



**MO HealthNet Recommended
Specifications for HL7 ADT Messages**

*Provider Health Information Exchange
Onboarding Program*

Purpose: These specifications are recommended by MO HealthNet for hospitals, emergency departments, and urgent care settings licensed under hospitals. Ambulatory settings that are capable of sending ADTs are encouraged to use these specifications.

MO HealthNet thanks its partner, the Missouri Hospital Association and the Hospital Industry Data Institute, for its assistance on Admit, Discharge, Transfer (ADT) message specifications.

Specifications for HL7 ADT Messages

Overview and Assumptions

- These specifications for ADT messages are most closely aligned with the [PHIN MESSAGING GUIDE FOR SYNDROMIC SURVEILLANCE: EMERGENCY DEPARTMENT, URGENT CARE, INPATIENT AND AMBULATORY CARE SETTINGS Release 2.0 April 21, 2015](#).
- Submitters who are able to redirect a copy of a compliant syndromic surveillance feed should be able to meet these specifications with minimal modifications.
- ALL messages constrained by this guide that are produced as a result of a single patient encounter **must** have the same value for PV1-19.1 (Visit ID).
- Messages constrained by this guide that are produced as a result of **different** patient encounters **must not** have the same value for PV1-19.1 (Visit ID).
- Outpatient and ambulatory visits can be included if the submitter's interface can include "outpatient" visits in PV1-2 (Patient Class).
- This guide is consistent with Health Level Seven International (HL7) standards, but the full detail will not be covered in this document. Please consult <http://www.hl7.org/> for more information.
- Message segments not addressed in this guide can be supported, but are not required. Additional consideration will be needed if a facility is submitting additional information.

Basic HL7 Terms

| BASIC HL7 TERMS | |
|-----------------|--|
| TERM | DEFINITION |
| Message | A message is the entire unit of data transferred between systems in a single transmission. It is a series of segments in a defined sequence, with a message type and a trigger event. |
| Segment | A segment is a logical grouping of data fields. Segments within a defined message may be required or optional and may occur only once or may be allowed to repeat. Each segment is named and is identified by a segment ID, a unique three-character code. |
| Field | A field is a string of characters. Each field has an element name. The segment it is in and its sequence within the segment identify each field. Usage and cardinality requirements are defined in the Segment Definitions. |
| Component | A component is one of a logical grouping of items that comprise the contents of a coded or composite field. Within a field having several components, not all components are necessarily required to be populated. |
| Data type | A data type restricts the contents and format of the data field. Data types are given a two- or three-letter code. Some data types are coded or composite types with several components. The applicable HL7 data type is listed in each field definition. |
| Delimiters | The delimiter values are defined in MSH-1 and MSH-2 and are used throughout the message. The default delimiters are: - Field Separator ^ - Component Separator |

Specifications for HL7 ADT Messages

Date Time Format

The number of characters populated (excluding the time zone specification) specifies the precision.

Example: |199904| specifies April 1999.

Example: |199904011503| specifies April 1 1999 at 1503

Format: YYYY[MM[DD[HH[MM[SS[.S[S[S[S]]]]]]]]][+/-ZZZZ].

Thus:

- a) only the first four are used to specify a precision of "year"
- b) the first six are used to specify a precision of "month"
- c) the first eight are used to specify a precision of "day"
- d) the first ten are used to specify a precision of "hour"
- e) the first twelve are used to specify a precision of "minute"
- f) the first fourteen are used to specify a precision of "second"
- g) the first sixteen are used to specify a precision of "one tenth of a second"
- h) the first nineteen are used to specify a precision of "one ten thousandths of a second"

The time zone (+/-ZZZZ) is represented as +/-HHMM offset from Coordinated Universal Time (UTC) (formerly Greenwich Mean Time (GMT)), where +0000 or -0000 both represent UTC (without offset). The specific data representations used in the HL7 encoding rules are compatible with ISO 8824-1987(E). Note that if the time zone is not included, the time zone is assumed to be that of the local time zone of the sender. Also note that a DTM or TS valued field with the HHMM part set to "0000" represents midnight of the night extending from the previous day to the day given by the YYYYMMDD part.

