 3, 2022

*AL3.3 Name of Coding System

Expected Value: SNM - Should follow SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, January 2022 Release

*AL1-4 Allergy Severity Code

Code	Description
MI	Mild
MO	Moderate
SV	Severe
U	Unknown

*AL1-5 Allergy Reaction Code

Expected Value: SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, January 2022 Release

4.13. NTE – Notes and Comments Segment

The Notes and Comments Segment conveys additional free text information pertaining to the segment immediately preceding it.

Seq	Len	DT	Use	HL7 Element Name
NTE.1	4	SI	C	Set ID
NTE.3	65536	FT	C	Comment

4.14. DG1- Diagnosis Segment

The Diagnosis Segment is used to convey coded diagnosis information.

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
DG1.1	4	SI	C		Set ID – DG1
DG1.2	3	IS	CE		Diagnosis Coding Method - Indicate ABK (Primary) or ABF (Secondary)
DG1.3	841	CE	R		Diagnosis Information
DG1.3.1	20	ST	R		Identifier
DG1.3.2	199	ST	R		Text
DG1.3.3	199	ID	R		Name of Coding System (Expected SNOMED or ICD-10)
DG1.3.4	20	ST	O		Alternate Identifier
DG1.3.5	199	ST	O		Alternate Text
DG1.4	40	ST	O		Diagnosis Description
DG1.5	26	TS	R		Diagnosis Date/Time
DG1.6	250	CWE	R	0052*	Diagnosis Type*
DG1.6.1		ST	R		Identifier
DG1.6.2		ST	O		Text
DG1.7	250	CE	O		Major Diagnostic Category
DG1.8	250	CE	D		Diagnostic Related Group
DG1.9	1	ID	O	0136	DRG Approval Indicator
DG1.10	2	IS	O		DRG Grouper Review Code
DG1.11	250	CE	O	0083	Outlier Type
DG1.12	3	NM	O		Outlier Days
DG1.13	12	CP	O		Outlier Cost
DG1.14	4	ST	O		Grouper Version and Type
DG1.15	2	ID	O	0359	Diagnosis Priority
DG1.16	250	XCN	R		Diagnosing Clinician
DG1.17	3	IS	O	0228	Diagnosis Classification
DG1.20	427	EI	O		Diagnosis Identifier
DG1.21	1	ID	O	0206	Diagnosis Action Code

*DG1-6 Diagnosis Type (IS)

VHI uses this to define the type of diagnosis sent and must contain one of the following codes:

Code	Description
A	Admitting
W	Working
F	Final

4.15. PR1 - Procedures Segment

The Procedures Segment is used to convey coded procedure information and Social Determinants of Health (SDOH) Interventions.

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
PR1.1	4	SI	C		Set ID - PR1
PR1.3	841	CE	R	USCDI*	Procedure Code*
PR1.3.1	20	ST	R	USCDI*	Identifier* See below for expected values
PR1.3.2	199	ST	E		Text
PR1.3.3	199	ID	R		Name of Coding System
PR1.4	40	ST	E		Procedure Description
PR1.5	26	TS	R		Procedure Date/Time
PR1.6	2	IS	O	0230	Procedure Functional Type
PR1.7	4	NM	O		Procedure Minutes
PR1.8	250	XCN	O		Anesthesiologist
PR1.9	2	IS	O		Anesthesia Code
PR1.10	4	NM	O		Anesthesia Minutes
PR1.11	250	XCN	R		Surgeon
PR1.12	250	XCN	CE		Procedure Practitioner
PR1.13	250	CE	O		Consent Code
PR1.14	2	ID	O	0418	Procedure Priority
PR1.15	250	CE	R		Associated Diagnosis Code
PR1.16	250	CE	O		Procedure Code Modifier
PR1.17	20	IS	D	0416	Procedure DGR Type
PR1.18	250	CE	O	0417	Tissue Type Code
PR1.19	427	EI	O		Procedure Identifier
PR1.20	1	ID	O	0206	Procedure Action Code

