HL7 v2.5 Inbound MDM
Specification

Version 0.1

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1. Overview of MDM Docs: Message Types

This specification is for organizations preparing HL7 interfaces to Healthix. It dictates the format and context of *required* and *required if available* MDM 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 MDM message types only. Non-MDM specifications are documented separately.

1.1. Important Points to Note

1.1.1 Patient Identifiers

Healthix patient encounters are identified by Visit Numbers. To tie all this information to the visit, corresponding visit numbers must be present in all related MDMs, result messages, and medication order messages.
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.

1.1.2 *Guidelines for MDM Docs 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.

2 *Use Case*—Inbound MDM Docs: Message Types and Segments

LEGEND	X: Required Segment	O: Optional Segment	R: Repeating Segment	G: Grouped Segment	Blank: Not applicable

Message	Message	Description	MSH	SFT	EVN	PID	PV1	ORC	TQ1	TQ2	OBR	NTE	TXA	OBX	NTE Type	Trigger		
MDM_T02	T02	Original document notification and content	X	O	X	X	X	O,R, G	O,R	O,R	O	O,R	X	,X,R	O,R			

2.1 Summary Descriptions of MDM Docs Segments

The following table shows the required, expected, and optional MDM Docs message segments.

Segment	Description	Required*	Expected**	Optional***
MSH	Message Header	Required		
SFT	Software Segment			Optional
EVN	Event Type	Required		
PID	Patient Identification	Required		
PV1	Patient Visit	Required		
ORC	Common Order		Expected	
TQ1	Timing/Quantity			Optional
TQ2	Timing/Quantity Relationship			Optional
OBR	Observation Request		Expected	
NTE	Notes and Comments for OBR			Optional
TXA	Transcription Document Header	Required		
OBX	Observation/Result		Expected	
NTE	Notes and Comments for OBX			Optional

* Required - Must be populated. ** Expected - Must be populated if available. *** Optional - May be populated

2.2 MDM Docs Segment Usage in MDM Docs Messages

Key to symbols used in this section.

- **Brackets** [ ] indicate that the segment is an **optional** item in the message.
- **Braces** { } indicate that the segment can be a **repeating** item in the message.

2.2.1 T02—Original Document Notification and Content

Segment	Description	Required	Expected	Optional	Repeating	Grouped	
MSH	Message Header	Required					
SFT	Software Segment			Optional			
EVN	Event Type	Required					
PID	Patient Identification	Required					
PV1	Patient Visit	Required					
ORC	Common Order		Expected				
TQ1	Timing/Quantity			Optional			
TQ2	Timing/Quantity Relationship			Optional			
OBR	Observation Request		Expected				
NTE	Notes and Comments for OBR			Optional			
TXA	Transcription Document Header	Required					
[{OBX}]	Observation/Result			Optional	Repeating		
NTE	Notes and Comments for OBX			Optional			

2.3 MDM Docs 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.
Card	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.
HL7 Element Name	HL7 descriptor of the element in the segment.

2.3.1 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
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)**

2.3.2 SFT—Software Segment

The Software Segment conveys information about software products used as sending applications.

SOFTWARE SEGMENT (SFT)					
Seq	**Len**	**DT**	**Use**	**Card**	**HL7 Element Name**
1	567	CE	R	[0..1]	Software Vendor Organization
2	15	SN	R	[1..1]	Software Certified Version or Release Number
3	20	CE	R	[0..1]	Software Product Name
4	20	CE	R	[0..1]	Software Binary ID
5	1024	XCN	O	[0..*]	Software Product Information
6	26	TS	O	[0..1]	Software Install Date

2.3.3 EVN—Event Type Segment

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

2.3.4 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
3.4	227	HD	R	[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	E	[0..*]	Race
11	250	XAD	E	[0..1]	Patient Address
11.1	184	SAD	E	[0..1]	Street Address
11.2	120	ST	E	[0..1]	Other Designation
11.3	50	ST	E	[0..1]	City

