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Agfa HealthCare

AGFA HEALTHCARE **HL7 Conformance Statement**

Enterprise Imaging 8.1.2 SPx

Document No. 001569 - Revision 8

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1 INTRODUCTION

1.1 Revision Record

| HL7 Conformance Statement Template, Livelink Node ID: 19565451 | | | |
|--|------------|------------|--|
| Revision Number Date Reason for Change | | | |
| 8 | March 2019 | Update TOC | |

| HL7 Conformance Statement Enterprise Imaging 8.1.2 | | |
|--|-------------------|--|
| Revision Number Date Reason for Change | | |
| 2 | October 2, 2017 | Initial version + Add Livelink NodeID |
| 3 | January 24, 2019 | Updated for El final build |
| 4 | February 25, 2019 | all corrections made in review cycle |
| 5 | March 28, 2019 | Implementation new Global Template - HL7 Conformance Statement |
| 8 | April 5, 2019 | all corrections made in review cycle |

1.2 Purpose and Intended Audience of this Document

This document is a HL7 Conformance Statement for the HL7 Services of Enterprise Imaging 8.1.2.

The user of this document is involved with system integration and/or software design. We assume that the reader is familiar with the terminology and concepts that are used in the HL7 standard and the IHE Technical Framework.

Readers not familiar with HL7 terminology should first read the appropriate parts of the HL7 standard itself, prior to reading this conformance statement.

Although the use of this conformance statement in conjunction with the HL7 standard is intended to facilitate communication with Enterprise Imaging 8.1.2, it is not sufficient to guarantee, by itself, the inter-operation of the connection between Enterprise Imaging 8.1.2 and the 3rd party HL7-based system.

To help this integration validation we provide HL7 Conformance Profiles bundled together in a zip file "001570 Enterprise Imaging 8.1.2 HL7 conformance profiles", also available on http://global.agfahealthcare.com/hl7. These conformance profiles are related to the Core Server component and the Web Server component.

Note:

Core Server might also support trigger events that are not included in this conformance statement, provided that the message content can be converted to one of the supported trigger events.

For example, Core Server has limited support for SIU messages since some SIU trigger events can be converted to ORM trigger events (with potential loss of some SIU data which isn't supported in an ORM trigger event).

Another example is the limited support for patient linking since the A24 trigger event can be converted to an A40 trigger event.

This requires a thorough analysis by Agfa Healthcare Professional Services that ultimately determine whether or not Core Server can support a non-listed trigger event.

The integration of any device into a system of interconnected devices goes beyond the scope of the HL7 standard and this conformance statement when *interoperability* is desired. The responsibility for analyzing the applications requirements and developing a solution that



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integrates the Agfa equipment with other vendors' systems is the user's responsibility and should not be underestimated.

1.3 Acronyms and Abbreviations

Definitions, terms and abbreviations used in this document, many of which are defined within the HL7 standard. Abbreviations and terms are as follows:

ADT Admission, Discharge, and Transfer message

AL1 Patient Allergy Information segment

DFT Detail Financial Transaction message

EVN Event Type segment

HL7 Health Level 7

IHE Integrating the Healthcare Enterprise

MFN Master Files Notification message

MRG Merge Patient Information segment

MSH Message Header segment

NTE Notes and comments segment
OBR Observation Request segment
OBX Observation/Result segment

OF Order Filler – Device that sends filled orders (ORM)

OP Order Placer

ORC Common Order segment
ORM Order Request Message

ORU Observation Results - Unsolicited message

PID Patient ID segment
PV1 Patient Visit segment
QRD Query Definition segment

RIS Radiology Information System

SCH Scheduling Activity Information segment
SIU Scheduling Information Unsolicited message

1.4 Related Documents

- > HL7 Standard, see www.hl7.org
- IHE Radiology Technical Framework Revision 17 Final Text, July 2018
- IHE ITI Technical framework Revision 15 Final text July 2018

see http://www.ihe.net/Technical Frameworks/ for the latest revisions



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2 **INBOUND MESSAGES**

2.1 **Core Server supported Trigger Events**

2.1.1 **Supported ACK Events**

For more information about the processed segments and supported fields, refer to the document specified in the 'Conformance profile document' column or to chapter 2.1.1.1 and 2.2.

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Table 2-1 Supported ACK Events

| | Event Code | ACK Trigger Event Description | Conformance profile document |
|-----|---------------|-------------------------------|------------------------------------|
| ACK | ALL | General ACK Message | ENTERPRISE IMAGING INBOUND ACK.pdf |

2.1.1.1 **Supported ACK segments**

The following segments are supported when Enterprise imaging receives an ACK message:

Segments without brackets are mandatory. Segment with square brackets are optional and segments with curly brackets (braces) are repeating.

Table 2-2 Supported ACK segments

| HL7 ACK Event Code | Supported ACK segments |
|--------------------|------------------------|
| All | MSH MSA [ERR] |

2.1.2 **Supported ADT Events**

For more information about the processed segments and supported fields, refer to the document specified in the 'Conformance profile document' column or to chapter 2.1.2.1 and 2.2.

Table 2-3 Supported ADT Events

| Func Area | Event Code | ADT Trigger Event Description | Conformance profile document |
|--------------|---------------|--------------------------------------|--|
| ADT | A01 | Admit / Visit notification | ENTERPRISE IMAGING INBOUND ADT_A01.pdf |
| ADT | A02 | Transfer a patient | ENTERPRISE IMAGING INBOUND ADT_A02.pdf |
| ADT | A03 | Discharge / End visit | ENTERPRISE IMAGING INBOUND ADT_A03.pdf |
| ADT | A04 | Register a patient | ENTERPRISE IMAGING INBOUND ADT_A04.pdf |
| ADT | A05 | Pre-admit a patient | ENTERPRISE IMAGING INBOUND ADT_A05.pdf |
| ADT | A06 | Change an outpatient to an inpatient | ENTERPRISE IMAGING INBOUND ADT_A06.pdf |
| ADT | A07 | Change an inpatient to an outpatient | ENTERPRISE IMAGING INBOUND ADT_A07.pdf |
| ADT | A08 | Update patient information | ENTERPRISE IMAGING INBOUND ADT_A08.pdf |
| ADT | A11 | Cancel admit/visit notification | ENTERPRISE IMAGING INBOUND ADT_A11.pdf |
| ADT | A12 | Cancel transfer | ENTERPRISE IMAGING INBOUND ADT_A12.pdf |
| ADT | A13 | Cancel discharge/end visit | ENTERPRISE IMAGING INBOUND ADT_A13.pdf |



