HL7 v2.5 Inbound ADT
Specification

Version 1.5

Table of Contents

Revision History

Date	Version	Author	Comments
2/26/2015	1.0	Nathan Hardesty-Dyck	Create initial document. Source document: NYeC HL7 V2.5 Inbound ADT Specification (DOC-0102 Review Draft 03)
11/20/15	1.1	Naitik Patel	Added CON segment for Consent
11/24/15	1.2	Naitik Patel	Added effective date for Consent PD1 segment
1/15/2016	1.3	Naitik Patel	Added consent type for separating community wide consent and facility consent in CON segment.
5/9/2016	1.4	Naitik Patel	Added changes

Overview

This specification is for organizations preparing HL7 interfaces to Healthix. It dictates the format and context of *required* and *required if available* ADT message types, segments and fields. Healthix prefers HL7 version 2.5 messages but will accept well-formed HL7 2.x messages.

Healthix requires data providers to include all required data elements in their feeds (denoted by an **R** in the "use" column of the segment tables). Healthix also requires data providers to include all 'required if available' data elements if they are available (denoted by an **A** in the "use" column of the segment tables). The value of Healthix is directly related to the quality of accurate, consistent, and complete information. The inclusion of all required data elements increases the value of Healthix to users and patients. Consequently, it is imperative that you send all required and 'required if available' data elements through the interfaces.

This specification is for ADT message types only. Non-ADT specifications are documented separately.

Important notes:

Patient Identifiers:

Healthix 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 in order to tie all information to the visit.

Healthix uses the following identifier hierarchy:

External Patient ID   = Healthix-generated ID (MPI)

Internal Patient ID   = Unique MRN from a site (PID-3 or PID-2)

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.

Guidelines for ADT Merge, Move, and Change messages:

An identifier is associated with a set (or sets) of data. For example, an identifier (*PID-3 - Patient Identifier List*) may be an MRN which has account numbers (*PID-18 - Patient Account Number*) associated with it. Account number (*PID-18 – Patient Account Number*) is a type of identifier which may have visit numbers (*PV1-19 – Visit Number*) associated with it. Errors or issues that occur at the point of registration that require a merge or move are typically in one of three categories:

1. Duplicate identifier created
    a. The registrar fails to identify an existing person, patient, account, or visit and creates a new, "duplicate" record instead of using the existing record. A "merge" operation is used to fix this type of error.

2. Incorrect identifier selected
    a. The registrar mistakenly selects the wrong person, patient, or account and creates or attaches a patient, account, or visit underneath the incorrect person, patient, or account. A "move" operation is used to fix this type of error.

3. Incorrect identifier assigned
    a. The registrar accidentally types in the wrong new identifier for a person, patient, account, or visit. This type of mistake usually occurs when identifiers are manually assigned (not system generated). A "change identifier" operation is used to fix this type of error.

Merge, Move, or Change:

A merge event signals that two distinct records have been combined together into a single record with a single set of identifiers and the data surviving at the level of the merge. All records at a level subordinate to the merged identifier are combined under the surviving record. For example, an A40 event (merge patient - patient identifier list) would be sent to signal that two person records (identified by MRG-4 - Prior Patient ID and by PID-2 - Patient ID) have been merged into a single record. All of the identifiers, accounts, and visits under the person record are not merged together—they are instead combined under the same person record.

A "move" involves transferring one or more datasets (identified by a subordinate identifier) from one superior identifier at the next hierarchical level to another superior identifier at the next hierarchical level, while all identifiers involved retain their original value. An exception to retaining the original identifier value may occur if any of the subordinate source identifiers already exist under the target superior identifier. In this case the identifier value may have to be renumbered in order to be uniquely identified under the target superior identifier.

A move event signals that a patient, account, or visit has been moved from one person, patient, or account, respectively, to another. All records at a subordinate level are also moved. For example, an A43 event (move patient information - patient identifier list) would be sent to signal that a medical records administrator has moved a medical record attached to an incorrect person to a correct person.

A "change" signals that a single person, patient, account, or visit identifier has been changed. It does not reflect a merge or a move; it is simply a change of an identifier. For example, a change Identifier event would be sent to signal that the registrar has changed an incorrectly assigned person identifier to a correct person identifier.

Note that A18, A30, A34, A36 and A39 events are retained in the HL7 standard for backward compatibility.

For HL7 V2.3.1 and above, events A40 (merge patient-patient identifier list), A41 (merge account-patient account number), and A42 (merge visit-visit number) should be utilized in place of the A18; A40 and A41 should be utilized in place of the A36; and A40 should be utilized in place of the A30, A34 and A39. However, Healthix does not process the A43 or A44 events at this point in time. The A44 event can be transformed to an A45.

Healthix HealthShare A40, A41 A42, A45, A47, A49, A50 & A51 events

The intent of trigger events A40 (merge patient- patient identifier list), A41 (merge account-patient account number), A42 (merge visit-visit number), A45 (move visit information-visit number), A47 (change patient identifier list), A49 (change patient account number), A50 (change visit number), and A51 (change alternate visit ID) is to reconcile distinct sets of existing person/patient data records that have been entered under different identification numbers, either deliberately or because of errors. Ideally, following any of these trigger events, all of the person/patient data should be accessible under whatever surviving identifiers were specified in the messages. Because of substantial differences in database architectures and system-dependent data processing requirements or limitations, the exact meaning and implementation of these events must be negotiated between systems.