Message Acknowledgements

HL7 message acknowledgments are a valuable tool for effective interface messaging, and will be used routinely, unless the submitter is unable to support. The submitter will communicate their ability to receive messages acknowledgements in the Message Header (MSH) segment. The message acknowledgement will be communicated in the Message Acknowledgement (MSA) segment.

Usage of Message Elements

Usage indicates whether the message element (segment, segment group, field, component, or subcomponent) is Required, Optional, Not Supported, or Conditional in the corresponding message element.

| Usage | |
|-----------|---|
| R | Required, Must always be populated |
| RE | Required, but may be empty. If the sender has data, it must be sent. The receiver will not raise an error or warning if the data is not sent. |
| C | Conditionally Required |
| CE | Conditionally Required but may be empty. The receiver will not raise an error or warning if the data is not sent. |
| X | Not supported |
| O | Optional; this information is highly desired, but not required. |

Specifications for HL7 ADT Messages

Message and Event Types Supported

- Admission, Discharge and Transfer (ADT) messages version 2.5.1 with compatibility for version 2.3.1 messages are supported with this specification.
- In this specification, only A01, A03, A04 and A08 event types are supported.

| Event Type | |
|------------|--------------------------------------|
| A01 | ADT/ACK - Admit/visit notification |
| A04 | ADT/ACK - Register a patient |
| A03 | ADT/ACK - Discharge/end visit |
| A08 | ADT/ACK - Update patient information |

| HL7 Message Type Requirements By Patient Care Setting | | | | |
|---|-----|-----|-----|-----|
| Usage of Message Trigger Types | A04 | A01 | A03 | A08 |
| Hospital providing inpatient care | R | R | R | R |
| Hospitals providing emergency care ONLY | R | R | R | R |
| Urgent and non-urgent ambulatory care | R | R | R | R |

Required Segments for ADT Messaging

Below is a breakdown of basic ADT message format by segment.

| Basic ADT Message Requirements | | | |
|--------------------------------|--------------------------------------|---|-------|
| Segment | Name | Description | Usage |
| MSH | Message Header | Information explaining how to parse and process the message information, includes identification of message delimiters, sender, receiver, message type, timestamp, etc. | R |
| EVN | Event Type | Trigger event information for receiving application | R |
| PID | Patient Identification | Patient identifying and demographic information | R |
| PV1 | Patient Visit | Information related to this visit at this facility including the nature of the visit, critical timing information and a unique visit identifier. | R |
| PV2 | Patient Visit Additional Information | Admit Reason information. | RE |
| OBX | Observation / Result | Clinical information and observations. This segment is repeatable. | R |
| DG1 | Diagnosis | Admitting Diagnosis and, optionally, Working and Final Diagnosis information. This segment is repeatable. | RE |
| PR1 | Procedures | Information relative to various types of procedures performed. This segment is repeatable. | O |
| IN1 | Insurance | Information about insurance policy coverage information. This segment is repeatable. | RE |

Specifications for HL7 ADT Messages

Segment Definitions

Message Header (MSH) Segment - The MSH Segment is used to define the intent, source, destination, and some specifics of the syntax of the message. This segment includes identification of message delimiters, sender, receiver, message type, timestamp, etc.

