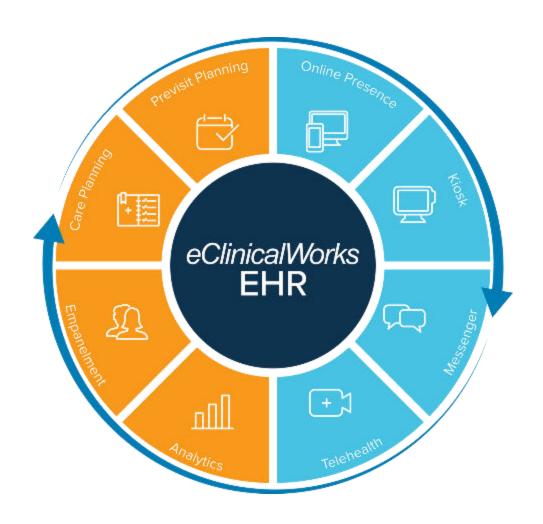# eClinicalWorks

HL7 REPORTS INBOUND SPECIFICATIONS ORU AND MDM

August 2022

CONTENTS

HL7 Reports Specifications

This document describes the HL7® specifications for ORU and MDM reports messages.

HL7 Reports Specifications ORU

This section contains the reports specifications for ORU.

Transaction Structure

Name	Description	Comments	R/O/N
MSH	Message Header	This segment should always be present in the ORU message	R
PID	Patient Identification	The PID segment provides the patient demographic information	R
PV1	Patient Visit	PV1 segment, if present, will be used for determining the physician information	O
ORC	Common Order	If present, there is only one ORC segment in the ORU message	O
OBR	Observation Request	*(Mandatory)* Report type information is picked up from this segment	R
OBX	Observation Result	Contains report detail information	R

Message Delimiters

Character Function	Character
Segment Terminator	<CR> LF
Field Separator	| (pipe)
Component Separator	^ (caret)
Repetition Separator	~ (tilde)

Conventions

Character Function	Character
Required field - must always be sent	R
Optional field - this info will be processed, if available	O
Not supported	N

MSH - Message Header Segment

The Message Header (MSH) segment defines the intent, source, destination, and some specifics of the syntax of a message:

Field Name	Seg Name	Comment	Len	R/O/N
Segment Type ID	MSH.00	MSH	3	R
Encoding Characters	MSH.01	^~\&	4	R
Sending Application	MSH.02	Sending Application	30	O
Sending Facility	MSH.03	Sending Facility	30	O
Receiving Application	MSH.04	Receiving Application	30	O
Receiving Facility	MSH.05	Receiving Facility	30	R
Message Date & Time	MSH.06	Format: YYYYMMDDHHMMSS	14	O
Security	MSH.07	Not Supported	—	N
Message Type	MSH.08	ORU^R01	7	R
Message Control ID	MSH.09	A number that uniquely identifies the message	60	R
Processing ID	MSH.10	P - Production T - Test	1	O
Version ID	MSH.11	2.3	8	O

Sample Output

```
MSH|^~\&|ECW|TEST6600|1100|BN|20210630121330||ORU^R01||P|2.3
```

PID - Patient Identification

The Patient Identifier (PID) segment is used by all applications as the primary means to communicate patient identification information. This segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change frequently. Any data sent in the PID segment of the ORU message will be used for patient matching only and will not be processed for updating patient demographics in eCW. Fields supported for matching will be reviewed by eCW:

Field Name	Seg. Name	Comment	Len	R/O/N
Segment Type ID	PID.00	PID	3	R
Sequence Number	PID.01	Serial Number Starting From 1	4	R
Patient ID (Internal ID)	PID.02	Patient ID	20	O
Patient ID (External ID)	PID.03	Patient MRN	30	O
Alternate Patient ID	PID.04	Not Supported	—	N
Patient Name	PID.05	Last Name 60^First Name 60^MI 60	180	R
Mother's Maiden Name	PID.06	Not Supported	—	N
Date of Birth	PID.07	YYYYMMDD	8	R
Sex	PID.08	F - Female M - Male U - Unknown	1	O
Patient Alias	PID.09	Not Supported	—	N
Race	PID.10	Not Supported	—	N
Patient Address	PID.11	Addr1 60^Addr2 50^City 40^State 10^ZIP 12	172	O
County Code	PID.12	Not Supported	—	N
Phone # - Home	PID.13	NNNNNNNNNN	10	O
Phone # - Business	PID.14	Not Supported	—	N
Primary Language	PID.15	Not Supported	—	N
Marital Status	PID.16	Not Supported	—	N
Religion	PID.17	Not Supported	—	N
Patient Account Number	PID.18	Not Supported	—	N
SSN - Patient	PID.19	NNNNNNNNN	9	O