A40 - Merge patient - patient identifier list

A40 - Merge patient
Use Case - During the admission process, the registrar does not find a record for patient Allison Smith in the ADT system and creates a new record with patient internal ID MR2. Allison Smith has actually been to the healthcare facility several times in the past under her maiden name, Allison Evans with patient internal ID MR1. The problem persists for a while. During that time, several more accounts are assigned to Allison under her newly created patient ID MR2. Finally, the problem is discovered and Medical Records merges her two charts together leaving patient internal ID MR1. All the accounts (ACCT1, ACCT2) that were assigned to MR2 are combined under MR1 as a result.
Target: *PID-3-patient ID (internal ID)* (Note: *PID-18-patient account number* is not valued; all accounts associated with MR2 are combined under MR1). To merge *PID-18-patient account number* data only, use event A41 (merge account-patient account number). To move *PID-18-patient account number* data use event A44(move account information-patient account number).
Source: *MRG-1-prior patient ID (internal ID)* (Note: *MRG-3-prior patient account number* is not valued; all accounts associated with MR2 are combined under MR1.)
Example Transaction: MSH|^~\&|REGADT|MCM|RSP1P8|MCM|199601051530|SEC|ADT^A40|00000003|P|2.3<cr> EVN|A40|199601051530<cr> PID|||MR1^^^XYZ||EVANS^ALLISON|….<cr> MRG|MR2^^^XYZ<cr>

A41 - Merge Account – Patient Account Number

A41 - Merge Account
Use Case - Mary Jones (patient internal ID MR1) is a recurring outpatient at the Physical Therapy clinic at hospital XYZ with account number ACCT1. She has visited the clinic several times. When she arrives for therapy, a new registrar does not realize she already has an account and opens a new one with account number ACCT2. When the mistake is discovered, the two accounts are merged together, combining all visits under account ACCT1.
Target: PID-18-patient account number and PV1-19-SSN number-patient
Source: MRG-3-prior patient account number and MRG-5-prior visit number

Example Transaction:
MSH|^~\&|REGADT|MCM|RSP1P8|MCM|199601051530|SEC|ADT^A41|00000005|P|2.3<cr>
EVN|A41|199601051530<cr>
PID|||MR1^^^XYZ||JONES^MARY||19501010|F|||123 NORTH STREET^^NY^NY^10021||(212)111-3333|||S||ACCT1<cr>
MRG|MR1^^^XYZ||ACCT2||VISIT1<cr>
PV1|1|I||||||||||||||||||||||VISIT3<cr>
PID|||MR1^^^XYZ||JONES^MARY||19501010|F|||123 NORTH STREET^^NY^NY^10021||(212)111-3333|||S||ACCT1<cr>
MRG|MR1^^^XYZ||ACCT2||VISIT2
PV1|1|I||||||||||||||||||||||VISIT4<cr>

A42 - Merge Visit - Visit Number

A42 - Merge Visit
Use Case - A42 (merge visit -visit number) - Mary Jones (patient internal ID MR1) is a recurring outpatient at the Physical Therapy clinic at hospital XYZ with account number ACCT1. She has visited the clinic several times. When she arrives for therapy, two different registrars create a new visit numbers. The mistake is not discovered immediately and clinical data is recorded under both visit numbers. When the mistake is discovered, the two visits are merged together, leaving visit VISIT1.
Target: PV1-19-visit number
Source: MRG-5-prior visit number
Example Transaction: MSH|^~\&|REGADT|MCM|RSP1P8|MCM|199601051530|SEC|ADT^A42|00000005|P|2.3<cr> EVN|A42|199601051530<cr> PID|||MR1^^^XYZ||JONES^MARY||19501010|F|||123 NORTH STREET^^NY^NY^10021||(212)111-3333|||S||ACCT1<cr> MRG|MR1^^^XYZ||ACCT1||VISIT2<cr> PV1|1|I||||||||||||||||||||||VISIT1

A45 - Move visit information - visit number

A45 - Move Visit Information
Use Case - Mary Jones (patient internal ID MR1) is a recurring outpatient at the Physical Therapy and Speech Therapy clinics at hospital XYZ. She is assigned a different account for each clinic; her account number for Physical Therapy is ACCT1 and her account number for Speech Therapy is X1. However, on two different occasions, the Speech Therapy registrar accidentally assigned her visits (96102 and 96104) to the Physical Therapy account. The problem is later discovered and the corresponding visits are moved to the correct account.
Target: PID-18-patient account number and PV1-19-visit number.

Source: MRG-3-prior patient account number and MRG-5-prior visit number.
Example Transaction: MSH|^~\&|REGADT|MCM|RSP1P8|MCM|199601051530|SEC|ADT^A45|00000005|P|2.3<cr> EVN|A45|199601051530<cr> PID|||MR1^^^XYZ||JONES^MARY||19501010|M|||123 NORTH STREET^^NY^NY^10021||(212)111-3333|||S||X1<cr> MRG|MR1^^^XYZ||ACCT1||96102<cr> PV1||O|PT|||||||||||||||||96102<cr> MRG|MR1^^^XYZ||ACCT1||96104<cr> PV1||O|PT|||||||||||||||||96104<cr>

A47 - Change patient identifier list

A47 – Change Patient Identifier List
Use Case - The Medical Records Department of XYZ hospital uses a system of manual medical record number assignment. During the admission process, the registrar accidentally assigned the wrong Medical Record Number (MR2 instead of MR1) to John Meyers. Since the correct Medical Record has not yet been assigned to any patient, no merge takes place. The Patient Internal ID is simply changed.
Target: PID-3-patient ID (internal ID)
Source: MRG-1-prior patient ID-internal
Example Transaction: MSH|^~\&|REGADT|MCM|RSP1P8|MCM|199601051530|SEC|ADT^A47|00000002|P|2.3<cr> EVN|A47|199601051530<cr> PID|||MR1^^^XYZ||MEYERS^JOHN||19501010|M|||987 SOUTH STREET^^NY^NY^10021||(212)111-3333|||S||ACCT1<cr> MRG|MR2^^^XYZ||ACCT1<cr>

A49 - Change Patient Account Number

A49 – Change Patient Account Number
Use Case - Patients are automatically assigned an account number by hospital XYZ's Patient Administration system at admission. However, when the Patient Administration system is down, the admitting clerk manually assigns account numbers from a pool of downtime account numbers. John Rodriguez (internal patient ID MR1) was manually assigned downtime account number ACCT1. When the Patient Administration system came back up, the admitting clerk accidentally entered the wrong account number, X1, into the system. When the problem was later discovered, the account number was changed from X1 to ACCT1.
Target: PID-18-patient account number
Source: MRG-3-prior patient account number
Example Transaction: MSH|^~\&|REGADT|MCM|RSP1P8|MCM|199601051530|SEC|ADT^A49|00000006|P|2.3<cr> EVN|A49|199601051530<cr> PID|||MR1^^^XYZ||RODRIGUEZ^JOHN||19501010|M|||123 SOUTH