| Message Header Segment | | | |
|------------------------|---|-------|--|
| Field | Field Name | Usage | Comments |
| MSH-1.1 | Field Separator | R | Default value is (ASCII 124) |
| MSH-2 | Encoding Characters | R | Default values are ^~\& (ASCII 94, 126, 92, and 38, respectively) |
| MSH-3 | Sending Application | O | This field uniquely identifies the sending application among all other applications within the network enterprise |
| MSH-4.1 | Sending Facility - Namespace ID | R | MSH-4 uniquely identifies the facility associated with the application that sends the message. Recommend Organizational Name/Legal Business Name associated with Universal ID. NPI or CCN recommended |
| MSH-4.2 | Sending Facility - Universal Identifier | R | NPI or CCN recommended https://npidb.org/ or https://data.medicare.gov/Home-Health-Compare/ccn/8acm-5n8y/data |
| MSH-4.3 | Sending Facility - Universal ID Type | R | NPI or CCN |
| MSH-5.1 | Receiving Application | O | |
| MSH-6 | Receiving Facility | O | |
| MSH-7 | Date/Time of Message | R | This field contains the date/time that the sending system created the message. If the time zone is specified, it will be used throughout the message as the default time zone. |
| MSH-9.1 | Message Code | R | This field contains the message type, trigger event, and the message structure ID for the message. Expected values 'ADT' or 'ACK' |
| MSH-9.2 | Trigger Event | R | Expected values 'A01', 'A03', 'A04' and 'A08' |
| MSH-9.3 | Message Structure | R | HL7 table 0354 |
| MSH-10 | Message Control ID | R | This field contains a number or other identifier that uniquely identifies the message. The receiving system echoes this ID back to the sending system in the Message acknowledgment segment (MSA) |
| MSH-11 | Processing ID | R | "P" for Production, "D" for Debug or "T" for Training. |
| MSH-12 | Version ID | R | Expected value is '2.5.1' |
| MSH-15 | Accept Acknowledgment Type | CE | HL7 table 0155: HL7 defined: Accept/application acknowledgment conditions |
| MSH-16 | Application Acknowledgment Type | CE | HL7 table 0155: HL7 defined: Accept/application acknowledgment conditions |
| MSH-21 | Message Profile Identifier | R | Expected values are 'PH_SS-Ack' or 'PH_SS-NoAck' |

- Example for A01 Admit transaction with Acknowledgment:**

```
MSH|^~\&||DownTownProcessing^2231237890^NPI|||201808071400||ADT^A01^ADT_A01|
Q123459876|P|2.5.1|||AL|ER|||||PH_SS-Ack
```

Specifications for HL7 ADT Messages

Event Type (EVN) Segment - The EVN segment is used to communicate trigger event information to receiving applications.

| Event Type (EVN) Segment | | | |
|--------------------------|------------------------------------|-------|---|
| Field | Field Name | Usage | Comments |
| EVN-1 | Event Type Code | RE | Table PHVS_EventType_SyndromicSurveillance. Expected values 'A01', 'A03', 'A04' and 'A08' https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6048 |
| EVN-2 | Recorded Date/Time | R | System date/time when the transaction was created/generated from the original treating facility. If data flows through an intermediary or third party, the intermediary must keep the original date/time of transmission. EVN-2 (Recorded Date/Time) does not have to equal MSH-7 (Date/Time of Message) |
| EVN-7.1 | Event Facility - Namespace ID | R | This field identifies the location where the patient was actually treated; recommend Organizational Name/Legal Business Name associated with Universal ID. https://npidb.org/ |
| EVN-7.2 | Event Facility – Universal ID | R | NPI or CCN recommended https://npidb.org/ or https://data.medicare.gov/Home-Health-Compare/ccn/8acm-5n8y/data |
| EVN-7.3 | Event Facility – Universal ID Type | R | NPI or CCN |

- **Example that shows the use of the NPI for the facility identifier:**
EVN||201806071300.1234-0500||||GreaterNorthMedCtr^4356012945^NPI

Patient Identification (PID) Segment - The PID Segment is used as the primary means of communicating patient identification information. This segment contains pertinent patient identifying and demographic information.

| Patient Identification (PID) Segment | | | |
|--------------------------------------|-------------------------------|-------|--|
| Field | Field Name | Usage | Comments |
| PID-1 | Set ID - PID | R | The sequence number shall be one. Expected value is '1'. This segment is not repeatable. |
| PID-3.1 | Patient Identifier | R | PID-3 The Unique Patient Identifier (Medical Record #) occurs in the 1st component of the CX data type. The 5th component, the Identifier Type Code, defines the type of identifier used in the 1st component. This field allows multiple patient identifiers to be passed in the message. See example below. |
| PID-3.4 | Assigning Authority Namespace | RE | Organization that assigned the medical record number |

