



HL7 Conformance Statement

HealthMyne QIDS

This conformance statement has been updated per changes in these releases:

- 2016 Clinical Release 1.4
- 2016 Clinical Release 1.5
- 2017 Clinical Release 2.0
- 2017 Clinical Release 4.0
- 2018 Clinical Release 6.0
- 2019 Clinical Release 8.0

HealthMyne Inc.

Introduction

Purpose

The purpose of this document is to specify the HL7 Conformance of HealthMyne. It is intended for System Integrators and Developers planning on interfacing with HealthMyne.

Overview

HealthMyne's HL7 Service is capable of receiving all HL7 messages and will acknowledge their receipt with an AA status code. All messages are catalogued and stored by HealthMyne. However, only the following Patient-data related messages will be used by HealthMyne.

Event	Message Type	Event Types
Patient Admin	ADT	A01
Patient Registration	ADT	A04
Patient Pre-Admission	ADT	A05
Patient Update	ADT	A08
Patient Merge	ADT	A40
Order Message	ORM	O01
Result Message	ORU	R01
Notification of new appointment booking	SIU	S12
Notification of appointment rescheduling	SIU	S13
Notification of appointment modification	SIU	S14
Notification of appointment cancellation	SIU	S15
Patient Query	ADR	A19

In addition to receiving messages, HealthMyne's HL7 Service can also be configured to send certain order related messages to export data generated by HealthMyne's system. The following table lists the HL7 messages that HealthMyne's HL7 Service may generate.

Event	Message Type	Event Types
Result Message	ORU	R01
Patient Demographic Query	QRY	Q01

Supported HL7 Standard

Health Level Seven Version 2.3, 2.3.1, 2.5

Segment Mapping

The HL7 Service will use the following default mapping table when parsing HL7 messages. This mapping table is configurable based on Sending Application found in the MSH Segment.

MSH Segment

HL7 Element Name	Field	Component	HealthMyne Attribute
Sending Application	3		Used for Custom HL7 Mapping tables
Sending Facility	4		Used for Custom HL7 Mapping tables
Receiving Application	5		Used for Custom HL7 Mapping tables
Receiving Facility	6		Used for Custom HL7 Mapping tables

PID Segment

HL7 Element Name	Field	Component	HealthMyne Attribute
Patient Identifier List	3		PatientID
Alternative Patient Identifier	4		Alternative Patient ID
Patient Name	5		PatientName , FullName
Date/Time of Birth	7		PateintsBirthDate
Sex	8		PatientsSex
Race	10		Race
Address	11		Address
Phone	13		Phone
Ethnic Group	22		EthnicGroup

ORC Segment

HL7 Element Name	Field	Component	HealthMyne Attribute
Placer Order Number	2		PlacerOrderNumber
Filler Order Number	3		FillerOrderNumber
Placer Group Number	4		PlacerGroupNumber
Order Status	5		Order Status
Quantity/Timing	7	6	Order Priority
Parent	8	1	ParentPlacerOrderNumber
Parent	8	2	ParentPlacerGroupNumber
Date/Time of Transaction	9		TransactionTimeStamp
Entered By	10		OrderEnterer
Ordering Provider	12		OrderProvider

OBR Segment

HL7 Element Name	Field	Component	HealthMyne Attribute
Placer Order Number	2		PlacerOrderNumber
Filler Order Number	3		FillerOrderNumber
Physician Last Name	4	1	ProcedureId
Universal Service ID	4	2	ProcedureDescription
Universal Service ID	4	3	ProcedureCoding
Requested Date/Time	6		Requested Date/Time
Observation Date/Time	7		Observation Date/Time
Service ID	24		Study modality/Order Type
Result Status	25		Order result status

OBX Segment

HL7 Element Name	Field	Component	HealthMyne Attribute
Set ID	1		
Value Type	2		
Observation Identifier	3		
Observation Value	5		Report Notes
Responsible Observer	16	1	Physician Last Name
Responsible Observer	16	2	Physician First Name
Responsible Observer	16	3	Physician Middle Name

SCH Segment

HL7 Element Name	Field	Component	HealthMyne Attribute
Placer Appointment ID	1		Appointment Number
Filler Appointment ID	2		
Event Reason	6		Event Reason
Appointment Reason	7		Image Modality
Appointment Type	8		Appointment Type
Appointment Timing Quantity	11		Appointment Time
Filler Status Code	25		Physician Middle Name

QRD Segment

HL7 Element Name	Field	Component	HealthMyne Attribute
Query Date Time	1		When the query is generated
Query Format Code	2		The format code. Should be 'R'
Query Priority	3		Query priority. Should be 'I'
Query ID	4		An unique ID generated by HealthMyne
Quantity Limited Request	7		Maximum number of records to be returned
Subject Filter	8		Format: <Patient ID>^^^^^^<Assigning Authority>^^^^ where Assigning Authority is optional
What Subject Filter	9		DEM: Demographic Lookup

QRF Segment

HL7 Element Name	Field	Component	HealthMyne Attribute
Where Subject Filter	1		
What User Filter	4		Contains the date of birth, sex, and social security number of the patient being queried, if available. Used to further discriminate the patients found. Format: <DOB>~<Sex>~<SSN>

Patient Admin/Registration/Pre-Admission

During patient admin/registration/pre-registration, the following information will be used to create a new patient if one does not exist:

- Patient Name
- Patient Birth Date
- Patient Sex
- Patient Address
- Patient Phone
- Patient ID

Patient Update

Patient update messages will modify the following attributes:

- Patient Name
- Patient Birth Date
- Patient Sex

Patient Merge

Patient merge messages will combine two patient records into one patient record. The patient name and patient id will be set from the merge message. The previous patient id will be added to the list of other patient identifiers for the patient record.