STREET^^NY^NY^10021||(212)111-2222|||S|CAT|ACCT1<cr> MRG|MR1^^^XYZ||X1<cr>

A50 - Change visit number

A50 – Change Visit Number
Use Case - Patients are automatically assigned a visit number by hospital XYZ's Patient Administration system at check-in. However, when the Patient Administration system is down, the admitting clerk manually assigns visit numbers from a pool of downtime numbers. John Rodriguez (internal patient ID MR1) was manually assigned downtime visit number VISIT1. When the Patient Administration system came back up, the admitting clerk accidentally entered the wrong visit number, VISIT2, into the system. When the problem was later discovered, the visit number was changed from VISIT2 to VISIT1.
Target: PV1-19-visit number
Source: MRG-5-prior visit number
Example Transaction: MSH|^~\&|REGADT|MCM|RSP1P8|MCM|199601051530|SEC|ADT^A50|00000006|P|2.3<cr> EVN|A50|199601051530<cr> PID|||MR1^^^XYZ||RODRIGUEZ^JOHN||19501010|M|||123 SOUTH STREET^^NY^NY^10021||(212)111-2222|||S|CAT|ACCT1<cr> MRG|MR1^^^XYZ||ACCT1||VISIT2<cr> PV1|1|O||3|||99^BROWN^JERRY|||ONC||||1||VIP|99^BROWN^JERRY|O/P|VISIT1...<cr>

Note: The Use Cases and corresponding information for the previous message types were taken from the *Health Level Seven, Version 2.3 1997* standard to illustrate and further define some of the more difficult HL7 message types to implement.

Summary of Inbound Message Types and Segments

Message Type/Trigger	Description	MSH	EVN	PID	MRG	NK1	PV1	PV2	OBX	AL1	DG1	PR1	GT1	IN1
ADT_A01	Admit / Visit notification	X	X	X		O,R	X	O	O,R	O,R	O,R	O,R,G	O,R	O,R,G
ADT_A02	Transfer a patient	X	X	X			X	O	O,R					
ADT_A03	Discharge / End visit	X	X	X		O,R	X	O	O,R	O,R	O,R	O,R,G	O,R	O,R,G
ADT_A04	Register a patient	X	X	X		O,R	X	O	O,R	O,R	O,R	O,R,G	O,R	O,R,G
ADT_A05	Pre-Admit a patient	X	X	X		O,R	X	O	O,R	O,R	O,R	O,R,G	O,R	O,R,G
ADT_A06	Change an outpatient to an inpatient	X	X	X	O	O,R	X	O	O,R	O,R	O,R	O,R,G	O,R	O,R,G
ADT_A08	Update patient information	X	X	X		O,R	X	O	O,R	O,R	O,R	O,R,G	O,R	O,R,G
ADT_A11	Cancel Admit / Visit notification	X	X	X			X	O	O,R		O,R			
ADT_A13	Cancel Discharge / End visit	X	X	X		O,R	X	O	O,R	O,R	O,R	O,R,G	O,R	O,R,G
ADT_A18	Merge patient information	X	X	X	X		X							
ADT_A23	Delete a patient record	X	X	X			X	O						
ADT_A28	Add person information	X	X	X		O,R	X	O	O,R	O,R	O,R	O,R,G	O,R	O,R,G
ADT_A29	Delete person information	X	X	X			X	O						
ADT_A30	Merge person information	X	X	X	X									
ADT_A31	Update person information	X	X	X		O,R	X	O	O,R	O,R	O,R	O,R,G	O,R	O,R,G
ADT_A34	Merge patient information - patient ID only	X	X	X	X									
ADT_A36	Merge patient information - pat. ID and acct number	X	X	X	X									
ADT_A39	Merge person - patient ID	X	X	X,G	X,G		O,G							
ADT_A40	Merge patient - patient identifier list	X	X	X,G	X,G		O,G							
ADT_A41	Merge account - patient account number	X	X	X,G	X,G		O,G							
ADT_A42	Merge visit – visit number	X	X	X,G	X,G		O,G							
ADT_A45	Move visit information - visit number	X	X	X	X,G		X,G							
ADT_A47	Change patient identifier list	X	X											
ADT_A49	Change patient account number	X	X											
ADT_A50	Change visit number	X	X	X	X									
ADT_A51	Change alternate visit ID	X	X	X	X									
ADT_A60	Update allergy information	X	X	X			O	O						

LEGEND   X: Required Segment, O: Optional Segment, R: Repeating Segment, G: Grouped Segment

Message Details

A01 – Admit/Visit Notification

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[{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
[{DG1}]	Diagnosis	Optional, Repeating
[{PR1}]	Procedures	Optional, Repeating Grouped
[{GT1}]	Guarantor	Optional, Repeating
[{IN1}]	Insurance	Optional, Repeating, Grouped

A02 – Transfer a Patient

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

A03 – Discharge/End Visit

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required

EVN	Event Type	Required
PID	Patient Identification	Required
[{NK1}]	Next of Kin/Associated Party	Optional, Repeating
PV1	Patient Visit	Required
[PV2]	Patient Visit-Additional Info	Optional
[{AL1}]	Patient Allergy Information	Optional, Repeating
[{DG1}]	Diagnosis	Optional, Repeating
[{PR1}]	Procedures	Optional, Repeating Grouped
[{OBX}]	Observation/Result	Optional, Repeating
[{GT1}]	Guarantor	Optional, Repeating
[{IN1}]	Insurance	Optional, Repeating, Grouped

A04 – Register a Patient

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[{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
[{DG1}]	Diagnosis	Optional, Repeating
[{PR1}]	Procedures	Optional, Repeating Grouped
[{GT1}]	Guarantor	Optional, Repeating
[{IN1}]	Insurance	Optional, Repeating, Grouped

A05 – Pre Admit a Patient

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[{NK1}]	Next of Kin/Associated Party	Optional, Repeating
PV1	Patient Visit	Required
[PV2]	Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating
[{AL1}]	Patient Allergy Information	Optional, Repeating
[{DG1}]	Diagnosis	Optional, Repeating
[{PR1}]	Procedures	Optional, Repeating Grouped
[{GT1}]	Guarantor	Optional, Repeating
[{IN1}]	Insurance	Optional, Repeating, Grouped