Patient Identification SEGMENT (PID)					
Seq	**Len**	**DT**	**Use**	**Card**	**HL7 Element Name**
11.4	50	ST	E	[0..1]	State or Province
11.5	12	ST	E	[0..1]	Zip or Postal Code
11.6	3	ID	E	[0..1]	Country
11.7	3	ID	E	[0..1]	Address Type
11.8	50	ST	E	[0..1]	Other Geographic Designation
11.9	20	IS	E	[0..1]	County/Parish Code
11.10	20	IS	E	[0..1]	Census Tract
11.11	1	ID	E	[0..1]	Address Representation Code
11.12	53	DR	E	[0..1]	Address Validity Range
11.13	26	TS	E	[0..1]	Effective Date
11.14	26	TS	E	[0..1]	Expiration Date
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	E	[0..1]	Primary Language
16	250	CE	E	[0..1]	Marital Status
17	250	CE	E	[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	O	[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
34	241	HD	E	[0..1]	Last Update Facility

2.3.4.1 *PID-8 Administrative Sex (IS)[2]

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
N	Not applicable

[2] (IS) indicates a coded value for a user-defined table. These are the Healthix-acceptable values for this field.

2.3.5 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	E	[0..1]	Point 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
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	O	[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

2.3.5.1 *PV1-2 Patient Class (IS)[2]

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

Code	Description	Comments
E	Emergency	
I	Inpatient	
O	Outpatient	
P	Pre-admit	If not E or I, Healthix changes value to “O”.
R	Recurring Patient	If not E or I, Healthix changes value to “O”.
B	Obstetrics	If not E or I, Healthix changes value to “O”.
C	Commercial Account	If not E or I, Healthix changes value to “O”.
N	Not Applicable	If not E or I, Healthix changes value to “O”.
U	Unknown	If not E or I, Healthix changes value to “O”.

2.3.6 ORC—Common Order

The Common Order Segment (ORC) is used to transmit order information.

Common Order SEGMENT (ORC)					
Seq	**Len**	**DT**	**Use**	**Card**	**HL7 Element Name**
1	2	ID	R	[0..1]	Order Control
2	427	EI	E	[0..1]	Placer Order Number
3	427	EI	E	[0..1]	Filler Order Number
4	22	EI	O	[0..1]	Placer Group Number
5	2	ID	E	[0..1]	Order Status
6	1	ID	O	[0..1]	Response Flag
7	207	TQ	E	[0..*]	Quantity/Timing
8	200	EIP	O	[0..1]	Parent
9	26	TS	E	[0..1]	Date/Time of Transaction
10	250	XCN	E	[0..1]	Entered By
11	250	XCN	E	[0..1]	Verified By
12	250	XCN	E	[0..1]	Ordering Provider
13	80	PL	E	[0..1]	Enterer's Location
14	250	XTN	E	[0..1]	Call Back Phone Number
15	26	TS	O	[0..1]	Order Effective Date/Time
16	250	CE	O	[0..1]	Order Control Code Reason
17	250	CE	E	[0..1]	Entering Organization
18	250	CE	O	[0..1]	Entering Device
19	250	XCN	O	[0..1]	Action By
20	250	CE	E	[0..1]	Advanced Beneficiary Notice Code
21	250	XON	E	[0..1]	Ordering Facility Name
22	250	XAD	E	[0..1]	Ordering Facility Address
23	250	XTN	E	[0..1]	Ordering Facility Phone Number
24	250	XAD	E	[0..1]	Ordering Provider Address
25	250	CWE	O	[0..1]	Order Status Modifier
26	60	CWE	O	[0..1]	Advanced Beneficiary Notice Override Reason
27	26	TS	O	[0..1]	Filler's Expected Availability Date/Time
28	250	CWE	E	[0..1]	Confidentiality Code
29	250	CWE	E	[0..1]	**Document:** Micro
29	250	CWE	E	[0..1]	**Document:** Pathology
29	250	CWE	E	[0..1]	**Document:** Labs
29	250	CWE	E	[0..1]	**Document:** Radiology
29	250	CWE	E	[0..1]	**Document:** Encounter/Discharge Summary
29	250	CWE	E	[0..1]	**Document:** Clinical Reports
29	250	CWE	E	[0..1]	**Document:** Cardiology
29	250	CWE	E	[0..1]	**Document:** Obstetrics
29	250	CWE	E	[0..1]	**Document:** Medications
30	250	CNE	O	[0..1]	Enterer Authorization Mode

2.3.7 TQ1—Timing/Quantity

The Timing/Quanity (TQ1) segment allows for a detailed specification of time interval/quantity relationships.