Sample Output

```
PID|1|7779|||Test^Test^||19670502|F|||123 HIGH
WAY^^Westboro^MA^01581|| 5085085085||||||999999999
```

PV1 - Patient Visit

The PV1 segment is used to communicate information on a visit-specific basis and is not a required segment for the ORU message:

Field Name	Seg. Name	Comment	Len	R/O/N
Segment Type ID	PV1.00	PV1	3	R
Sequence Number	PV1.01	Serial Number Starting From 1	4	R
Patient Class	PV1.02	Not Supported	—	N
Assigned Patient Location	PV1.03	Not Supported	—	N
Admission Type	PV1.04	Not Supported	—	N
Pre-admit Number	PV1.05	Not Supported	—	N
Prior Patient Location	PV1.06	Not Supported	—	N
Attending Doctor	PV1.07	Doctor Mnemonic 60^Last Name 60^FirstName 60^MI 60	240	O
Referring Provider	PV1.08	Doctor Mnemonic 60^Last Name 60^FirstName 60^MI 60	240	O
Visit ID	PV1.19	Customer-Specific Accessioning	11	O
Admitted Date	PV1.44	Not Supported	—	N

Sample Output

```
PV1|1||110011|||||C9999^TEST^DOCTOR^L|G8888^REF^PHY|||||||||||38808
```

ORC - Common Order Segment (Optional)

The Common Order (ORC) segment is used to receive fields that are common to all results in a provided message (all types of services that are requested). The ORC segment is not required in the ORU message:

Field Name	Seg. Name	Comment	Len	R/O/N
Segment Type ID	ORC.00	ORC	3	O
Order Control	ORC.01	Not Supported	—	N
Place Order Number	ORC.02	Customer-Specific Accessioning	11	O
Filler Order Number	ORC.03	Not Supported	—	N
Placer Group Number	ORC.04	Not Supported	—	N
Order Status	ORC.05	Not Supported	—	N
Response Flag	ORC.06	Not Supported	—	N
Quantity/Timing	ORC.07	Not Supported	—	N
Parent	ORC.08	Not Supported	—	N
Date/Time of Transaction	ORC.09	YYYYMMDDHHMMSS	14	O
Entered By	ORC.10	Not Supported	—	N
Verified By	ORC.11	Not Supported	—	N
Ordering Provider	ORC.12	Doctor Mnemonic 60^Last Name 60^FirstName 60^MI 60	240	O

Sample Output

ORC||38808|||||||20091202115130|||C9999^TEST^TEST^L

OBR - Observation Request Segment

At least one OBR segment should be present for each Order Code associated with any PID segment. This segment is mandatory in ORU messages:

Field Name	Seg. Name	Comment	Len	R/O/N
Segment Type ID	OBR.00	OBR	3	R
Sequence No	OBR.01	Serial Number Starting From 1	4	R
Placer Order Number	OBR.02	Customer-Specific Accessioning	20	O

Field Name	Seg. Name	Comment	Len	R/O/N
Filler Order Number	OBR.03	Vendor Unique Document ID (Profile ID)	35	R
Observation Battery Identifier	OBR.04	Report Code 225^ReportName 255	480	R
		Note: Special characters are not supported in the Report Code or Report Name.		
Priority	OBR.05	Not Supported	—	N
Requested Date/Time	OBR.06	Not Supported	—	N
Observation Date/Time #	OBR.07	Observation Date/Time # Format YYYYMMDDHHMMSS	14	R
Observation End Date/Time #	OBR.08	Not Supported	—	N
Ordering Provider	OBR.16	Provider Mnemonic 60^Last Name 60^FirstName 60^MI 60	240	R
Ordering Provider's Phone No	OBR.17	Not Supported	—	N
Alternate Specimen ID	OBR.18	Not Supported	—	N
Result Date/Time #	OBR.22	Report/Result Date/Time # Format YYYYMMDDHHMMSS	14	O
Performing Lab	OBR.23	Not Supported	—	N
Report Status	OBR.25	Not Supported	—	N

Sample Output

```
OBR|1||38808|DS^Discharge
Summary|||20091226093030|||||||||C9999^Willis^Sam||||||20091226093030
|
```

OBX - Observation and Result Segment

> **Note:** The interface only supports embedded PDF reports.