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| | | | |
|----------|---------------------------------|----|---|
| PID-3.5 | Identifier Type Code | R | Table PHVS_IdentifierType_SyndromicSurveillance https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3597 |
| PID-3.6 | Assigning Facility | O | Missouri Syndromic Messaging Guide has this field as RE |
| PID-5.1 | Patient Last Name | R | The first field name contains the primary or legal name of the patient. Therefore, the name type code (PID.5.7) should be "L" (Legal), when populated. |
| PID-5.2 | Patient First Name | R | |
| PID-5.3 | Patient Middle Name | O | Middle name or initial is acceptable |
| PID-5.4 | Patient Name Suffix | O | Patient last name suffix. Ex: SR or JR |
| PID-5.5 | Patient Name Prefix | O | Patient name prefix. Ex: MRS or DR |
| PID-5.7 | Name Type Code | O | Missouri Syndromic Messaging Guide has this field as Required. Expected value is "L" from HL7 table 0200 |
| PID-7 | Date/Time of Birth | RE | |
| PID-8 | Administrative Sex | RE | Table PHVS_Gender_SyndromicSurveillance. Expected values 'F', 'M', 'O', 'U'. Does not include 'N' or 'A' https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3403 |
| PID-10.1 | Race - Identifier | RE | Note: allows for multiple race identifiers (see example) HL7 table 0005: User defined Race or PHVS_RaceCategory_CDC https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.836 |
| PID-10.2 | Race - Text | O | Recommend standardized description associated with code in PID 10.1. |
| PID-10.3 | Race – Name of Coding System | CE | Condition Rule: Required if an identifier is provided in component 1. Expected Value: "CDCREC" |
| PID-11.1 | Patient Address Street 1 | RE | |
| PID-11.2 | Patient Address Street 2 | O | |
| PID-11.3 | Patient Address City | RE | |
| PID-11.4 | Patient Address State | RE | Required Missouri, RE in federal specification. Table PHVS_State_FIPS_5-2 https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.830 |
| PID-11.5 | Patient Address Zip | RE | Reference USPS tables. Expected format is 5 digit or 9 digit (Example 54321 or 54321-1234) |
| PID-11.6 | Patient Address Country | RE | Three character country code - PHVS_Country_ISO_3166-1 https://phinvads.cdc.gov/vads/ViewValueSet.action?id=1FD34BBC-617F-DD11-B38D-00188B398520 |
| PID-11.7 | Address Type | O | Expecting patient primary (current) address. Address type PHVS_AddressType_CDC https://phinvads.cdc.gov/vads/ViewValueSet.action?id=01D34BBC-617F-DD11-B38D-00188B398520 |

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| | | | |
|----------|--------------------------------------|----|---|
| PID-11.9 | County/Parish Code | RE | County FIPS code expected. PHVS_County_FIPS_6-4 Reference https://phinvads.cdc.gov/vads/ViewValueSet.action?id=20D34BBC-617F-DD11-B38D-00188B398520 |
| PID-13 | Phone Number - Home | RE | Primary home number. No repetitions. Preferred location is in components PID 13.6 & 13.7. Rarely used, but extension is supported in PID 13.8 |
| PID-18 | Patient Account Number | O | Required if Visit Number not available. |
| PID-19 | Social Security Number | RE | Not supported in federal spec, but required by Missouri law for syndromic reporting. Expected format is unformatted 9 digits. |
| PID-22.1 | Ethnic Group - Identifier | RE | Value set that indicates whether the patient is Hispanic or not. While the standard allows this field to repeat, only expecting one of the mutually exclusive ethnicity codes to be in the message. Table PHVS_EthnicityGroup_CDC Reference: https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.837 |
| PID-22.2 | Ethnic Group - Text | O | Recommend standardized description associated with code in PID 22.1. |
| PID-22.3 | Ethnic Group – Name of Coding System | CE | Condition Rule: Required if an identifier is provided in component 1. Expected Value: “CDCREC” |
| PID-29 | Patient Death Date and Time | CE | Condition Rule: Required if PID-30 is 'Y'. |
| PID-30 | Patient Death Indicator | CE | 'Y' = patient is deceased, 'N' = patient is not deceased. Condition Rule: Expect 'Y' if PV1-36 is '20', '40', '41', or '42' |
| PID-33 | Last Update Date/Time | O | This field contains the last update date and time for the patient’s identifying and demographic data, as defined in the PID segment. |
| PID-34 | Last Update Facility | O | This field identifies the facility of the last update to a patient’s identifying and demographic data, as defined in the PID segment. |