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| Func Area | Event Code | ADT Trigger Event Description | Conformance profile document |
|--------------|---------------|---|--|
| ADT | A28 | Add person information | ENTERPRISE IMAGING INBOUND ADT_A28.pdf |
| ADT | A31 | Update person information | ENTERPRISE IMAGING INBOUND ADT_A31.pdf |
| ADT | A38 | Cancel pre-admit | ENTERPRISE IMAGING INBOUND ADT_A38.pdf |
| ADT | A40 | Merge patient - patient identifier list | ENTERPRISE IMAGING INBOUND ADT_A40.pdf |
| ADT | A47 | Change patient identifier list | ENTERPRISE IMAGING INBOUND ADT_A47.pdf |

2.1.2.1 Supported ADT segments

The following segments are supported when Enterprise imaging receives an ADT message:

Segments without brackets are mandatory. Segments with square brackets are optional and segments with curly brackets (braces) are repeating.

Table 2-4 Supported ADT segments

| HL7 ADT Event Code | Supported ADT segments |
|---|---------------------------|
| A01; A02; A03; A05; A06; A07; A11; A12; A13; A28; A38 | MSH EVN PID PV1 {[OBX]} |
| A04; A08; A31 | MSH EVN PID [PV1] {[OBX]} |
| A40 | MSH EVN {PID MRG} |
| A47 | MSH EVN PID MRG |

2.1.3 Supported MFN Events

For more information about the processed segments and supported fields, refer to the document specified in the 'Conformance profile document' column or to chapter 2.1.3.1 and 2.2.

Table 2-5 Supported MFN Events

| Func Area | Event Code | MFN Trigger Event Description | Conformance profile document |
|--------------|---------------|--------------------------------|--|
| MFN | M02 | Staff/Practitioner master file | ENTERPRISE IMAGING INBOUND MFN_M02.pdf |

2.1.3.1 Supported MFN segments

The following segments are supported when Enterprise imaging receives an MFN message:

Segments without brackets are mandatory. Segments with square brackets are optional and segments with curly brackets (braces) are repeating.

Table 2-6 Supported MFN segments

| | HL7 ADT Event Code | Supported MFN segments |
|---|--------------------|---------------------------|
| Ī | M02 | MSH MFI { MFE STF [PRA] } |



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2.1.4 Supported ORM Events

For more information about the processed segments and supported fields, refer to the document specified in the 'Conformance profile document' column or to chapter 2.1.4.1 and 2.2.

Table 2-7 Supported ORM Events

| Func Area | Event Code | ORM Trigger Event Description | Conformance profile document |
|--------------|---------------|-------------------------------|--|
| ORM | O01 | Order message | ENTERPRISE IMAGING INBOUND ORM_O01.pdf |

2.1.4.1 Supported ORM segments

The following segments are supported when Enterprise imaging receives an ORM message:

Segments without brackets are mandatory. Segments with square brackets are optional and segments with curly brackets (braces) are repeating.

Table 2-8 Supported ORM segments

| HL7 ORM Event Code | Supported ORM segments |
|--------------------|---|
| O01 | MSH PID [PV1] ORC OBR [NTE] [{ [OBX] }] [ZDS] |

2.1.5 Supported ORU Events

For more information about the processed segments and supported fields, refer to the document specified in the 'Conformance profile document' column or to chapter 2.1.5.1 and 2.2.

Table 2-9 Supported ORU Events

| Func Area | Event Code | ORU Trigger Event Description | Conformance profile document |
|--------------|---------------|--|--|
| ORU | R01 | Unsolicited transmission of an observation Message | AGILITY (R)IS INBOUND ORU_R01.pdf |
| ORU | R01 | Unsolicited transmission of an observation Message | AGILITY (R)IS INBOUND ORU_R01_HEARTSTATION.pdf |

2.1.5.1 Supported ORU segments

The following segments are supported when Enterprise imaging receives an ORU message:

Segments without brackets are mandatory. Segments with square brackets are optional and segments with curly brackets (braces) are repeating.

Table 2-10 Supported ORU segments

| HL7 ADT Event Code | Supported ORU segments |
|--------------------|---|
| R01 - default | MSH PID [PV1] {[ORC] OBR [ZDS] [NTE] {OBX}} |



MSH PID [PV1] {[ORC] OBR [ZDS] [NTE] {OBX}}

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| Supported ORU segments | |
|------------------------|--|

2.2 Core Server supported fields in Inbound segments

The following sub-chapters will indicate what are the Required and optional fields supported by Enterprise Imaging for each segment.

The supported segments per message types are listed in the chapter 2.1

2.2.1 MSH Segment

HL7 ADT Event Code

R01 (Heartstation)

Table 2-11 MSH Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|------|-----------------------|--------|--|
| 1 | Field Separator | R | Usually " " |
| 2 | Encoding Characters | R | Usually "^~\&" |
| 3 | Sending Application | 0 | |
| 3.1 | >Namespace ID | 0 | |
| 4 | Sending Facility | 0 | |
| 4.1 | >Namespace ID | 0 | |
| 5 | Receiving Application | 0 | |
| 5.1 | >Namespace ID | 0 | |
| 6 | Receiving Facility | 0 | |
| 6.1 | >Namespace ID | 0 | |
| 7 | Date/time of Message | 0 | |
| 7.1 | >Date/Time | 0 | YYYYMMDD[HHMM[SS]][+-ZZZZ] |
| | | | If timezone information is present, it is taken into account for all date/time fields in the message. If timezone information is present also in other datetime fields, it overrules the timezone information in this field. |
| 9 | Message Type | R | |
| 9.1 | >Message type | R | ADT or ORM or ORU or MFN of ACK |
| 9.2 | >Trigger event | R | See supported "event codes" in chapter 2.1.1, 2.1.2, 2.3.2, 2.4.2, 2.5.2 |
| 9.3 | >Message structure | 0 | |
| 10 | Message Control ID | R | |
| 11 | Processing ID | 0 | |
| 11.1 | >Processing ID | 0 | |
| 12 | Version ID | R | |
| 12.1 | >Version ID | R | "2.3", "2.3.1", "2.4", "2.5" |
| 18 | Character Set | 0 | |

2.2.2 MSA Segment

Table 2-12 MSA Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-----|---------------------|--------|------------------------------|
| 1 | Acknowledgment Code | R | Supported values: AA, AR, AE |