This segment contains the embedded PDF of the report. This is a mandatory segment in the ORU message:

Field Name	Seg. Name	Comment	Len	R/O/N
Segment Type ID	OBX.00	OBX	3	R
Sequence Number	OBX.01	Serial Number Starting From 1	4	R
Type Value	OBX.02	ED - Embedded PDF	2	R
Observation Value	OBX.05	Embedded PDF in OBX 5.4	—	R
Observation Result Status	OBX.11	Not Supported	—	N
Date Last Observation Normal Values	OBX.12	Not Supported	—	N
User Defined Access Checks	OBX.13	Not Supported	—	N

Sample Output

`OBX|1|ED|||^^^^PDF information BASE64 Format|`

Sample 1 Report Message:

`MSH|^~\&|ECW|TEST6600|1100|BN|20210630121330||ORU^R01||P|2.3`

`PID|1|7779||Test^Test^||19670502|F|||123 HIGH`

`WAY^^Westboro^MA^01581||5085085085||||||999999999`

`PV1|1||110011||||C9999^TEST^DOCTOR^L|G8888^REF^PHY|||||||||||38808`

`OBR|1||38808|DS^Discharge`
`Summary|||20091226093030|||||||||C9999^Willis^Sam||||||20091226093030|`

`OBX|1|ED|||^^^^PDF information BASE64 Format|`

eCW HL7 Reports Specifications MDM

This section contains the reports specifications for MDM.

Transaction Structure

Name	Description	Comments	R/O/N
MSH	Message Header	This segment should always be present in the MDM message	R
PID	Patient Identification	The PID segment provides the patient demographic information	R
PV1	Patient Visit	PV1 segment, if present, is used for determining the physician information	O
TXA	Document Notification	Contains information specific to a transcribed document	R
OBX	Observation Result	Contains report detail information	R

Message Delimiters

Character Function	Character
Segment Terminator	<CR> LF
Field Separator	| (pipe)
Component Separator	^ (caret)
Repetition Separator	~ (tilde)

Conventions

Character Function	Character
Required field - must always be sent	R
Optional field - this info will be processed, if available	O
Not supported	N

MSH - Message Header Segment

The Message Header (MSH) segment defines the intent, source, destination, and some specifics of the syntax of a message:

Field Name	Seg. Name	Comment	Len	R/O/N
Segment Type ID	MSH.00	MSH	3	R
Encoding Characters	MSH.01	^~\&	4	R
Sending Application	MSH.02	Sending Application	30	O
Sending Facility	MSH.03	Sending Facility	30	O
Receiving Application	MSH.04	Receiving Application	30	O
Receiving Facility	MSH.05	Receiving Facility	30	R
Message Date & Time	MSH.06	Format: YYYYMMDDHHMMSS	14	O
Security	MSH.07	Not Supported	—	N
Message Type	MSH.08	MDM^T02	7	R
Message Control ID	MSH.09	A number that uniquely identifies the message	60	R
Processing ID	MSH.10	P- Production T - Test	1	O
Version ID	MSH.11	2.3	8	O

Sample Output

```
MSH|^~\&|ECW|TEST6600|1100|BN|20210630121330||MDM^T02||P|2.3
```

PID - Patient Identification

The Patient Identifier (PID) segment is used by all applications as the primary means of communicating patient identification information. This segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change frequently. Any data sent in the PID segment of the MDM message will be used for patient matching only and will not be processed for updating patient demographics in eCW. Fields supported for matching will be reviewed by eCW:

Field Name	Seg. Name	Comment	Len	R/O/N
Segment Type ID	PID.00	PID	3	R
Sequence Number	PID.01	Serial Number Starting From 1	4	R
Patient ID (Internal ID)	PID.02	Patient ID	20	O
Patient ID (External ID)	PID.03	Patient MRN	30	O
Alternate Patient ID	PID.04	Not Supported	—	N
Patient Name	PID.05	Last Name 60^First Name 60^MI 60	180	R
Mother's Maiden Name	PID.06	Not Supported	—	N
Date of Birth	PID.07	YYYYMMDD	8	R
Sex	PID.08	F - Female M - Male U - Unknown	1	O
Patient Alias	PID.09	Not Supported	—	N
Race	PID.10	Not Supported	—	N
Patient Address	PID.11	Addr1 60^Addr2 50^City 40^State 10^ZIP 12	172	O
County Code	PID.12	Not Supported	—	N
Phone # - Home	PID.13	NNNNNNNNNN	10	O
Phone # - Business	PID.14	Not Supported	—	N
Primary Language	PID.15	Not Supported	—	N
Marital Status	PID.16	Not Supported	—	N
Religion	PID.17	Not Supported	—	N
Patient Account Number	PID.18	Not Supported	—	N
SSN - Patient	PID.19	NNNNNNNNN	9	O