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
[MRG]	Merge Patient Information	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
[{DG1}]	Diagnosis	Optional, Repeating

[{PR1}]	Procedures	Optional, Repeating Grouped
[{GT1}]	Guarantor	Optional, Repeating
[{IN1}]	Insurance	Optional, Repeating, Grouped

A08 – Update Patient Information

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[{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
[{DG1}]	Diagnosis	Optional, Repeating
[{PR1}]	Procedures	Optional, Repeating Grouped
[{GT1}]	Guarantor	Optional, Repeating
[{IN1}]	Insurance	Optional, Repeating, Grouped

A11 – Cancel Admit / Visit Notification

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

[{DG1}]	Diagnosis	Optional, Repeating

A13 – Cancel Discharge / End Visit

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[{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
[{DG1}]	Diagnosis	Optional, Repeating
[{PR1}]	Procedures	Optional, Repeating Grouped
[{GT1}]	Guarantor	Optional, Repeating
[{IN1}]	Insurance	Optional, Repeating, Grouped

A18 – Merge Patient Information

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
MRG	Merge Patient Information	Required
PV1	Patient Visit	Required

A23 – Delete a Patient record

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

A28 – Add Person Information

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[{NK1}]	Next of Kin/Associated Party	Optional, Repeating
PV1	Patient Visit	Required
[PV2]	Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating
[{AL1}]	Patient Allergy Information	Optional, Repeating
[{DG1}]	Diagnosis	Optional, Repeating
[{PR1}]	Procedures	Optional, Repeating Grouped
[{GT1}]	Guarantor	Optional, Repeating

A29 – Delete Person Information

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

A30 – Merge Person Information

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
MRG	Merge Patient Information	Required

A31 – Update Person Information

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
[{NK1}]	Next of Kin/Associated Party	Optional, Repeating
PV1	Patient Visit	Required
[PV2]	Visit-Additional Info	Optional
[{OBX}]	Observation/Result	Optional, Repeating
[{AL1}]	Patient Allergy Information	Optional, Repeating
[{DG1}]	Diagnosis	Optional, Repeating
[{PR1}]	Procedures	Optional, Repeating Grouped
[{GT1}]	Guarantor	Optional, Repeating
[{IN1}]	Insurance	Optional, Repeating, Grouped

A34 – Merge Patient Information – Patient ID Only

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
MRG	Merge Patient Information	Required

A36 – Merge Patient Information – Patient ID and Account Number

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
MRG	Merge Patient Information	Required

A39 – Merge Person – Patient ID

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
{PID	Patient Identification	Required, Grouped
MRG	Merge Patient Information	Required, Grouped
[PV1]}	Patient Visit	Optional, Grouped

A40 – Merge Person – Patient Identifier List

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
{PID	Patient Identification	Required, Grouped
MRG	Merge Patient Information	Required, Grouped
[PV1]}	Patient Visit	Optional, Grouped

A41 – Merge Account – Patient Account Number

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
{PID	Patient Identification	Required, Grouped
MRG	Merge Patient Information	Required, Grouped

| [PV1]} | Patient Visit | Optional, Grouped |

A42 – Merge Visit – Visit Number

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
{PID	Patient Identification	Required, Grouped
MRG	Merge Patient Information	Required, Grouped
[PV1]}	Patient Visit	Optional, Grouped

A45 – Move Visit Information – Visit Number

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
{MRG	Merge Patient Information	Required, Grouped
PV1}	Patient Visit	Required, Grouped

A47 – Change Patient Identifier List

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
MRG	Merge Patient Information	Required

A49 – Change Patient Account Number

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required

PID	Patient Identification	Required
MRG	Merge Patient Information	Required

A50 – Change Visit Number

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
MRG	Merge Patient Information	Required
PV1	Patient Visit	Required

A51 – Change Alternate Visit ID

Segment	Description	Required, Optional, Repeating, Grouped
MSH	Message Header	Required
EVN	Event Type	Required
PID	Patient Identification	Required
MRG	Merge Patient Information	Required
PV1	Patient Visit	Required

A60 – Update Allergy Information

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

Segment Details

The following table shows the expected ADT message segments.

Segment	Description	Required
MSH	Message Header	Yes
EVN	Event Type	Yes
PID	Patient Identification	Yes
PD1	Patient Additional Demographic	No
NK1	Next of Kin/Associated Party	Yes
MRG	Merge Patient Information	Yes
PV1	Patient Visit	Yes
PV2	Patient Visit – Additional Information	Yes
OBX	Observation/Result	Yes
AL1	Patient Allergy Information	Yes
DG1	Diagnosis Information	Yes
PR1	Procedures	Yes
GT1	Guarantor	Yes
IN1	Insurance Information	Yes

Segment Attribute Tables

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**
Seq	Sequence of the elements as they are numbered in the HL7 segment.
Len	Maximum length of the element. Length of an element is calculated using the following rules: • 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. • R – Required. Must be populated. • E – Expected. Must be populated if available. • O – Optional. May be populated. Cardinality indicates the minimum and maximum number of times the element may appear. • [0..0] Element never present. • [0..1] Element may be omitted and it can have at most, one Occurrence. • [1..1] Element must have exactly one Occurrence. • [0..n] Element may be omitted or may repeat up to n times. • [1..n] Element must appear at least once, and may repeat up to n times. • [0..*] Element may be omitted or repeat for an unlimited number of times. • [1..*] Element must appear at least once, and may repeat unlimited number of times. • [m..n] Element must appear at least "m" and at most "n" times.
Card	
HL7 Element Name	HL7 descriptor of the element in the segment.

MSH - Message Header Segment

The message header is mandatory for every message.