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| Seq | HL7 Field Name | Option | Comments |
|-----|--------------------|--------|--|
| 2 | Message Control ID | R | The message control id of the original message |

2.2.3 ERR Segment

Table 2-13 ERR Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-------|-------------------------|--------|--|
| 1 | Error Code and Location | 0 | Indicates the position in the message which caused the processing problem |
| 1.1 | >Segment ID | 0 | |
| 1.2 | >Segment sequence | 0 | |
| 1.3 | >Field position | 0 | |
| 1.4 | >Code identifying error | 0 | |
| 1.4.1 | >>Identifier | 0 | |
| 1.4.5 | >>Alternate text | 0 | Description of the error in the processing application |
| 2 | Error location | 0 | Indicates the position in the message which caused the processing problem. Applicable for HL7 version 2.5. |
| 2.1 | >Segment ID | 0 | |
| 2.2 | >Segment sequence | 0 | |
| 2.3 | >Field position | 0 | |
| 2.4 | >Field repetition | 0 | |
| 2.5 | >Component number | 0 | |
| 2.6 | >Sub-component number | 0 | |
| 3 | HL7 Error Code | 0 | Applicable for HL7 version 2.5 |
| 3.1 | >Identifier | 0 | |
| 3.2 | >text | 0 | |
| 4 | Severity | R | Applicable for HL7 version 2.5 |
| 5 | Application Error Code | R | The code and description of the error in the processing application. Applicable for HL7 version 2.5 |
| 5.1 | >Identifier | R | |
| 5.2 | >Text | R | |

2.2.4 EVN Segment

Table 2-14 EVN Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-----|--------------------|--------|--|
| 2 | Recorded Date/Time | R | |
| 2.1 | >Date/Time | R | YYYYMMDD[HHHMM[SS]][+-ZZZZ] |
| | | | If timezone information is present it overrules the timezone information if available in MSH-7 |

2.2.5 PID Segment

Table 2-15 PID Fields Support in Enterprise Imaging



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| Seq | HL7 Field Name | Option | Comments |
|------------|---------------------------------------|--------|--|
| 3 | Patient Identifier List | R | |
| 3.1 | >ID | R | Identification number or code of the patient |
| 3.4 | >Assigning Authority | 0 | Tuestimounes number of code of the patient |
| 3.4.1 | >>namespace ID | 0 | Identifier of the Assigning Authority that issued the patient |
| | | | id. If not available the default patient assigning authority for the system will be used |
| 3.5 | > Identifier Type code (ID) | 0 | Supported values: PI = Patient Primary Identifier SS = Social Security number If empty PI will be used by default |
| 3.6 | >Assigning facility | 0 | |
| 3.6.1 | >>namespace ID | 0 | |
| 5 | Patient Name | R | |
| 5.1 | >family name | R | |
| 5.1.1 | >>surname | R | Patient's last name |
| 5.1.2 | >>own surname prefix | 0 | For alphabetic name / maiden name, if PID.5.1.1 is empty, PID.5.1.2 and PID.5.1.3 are concatenated as last name |
| 5.1.3 | >>own surname | 0 | For alphabetic name / maiden name, if PID.5.1.1 is empty, PID.5.1.2 and PID.5.1.3 are concatenated as last name |
| 5.2 | Saiyon nama | | Patient's first name |
| 5.3 | >given name >second and further given | 0 | Patient's list name |
| F 4 | name or initials thereof | | Detication wiffing (and ID on III) |
| 5.4 5.5 | >suffix | 0 | Patient's suffix (eg: JR or III) |
| 5.7 | >prefix | 0 | Patient's prefix (eg: DR) M = maiden name, only support storing last name for |
| | >name type code | | maiden name. |
| 5.8 | >name representation code | 0 | Supported are: A or empty = Alphabetic I = Ideographic P = Phonetic |
| 7 | Date/Time of Birth | 0 | |
| 7.1 | Date/Time | 0 | YYYYMMDD[HHHMM[SS]] |
| 8 | Administrative Sex | 0 | M (Male), F (Female), O (Other) The DICOM Patient's Sex (0010,0040) attribute can have only the values M, F or O (for other). So when EI receives other values than the one indicated above, it will convert it to O |
| 11 | Patient Address | 0 | |
| 11.1 | >street address (SAD) | 0 | This component specifies the street or mailing address of a person or institution. |
| 11.1.1 | >>street or mailing address | 0 | This is used when PID-11.1.2 (Street Name) is empty |
| 11.1.2 | >>street name | 0 | Name of the street |
| 11.1.3 | >>dwelling number | 0 | House number |
| 11.2 | >other designation | 0 | |
| 11.3 | >city | 0 | Municipality code of the city. If field is empty, the city will be listed as 'Unknown' (code UKW). |
| 11.4 | >state or province | 0 | Is always the highest region level, but there can be a lower subdividing region level for a state or province |



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| Seq | HL7 Field Name | Option | Comments |
|---------|--|--------|---|
| 11.5 | >zip or postal code | 0 | Zip or postal code of the city |
| 11.6 | >country | 0 | 3-digit code defining the county. This is necessary in EI for the address segment to be processed. |
| | | | It defaults to UKW (Unknown country) when left empty |
| 11.7 | >address type | 0 | O (office), H (home address) are supported. |
| | | | L (Legal Address) defaults to office and the rest defaults to H (home address) |
| 11.8 | >other geographic designation | 0 | |
| 11.9 | >country/parish code | 0 | |
| 11.12 | >Address validity range | 0 | |
| 11.12.1 | >>range start date/time | 0 | |
| 11.12.2 | >>range end date/time | 0 | |
| 13 | Phone Number – Home | 0 | This field is used for all home communication. First one is the primary home communication channel |
| 13.1 | >telephone number | 0 | In case of telephone number/fax number/cellular number, |
| 15.1 | relephone number | | the phone number is put in this field |
| | | | [(999)] 999-9999 [X99999][C any text] |
| 13.2 | >telecommunication use code | R | If this is empty the communication cannot be registered. |
| | | | Supported are: |
| | | | - Primary Residence Number (PRN) |
| | | | - Work Number (WPN) |
| | | | - Other Residence Number (ORN) |
| | | | - Network (email) Address (NET) |
| 13.3 | >telecommunication equipment type (ID) | R | If this is empty the communication cannot be registered. |
| | | | Supported are: |
| | | | - Telephone (PH) |
| | | | - Fax (FX) |
| | | | - Cellular Phone(CP) |
| | | | - Internet Address (Internet) |
| 13.4 | >Email address | 0 | In case of Network Email Address, this needs to be filled in |
| 14 | Phone Number – Business | 0 | This field is used for all business communication. |
| | | | First one is the primary business channel |
| 14.1 | >telephone number | 0 | In case of telephone number/fax number/cellular number, the phone number is put in this field |
| | | | [(999)] 999-9999 [X99999][C any text] |
| 14.2 | >telecommunication use code | R | Required. If this is empty the communication cannot be registered. |
| | | | Supported are: |
| | | | - Primary Residence Number (PRN) |
| | | | - Work Number (WPN) |
| | | | - Other Residence Number (ORN) |
| | | _ | - Network (email) Address (NET) |
| 14.3 | >telecommunication equipment type (ID) | R | Required. If this is empty the communication cannot be registered. |
| | | | Supported are: |
| | | | - Telephone (PH) |
| | | | - Fax (FX) |
| | | | - Cellular Phone(CP) |
| | | | - Internet Address (Internet) |
| 14.4 | >Email address | 0 | In case of Network Email Address, this needs to be filled in |