Timing/Quantity SEGMENT (TQ1)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	4		O	[0..1]	Set ID - TQ1
2	20	2.5:CQ	O	[0..1]	Quantity
3	540	2.5:RPT	O	[0..n]	Repeat Pattern
4	20		O	[0..n]	Explicit Time
5	20	2.5:CQ	O	[0..n]	Relative Time and Units
6	20	2.5:CQ	O	[0..1]	Service Duration
7	26	2.5:TS	O	[0..1]	Start date/time
8	26	2.5:TS	O	[0..1]	End date/time
9	250	2.5:CWE	O	[0..n]	Priority
10	250		O	[0..1]	Condition text
11	250		O	[0..1]	Text instruction
12	10		O	[0..1]	Conjunction
13	20	2.5:CQ	O	[0..1]	Occurrence duration
14	10		O	[0..1]	Total occurrences

2.3.8 TQ2—Timing/Quantity Relationship

The Timing/Quantity Relationship (TQ2) allows for a detailed specification of time interval/quantity relationships.

Timing/Quantity RelationshipSEGMENT (TQ2)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	4		O	[0..1]	Set ID - TQ2
2	1		O	[0..1]	Sequence/Results Flag
3	22	2.5:EI	C	[0..n]	Related Placer Number
4	22	2.5:EI	C	[0..n]	Related Filler Number
5	22	2.5:EI	C	[0..n]	Related Placer Group Number
6	2		C	[0..1]	Sequence Condition Code
7	1		C	[0..1]	Cyclic Entry/Exit Indicator
8	20	2.5:CQ	O	[0..1]	Sequence Condition Time Interval
9	10		O	[0..1]	Cyclic Group Maximum Number of Repeats
10	1		C	[0..1]	Special Service Request Relationship

2.3.9 OBR—Observation Request

The Observation Request Segment (OBR) contains attributes related to the order for the observation reported in this message.

Observation Request SEGMENT (OBR)					
Seq	Len	DT	Use	Card	HL7 Element Name
1	4	SI	O	[0..1]	Set ID - OBR
2	427	EI	E	[0..1]	Placer Order Number
3	427	EI	E	[0..1]	Filler Order Number
4	841	CE	R	[1..1]	Universal Service Identifier
4.1	20	ST	R	[1..1]	Identifier
4.2	199	ST	E	[0..1]	Text
4.3	199	ID	O	[0..1]	Name of Coding System
4.4	20	ST	O	[0..1]	Alternate Identifier
4.5	199	ST	O	[0..1]	Alternate Text
4.6	199	ID	O	[0..1]	Name of Alternate Coding System
5	2	ID	E	[0..1]	Priority – OBR
6	26	TS	E	[0..1]	Requested Date/Time

7	26	TS	R	[1..1]	Observation Date/Time
8	26	TS	O	[0..1]	Observation End Date/Time
9	20	CQ	O	[0..1]	Collection Volume

Observation Request SEGMENT (OBR)					
Seq	**Len**	**DT**	**Use**	**Card**	**HL7 Element Name**
10	250	XCN	O	[0..1]	Collector Identifier
11	1	ID	O	[0..1]	Specimen Action Code
12	250	CE	O	[0..1]	Danger Code
13	300	ST	O	[0..1]	Relevant Clinical Information
14	26	TS	E	[0..1]	Specimen Received Date/Time
15	3485	SPS	E	[0..1]	Specimen Source
15.1	841	CWE	E	[0..1]	Specimen Source Name or Code
15.2	841	CWE	O	[0..1]	Additives
15.3	841	CWE		[0..1]	Specimen Collection Method
15.4	841	CWE		[0..1]	Body Site
15.5	841	CWE		[0..1]	Site Modifier
15.6	841	CWE		[0..1]	Collection Method Modifier Code
15.7	841	CWE		[0..1]	Specimen Role
16	250	XCN	E	[0..1]	Ordering Provider
17	250	XTN	E	[0..1]	Order Callback Phone Number
18	60	ST	O	[0..1]	Placer Field 1
19	60	ST	O	[0..1]	Placer Field 2
20	60	ST	O	[0..1]	Filler Field 1
21	60	ST	O	[0..1]	Filler Field 2
22	26	TS	R	[1..1]	Results Rpt/Status Change Date/Time
23	40	MOC	O	[0..1]	Charge to Practice
24	10	ID	E	[0..1]	**Doc:** Micro
24	10	ID	E	[0..1]	**Doc:** Pathology
24	10	ID	E	[0..1]	**Doc:** Labs
24	10	ID	E	[0..1]	**Doc:** Radiology
24	10	ID	E	[0..1]	**Doc:** Encounter/Discharge Summary
24	10	ID	E	[0..1]	**Doc:** Clinical Reports
24	10	ID	E	[0..1]	**Doc:** Cardiology
24	10	ID	E	[0..1]	**Doc:** Obstetrics
24	10	ID	E	[0..1]	**Doc:** Medications
25	1	ID	R	[1..1]	Result Status
26	400	PRL	O	[0..1]	Parent Result
27	200	TQ	E	[0..0]	Quantity/Timing

2.3.10 NTE—Notes and Comments Segment

The Notes and Comments segment (NTE) is expected to be used only with result messages. It may be used to pass result comments from the source message.