- **Example PID Segment** that shows a male patient with multiple patient identifiers and multiple race codes.

```

PID1||2111000222^^^NEMedCtr&1234567890&NPI^MR~12345789^^^NEMedCtr&1234567890&NPI^LR||EVERYPERSON^JOE^A^JR^MR^^L||M||2054-5^Black or African American^CDCREC~2028-9^Asian^CDCREC|^Decatur^13^30303^USA^M^^13121|||||100221223^^NEMedCtr&1234567890&NPI^AN||||2135-2^Hispanic or Latino^CDCREC
    
```

Specifications for HL7 ADT Messages

Patient Visit (PV1) Segment - The PV1 segment is used by Registration/Patient Administration applications to communicate information on a visit-specific basis.

| Patient Visit (PV1) Segment | | | |
|-----------------------------|---|-------|--|
| Field | Field Name | Usage | Comments |
| PV1-1 | Set ID - PV1 | RE | The sequence number shall be one. Expected value is '1'. This segment is not repeatable. |
| PV1-2 | Patient Class | R | Limit values only to E: Emergency; I: Inpatient; O: Outpatient per Table PHVS_PatientClass_SyndromicSurveillance https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3404 |
| PV1-3 | Assigned Patient Location | O | |
| PV1-4 | Admission Type | RE | Expected values 'E', 'A', 'L', 'R', 'U' from Table PHVS_AdmissionType_HL7_2x https://phinvads.cdc.gov/vads/ViewValueSet.action?id=08D34BBC-617F-DD11-B38D-00188B398520 |
| PV1-6 | Prior Patient Location | O | |
| PV1-7.1 | Attending Doctor Identifier | O | Unique Physician (Provider) Identifier - Attending Doctor is the XCN datatype where the ID number is in the first component and the assigning authority is in the 9th component as a HD (hierarchical designator) type. |
| PV1-7.9 | Attending Doctor – Assigning Authority for Identifier | O | Prefer NPI |
| PV1-10 | Hospital Service | O | Table 0069 |
| PV1-14 | Admit Source | O | HL7 table 0023: User defined Admit Source. In the US, this field is used on UB92 FL20 “Source of Admission”. |
| PV1-19.1 | Visit Number - Identifier | R | The unique identifier for a patient visit. A visit is defined as a discrete or unique clinical encounter within a service department or location. |
| PV1-19.4 | Visit Number – Assigning Authority | O | Table 0363 |
| PV1-19.5 | Visit Number – Identifier Type Code | R | Table PHVS_IdentifierType_SyndromicSurveillance https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3597 |
| PV1-19.6 | Visit Number – Assigning Facility | O | |
| PV1-36 | Discharge Disposition | CE | Condition Rule: Required for A03; Required; may be empty for A08. Not supported in A01 & A04 message types. This specification uses discharge disposition codes shown below (see table on page 13) that is based on Table PHVS_DischargeDisposition_HL7_2x https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.915 |
| PV1-44 | Admit Date Time | R | |
| PV1-45 | Discharge Date Time | CE | Condition Rule: Required A03; Required; may be empty for A08. Not supported in A01 & A04 message types. |

Specifications for HL7 ADT Messages

- Example PV1 Segment for an Inpatient:**

```
PV1|1|I||E|||112345^Familyname^Givenname^^^DR^MD^^NEMedCtr&1234567890&NPI|||M
ED|||7|||2222_001^^^GreaterNorthMedCtr&4356012945&NPI^VN|||||201
908171200
```

Patient Visit Additional Information (PV2) Segment - The PV2 segment is a continuation of visit-specific information and is the segment where the Admit Reason is passed.

| Patient Visit Additional Information (PV2) Segment | | | |
|--|--------------|-------|---|
| Field | Field Name | Usage | Comments |
| PV2-3 | Admit Reason | RE | This field contains the short description of the providers' reason for patient admission. NOTE: Admit Reason may be coded (CE.1 – CE.3) or Free text (CE.2.) The implementation supports all 3 value sets for PV2-3 (Admit Reason): ICD-9 CM Administrative Diagnosis Codes; ICD-10 codes; SNOMED Disease or Disorder - 64572001 Domain Codes. If only Free Text is used, it is communicated in component 3.2. If a drop-down menu of canned admit reason text is used, it is communicated in component 3.2. |