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| Seq | HL7 Field Name | Option | Comments |
|------|-------------------------|--------|---|
| 19 | SSN Number – Patient | 0 | Social Security number of the patient |
| 23 | Birth Place | 0 | |
| 29 | Patient Death Date/Time | С | Condition Predicate:If PID.30 has a value, this field also needs a value. |
| 29.1 | Date/Time | R | YYYYMMDD[HHMM[SS]][+-ZZZ Z] or "" If timezone information is present it overrules the timezone information available in MSH-7 |
| 30 | Patient Death Indicator | 0 | Y or N |

2.2.6 MRG Segment

Table 2-16 MRG Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-------|-------------------------------|--------|---|
| 1 | Prior Patient Identifier List | R | One to one field corresponding list to PID identifiers list. Identifiers specified in MRG segment are to be replaced by field corresponding identifier in PID |
| 1.1 | ID number | R | Identification number or code for the patient |
| 1.4 | Assigning authority | 0 | |
| 1.4.1 | Namespace ID | 0 | Identifier of the Assigning Authority that issued the patient id. If not available an internal patient assigning authority for the system will be used |
| 1.5 | Identifier type code | 0 | Supported values: - PI = Patient Primary Identifier - SS = Social Security number If empty PI will be used by default Value entered should match PID 3.5 for successful merge |

2.2.7 PV1 Segment

Table 2-17 PV1 Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-----|---------------------------|--------|---|
| 1 | Set ID – PV1 | 0 | |
| 2 | Patient Class | R | Required for: A01, A04, A05, A06, A07, ORM, ORU I (Inpatient), O (Outpatient), E (Emergency), P (Preadmit), R (Recurring), B (Obstetrics), N (Not applicable) |
| | | 0 | Optional for A02, A03, A08, A11, A12, A13, A28, A31, A38 |
| 3 | Assigned Patient Location | R | Required for: A02, A12. At least one of the component must be filled in (3.1 or 3.2 or 3.3 or 3.4) |
| | | 0 | Optional for: A01, A03, A04, A05, A06, A07, A08, A11, A13, A28, A31, A38, ORM, ORU |
| 3.1 | >Point of care | 0 | Patient's location department code. When an unexisting department code is used, the department will be autocreated |
| 3.2 | >Room | 0 | Room in the department |
| 3.3 | >Bed | 0 | Bed in the room |
| 3.4 | >Facility (HD) | 0 | |



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| Seq | HL7 Field Name | Option | Comments |
|--------|--|--------|--|
| 3.4.1 | >>Namespace ID | 0 | Patient's location facility code. When an unexisting facility code is used, the facility will be autocreated |
| 3.11 | >Assigning Authority for location | 0 | account with the same of the s |
| 3.11.1 | >>Namespace ID | 0 | Assigning authority of the issuer of department/facility code |
| 4 | Admission Type | 0 | Type of admission, the circumstances under which the patient was or will be admitted |
| 7 | Attending Doctor | 0 | Attending Physician information |
| 7.1 | >ID number (ST) | 0 | physician identifier |
| 7.2 | >Family name | 0 | |
| 7.2.1 | >>Surname | 0 | Family name of the physician |
| 7.2.2 | >>Own surname prefix | 0 | |
| 7.2.3 | >>Own surname | 0 | |
| 7.2.4 | >>Surname prefix from partner/ spouse | 0 | |
| 7.2.5 | >>Surname from partner/ spouse | 0 | |
| 7.3 | >Given name | 0 | Given name of the physician |
| 7.4 | >Second and further given names or initials thereof | 0 | |
| 7.5 | >Suffix | 0 | e.g: JR or III |
| 7.6 | >Prefix | 0 | e.g: DR |
| 7.9 | >Assigning authority | 0 | |
| 7.9.1 | >>Namespace ID | 0 | Identifier of the Assigning Authority that issued the physician id |
| 8 | Referring Doctor | 0 | Referring physician information |
| 8.1 | >ID number (ST) | 0 | |
| 8.2 | >Family name | 0 | |
| 8.2.1 | >>Surname | 0 | |
| 8.2.2 | >>Own surname prefix | 0 | |
| 8.2.3 | >>Own surname | 0 | |
| 8.2.4 | >>Surname prefix from partner/ spouse | 0 | |
| 8.2.5 | >>Surname from partner/ spouse | 0 | |
| 8.3 | >Given name | 0 | |
| 8.4 | > Second and further given names or initials thereof | 0 | |
| 8.5 | >Suffix | 0 | e.g: JR or III |
| 8.6 | >Prefix | 0 | e.g: DR |
| 8.9 | >Assigning authority | 0 | <u> </u> |
| 8.9.1 | >>Namespace ID | 0 | Identifier of the Assigning Authority that issued the physician id |
| 15 | Ambulatory Status | 0 | Code indicating any permanent or transient handicapped conditions |
| 16 | VIP Indicator | 0 | This field identifies the type of VIP 1, set VIP or personnel as yes - 0, set as no |
| 17 | Admitting Doctor | 0 | Admitting physician information |
| 17.1 | >ID number (ST) | 0 | |