MESSAGE HEADER SEGMENT (MSH)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	1	ST	R	[1..1]	Field Separator
2	4	ST	R	[1..1]	Encoding Characters
3	227	HD	E	[0..1]	Sending Application
4	227	HD	R	[0..1]	Sending Facility

MESSAGE HEADER SEGMENT (MSH)

Seq	Len	DT	Use	Card	HL7 Element Name
5	227	HD	O	[0..1]	Receiving Application
6	227	HD	O	[0..1]	Receiving Facility
7	26	TS	O	[0..1]	Date/Time Of Message
8	40	ST	O	[0..0]	Security
9	15	MSG	R	[1..1]	Message Type
9.1	3	ID	R	[1..1]	Message Code
9.2	3	ID	R	[1..1]	Trigger Event
9.3	7	ID	E	[1..1]	Message Structure
10	50	ST	O	[0..1]	Message Control ID
11	3	PT	O	[0..1]	Processing ID
12	60	VID	R	[1..1]	Version ID (v2.5)

EVN - Event Type Segment

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

EVENT TYPE SEGMENT (EVN)

Seq	Len	DT	Use	Card	HL7 Element Name
1	3	ID	O	[0..1]	Event Type Code
2	26	TS	R	[1..1]	Recorded Date/Time
3	26	TS	O	[0..1]	Date/Time Planned Event
4	3	IS	O	[0..1]	Event Reason Code
5	250	XCN	E	[0..*]	Operator ID
6	26	TS	E	[0..1]	Event Occurred
7	241	HD	E	[0..1]	Event Facility

PID – Patient Identification Segment

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

PATIENT IDENTIFICATION SEGMENT (PID)

Seq	Len	DT	Use	Card	HL7 Element Name
1	4	SI	O	[0..1]	Set ID - PID
2	20	CX	E	[0..1]	Patient ID
3	250	CX	R	[1..1]	Patient Identifier List
3.1	15	ST	R	[1..1]	ID Number
3.2	1	ST	O	[0..1]	Check Digit
3.3	3	ID	O	[0..1]	Check Digit Scheme

PATIENT IDENTIFICATION SEGMENT (PID)					
Seq	Len	DT	Use	Card	HL7 Element Name
3.4	227	HD	O	[0..1]	Assigning Authority
3.5	5	ID	R	[1..1]	Identifier Type Code (default MRN)
4	20	CX	E	[0..1]	Alternate Patient ID - PID
5	250	XPN	R	[1..1]	Patient Name
6	250	XPN	E	[0..1]	Mother's Maiden Name
7	26	TS	R	[1..1]	Date/Time of Birth
8	1	IS	R	[1..1]	Administrative Sex*
9	250	XPN	E	[0..1]	Patient Alias
10	250	CE	R	[0..*]	Race
11	250	XAD	R	[0..1]	Patient Address
11.1	184	SAD	R	[0..1]	Street Address
11.2	120	ST	E	[0..1]	Other Designation
11.3	50	ST	R	[0..1]	City
11.4	50	ST	R	[0..1]	State or Province
11.5	12	ST	R	[0..1]	Zip or Postal Code
11.6	3	ID	R	[0..1]	Country
12	20	IS	O	[0..1]	County Code
13	250	XTN	E	[0..1]	Phone Number – Home
14	250	XTN	E	[0..1]	Phone Number – Business
15	250	CE	R	[0..1]	Primary Language
16	250	CE	R	[0..1]	Marital Status
17	250	CE	R	[0..1]	Religion
18	250	CX	E	[0..1]	Patient Account Number
19	16	ST	E	[0..1]	SSN Number
20	25	DLN	E	[0..1]	Driver's License Number
21	250	CX	O	[0..1]	Mother's Identifier
22	250	CE	R	[0..1]	Ethnic Group
23	250	ST	O	[0..1]	Birth Place
24	1	ID	O	[0..1]	Multiple Birth Indicator
25	2	NM	O	[0..1]	Birth Order
26	250	CE	E	[0..1]	Citizenship
27	250	CE	O	[0..1]	Veterans Military Status
28	250	CE	E	[0..1]	Nationality
29	26	TS	E	[0..1]	Patient Death Date and Time
30	1	ID	E	[0..1]	Patient Death Indicator
31	1	ID	O	[0..1]	Identity Unknown Indicator
32	20	IS	O	[0..1]	Identity Reliability Code
33	26	TS	E	[0..1]	Last Update Date/Time

PATIENT IDENTIFICATION SEGMENT (PID)					
Seq	Len	DT	Use	Card	HL7 Element Name
34	241	HD	E	[0..1]	Last Update Facility

*PID-8 Administrative Sex (IS)

Healthix uses this to determine the sex of the patient and must be contain one of the following codes:

Code	Description
F	Female
M	Male
O	Other
U	Unknown
A	Ambiguous or Not applicable
N	Not applicable

PD1- Patient Additional Demographic Segment

Healthix supports the PD1 segment only in order for a facility to provide patient consent information to Healthix. Consent data is sent in the PD1-12 field only if CON segment is not included in ADT message. All other fields of the PD1 segment are not supported.

PATIENT ADDITIONAL DEMOGRAPHIC SEGMENT					
SEQ	LEN	DT	USE	CARD	NAME
1	2	IS	O	[0..1]	Living Dependency
2	2	IS	O	[0..1]	Living Arrangement
3	90	XON	O	[0..1]	Patient Primary Facility
4	90	XCN	O	[0..1]	Patient Primary Care Provider Name & ID No.
5	2	IS	O	[0..1]	Student Indicator
6	2	IS	O	[0..1]	Handicap
7	2	IS	O	[0..1]	Living Will

8	2	IS	O	[0..1]	Organ Donor
9	1	ID	O	[0..1]	Separate Bill
10	20	CX	O	[0..1]	Duplicate Patient
11	80	CE	O	[0..1]	Publicity Code
12	1	ID	O	[0..1]	Protection Indicator

*PD1-12 Protection Indicator (only if no CON segment in ADT message)
Healthix uses this to determine if a data provider has collected a Healthix Consent form and can contain one of the following values:

Code	Description
(null)	No change
Y	Patient Yes consent
N	Patient No consent
E	Emergency Only
U	Null*

* The null consent value can be sent by a site to indicate that no consent form was completed by the patient. This can be used by a data provider to instruct Healthix to remove any previously created consent policy for the patient.

*PD1-13 Protection Indicator Effective Date (only if no CON segment in ADT message)
Healthix uses this to determine the consent effective date or date on which patient provided consent to participant.

CON – Consent Segment
The consent segment provides details about a specific consent by a patient.