- Example PV2 Segment for an Inpatient:**

```
PV2|||11530004^Brittle Diabetes^SCT (SNOMED encoded)
PV2|||O24.4^Diabetes Mellitus arising in pregnancy^I10 (ICD10 encoded)
PV2|||^Diabetes Mellitus (Free text or text selected from a drop-down menu)
```

Diagnosis (DG1) Segment - The DG1 segment contains patient diagnosis information of various types. Admitting, Working and Final Diagnosis types are supported.

| Diagnosis (DG1) Segment | | | |
|-------------------------|-----------------------------|-------|--|
| Field | Field Name | Usage | Comments |
| DG1-1 | Set ID - DG1 | R | This segment is repeatable. This field contains the number that identifies the transaction. For the first occurrence of the segment the sequence number shall be 1, for the second occurrence it shall be 2, etc. |
| DG1-3.1 | Diagnosis Code - Identifier | R | The implementation supports all 3 value sets for PV2-3 (Admit Reason): Administrative Diagnosis Codes for ICD-9 CM and ICD-10 codes; SNOMED Disease or Disorder - 64572001 Domain Codes. |
| DG1-3.2 | Diagnosis Code - Text | R | This component contains a description for the concept identified in DG1-3.1. |
| DG1-3.3 | Name of Coding System | R | The expected values is in the set ('I10', 'I9CDX', 'SCT'). Code systems identifiers from HL7 Table 0396 https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3338 |
| DG1-5 | Diagnosis Date/Time | O | This field contains the date/time that the diagnosis was determined. This field desirable for final diagnosis. |

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| | | | |
|-------|----------------|---|--|
| DG1-6 | Diagnosis Type | R | This field contains a code that identifies the type of diagnosis being sent. Diagnosis Type shall be either A, F or W (Admitting, Final or Working) |
|-------|----------------|---|--|

- Example DG1 Segment:**

DG1|1||R50^FEVER OF OTHER AND UNKNOWN ORIGIN^I10|||W (Working diagnosis from ICD10)

DG1|2||16932000^NAUSEA AND VOMITING^SCT|||W (Working diagnosis from SNOMED-CT)

DG1|1||J14^PNEUMONIA DUE TO HEMOPHILUS INFLUENZA^I10||201812271700|F (Final diagnosis from ICD10)

Insurance (IN1) Segment - The IN1 segment is used to communicate health plan information.

| Insurance (IN1) Segment | | | |
|-------------------------|----------------------|-------|---|
| Field | Field Name | Usage | Comments |
| IN1-1 | Set ID - IN1 | R | This segment is repeatable. This field contains the number that identifies the transaction. For the first occurrence of the segment the sequence number shall be 1, for the second occurrence it shall be 2, etc. |
| IN1-2 | Insurance Plan ID | R | This field contains a unique identifier for the insurance plan. Note: This field is HL7-required to use the IN1 segment. If an insurance plan ID is unavailable, use UNK^UNKNOWN^NULLFL to meet the requirement to populate the field with a CE value type for HL7 compliance. |
| IN1-3 | Insurance Company ID | R | This field contains unique identifiers for the insurance company. The assigning authority and identifier type code are strongly recommended for all CX data types. Note: This field is HL7-required to use the IN1 segment. If an insurance company identifier is unavailable, use UNKNOWN^^^UNKNOWN to meet the requirement to populate the field as a CX value type for HL7 compliance. |
| IN1-15 | Plan Type | O | Highly desired. This field contains the coding structure that identifies the various plan types, for example, Medicare, Medicaid, Blue Cross, HMO, etc. NOTE: Suggesting use of the table: Source of Payment Typology (PHDSC) https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3591 |

- Example IN1 Segment:**

IN1|1|SP^Self-Pay^INSUR PLAN CODESYSID|Self-Pay^^^|81|

Specifications for HL7 ADT Messages

Procedures (PR1) Segment - The PR1 segment is used to carry information relative to various types of procedures performed. This segment is optional.