*PR1 3.1 Identifier Applicable Vocabulary Standard(s)

- SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, January 2022 Release

- Current Procedural Terminology (CPT®) 2021, as maintained and distributed by the American Medical Association, for physician services and other health care services, and Healthcare Common Procedure Coding System (HCPCS), as maintained and distributed by HHS.
- For technology primarily developed to record dental procedures: Code on Dental Procedures and Nomenclature (CDT), maintained and distributed by the American Dental Association, for dental services.
- Optional: International Classification of Diseases ICD-10-PCS 2021

4.16. GT1 – Guarantor Segment

The GT1 segment contains guarantor (e.g., the person or the organization with financial responsibility for payment of a patient account) data for patient and insurance billing applications.

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
GT1.1	4	SI	C		Set ID
GT1.2	250	CX	O		Guarantor Number
GT1.3	250	XPN	R		Guarantor Name
GT1.4	250	XPN	O		Guarantor Address
GT1.5	250	XAD	O		Guarantor Address
GT1.6	250	XTN	O		Guarantor Home Phone Number
GT1.7	250	XTN	O		Guarantor Business Phone Number
GT1.8	26	TS	O		Guarantor Date/Time of Birth
GT1.9	1	IS	O	0001	Guarantor Administrative Sex
GT1.10	2	IS	O		Guarantor Type
GT1.11	250	CE	D	0063*	Guarantor Relationship*
GT1.12	11	ST	O		Guarantor SSN
GT1.13	8	DT	O		Guarantor Begin Date
GT1.14	8	DT	O		Guarantor End Date
GT1.16	250	XPN	O		Guarantor Employer Name
GT1.17	250	XAD	O		Guarantor Employer Address
GT1.18	250	XTN	O		Guarantor Employer Phone Number
GT1.20	2	IS	O		Guarantor Employment Status
GT1.29	250	CX	O		Guarantor Employer ID Number
GT1.31	8	DT	O		Guarantor Hire Effective Date
GT1.32	8	DT	O		Employment Stop Date
GT1.49	20	ST	O		Job Title
GT1.50	20	JCC	O		Job Code/Class
GT1.51	250	XON	O		Guarantor Employer's Organization Name

* GT1-11 Relationship

See NK1-3 Relationship values

4.17. IN1 – Insurance Segment

The Insurance Segment contains insurance policy coverage information.

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
IN1.1	4	SI	C		Set ID - IN1
IN1.2	250	CE	R	USCDI	Insurance Plan ID
IN1.3	250	CX	O		Insurance Company ID
IN1.4	250	XON	R		Insurance Company Name
IN1.5	250	XAD	O		Insurance Company Address
IN1.6	250	XPN	O		Insurance Co Contact Person
IN1.7	250	XTN	O		Insurance Co Phone Number
IN1.8	12	ST	R	USCDI	Group Number
IN1.9	250	XON	O		Group Name
IN1.10	250	CX	O		Insured's Group Emp ID
IN1.11	250	XON	O		Insured's Group Emp Name
IN1.12	8	DT	R		Plan Effective Date
IN1.13	8	DT	RE		Plan Expiration Date
IN1.14	250	AUI	O		Authorization Information
IN1.15	3	IS	R	USCDI*	Plan Type *Source of Payment Typology
IN1.16	250	XPN	R		Name of Insured
IN1.17	250	CE	R	USCDI/ 0063*	Insured's Relationship to Patient*
IN1.18	26	TS	O		Insured's DOB
IN1.19	250	XAD	O		Insured's Address
IN1.20	2	IS	O	0135	Assignment Of Benefits
IN1.21	2	IS	O	0173	Coordination Of Benefits
IN1.22	2	ST	O		Coordination Of Benefits Priority
IN1.23	1	ID	O	0136	Notice Of Admission Flag
IN1.24	8	DT	O		Notice Of Admission Date
IN1.25	1	ID	O	0136	Report Of Eligibility Flag
IN1.26	8	DT	O		Report Of Eligibility Date
IN1.27	2	IS	O		Release Information Code
IN1.28	15	ST	O		Pre-Admit Cert (PAC)
IN1.29	26	TS	O		Verification Date/Time
IN1.30	250	XCN	O		Verification By
IN1.31	2	IS	O	0098	Type Of Agreement Code
IN1.32	2	IS	O		Billing Status
IN1.33	4	NM	D		Lifetime Reserve Days
IN1.34	4	NM	O		Delay Before L.R. Day
IN1.35	8	IS	O		Company Plan Code
IN1.36	15	ST	R		Policy Number