Receipt of a patient merge message for records not currently stored in HealthMyne has no effect.

Order Message

For incoming order message, the following information is used to construct/update an order record for the patient:

- Placer Order Number
- Filler Order Number
- Placer Group Number
- Order Status
- Quantity/Timing
- Parent
- Parent
- Date/Time of Transaction
- Entered By
- Ordering Provider
- Universal Service ID
- Service ID
- Result Status

Result Message (Incoming)

For incoming order message, the following information is used to construct/update an order record for the patient:

- Observation Value
- Responsible Observer

Appointment Messages (SIU)

For appointment messages (SIU^S12, SIU^S13, SIU^S14, SIU^S15), the following information will be used for processing in HealthMyne:

- SCH segment:
 - Appointment ID (field 1): used to track appointment
 - Appointment Reason (field 7): used to indicate the image modality for appointments
 - Appointment Timing Quantity (field 11): used to indicate when the appointment is scheduled
 - Appointment Status (field 25): used to indicate the status of the appointment, with the following status codes being processed
 - PENDING: considered scheduled by HealthMyne
 - BOOKED: considered scheduled by HealthMyne
 - CANCELED: considered canceled by HealthMyne
 - DELETED: considered canceled by HealthMyne
- PID segment: the following information from PID segment is used to locate or create a new patient
 - Patient Name



- Patient Birth Date
- Patient Sex
- Patient Address
- Patient Phone
- Patient ID

Result Message (Outgoing)

ORU^R01 Message: For outgoing order message, HealthMyne will construct an ORU^R01 message with the following data mapped:

HL7 Segment	HL7 Element Name	Field	Value	HealthMyne Attribute
MSH	Sending Application	3	HealthMyne	
	Sending Facility	4	HM	
	Receiving Application	5		
	Receiving Facility	6		
	Processing ID	11	'T' or 'P'	T for Test; P for Production
PID	Patient Identifier List	3		PatientID
	Alternative Patient Identifier	4		
	Patient Name	5		PatientName , FullName
OBR	Placer Order Number	2		
	Filler Order Number	3		
	Observation Date Time	7		
	Observation Status	25	'P' or 'F'	P for preliminary; F for final
OBX	Set ID	1		Sequence ID
	Value Type	2		FT, ED, or TKN
	Observation Identifier	3		One of the following possible values: - Custom Token - ^^^HealthMyneQIDS^HealthMyneQIDS
	Observation Value	5		Report Text
	Observation Status	11	'P' or 'F'	P for preliminary; F for final



	Responsible Observer	16		Reporting Physician
--	----------------------	----	--	---------------------

Patient Demographic Query (QRY^Q01) -- Outgoing

HealthMyne will submit a Patient Resolution/Demographic query, in the form of QRY^Q01 to an external Enterprise Master Patient Index service (EMPI) to locate patient information based on Patient MRN, Gender, and Birthdate. In return, HealthMyne expects the EMPI service to return an ADR^A19 message. The QRY^Q01 message will contain the following segments:

HL7 Segment	HL7 Element Name	Field	Value	HealthMyne Attribute
MSH	Sending Application	3	HealthMyne	
	Sending Facility	4	HM	
	Receiving Application	5		
	Receiving Facility	6		
	Processing ID	11	'T' or 'P'	T for Test; P for Production
QRD	Query Date Time	1		Query Date and Time
	Query Format Code	2	'R'	
	Query Priority	3	'T'	
	Query ID	4		This is a unique ID generated by HealthMyne
	Subject Filter	8		Contains Patient MRN in field 8
	What Subject Filter	9	'DEM'	
QRF	Where Subject Filter	1		Not required
	What User Filter	4		Format: <DOB>~<Sex>~<SSN> SSN is optional

Patient Demographic Query Response (ADR^A19) -- Incoming

For ADR^A19 messages received by HealthMyne, the following information will be used to process patient data:

HL7 Segment	HL7 Element Name	Field	Value	HealthMyne Note
PID	Patient Identifier List	3	PatientID	The Master Patient ID
	Alternative Patient Identifier	4	Alternative Patient ID	Other known Patient IDs
	Patient Name	5	PatientName , FullName	Patient Name
	Date/Time of Birth	7	PatientsBirthDate	Patient Birthdate
	Sex	8	PatientsSex	Patient Sex