| Procedures (PR1) Segment | | | |
|--------------------------|-----------------------------|-------|---|
| Field | Field Name | Usage | Comments |
| PR1-1 | Set ID - PR1 | R | This segment is repeatable. This field contains the number that identifies the transaction. For the first occurrence of the segment the sequence number shall be 1, for the second occurrence it shall be 2, etc. |
| PR1-3.1 | Procedure Code - Identifier | R | This field contains a unique identifier assigned to the procedure. The implementation supports all 3 value sets: Concept value from ICD-9CM Procedure code , Volume 3 Concept value from ICD-10-PCS International Classification of Diseases, 10th Revision, Procedure Coding System (ICD-10-PCS), and Current Procedural Terminology (CPT®), Fourth Edition (CPT-4). |
| PR1-3.2 | Procedure Code - Text | RE | This component contains a description for the concept identified in PR1-3.1. |
| PR1-3.3 | Name of Coding System | CE | The expected values is in the set ('I10', 'I9CDX', 'C4'). Code systems identifiers from HL7 Table 0396 https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3338 |
| PR1-5 | Procedure Date/Time | R | This field contains the date/time that the procedure was performed. |

- **Example PR1 Segment**

PR1|1||49650^HERNIA REPAIR, LAPAROSCOPIC^C4||201808081816 (procedure from CPT-4)

OBSERVATION/RESULT (OBX) SEGMENT - The OBX Segment in the ADT Message is used to transmit observations related to the patient and visit. This is an optional segment, but if a data element is carried in an OBX and usage is 'Required', the segment and its fields must be populated. The Set ID number within a given set of OBX segments in a message and are required to be sequential.

| Observation (OBX) Segment | | | |
|---------------------------|--------------|-------|--|
| Field | Field Name | Usage | Comments |
| OBX-1 | Set ID - OBX | R | This field contains the sequence number. Set ID numbers the repetitions of the segments. Example: OBX 1 ... OBX 2 ... OBX 3 ... |
| OBX-2 | Value Type | R | This field contains the format of the observation value in OBX. Note: Identifies the structure of data in observation value (OBX.5) Expected values in the set |

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| | | | |
|---------|----------------------------|----|--|
| | | | ('TS', 'TX', 'NM', 'CWE', 'XAD') from the value set https://phinivads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.6057 |
| OBX-3.1 | Observation - Identifier | R | This field contains a unique identifier for the observation. These are observation identifiers associated with syndromic surveillance that are contained in the value set: https://phinivads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3589 |
| OBX-3.2 | Observation - Text | O | This component contains a description for the concept identified in OBX-3.1. |
| OBX-3.3 | Name of Coding System | CE | This should be provided if OBX3.1 is valued. |
| OBX-5 | Observation Value | RE | This field contains the value observed by the observation producer. OBX-2-value type contains the data type for this field according to which observation value is formatted. |
| OBX-6 | Units | CE | When an observation's value is measured on a continuous scale (OBX-5), one must report the measurement units within the units field of the OBX segment (OBX-6). If OBX.2 (Value Type) is valued "NM", the units field is required. |
| OBX-11 | Observation Results Status | R | HL7 table 0085 Observation Results Status https://phinivads.cdc.gov/vads/ViewValueSet.action?id=71D34BBC-617F-DD11-B38D-00188B398520 Expected value is 'F' |
| OBX-14 | Observation Date/Time | O | This field is the observation date-time which is the physiologically relevant date-time or the closest approximation to that date-time. |

- Example OBX Segments**

```

OBX|1|CWE|8661-1^CHIEF
COMPLAINT:FIND:PT:PATIENT:NOM:REPORTED^LN||^STOMACH
ACHE|||||F|||201812171531
OBX|2|NM|21612-7^AGE TIME PATIENT
REPORTED^LN||43|a^YEAR^UCUM|||||F|||201812171531
OBX|3|NM|11289-6^BODY
TEMPERATURE:TEMP:ENCTRFIRST:PATIENT:QN^LN||99.1|[degF]^FARENHEIT^UCUM|||||F|||
201812171658
OBX|4|NM|59408-5^OXYGEN SATURATION:MFR:PT:BLDA:QN:PULSE
OXIMETRY^LN||95|^PERCENT^UCUM|||||F|||201812171658
OBX|5|TS|11368-8^ILLNESS OR INJURY ONSET DATE AND
TIME:TMSTP:PT:PATIENT:QN^LN||20181215|||||F|||201812171658
OBX|6|TX|54094-8^TRIAGENOTE:FIND:PT:EMERGENCYDEPARTMENT:DOC^LN||Pain a
recurrent cramping sensation.|||||F|||201802121114
    
```