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| Seq | HL7 Field Name | Option | Comments |
|--------|--|--------|--|
| 17.2 | >Family name | 0 | |
| 17.2.1 | >>Surname | 0 | |
| 17.2.2 | >>Own surname prefix | 0 | |
| 17.2.3 | >>Own surname | 0 | |
| 17.2.4 | >>Surname prefix from partner/ spouse | 0 | |
| 17.2.5 | >>Surname from partner/ spouse | 0 | |
| 17.3 | >Given name | 0 | |
| 17.4 | > Second and further given names or initials thereof | 0 | |
| 17.5 | >Suffix | 0 | e.g: JR or III |
| 17.6 | >Prefix | 0 | e.g: DR |
| 17.9 | >Assigning authority | 0 | |
| 17.9.1 | >>Namespace ID | 0 | Identifier of the Assigning Authority that issued the physician id |
| 18 | Patient Type | 0 | Site-specific values that identify the patient type |
| 19 | Visit Number | R | Required for A01, A02, A03, A04, A05, A06, A07, A11, A12, A13, A38 |
| | | 0 | Optional for: A08, A28, A31, ORM, ORU |
| 19.1 | >ID | R | Unique number identifying the admission. |
| 19.4 | >Assigning authority | 0 | |
| 19.4.1 | >>Namespace ID | 0 | |
| 44 | Admit Date/Time | 0 | When no admit date/time is present in the message, a fallback is done to EVN-2. |
| 44.1 | >Date/time | 0 | YYYYMMDD[HHHMM[SS]][+-ZZZ Z] |
| | | | If timezone information is present it overrules the timezone information if available in MSH-7 |
| 45 | Discharge Date/Time | 0 | When no discharge date/time is present in the message, a fallback is done to EVN-2 |
| 45.1 | >Date/time | 0 | YYYYMMDD[HHHMM[SS]][+-ZZZ Z] |
| | | | If timezone information is present it overrules the timezone information if available in MSH-7 |

2.2.8 ORC Segment

Table 2-18 ORC Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-----|---------------------|--------|--|
| 1 | Order Control | R | Supported in ORM: - NW (New order) - SC/XO/XX(Change Order) - CA (Cancel Order) - DC (Discontinue order) Supported in ORU SC (status changed) |
| 2 | Placer Order number | 0 | |
| 2.1 | >Entity identifier | R | Unique identifier for the order, defined by the order placer |



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| Seq | HL7 Field Name | Option | Comments |
|----------|---------------------|--------|--|
| 2.2 | >Namespace ID | 0 | Identifier of the Assigning Authority that issued the placer order number. |
| | | | If empty, the default assigning authority will be taken |
| 3 | Filler Order number | R | Required for ORM |
| | | 0 | Optional for ORU |
| 3.1 | >Entity identifier | R | Unique identifier for the order, defined by the order filler |
| 3.2 | >Namespace ID | 0 | Identifier of the Assigning Authority that issued the filler order number. If empty, the default assigning authority will be taken |
| 5 | Order Status | R | Required for ORU. |
| | | | -IP (In Progress) |
| | | | -CM (Completed) |
| | | | -DC (Discontinued) |
| | | | -CA (Cancelled) |
| | | | -SC (Scheduled) |
| | | 0 | Optional for ORM |
| | | | - empty no status change |
| | | | - IP, set SPS status as STARTED |
| | | | - CM set SPS status as COMPLETED |
| | | | - DC, set SPS status as DISCONTINUED |
| | | | - CA set SPS status as CANCELLED |
| | | | - SC, set SPS status as Ordered/Scheduled |
| | | | - PA, set SPS status as Ordered/Scheduled + set patient arrived flag to True |
| 7 | Quantity/Timing | 0 | Identical to the Quantity/Timing in OBR-Segment. |
| | | | If values provided in these fields differ, EI will consider value provided in OBR-27. |
| 7.4 | >Start date/time | 0 | |
| 7.4.1 | >>Date/time | 0 | YYYYMMDD[HHHMM[SS]][+-ZZZ Z] |
| | | | If timezone information is present it overrules the timezone information if available in MSH-7 |
| 7.5 | >End date/time | 0 | |
| 7.5.1 | >>Date/time | 0 | YYYYMMDD[HHHMM[SS]][+-ZZZ Z] |
| | | | If timezone information is present it overrules the timezone information if available in MSH-7 |
| 7.6 | >Priority | 0 | 1) For existing sites (migration) |
| | | | - High Priority codes: A, T |
| | | | - Normal Priority codes: S, Unknown* |
| | | | - Low Priority Codes: C, P, R |
| | | | 2) For new installations |
| | | | - STAT priority code: S |
| | | | - Urgent priority codes: A, T |
| | | | - High Priority code: C |
| | | | - Normal Priority codes: P, Unknown* |
| | | | - Routine Priority Code: R |
| | | | These values are configurable |
| | | | These values are configurable. |
| <u> </u> | | 1 | * A value for which no mapping is applicable. |



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| Seq | HL7 Field Name | Option | Comments |
|--------|---|--------|--|
| 9 | Date/Time of Transaction | 0 | Fall back for ORC-15 being empty. Used as order creation date/time. When empty, the Date/Time of processing the message is taken |
| 9.1 | >Date/time | 0 | YYYYMMDD[HHHMM[SS]][+-ZZZ Z] |
| | | | If timezone information is present it overrules the timezone information if available in MSH-7 |
| 10 | Entered By | 0 | ORU only. |
| 10.1 | >ID number (ST) | 0 | |
| 10.2 | >Family name | 0 | |
| 10.2.1 | >>Surname | 0 | |
| 10.3 | >Given name | 0 | |
| 10.9 | >Assigning authority | 0 | |
| 10.9.1 | >>Namespace ID | 0 | |
| 12 | Ordering Provider | 0 | Requesting Physician. If this is not filled in OBR-16 is processed instead |
| 12.1 | >ID number | 0 | Unique code identifying the requesting physician |
| 12.2 | >Family name | 0 | |
| 12.2.1 | >>Surname | 0 | Requesting physician last name |
| 12.3 | >Given name | 0 | Requesting physician first name |
| 12.4 | >Second and further given names or initials thereof | 0 | Middle name |
| 12.5 | >Suffix | 0 | e.g: JR or III |
| 12.6 | >Prefix | 0 | e.g: DR |
| 12.9 | >Assigning authority | 0 | |
| 12.9.1 | >>Namespace ID | 0 | Identifier of the Assigning Authority that issued the physician id |
| 15 | Order Effective Date/Time | 0 | Fall back for OBR-6 being empty. Used as order creation date/time. When empty, ORC.9 is taken. |
| 15.1 | >Date/Time | 0 | YYYYMMDD[HHHMM[SS[.SSSS]]][+-ZZZ Z] |
| 17 | Entering Organization | 0 | Requesting department |
| 17.1 | >Identifier | R | Code of the department |
| 17.2 | >Text | 0 | Name of the department. If empty, the identifier will be taken as name. |
| 17.3 | >Name of Coding system | 0 | Identifier of the Assigning Authority that issued the department id. If empty, the default system assigning authority will be taken. |
| 21 | Ordering facility name | 0 | Requesting Hospital |
| 21.1 | >Organization name | 0 | Name of the hospital. If empty, the identifier of the requesting facility will be taken as name |
| 21.3 | >ID number (NM) | R | Identifier of the hospital |
| 21.6 | >assigning authority | 0 | Identifier of the Assigning Authority that issued the hospital id. If empty, the default assigning authority will be taken |
| 21.6.1 | >>Namespace ID | R | Assigning authority that issues the identifier. |