*IN1-17 Relationship

See NK1-3 Relationship values

4.18. IN2 – Additional Insurance Segment

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
IN2.2	11	ST	O		Insured's Social Security Number
IN2.5	1	CWE	O		Mail Claim Party
IN2.6	15	ST	O		Medicare Health Insurance Card Number.
IN2.14	14	CWE	O	0140	Military Service
IN2.15	2	CWE	O	0141	Military Rank/Grade
IN2.16	3	CWE	O	0142	Military Status
IN2.26	250	CX	O		Payor Subscriber ID
IN2.46	20	ST	R	USCDI	Job Title
IN2.47	20	ST	R	USCDI	Job Code/Class/Occupation Industry
IN2.61	250	CW	R	USCDI	Patient Member Number
IN2.63	250	XTN	O		Insured's Phone Number – Home
IN2.64	250	XTN	O		Insured's Employer Phone Number
IN2.70	250	XON	O		Insured Employer Organization Name and ID

4.19. IN3 – Pre-certification Information Segment

Seq	Len	DT	Use	Code/ Table	HL7 Element Name
IN3.2		CX	O		Pre-Certification Number
IN3.3		XCN	O		Certified By
IN3.4		ID	O	0136	Certification Required
IN3.6		DTM	O		Certification Date/Time
IN3.7		DTM	O		Certification Modify Date/Time
IN3.8		XCN	O		Operator
IN3.9		DT	O		Certification Begin Date
IN3.10		DT	O		Certification End Date
IN3.11		DTN	O		Days
IN3.16		XTN	O		Certification Contact Phone Number
IN3.17		CWE	O		Appeal Reason

4.20. ACC – Accident Segment

Seq	Len	DT	Use	HL7 Element Name
ACC.1	26	DTM	O	Accident Date/Time
ACC.2	250	CWE	O	Accident Code
ACC.4	250	CWE	O	Auto Accident State
ACC.8	25	ST	O	Accident Description
ACC.9	80	ST	O	Brought In By

4.21. UB2 – Universal Bill 92 Segment

Seq	Len	DT	Use	HL7 Element Name
UB2.1	3	ID	O	SetID UB2
UB2.3		CWE	O	Condition Code (24-30_
UB2.7		OCD	O	Occurrence Code and Date (32-35)*
UB2.8		OSP	O	Occurrence Span Code/Dates (36)*

*UB2-7 Occurrence Code and Date

Format: <Code>^<Date>

*UB2-8 Occurrence Span Code/Dates

Format: <code>^<from date>^<to date>

Relevant HL7 Data Types

Data Type 2.5:CE – Coded Element				
Seq	Description	Usage	Table	Type
1	Identifier	X		
2	Text	X		
3	Name of Coding System	X	2.5:396	
4	Alternate Identifier	X		
5	Alternate Text	X		
6	Name of Alternate Coding System	X	2.5:396	

Data Type 2.5:CWE - Coded with Exceptions				
Seq	Description	Usage	Table	Type
1	Identifier	X		
2	Text	X		
3	Name of Coding System	X	2.5:396	
4	Alternate Identifier	X		
5	Alternate Text	X		
6	Name of Alternate Coding System	X	2.5:396	
7	Coding System Version ID	X		
8	Alternate Coding System Version ID	X		
9	Original Text	X		