Specifications for HL7 ADT Messages

Code Set References

All value sets associated with this specification are available at <https://phinvads.cdc.gov/vads/ViewView.action?name=Syndromic%20Surveillance>

Table 0112 Discharge Disposition Code – Shown below, this table has been modified to include additional mapped values that align with UB04 codes.

| Table 0112 Discharge Disposition | | | |
|----------------------------------|---|--------|------------------------|
| Value | Description | Source | Comments |
| 01 | Discharged to home or self-care (routine discharge) | HL7 | |
| 02 | Discharged/transferred to another short term general hospital for inpatient care | HL7 | |
| 03 | Discharged/transferred to skilled nursing facility (SNF) | HL7 | |
| 04 | Discharged/transferred to an intermediate care facility (ICF) | HL7 | |
| 05 | Discharge or transfer to a designated cancer center or children's hospital | HL7 | |
| 06 | Discharged/transferred to home under care of organized home health service organization | HL7 | |
| 07 | Left against medical advice or discontinued care | HL7 | |
| 08 | Discharged/transferred to home under care of Home IV provider | HL7 | |
| 09 | Admitted as an inpatient to this hospital | HL7 | |
| 20 | Expired | HL7 | |
| 21 | Discharged/transferred to court/law enforcement | HL7 | |
| 30 | Still patient or expected to return for outpatient services | HL7 | |
| 40 | Expired at home | HL7 | |
| 41 | Expired in a medical facility; e.g., hospital, SNF, ICF, or free standing hospice | HL7 | |
| 42 | Expired - place unknown | HL7 | |
| 43 | To Federal Health Care Facility | HL7 | |
| 50 | Hospice - Home | HL7 | |
| 51 | Hospice - Medical Facility | HL7 | |
| 61 | To hospital-based swing-bed | HL7 | |
| 62 | To another Rehabilitation Facility | HL7 | |
| 63 | To a Long Term Care hospital | HL7 | |
| 64 | To a Nursing Facility | HL7 | |
| 65 | To a Psychiatric Facility | HL7 | |
| 66 | To a Critical Access Hospital (CAH) | HL7 | |
| 69 | To a Designated Disaster Alternative Care Site | HL7 | Assigned to match UB04 |
| 70 | To another type of institution | HL7 | |
| 81 | Home/Self Care with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 82 | To an Acute Care Facility with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |

Specifications for HL7 ADT Messages

| | | | |
|------------|--|-----|------------------------|
| 83 | To Skilled Nursing Facility (SNF) with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 84 | To Intermediate Care Facility (ICF) with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 85 | To a Designated Cancer Center or Children's Hospital with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 86 | Home Health Care with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 87 | To a Law Enforcement Agency with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 88 | To Federal Health Care Facility with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 89 | To Hospital-Based Swing Bed with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 90 | To an Inpatient Rehab Facility(IRF) with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 91 | To a Long Term Care hospital with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 92 | To a Nursing Facility with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 93 | To a Psychiatric Facility with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 94 | To a Critical Access Hospital (CAH) with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 95 | To another type of institution with Planned Acute Care Readmission | HL7 | Assigned to match UB04 |
| 99 | Invalid Code | HL7 | Assigned to match UB04 |
| 100 | Discharged for Other Reasons | HL7 | |
| 101 | Discharged to Care of Family/Friend(s) | HL7 | |
| 102 | Discharged to Care of Paid Caregiver | HL7 | |
| 103 | Discharged to Court/ Law Enforcement/Jail | HL7 | |
| 104 | Discharged to Other Facility per Legal Guidelines | HL7 | |
| 105 | Discharge required by Carrier Change | HL7 | |
| 106 | Internal Transfer per Legal Guidelines | HL7 | |
| 107 | Other Home Care | HL7 | |
| 108 | Regular Discharge with Follow-up | HL7 | |
| 109 | Return Transfer | HL7 | |