OBR Segment 2.2.9

Table 2-19 OBR Fields Support in Enterprise Imaging



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| Seq | HL7 Field Name | Option | Comments |
|--------|----------------------------------|--------|--|
| 1 | Set ID - Observation Request | 0 | Set to 1,2,3 |
| 2 | Placer Order number | 0 | Identical to ORC-2 |
| 2.1 | >Entity identifier | R | |
| 2.2 | >Namespace ID | 0 | |
| 3 | Filler Order number | R | Identical to ORC-3 |
| 3.1 | >Entity identifier | R | |
| 3.2 | >Namespace ID | 0 | |
| 4 | Universal Service Identifier | R | |
| 4.1 | >Identifier | R | The code of the requested procedure definition |
| 4.2 | >Text | 0 | The description of the requested procedure definition |
| 4.3 | >Name of coding system | 0 | Code of the performing department. Any value in OBR-43 will overrule this value. Department will be created if not existing in EI. The combination of OBR-4.3 and the default assigning |
| | | | authority is used in the lookup |
| 4.4 | >Alternate Identifier | 0 | The code of the scheduled procedure step definition |
| 4.5 | >Alternate text | 0 | The description of the scheduled procedure step definition |
| 4.6 | >Name of alternate coding system | 0 | Coding system providing the code. If empty use issuer of order filler number. If there is no issuer for order filler number, use the default assigning authority. |
| 6 | Requested Date/Time | 0 | Used as order creation date/time. When empty a fall back on ORC-15 and ORC-9 is done. If both empty the Date/Time of processing the message is taken |
| 6.1 | >Date/Time | 0 | YYYYMMDD[HHHMM[SS]][+-ZZZ Z] If timezone information is present it overrules the timezone information if available in MSH-7 |
| 13 | Relevant Clinical Info | 0 | |
| 16 | Ordering Provider family | 0 | The ordering provider should be the same as ORC-12. If ORC-12 is filled in, this will not be processed. |
| 16.1 | >ID number (ID) | 0 | Physician Identifier |
| 16.2 | >Family name | 0 | |
| 16.2.1 | >>Surname | 0 | Physician lastname |
| 16.3 | >Given name | 0 | Physician firstname |
| 16.9 | >Assigning authority | 0 | |
| 16.9.1 | >>Namespace ID | 0 | Assigning authority of the identifier |
| 18 | Placer Field 1 | R | Required for ORU. Accession number of the request |
| | | С | Conditional for ORM. Accession number of the request Condition Predicate: Field is required when the message has no StudyInstanceUid specified. (no ZDS segment) |
| 19 | Placer Field 2 | R | Required for ORM. Requested procedure ID |
| | | 0 | Optional for ORU. Requested procedure ID |
| 20 | Filler Field 1 | R | Required for ORM. Scheduled Procedure Step ID |



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| Seq | HL7 Field Name | Option | Comments |
|--------|----------------------------|--------|---|
| | | 0 | Optional for ORU. Scheduled Procedure Step ID |
| 22 | Result Rpt/Status Change - | 0 | ORU only. |
| | Date/Time | | Report Modification Date or Addendum Modification Date |
| 22.1 | >Date/Time | R | The modification date of the report |
| 24 | Diagnostic Serv Sect Id | 0 | Modality Type (Used when Procedure Definition is created on the fly) |
| 25 | Result Status | 0 | ORU only. Report status |
| | | | Default values (property 'ORU controlled reporting workflow' is set to false) - P preliminary report - F signed report |
| | | | - C correction to results |
| | | | - D report deleted |
| | | | - X no results available, order cancelled |
| | | | 71.10 1004.10 4.14.145.10, 0.140.104.105.104 |
| | | | ORU controlled reporting workflow (property 'ORU controlled reporting workflow' is set to true) |
| | | | - UP unapproved preliminary report |
| | | | - P approved preliminary report |
| | | | - F signed report |
| | | | - W wet read report |
| | | | - PA preliminary addendum |
| | | | - A final addendum |
| | | | - D report deleted |
| 27 | Quantity/Timing | 0 | Identical to the Quantity/Timing in ORC-7 Segment. |
| | Jan 19 | | If values provided in these fields differ, EI will consider value provided in OBR- 27 |
| 27.4 | >Start date/time | 0 | Used as the requested procedure scheduled study date/ time and the scheduled procedure step start date/ time. When the value is empty, the value of OBR-36 is taken as requested procedure study date/time and scheduled procedure step start date/time |
| 27.4.1 | >>Date/Time | 0 | YYYYMMDD[HHMM[SS]][+-ZZZ Z] |
| | | | If timezone information is present it overrules the timezone information if available in MSH-7 |
| 27.5 | >End date/time | 0 | Used as scheduled procedure step end date/time |
| 27.5.1 | >>Date/Time | 0 | YYYYMMDD[HHMM[SS]][+-ZZZ Z] |
| | | | If timezone information is present it overrules the timezone information if available in MSH-7 |