Sample Output

```
PID|1|7779|||Test^Test^||19670502|F|||123 HIGH
WAY^^Westboro^MA^01581|| 5085085085||||||999999999
```

PV1 - Patient Visit

The PV1 segment is used to communicate information on a visit-specific basis and is not a required segment for the MDM Message:

Field Name	Seg. Name	Comment	Len	R/O/N
Segment Type ID	PV1.00	PV1	3	R
Sequence Number	PV1.01	Serial Number Starting From 1	4	R
Patient Class	PV1.02	Not Supported	—	N
Assigned Patient Location	PV1.03	Not Supported	—	N
Admission Type	PV1.04	Not Supported	—	N
Pre-admit Number	PV1.05	Not Supported	—	N
Prior Patient Location	PV1.06	Not Supported	—	N
Attending Doctor	PV1.07	Provider Code 60^Last Name 60^FirstName 60^MI 60	240	O
Referring Provider	PV1.08	Provider Code 60^Last Name 60^FirstName 60^MI 60	240	O
Visit ID	PV1.19	Customer-Specific Accessioning	11	O
Admitted Date	PV1.44	Not Supported	—	N

Sample Output

```
PV1|1||110011|||||C9999^TEST^DOCTOR^L|G8888^REF^PHY|||||||||||||38808
```

TXA - Document Notification Segment

The TXA segment contains information specific to a transcribed document but does not include the text of the document:

Field Name	Seg. Name	Comment	Len	R/O/N
Segment Type ID	TXA.00	TXA	3	R
Sequence No	TXA.01	Serial Number Starting From 1	4	R

Field Name	Seg. Name	Comment	Len	R/O/N
Document Type	TXA.02	Report Code 225^ReportName 255	480	R
		Note: Special characters are not supported in the Report Code or Report Name.		
Document Content Presentation	TXA.03	Not Supported	—	N
Report Date/Time	TXA.04	YYYYMMDDHHMMSS	14	R
Primary Activity Provider Code/Name	TXA.05	Provider Code 60^Last Name 60^FirstName 60^MI 60	240	R
Origination Date/Time	TXA.06	YYYYMMDDHHMMSS	14	O
Transcription Date/Time	TXA.07	YYYYMMDDHHMMSS	14	O
Edit Date/Time	TXA.08	Not Supported	—	N
Originator Code/Name	TXA.09	Not Supported	—	N
Assigned Document Authenticator	TXA.10	Not Supported	—	N
Transcriptionist Code/Name	TXA.11	Not Supported	—	N
Unique Document Number	TXA.12	Unique Identifier Number	35	R
Document Completion Status	TXA.17	Not Supported	—	N
Document Confidentiality Status	TXA.18	Not Supported	—	N
Document Availability Status	TXA.19	Not Supported	—	N
Document Storage Status	TXA.20	Not Supported	—	N
Document Change Reason	TXA.21	Not Supported	—	N
Authentication Person, Time Stamp	TXA.22	Not Supported	—	N
Distributed Copies	TXA.23	Not Supported	—	N

Sample Output

```
TXA|1|HP^History &
Physical||20210630123030|123^WILLIS^SAM|||||||8798642|
```

OBX - Observation and Result Segment

Note: The interface only supports embedded PDF reports.

This segment contains the embedded PDF of the report. This is a mandatory segment in the MDM message:

Field Name	Seg. Name	Comment	Len	R/O/N
Segment Type ID	OBX.00	OBX	3	R
Sequence Number	OBX.01	Serial Number Starting From 1	4	R
Type Value	OBX.02	ED - Embedded PDF	2	R
Observation Value	OBX.05	Embedded PDF in OBX 5.4	—	R
Observation Result Status	OBX.11	Not Supported	—	N
Date Last Observation Normal Values	OBX.12	Not Supported	—	N
User Defined Access Checks	OBX.13	Not Supported	—	N

Sample Output

```
OBX|1|ED|||^^^^PDF information BASE64 Format|
```

Sample 1 Report Message:

```
MSH|^~\&|ECW|TEST6600|1100|BN|20210630121330||MDM^T02||P|2.3

PID|1|7779||||Test^Test^||19670502|F|||123 HIGH

WAY^^Westboro^MA^01581||5085085085|||||||999999999

PV1|1||110011|||||C9999^TEST^DOCTOR^L|G8888^REF^PHY||||||||||||38808

TXA|1|HP^History &
Physical||20210630123030|123^WILLIS^SAM|||||||8798642|

OBX|1|ED|||^^^^PDF information BASE64 Format|
```

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