Notes and Comments Segment (NTE)					
Seq	**Len**	**DT**	**Use**	**Card**	**HL7 Element Name**
1	4	SI	O	[0..1]	Set ID - NTE
2	8	ID	O	[0..1]	Source of Comment
3	65536	FT	E	[0..1]	Comment
4	250	CE	O	[0..1]	Comment Type

2.3.11 TXA—Notes and Comments Segment

The Notes and Comments segment (TXA) is intended for use with result messages, only. It may be used to pass result comments from the source message.

Notes and Comments Segment (TXA)					
Seq	**Len**	**DT**	**Use**	**Card**	**HL7 Element Name**
1	4		R	[1..1]	Set ID- TXA
2	30		R	[1..1]	Document Type
3	2		C	[0..1]	Document Content Presentation
4	26	2.5:TS	O	[0..1]	Activity Date/Time
5	250	2.5:XCN	C	[0..n]	Primary Activity Provider Code/Name
6	26	2.5:TS	O	[0..1]	Origination Date/Time
7	26	2.5:TS	C	[0..1]	Transcription Date/Time
8	26	2.5:TS	O	[0..n]	Edit Date/Time
9	250	2.5:XCN	O	[0..n]	Originator Code/Name
10	250	2.5:XCN	O	[0..n]	Assigned Document Authenticator
11	250	2.5:XCN	C	[0..n]	Transcriptionist Code/Name
12	30	2.5:EI	R	[1..1]	Unique Document Number
13	30	2.5:EI	C	[0..1]	Parent Document Number
14	22	2.5:EI	O	[0..n]	Placer Order Number
15	22	2.5:EI	O	[0..1]	Filler Order Number
16	30		O	[0..1]	Unique Document File Name
17	2		R	[1..1]	Document Completion Status
18	2		O	[0..1]	Document Confidentiality Status
19	2		O	[0..1]	Document Availability Status
20	2		O	[0..1]	Document Storage Status
21	30		C	[0..1]	Document Change Reason
22	250	2.5:PPN	C	[0..1]	Authentication Person, Time Stamp
23	250	2.5:XCN	O	[0..1]	Distributed Copies (Code and Name of Recipients)

2.3.12 OBX—Observation Result Segment

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

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
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	E	[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

Observation Result SEGMENT (OBX)					
Seq	**Len**	**DT**	**Use**	**Card**	**HL7 Element Name**
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

3 Relevant Data Types

3.1 Data Type 2.5:CE—Coded Element

Seq	Description	Code Table	Type
1	Identifier		
2	Text		
3	Name of Coding System	2.5:396	
4	Alternate Identifier		
5	Alternate Text		
6	Name of Alternate Coding System	2.5:396	

3.2 Data Type 2.5:CWE—Coded with Exceptions

Seq	Description	Code Table	Type
1	Identifier		
2	Text		
3	Name of Coding System	2.5:396	
4	Alternate Identifier		
5	Alternate Text		
6	Name of Alternate Coding System	2.5:396	
7	Coding System Version ID		
8	Alternate Coding System Version ID		
9	Original Text		

3.3 Data Type 2.5:CX—Extended Composite ID with Check Digit

Seq	Description	Code Table	Type
1	ID Number		
2	Check Digit		
3	Check Digit Scheme	2.5:61	
4	Assigning Authority	2.5:363	2.5:HD
5	Identifier Type Code	2.5:203	
6	Assigning Facility		2.5:HD
7	Effective Date		
8	Expiration Date		

3.4 Data Type 2.5:CX—Extended Composite ID with Check Digit

Seq	Description	Code Table	Type
9	Assigning Jurisdiction		2.5:CWE
10	Assigning Agency or Department		2.5:CWE

3.5 Data Type 2.5:DLN—Driver's License Number

Seq	Description	Code Table	Type
1	License Number		
2	Issuing State, Province, Country	2.5:333	