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| Seq | HL7 Field Name | Option | Comments |
|--------|------------------------------|--------|--|
| 27.6 | >Priority | 0 | 1) For existing sites (migration) |
| | | | - High Priority codes: A, T |
| | | | - Normal Priority codes: S, Unknown* |
| | | | - Low Priority Codes: C, P, R |
| | | | 2) For new installations |
| | | | - STAT priority code: S |
| | | | - Urgent priority codes: A, T |
| | | | - High Priority code: C |
| | | | - Normal Priority codes: P, Unknown* |
| | | | - Routine Priority Code: R |
| | | | These values are configurable. |
| | | | * A value for which no mapping is applicable |
| 31 | Reason For Study | 0 | |
| 31.2 | >Text | 0 | Text containing clinical information for the study. |
| 32 | Principal Result Interpreter | 0 | ORU only |
| | | | Default behaviour (property 'ORU controlled reporting workflow' is set to false). |
| | | | Final report : |
| | | | Physician that validated the report |
| | | | - if first iteration of OBR-33 is empty, this physician will also handled as author of the report. |
| | | | Preliminary report: |
| | | | - physician will be handled as author of the report. |
| | | | 2)ORU controlled reporting workflow (property 'ORU controlled reporting workflow' is set to true) |
| | | | - The physician specified in this field, will always be the attending physician which will get assigned to the signoff task in case the report is preliminary. |
| | | | - If no entry is specified, the first physician in OBR-33 will get the task assigned. |
| 32.1 | >Name | R | |
| 32.1.1 | >>ID number (ST) | R | Code identifying the physician |
| 32.1.2 | >>Family name | R | Last name of the Physician |
| 32.1.3 | >>Given name | R | Firstname of the physician |
| 32.1.9 | >>Assigning authority | 0 | |



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| Seq | HL7 Field Name | Option | Comments |
|----------------|--------------------------------------|--------|--|
| 33 | Assistant Result Interpreter | 0 | ORU only. 1) Default behaviour (property 'ORU controlled reporting workflow' is set to false) Final report: - the first iteration will be handled as the author of the report All the other iterations are reviewers. Preliminary report: - all the iterations are handled as reviewers. 2) ORU controlled reporting workflow (property 'ORU controlled reporting workflow' is set to true) - The physician specified in the first field, will always be the author of the report. If no entry is specified in OBR-32, the first physician in OBR-33 is assigned the created signoff task in case the report is preliminary. |
| | | | - All the other iterations are reviewers. |
| 33.1 33.1.1 | >Name >>ID number (ST) | R R | Code identifying the physician |
| 33.1.1 | >>Family name | R | Last name of the Physician |
| 33.1.3 | >>Given name | R | Firstname of the physician |
| 33.1.9 | >>Assigning authority | 0 | The diameter and projection |
| 34 | Technician | 0 | |
| 34.5 | >Room | 0 | Acquisition room |
| 35 | Transcriptionist | 0 | ORU only. Transcriptionist of the report |
| 35.1 | >name | R | |
| 35.1.1 | >>ID number (ST) | R | |
| 35.1.2 | >>Family name | R | |
| 35.1.3 | >>Given name | 0 | |
| 36 | Scheduled Date/Time | 0 | Used for requested procedure scheduled study date/time and scheduled procedure step date/time when OBR-27.4 is empty. |
| 36.1 | >Date/Time | 0 | YYYYMMDD[HHHMM[SS]][+-ZZZ Z] If timezone information is present it overrules the timezone information if available in MSH-7 |
| 43 | Planned Patient Transport Comment | 0 | This field can be used to provide performing department. When the performing department code provided in OBR-43.1 (with or without an issuer in OBR-43.3) is not found in the system, it will be created. When no name is present, the department code is used as the department name. Another way to provide the performing department is by means of OBR-4.3 (universal service identifier). If present the value will be used in combination with the default assigning authority in the lookup. |
| 43.1 | >Identifier | 0 | performing department code |
| 43.2 | >Text | 0 | performing department name |
| · - · — | | | I to a second and an arrangement |



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OBX Segment 2.2.10

Table 2-20 OBX Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-----|------------------------|--------|--|
| 1 | Set ID – OBX | 0 | Set to 1,2,3 |
| 2 | Value Type | R | Supported values For ADT: - TX (For Text Attachment type) - FT (For Text Attachment type) Supported values for ORM: |
| | | | - RP (For PDF/Image Attachment type) |
| | | | - TX (For Text Attachment type) |
| | | | Supported values for ORU: |
| | | | In case of reports: |
| | | | - FT |
| | | | - RP (For reports send as PDF with reference pointer) |
| | | | - ED (For reports send as Base64 encoded data) |
| | | | In case of attachments: |
| | | | - TX (For Text attachment type) |
| | | | - RP (For PDF/Image attachment type) |
| 3 | Observation identifier | R | |
| 3.1 | >Identifier | R | For ADT: |
| | | | Must correspond with an attachment code that is setup as a "Patient level" attachment as defined in the Administrator desktop. |



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| Seq | HL7 Field Name | Option | Comments |
|-----|----------------|--------|---|
| | | | For ORM: |
| | | | 1) OBX segment with attachment information: |
| | | | Value of this field must correspond with an attachment code as defined in the Administrator desktop. The following attachment codes are already delivered in dedicated HL7 fields and therefore should not be processed as attachments in OBX-segments: |
| | | | - REASONFORSTUDY (OBR(31)) |
| | | | - PROCEDURECOMMENT (NTE(3)) |
| | | | - CLINICALINFO (OBR(13) or NTE(3)) |
| | | | Remark : |
| | | | If the attachment code is not setup as a 'Study level' or 'Order level' or 'Report level' attachment in the Administrator Desktop, the attachment will not be processed. |
| | | | The reception of multiple attachments with the same attachment code OBX(3.1) is supported: |
| | | | - PDF/Image type attachments: |
| | | | when multiple attachments with the same attachment code are present, a new document/image is added per attachment. |
| | | | - Single value Text attachment: |
| | | | when multiple attachments with the same attachment code are present, the text from all these attachments is concatenated. A newline character is used to separate the texts from the differentattachments. |
| | | | - Message board Text attachment: |
| | | | when multiple attachments with the same attachment code are present, a separate text item is added to the message board per attachment. |
| | | | 2)OBX segment with Patient Arrived information: Value of OBX-3 is PATIENT_ARRIVED. See following details: |
| | | | The combination (OBX-2 = TX, OBX-3 = PATIENT_ARRIVED, OBX-5 = YES) indicates the patient's arrived status is true; whereas the combination (OBX-2 = TX, OBX-3 = PATIENT_ARRIVED, OBX-5 = NO) indicates the patient's arrived status is false. |