Data Type 2.5:CX - Extended Composite ID with Check Digit				
Seq	Description	Usage	Table	Type
1	ID Number	X		
2	Check Digit	X		
3	Check Digit Scheme	X	2.5:61	
4	Assigning Authority	X	2.5:363	2.5:HD
5	Identifier Type Code	X	2.5:203	
6	Assigning Facility	X		2.5:HD
7	Effective Date	X		
8	Expiration Date	X		
9	Assigning Jurisdiction	X		2.5:CWE
10	Assigning Agency or Department	X		2.5:CWE

Data Type 2.5:DLN – Drivers License Number				
Seq	Description	Usage	Table	Type
1	License Number	X		
2	Issuing State, Province, Country	X	2.5:333	
3	Expiration Date	X		

Data Type 2.5:DR – Date/Time Range				
Seq	Description	Usage	Table	Type
1	Range Start Date/Time	X		2.5:TS
2	Range End Date/Time	X		2.5:TS

Data Type 2.5:EI - Entity Identifier				
Seq	Description	Usage	Table	Type
1	Entity Identifier	X		
2	Namespace ID	X	2.5:363	
3	Universal ID	X		
4	Universal ID Type	X	2.5:301	

Data Type 2.5:FN - Family Name				
Seq	Description	Usage	Table	Type
1	Surname	X		
2	Own Surname Prefix	X		
3	Own Surname	X		
4	Surname Prefix From Partner/Spouse	X		
5	Surname From Partner/Spouse	X		

Data Type 2.5:HD - Hierarchic Designator				
Seq	Description	Usage	Table	Type
1	Namespace ID	X	2.5:300	
2	Universal ID	X		
3	Universal ID Type	X	2.5:301	

Data Type 2.5:ID – Coded Value for HL7 Defined Tables
<p>Maximum Length: Varies - dependent on length of longest code in code set.</p> <p>The value of this field follows the formatting rules for an ST field except that it is drawn from a table of legal values. There shall be an HL7 table number associated with ID data types. An example of an ID field is OBR-25(result status). This data type should be used only for HL7 tables. The reverse is not true, since in some circumstances it is more appropriate to use the CNE or CWE data type for HL7 tables.</p>

Data Type 2.5:IS - Coded Value for User Defined Tables
<p>Maximum Length: 20</p> <p>The value of such a field follows the formatting rules for a ST field except that it is drawn from a site defined (or user-defined) table of legal values. There shall be an HL7 table number associated with IS data types. An example of an IS field is the Event reason code defined in Section 3.3.1.4, "Event reason code". This data type should be used only for user-defined tables. The reverse is not true, since in some circumstances, it is more appropriate to use the CWE data type for user-defined tables.</p>

Data Type 2.5:MSG - Message Type				
Seq	Description	Usage	Table	Type
1	Message Code	X	2.5:76	
2	Trigger Event	X	2.5:3	
3	Message Structure	X	2.5:354	

Data Type 2.5:PL - Person Location				
Seq	Description	Usage	Table	Type
1	Point of Care	X	2.5:302	
2	Room	X	2.5:303	
3	Bed	X	2.5:304	
4	Facility	X		2.5:HD
5	Location Status	X	2.5:306	
6	Person Location Type	X	2.5:305	
7	Building	X	2.5:307	
8	Floor	X	2.5:308	
9	Location Description	X		
10	Comprehensive Location Identifier	X		2.5:EI
11	Assigning Authority for Location	X		2.5:HD

Data Type 2.5:SAD - Street Address				
Seq	Description	Usage	Table	Type
1	Street or Mailing Address	X		
2	Street Name	X		
3	Dwelling Number	X		

Data Type 2.5:ST – String Data				
Maximum Length: 199				
String data is left justified with trailing blanks optional. Any displayable (printable) ACSII characters (hexadecimal values between 20 and 7E, inclusive, or ASCII decimal values between 32 and 126), except the defined escape characters and defined delimiter characters.				
Example: almost any data at all				
To include any HL7 delimiter character (except the segment terminator) within a string data field, use the appropriate HL7 escape sequence.				