CON – CONSENT SEGMENT					
Seq	Len	DT	Use		HL7 Element Name
1	4	SI	R	[1..1]	Set ID
2	250	CNE	R	[1..1]	Consent Type

Seq	Len	DT	Use		HL7 Element Name
CON – CONSENT SEGMENT					
3	40	ST	O	[0..1]	Consent Form ID and Version
4	180	EI	O	[0..1]	Consent Form Number
5	250	FT	O	[0..1]	Consent Text
6	250	FT	O	[0..1]	Subject-specific Consent Text
7	250	FT	O	[0..1]	Consent Background
8	250	FT	O	[0..1]	Subject-specific Consent Background
9	250	FT	O	[0..1]	Consenter-imposed limitations
10	2	ID	O	[0..1]	Consent Mode
11	2	ID	R	[1..1]	Consent Status
12	26	TS	O	[0..1]	Consent Discussion Date/Time
13	26	TS	O	[0..1]	Consent Decision Date/Time
14	26	TS	R	[1..1]	Consent Effective Date/Time
15	26	TS	O	[0..1]	Consent End Date/Time
16	1	ID	O	[0..1]	Subject Competence Indicator
17	1	ID	O	[0..1]	Translator Assistance Indicator
18	1	ID	O	[0..1]	Translation Type
19	1	ID	O	[0..1]	Informational Material Supplied Indicator
20	250	CWE	O	[0..1]	Consent Bypass Reason
21	1	ID	O	[0..1]	Consent Disclosure Level
22	250	CWE	O	[0..1]	Consent Non-disclosure Reason
23	250	CWE	O	[0..1]	Non-subject Consenter Reason

CON -2 Consent Type

Healthix uses this segment to distinguish between Community-Wide consent and Facility consent. This segment contain one of the following values:

Code	Description
C	Community-Wide consent
F	Facility Consent

CON-11 Consent Status (ID)

Healthix uses this to determine if a data provider has collected a Healthix Consent form and can contain one of the following values:

Code	Description
(null)	No change
Y	Patient Yes consent
N	Patient No consent
E	Emergency Only
U	Null*

* The null consent value can be sent by a site to indicate that no consent form was completed by the patient. This can be used by a data provider to instruct Healthix to remove any previously created consent policy for the patient.

CON-14 Consent Effective Date/Time (TS)

The time the consent becomes/became effective. This needs to be specified every time a new consent value is registered or changed.

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.

NEXT OF KIN / ASSOCIATED PARTIES (NK1)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	4	SI	R	[1..1]	Set ID – NK1
2	250	XPN	R	[0..*]	Name
3	250	CE	R	[0..1]	Relationship
4	250	XAD	E	[0..*]	Address
5	250	XTN	E	[0..*]	Phone Number
6	250	XTN	E	[0..*]	Business Phone Number

MRG – Merge Patient Information Segment
The Merge Patient Information Segment is used to transmit information regarding non-survivor identifiers involved in a merge, move, or change transaction.

MERGE PATIENT INFORMATION SEGMENT (MRG)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	250	CX	R	[1..1]	Prior Patient Identifier List
1.1	15	ST	R	[1..1]	ID Number
1.2	1	ST	O	[0..1]	Check Digit
1.3	3	ID	O	[0..1]	Check Digit Scheme
1.4	227	HD	R	[0..1]	Assigning Authority
1.5	5	ID	R	[1..1]	Identifier Type Code (default MRN)

MERGE PATIENT INFORMATION SEGMENT (MRG)					
Seq	Len	DT	Use	Card	HL7 Element Name
2	250	CX	O	[0..1]	Prior Alternate Patient ID
3	250	CX	O	[0..1]	Prior Patient Account Number
4	250	CX	O	[0..1]	Prior Patient ID
5	250	CX	E	[0..1]	Prior Visit Number
6	250	CX	O	[0..1]	Prior Alternate Visit ID
7	250	XPN	O	[0..1]	Prior Patient Name

PV1 – Patient Visit Segment

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

PATIENT VISIT SEGMENT (PV1)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	4	SI	O	[0..1]	Set ID - PV1
2	250	CWE	R	[1..1]	Patient Class*
3	80	PL	E	[0..1]	Assigned Patient Location
3.1	20	IS	R	[0..1]	Location of Care
3.2	20	IS	E	[0..1]	Room
3.3	20	IS	E	[0..1]	Bed
4	250	CWE	E	[0..1]	Admission Type
5	250	CX	E	[0..1]	Pre-admit Number
6	80	PL	O	[0..1]	Prior Patient Location
7	250	XCN	E	[0..1]	Attending Doctor
8	250	XCN	E	[0..1]	Referring Doctor
9	250	XCN	E	[0..1]	Consulting Doctor
10	250	CWE	E	[0..1]	Hospital Service
10.1		ST	E	[0..1]	Identifier
10.2		ST	E	[0..1]	Text
11	80	PL	O	[0..1]	Temporary Location
12	2	IS	O	[0..1]	Pre-admit Test Indicator
13	2	IS	O	[0..1]	Re-admission Indicator
14	250	CWE	E	[0..1]	Admit Source
14.1		ST	E	[0..1]	Identifier
14.2		ST	E	[0..1]	Text
15	2	IS	O	[0..1]	Ambulatory Status
16	2	IS	O	[0..1]	VIP Indicator
17	250	XCN	E	[0..1]	Admitting Doctor
18	2	IS	O	[0..1]	Patient Type
19	250	CX	R	[0..1]	Visit Number

PATIENT VISIT SEGMENT (PV1)					
Seq	Len	DT	Use	Card	HL7 Element Name
20	50	FC	O	[0..1]	Financial Class
21	2	IS	O	[0..1]	Charge Price Indicator
22	2	IS	O	[0..1]	Courtesy Code
23	2	IS	O	[0..1]	Credit Rating
24	2	IS	O	[0..1]	Contract Code
25	8	DT	O	[0..1]	Contract Effective Date
26	12	NM	O	[0..1]	Contract Amount
27	3	NM	O	[0..1]	Contract Period
28	2	IS	O	[0..1]	Interest Code
29	4	IS	O	[0..1]	Transfer to Bad Debt Code
30	8	DT	O	[0..1]	Transfer to Bad Debt Date
31	10	IS	O	[0..1]	Bad Debt Agency Code
32	12	NM	O	[0..1]	Bad Debt Transfer Amount
33	12	NM	O	[0..1]	Bad Debt Recovery Amount
34	1	IS	O	[0..1]	Delete Account Indicator
35	8	DT	O	[0..1]	Delete Account Date
36	250	CWE	R	[0..1]	Discharge Disposition
37	47	DLD	E	[0..1]	Discharged to Location
38	250	CE	O	[0..1]	Diet Type
39	199	IS	O	[0..1]	Servicing Facility
40	1	IS	O	[0..1]	Bed Status
41	2	IS	O	[0..1]	Account Status
42	80	PL	O	[0..1]	Pending Location
43	80	PL	O	[0..1]	Prior Temporary Location
44	26	TS	E	[0..1]	Admit Date/Time
45	26	TS	E	[0..1]	Discharge Date/Time

*PV1-2 Patient Class (IS)
Healthix uses this to categorize patients by class codes like the following user defined codes.