3	Expiration Date		

3.6 Data Type 2.5:DR—Date/Time Range

Seq	Description	Code Table	Type
1	Range Start Date/Time		2.5:TS
2	Range End Date/Time		2.5:TS

3.7 Data Type 2.5:EI—Entity Identifier

Seq	Description	Code Table	Type
1	Entity Identifier		
2	Namespace ID	2.5:363	
3	Universal ID		
4	Universal ID Type	2.5:301	

3.8 Data Type 2.5:FN—Family Name

Seq	Description	Code Table	Type
1	Surname		
2	Own Surname Prefix		
3	Own Surname		
4	Surname Prefix From Partner/Spouse		
5	Surname From Partner/Spouse		

3.9 Data Type 2.5:HD—Hierarchic Designator

Seq	Description	Code Table	Type
1	Namespace ID	2.5:300	
2	Universal ID		
3	Universal ID Type	2.5:301	

3.10 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

3.11 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.

3.12 Data Type 2.5:MSG—Message Type

Seq	Description	Code Table	Type
1	Message Code	2.5:76	
2	Trigger Event	2.5:3	
3	Message Structure	2.5:354	

3.13 Data Type 2.5:PL—Person Location

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

3.14 Data Type 2.5:SAD—Street Address

Seq	Description	Code Table	Type
1	Street or Mailing Address		
2	Street Name		
3	Dwelling Number		

3.15 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.

3.16 Data Type 2.5:TS—Time Stamp

Seq	Description	Code Table	Type
1	Time		2.5:DTM
2	Degree of Precision	2.5:529	

3.17 Data Type 2.5:VID—Version Identifier

Seq	Description	Code Table	Type
1	Version ID	2.5:104	
2	Internationalization Code	2.5:399	2.5:CE
3	International Version ID		2.5:CE

3.18 Data Type 2.5:XAD—Extended Address

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

3.19 Data Type 2.5:XCN—Extended Composite ID Number and Name for Persons

Seq	Description	Code Table	Type
1	ID Number		
2	Family Name		2.5:FN
3	Given Name		
4	Second and Further Given Names or Initials Thereof		
5	Suffix (e.g., JR or III)		
6	Prefix (e.g., DR)		
7	Degree (e.g., MD)	2.5:360	
8	Source Table	2.5:297	
9	Assigning Authority	2.5:363	2.5:HD
10	Name Type Code	2.5:200	
11	Identifier Check Digit		
12	Check Digit Scheme	2.5:61	
13	Identifier Type Code	2.5:203	
14	Assigning Facility		2.5:HD
15	Name Representation Code	2.5:465	
16	Name Context	2.5:448	2.5:CE
17	Name Validity Range		2.5:DR

3.20 Data Type 2.5:XCN—Extended Composite ID Number and Name for Persons

Seq	Description	Code Table	Type
18	Name Assembly Order	2.5:444	
19	Effective Date		2.5:TS
20	Expiration Date		2.5:TS
21	Professional Suffix		
22	Assigning Jurisdiction		2.5:CWE
23	Assigning Agency or Department		2.5:CWE

3.21 Data Type 2.5:XON—Extended Composite Name & Identification -Number for Organizations

Seq	Description	Code Table	Type
1	Organization Name		
2	Organization Name Type Code	2.5:204	
3	ID Number		
4	Check Digit		
5	Check Digit Scheme	2.5:61	
6	Assigning Authority	2.5:363	2.5:HD
7	Identifier Type Code	2.5:203	
8	Assigning Facility		2.5:HD
9	Name Representation Code	2.5:465	
10	Organization Identifier		

3.22 Data Type 2.5:XPN—Extended Person Name

Seq	Description	Code Table	Type
1	Family Name		2.5:FN
2	Given Name		
3	Second and Further Given Names or Initials Thereof		
4	Suffix (e.g., JR or III)		
5	Prefix (e.g., DR)		
6	Degree (e.g., MD)	2.5:360	
7	Name Type Code	2.5:200	
8	Name Representation Code	2.5:465	
9	Name Context	2.5:448	2.5:CE
10	Name Validity Range		2.5:DR
11	Name Assembly Order	2.5:444	
12	Effective Date		2.5:TS
13	Expiration Date		2.5:TS
14	Professional Suffix		

3.23 Data Type 2.5:XTN—Extended Telecommunication Number

Seq	Description	Code Table	Type
1	Telephone Number		
2	Telecommunication Use Code	2.5:201	
3	Telecommunication Equipment Type	2.5:202	
4	Email Address		
5	Country Code		
6	Area/City Code		
7	Local Number		
8	Extension		
9	Any Text		
10	Extension Prefix		

11	Speed Dial Code		
12	Unformatted Telephone number		

4 Appendix A: MDM Document Codes

Table 4-1 lists the names of different types of MDM docs and the corresponding short codes that must be included in the HL7 message to ensure that the correct MDM document name will appear in the clinical viewer. The clinical viewer code is used in the underlying application software to place the MDM document in the viewer's screen.