Data Type 2.5:TS - Time Stamp				
Seq	Description	Usage	Table	Type
1	Time	X		2.5:DTM
2	Degree of Precision	X	2.5:529	

Data Type 2.5:VID - Version Identifier				
Seq	Description	Usage	Table	Type
1	Version ID	X	2.5:104	
2	Internationalization Code	X	2.5:399	2.5:CE
3	International Version ID	X		2.5:CE

Data Type 2.5:XAD - Extended Address				
Seq	Description	Usage	Table	Type
1	Street Address	X		2.5:SAD
2	Other Designation	X		
3	City	X		
4	State or Province	X		
5	Zip or Postal Code	X		
6	Country	X	2.5:399	
7	Address Type	X	2.5:190	
8	Other Geographic Designation	X		
9	County/Parish Code	X	2.5:289	
10	Census Tract	X	2.5:288	
11	Address Representation Code	X	2.5:465	
12	Address Validity Range	X		2.5:DR
13	Effective Date	X		2.5:TS
14	Expiration Date			2.5:TS

Data Type 2.5:XCN - Extended Composite ID Number and Name for Persons				
Seq	Description	Usage	Table	Type
1	ID Number	X		
2	Family Name	X		2.5:FN
3	Given Name	X		
4	Second and Further Given Names or Initials Thereof	X		
5	Suffix (e.g., JR or III)	X		
6	Prefix (e.g., DR)	X		
7	Degree (e.g., MD)	X	2.5:360	
8	Source Table	X	2.5:297	
9	Assigning Authority	X	2.5:363	2.5:HD
10	Name Type Code	X	2.5:200	
11	Identifier Check Digit	X		
12	Check Digit Scheme	X	2.5:61	
13	Identifier Type Code	X	2.5:203	

Data Type 2.5:XCN - Extended Composite ID Number and Name for Persons				
14	Assigning Facility	X		2.5:HD
15	Name Representation Code	X	2.5:465	
16	Name Context	X	2.5:448	2.5:CE
17	Name Validity Range	X		2.5:DR
18	Name Assembly Order	X	2.5:444	
19	Effective Date	X		2.5:TS
20	Expiration Date	X		2.5:TS
21	Professional Suffix	X		
22	Assigning Jurisdiction	X		2.5:CWE
23	Assigning Agency or Department	X		2.5:CWE

Data Type 2.5:XON - Extended Composite Name and Identification Number for Organizations				
Seq	Description	Usage	Table	Type
1	Organization Name	X		
2	Organization Name Type Code	X	2.5:204	
3	ID Number	X		
4	Check Digit	X		
5	Check Digit Scheme	X	2.5:61	
6	Assigning Authority	X	2.5:363	2.5:HD
7	Identifier Type Code	X	2.5:203	
8	Assigning Facility	X		2.5:HD
9	Name Representation Code	X	2.5:465	
10	Organization Identifier	X		

Data Type 2.5:XPN - Extended Person Name				
Seq	Description	Usage	Table	Type
1	Family Name	X		2.5:FN
2	Given Name	X		
3	Second and Further Given Names or Initials Thereof	X		
4	Suffix (e.g., JR or III)	X		
5	Prefix (e.g., DR)	X		
6	Degree (e.g., MD)	X	2.5:360	
7	Name Type Code	X	2.5:200	
8	Name Representation Code	X	2.5:465	
9	Name Context	X	2.5:448	2.5:CE
10	Name Validity Range	X		2.5:DR

Data Type 2.5:XPN - Extended Person Name				
11	Name Assembly Order	X	2.5:444	
12	Effective Date	X		2.5:TS
13	Expiration Date	X		2.5:TS
14	Professional Suffix	X		

Data Type 2.5:XTN – Extended Telecommunication Number				
Seq	Description	Usage	Table	Type
1	Telephone Number	X		
2	Telecommunication Use Code	X	2.5:201	
3	Telecommunication Equipment Type	X	2.5:202	
4	Email Address	X		
5	Country Code	X		
6	Area/City Code	X		
7	Local Number	X		
8	Extension	X		
9	Any Text	X		
10	Extension Prefix	X		
11	Speed Dial Code	X		
12	Unformatted Telephone number	X		