Code	Description
E	Emergency
I	Inpatient
O	Outpatient
P	Preadmit
R	Recurring Patient
B	Obstetrics

C	Commercial Account
N	Not Applicable
U	Unknown

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.

PATIENT VISIT ADDITIONAL INFORMATION SEGMENT (PV2)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	80	PL	O	[0..1]	Prior Pending Location
2	250	CE	O	[0..1]	Accommodation Code
3	250	CE	E	[0..1]	Admit Reason
3.1		ST	E	[0..1]	Identifier
3.2		ST	E	[0..1]	Text
4	250	CE	O	[0..1]	Transfer Reason
5	25	ST	O	[0..*]	Patient Valuables
6	25	ST	O	[0..1]	Patient Valuables Location
7	2	IS	O	[0..*]	Visit User Code
8	26	TS	O	[0..1]	Expected Admit Date/Time
9	26	TS	O	[0..1]	Expected Discharge Date/Time
10	3	NM	O	[0..1]	Estimated Length of Inpatient Stay
11	3	NM	O	[0..1]	Actual Length of Inpatient Stay
12	50	ST	E	[0..1]	Visit Description
45	250	CE	E	[0..*]	Transfer Reason

OBX – Observation Result Segment

The Observation Result Segment (OBX) is used to convey observations in both ADT and result messages. HealthShare supports the OBX segment in ADT messages only for the purposes of recording observations and vitals and not lab results (as with an ORU message).

OBSERVATION RESULT SEGMENT (OBX)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	4	SI	O	[0..1]	Set ID – OBX
2	2	ID	E	[0..1]	Value Type
3	250	CE	R	[1..1]	Observation Identifier
3.1	20	ST	R	[1..1]	Identifier
3.2	199	ST	E	[0..1]	Text
3.3		ID	O	[0..1]	Name of Coding System
3.4		ST	O	[0..1]	Alternate Identifier

					OBSERVATION RESULT SEGMENT (OBX)
Seq	Len	DT	Use	Card	HL7 Element Name
3.5		ST	O	[0..1]	Alternate Text
3.6		ID	O	[0..1]	Name of Alternate Coding System
4	20	ST	E	[0..1]	Observation Sub-ID
5	no limit	TX	R	[1..1]	Text Data
6	250	CE	E	[0..1]	Units
6.1	20	ST	E	[0..1]	Identifier
6.2	199	ST	A	[0..1]	Text
6.3		ID	O	[0..1]	Name of Coding System
6.4		ST	O	[0..1]	Alternate Identifier
6.5		ST	O	[0..1]	Alternate Text
6.6		ID	O	[0..1]	Name of Alternate Coding System
7	60	ST	E	[0..1]	References Range
8	5	CWE	E	[0..5]	Abnormal Flags
9	5	NM	O	[0..1]	Probability
10	2	ID	O	[0..1]	Nature of Abnormal Test
11	1	ID	R	[1..1]	Observation Result Status
12	26	TS	O	[0..1]	Effective Date of Reference Range Values
13	20	ST	O	[0..1]	User Defined Access Checks
14	26	TS	E	[0..1]	Date/Time of the Observation
15	250	CE	E	[0..1]	Producer's ID
15.1	20	ST	E	[0..1]	Identifier
15.2		ST	O	[0..1]	Text
15.3		ID	O	[0..1]	Name of Coding System
15.4		ST	O	[0..1]	Alternate Identifier
15.5		ST	O	[0..1]	Alternate Text
15.6		ID	O	[0..1]	Name of Alternate Coding System
16	250	XCN	E	[0..*]	Responsible Observer

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.

					PATIENT ALLERGY INFORMATION SEGMENT (AL1)
Seq	Len	DT	Use	Card	HL7 Element Name
1	4	SI	O	[1..1]	Set ID – AL1
2	250	CE	E	[0..1]	Allergen Type Code

PATIENT ALLERGY INFORMATION SEGMENT (AL1)					
Seq	Len	DT	Use	Card	HL7 Element Name
3	841	CE	R	[0..1]	Allergen Code/Mnemonic/Description
3.1	20	ST	R	[1..1]	Identifier
3.2	199	ST	E	[0..1]	Text
4	250	CE	E	[0..1]	Allergy Severity Code
5	15	ST	E	[0..*]	Allergy Reaction Code
6	8	DT	E	[0..1]	Identification Date

DG1- Diagnosis Segment

The Diagnosis Segment is used to convey coded diagnosis information.

DIAGNOSIS SEGMENT (DG1)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	4	SI	O	[0..1]	Set ID – DG1
2	3	IS	O	[0..1]	Diagnosis Coding Method
3	841	CE	R	[1..1]	Diagnosis Code – DG1
3.1	20	ST	R	[1..1]	Identifier
3.2	199	ST	E	[0..1]	Text
3.3	199	ID	R	[1..1]	Name of Coding System (if empty default=I9)
4	40	ST	E	[0..1]	Diagnosis Description
5	26	TS	R	[0..1]	Diagnosis Date/Time
6	250	CWE	R	[1..1]	Diagnosis Type*
6.1		ST	R	[1..1]	Identifier
6.2		ST	E	[0..1]	Text
7	250	CE	O	[0..1]	Major Diagnostic Category
8	250	CE	O	[0..1]	Diagnostic Related Group
9	1	ID	O	[0..1]	DRG Approval Indicator
10	2	IS	O	[0..1]	DRG Grouper Review Code
11	250	CE	O	[0..1]	Outlier Type
12	3	NM	O	[0..1]	Outlier Days
13	12	CP	O	[0..1]	Outlier Cost
14	4	ST	O	[0..1]	Grouper Version And Type
15	2	ID	R	[0..1]	Diagnosis Priority
16	250	XCN	E	[0..1]	Diagnosing Clinician

*DG1-6 Diagnosis Type (IS)

Healthix 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

PR1 - Procedures Segment

The Procedures Segment is used to convey coded procedure information.