Table 4-1. MDM Document Names and HL7 Codes.

MDM Document Name	MDM Document HL7 Code	MDM Doc Code for Clinical Viewer
Addendum Note	AN	AN^Addendum Note
Admit Nsg Note	ANN	ANN^Admit Nsg Note
Anesthesia Post-op Evaluation	APOE	APOE^Anesthesia Post-op Evaluation
Anesthesia Post-op Follow-up Note	APFN	APFN^Anesthesia Post-op Follow-up Note
Anesthesia Pre-op Evaluation	APEE	APEE^Anesthesia Pre-op Evaluation
Anesthesia Procedure Notes	APN	APN^Anesthesia Procedure Notes
Assessment & Plan Note	ASP	ASP^Assessment & Plan Note
Brief Op Note	BON	BON^Brief Op Note
CDU Sensitive Note	CUSP	CUSP^CDU Sensitive Note
CDU SW DC Instructions	CUSDI	CUSDI^CDU SW DC Instructions
CDU Treatment Plan	CUTP	CUTP^CDU Treatment Plan
CM/SW DC Summary	CMSDS	CMSDS^CM/SW DC Summary
Code Documentation	CD	CD^Code Documentation
Code Status and Advance Directives	CSAD	CSAD^Code Status and Advance Directives
Communication Body	CB	CB^Communication Body
Consultation	CON	CON^Consultation
Consults	CLT	CLT^Consults
D/C Counseling	DC	DC^D/C Counseling
D/C Counseling Note	DCC	DCC^D/C Counseling Note
D/C Nursing Note	DCN	DCN^D/C Nursing Note
Discharge Instr - Activity	DISAV	DISAV^Discharge Instr - Activity
Discharge Instr - Appointments	DISAP	DISAP^Discharge Instr - Appointments
Discharge Instr - Diet	DISD	DISD^Discharge Instr - Diet
Discharge Instr - Lab	DISLAB	DISLAB^Discharge Instr - Lab
Discharge Instr - Meds	DISM	DISM^Discharge Instr - Meds
Discharge Instr - Other Info	DISOTHI	DISOTHI^Discharge Instr - Other Info
Discharge Instr - Other Orders	DISOTH	DISOTH^Discharge Instr - Other Orders
Discharge Instr - Pharmacy	DISP	DISP^Discharge Instr - Pharmacy
Discharge Summary	DS	DS^Discharge Summary
Downtime Event Note	DEN	DEN^Downtime Event Note
ED AVS Snapshot	EAS	EAS^ED AVS Snapshot
ED Notes	ED	ED^ED Notes
ED Patient verbalize discharge instructions	EVERB	EVERB^ED Patient verbalize discharge instructions
Emergency Department Provider Notes	EDP	EDP^Emergency Department Provider Notes
H&P (View-Only)	HP	HP^H&P (View-Only)
Health and Physical	HP	HP^Health and Physical
Initial Assessments	IA	IA^Initial Assessments
Inpatient Medication Chart	IMC	IMC^Inpatient Medication Chart
Inpatient Self-Administration Sheet	ISAS	ISAS^Inpatient Self-Administration Sheet
Interval H&P Note	IHP	IHP^Interval H&P Note
IP AVS Snapshot	IAS	IAS^IP AVS Snapshot
L & D Delivery Note	LDDN	LDDN^L & D Delivery Note
L&D Delivery	LD	LD^L&D Delivery
Letter	L	L^Letter
Miscellaneous	MISC	MISC^Miscellaneous
MR AVS Snapshot	MAS	MAS^MR AVS Snapshot
Note to Patient via Portal	NPP	NPP^Note to Patient via Portal
Op Note	OP	OP^Op Note
Operating Room Anesthesia Notes	ORAN	ORAN^Operating Room Anesthesia Notes
Operating Room Nursing Notes	ORNN	ORNN^Operating Room Nursing Notes