Seq	Len	DT	Use	Card	HL7 Element Name
				PROCEDURES SEGMENT (PR1)	
1	4	SI	O	[0..1]	Set ID - PR1
2	3	IS	O	[0..1]	Procedure Coding Method
3	841	CE	R	[1..1]	Procedure Code
3.1	20	ST	R	[1..1]	Identifier
3.2	199	ST	E	[0..1]	Text
3.3	199	ID	R	[1..1]	Name of Coding System (if empty default=C4)
4	40	ST	E	[0..1]	Procedure Description
5	26	TS	R	[1..1]	Procedure Date/Time
6	2	IS	O	[0..1]	Procedure Functional Type*
7	4	NM	O	[0..1]	Procedure Minutes
8	250	XCN	O	[0..*]	Anesthesiologist
9	2	IS	O	[0..1]	Anesthesia Code
10	4	NM	O	[0..1]	Anesthesia Minutes
11	250	XCN	E	[0..*]	Surgeon
12	250	XCN	O	[0..1]	Procedure Practitioner
13	250	CE	O	[0..1]	Consent Code
14	2	ID	R	[0..1]	Procedure Priority
15	250	CE	O	[0..1]	Associated Diagnosis Code
16	250	CE	O	[0..*]	Procedure Code Modifier
17	20	IS	O	[0..1]	Procedure DGR Type
18	250	CE	O	[0..*]	Tissue Type Code
19	427	EI	E	[0..1]	Procedure Identifier

*PR1-6 Procedure Functional Type (IS)

Healthix uses this optional code to further define the type of procedure sent and must contain one of the following codes:

Code	Description
A	Anesthesia
P	Procedure for treatment
I	Invasive procedure not classified elsewhere
D	Diagnostic procedure

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.

GUARANTOR SEGMENT (GT1)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	4	SI	O	[0..1]	Set ID – gt1
2	250	CX	E	[0..*]	Guarantor Number
3	250	XPN	R	[1..*]	Guarantor Name
4	250	XPN	O	[0..*]	Guarantor Address
5	250	XAD	E	[0..*]	Guarantor Address
6	250	XTN	E	[0..*]	Guarantor Home Phone Number
7	250	XTN	E	[0..*]	Guarantor Business Phone Number
8	26	TS	O	[0..1]	Guarantor Date/Time of Birth
9	1	IS	O	[0..1]	Guarantor Administrative Sex
10	2	IS	E	[0..1]	Guarantor Type
11	250	CE	E	[0..1]	Guarantor Relationship
12	11	ST	E	[0..1]	Guarantor SSN
13	8	DT	E	[0..1]	Guarantor Begin Date
14	8	DT	E	[0..1]	Guarantor End Date

IN1 – Insurance Segment

The Insurance Segment contains insurance policy coverage information.

INSURANCE SEGMENT (IN1)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	4	SI	O	[0..1]	Set ID - IN1
2	250	CE	R	[1..1]	Insurance Plan ID
3	250	CX	R	[1..*]	Insurance Company ID
4	250	XON	R	[0..*]	Insurance Company Name
5	250	XAD	E	[0..*]	Insurance Company Address
6	250	XPN	E	[0..*]	Insurance Co Contact Person

INSURANCE SEGMENT (IN1)					
Seq	Len	DT	Use	Card	HL7 Element Name
7	250	XTN	E	[0..*]	Insurance Co Phone Number
8	12	ST	E	[0..1]	Group Number
9	250	XON	E	[0..*]	Group Name
10	250	CX	O	[0..*]	Insured's Group Emp ID
11	250	XON	O	[0..*]	Insured's Group Emp Name
12	8	DT	R	[0..1]	Plan Effective Date
13	8	DT	R	[0..1]	Plan Expiration Date
14	250	AUI	O	[0..1]	Authorization Information
15	3	IS	E	[0..1]	Plan Type
16	250	XPN	E	[0..*]	Name of Insured
17	250	CE	E	[0..1]	Insured's Relationship to Patient
18	26	TS	O	[0..1]	Insured's DOB
19	250	XAD	E	[0..*]	Insured's Address
20	2	IS	O	[0..1]	Assignment Of Benefits
21	2	IS	O	[0..1]	Coordination Of Benefits
22	2	ST	O	[0..1]	Coordination Of Benefits Priority
23	1	ID	O	[0..1]	Notice Of Admission Flag
24	8	DT	O	[0..1]	Notice Of Admission Date
25	1	ID	O	[0..1]	Report Of Eligibility Flag
26	8	DT	O	[0..1]	Report Of Eligibility Date
27	2	IS	O	[0..1]	Release Information Code
28	15	ST	O	[0..1]	Pre-Admit Cert (PAC)
29	26	TS	O	[0..1]	Verification Date/Time
30	250	XCN	O	[0..*]	Verification By
31	2	IS	O	[0..1]	Type Of Agreement Code
32	2	IS	O	[0..1]	Billing Status
33	4	NM	O	[0..1]	Lifetime Reserve Days
34	4	NM	O	[0..1]	Delay Before L.R. Day
35	8	IS	O	[0..1]	Company Plan Code
36	15	ST	E	[0..1]	Policy Number

Relevant HL7 Data Types

Seq	Description	Usage	Table	Type
Data Type 2.5:CE - Coded Element				
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	

Seq	Description	Usage	Table	Type
Data Type 2.5:CWE - Coded with Exceptions				
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		

Seq	Description	Usage	Table	Type
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		

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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

Maximum Length: Varies - dependent on length of longest code in code set.

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.

Data Type 2.5:IS - Coded Value for User Defined Tables

Maximum Length: 20

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.

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	X		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	
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
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		

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