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| Seq | HL7 Field Name | Option | Comments |
|-----|----------------|--------|---|
| Seq | HL7 Field Name | Option | For ORU: In case of reports: - This field should contain &GDT for specifying general report It should contain &ADT for specifying addendum report When report type is FT (OBX-2) only 1 OBX segment with general report is allowed and multiple addendum OBX are allowed When report type is RP or ED (OBX-2) only 1 OBX segment is allowed. The OBX should specify a general report. When addendum is present, it is supposed to be included in the general report. In case of attachments: -Must correspond with an attachment code as defined in the administrator desktopThe following attachment codes are already delivered in dedicated HL7 fields and therefore should not be processed as attachments in OBX-segments: - REASONFORSTUDY (OBR(31)) - PROCEDURECOMMENT (NTE(3)) - CLINICALINFO (OBR(13) or NTE(3)) Remark: If the attachment code is not setup as a 'Study level', 'Order level' or 'Report level' attachment in the Administrator Desktop, the attachment will not be processed. The reception of multiple attachments with the same attachments: when multiple attachments with the same attachment code are present, a new document/image is added per attachment Single value Text attachment: when multiple attachments with the same attachment code are present, the text from all these attachments is concatenated. A newline character is used to separate the texts from the different attachments. |
| | | | Message board Text attachment: when multiple attachments with the same attachment code are present, a separate text item is added to the message board per attachment. |
| 3.2 | >Text | 0 | Description of the observation |
| | L . | | • |



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| Seq | HL7 Field Name | Option | Comments |
|-----|-----------------------|--------|---|
| 3.4 | >Alternate identifier | 0 | For ORU only: |
| | | | Used in case of attachments : Should contain the accession number where the attachment belongs to |
| | | | (in case of study level attachment) or empty (In case of order/report level attachment). |
| | | | When no accession number is passed in this component, the requested procedure/study level attachments are to be added to all requested procedures this report is linked to. |
| | | | Example: |
| | | | An ORU message is sent containing two requested procedures belonging to the same service request and it contains two OBX-segments with attachments: |
| | | | - one attachment with code STDAT20 is a 'Study-level' attachment for requested procedure with accession number ACC123. |
| | | | - the other attachment with code SCANNEDREQUEST is an 'Order-level' attachment which applies to both requested procedures. |
| | | | OBX 1 RP STDAT20^^^ACC123 \ \attachmentserver\foldername\attachmentfilename1.pdf |
| | | | OBX 2 RP SCANNEDREQUEST \ |
| | | | \attachmentserver\foldername \attachmentfilename2.pdf Attachment with code STDAT20 is linked to requested procedure with accession number ACC123 and attachment with code SCANNEDREQUEST is linked to the service |
| 4 | Observation Sub-ID | 0 | request. sub identifier for this observation |
| 5 | Observation Value | R | For ADT: |
| | Oboorvation value | | Plain text (in case of Text attachment type) |
| | | | For ORM: |
| | | | - plain text (in case of Text attachment type) |
| | | | - path + file name (in case of PDF/Image attachment |
| | | | type) - "" (delete all attachments with code present in OBX- |
| | | | 3.1) - YES/NO (in case of OBX-3 = PATIENT_ARRIVED) |
| | | | For ORU: |
| | | | In case of reports: |
| | | | - plain text(OBX-2=FT) |
| | | | - path + file name (in case of report send as PDF with reference pointer OBX-2=RP) |
| | | | - ^TEXT^PDF^BASE64^base64-encoded string of binary PDF data (OBX-2=ED) |
| | | | In case of attachments: |
| | | | - plain text (in case of Text attachment type) |
| | | | - path + file name (in case of PDF/Image attachment type) |
| | | | - "" (delete all attachments with code present in OBX-3.1) |
| | | | If empty, this OBX segment will not be processed. |



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| Seq | HL7 Field Name | Option | Comments |
|------|------------------------------|--------|--|
| 11 | Observation Result Status | R | for ORU only: |
| | | | Only required when ORU controlled reporting workflow is set to False (disabled). If value is not present a fall back is done to OBR-25. supported values: |
| | | | - F (final results) |
| | | | - P (preliminary) |
| | | | - C (correction) |
| | | | - X (report body no longer found - overwrite) Report gets final status. |
| | | | - D (deleted) |
| 14 | Date/Time of the Observation | 0 | For ORU only: |
| | | | The creation date of the report |
| 14.1 | >Date/Time | R | YYYYMMDD[HHHMM[SS]][+-ZZZ Z] |
| | | | If timezone information is present it overrules the timezone information if available in MSH-7. If no date time is filled in, the report will be saved with the datetime of saving/updating. |

2.2.11 ZDS Segment

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Table 2-21 ZDS Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-----|--------------------|--------|--------------------------------------|
| 1 | Study Instance UID | R | ORM and ORU only |
| 1.1 | Reference pointer | R | DICOM Study Instance UID (0020,000D) |

2.2.12 NTE Segment

Table 2-22 NTE Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-----|----------------|--------|---|
| 1 | Set ID - NTE | R | ORU only |
| 3 | Comment | 0 | Plain text of Clinical info (Comment type CI) or Procedure comment(Comment type PC) |
| 4 | Comment type | R | Required for ORU |
| | | 0 | Optional for ORM |
| 4.1 | >Identifier | R | Supported values: |
| | | | - CI (clinical info) |
| | | | - PC (procedure comment) |

2.2.13 MFI Segment

Table 2-23 MFI Fields Support in Enterprise Imaging



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| Seq | HL7 Field Name | Option | Comments |
|-----|------------------------|--------|-------------------------------|
| 1 | Master File Identifier | R | |
| 1.1 | >Identifier | R | Only values PRA/STF supported |
| 1.2 | >Text | 0 | |
| 3 | File-Level Event Code | R | Only value UPD supported |
| 6 | Response Level Code | R | Only value NE supported |

2.2.14 MFE Segment

Table 2-24 MFE Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-----|-------------------------|--------|---|
| 1 | Record-Level Event Code | R | |
| 2 | MFN Control ID | С | |
| 3 | Effective Date/Time | 0 | |
| 3.1 | >Date/Time | 0 | The date of the validate of the MFN Event |
| 4 | Primary Key Value - MFE | R | Same value as STF-1-1 |
| 5 | Primary Key Value Type | R | Only value CE supported |

2.2.15 STF Segment

Table 2-25 STF Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-------|---|--------|---|
| 1 | Primary Key Value - STF | R | |
| 1.1 | >Identifier | R | The same value as MFE-4 / Primary doctor id |
| 1.2 | >Text | 0 | |
| 1.3 | >Name of coding system | 0 | The Primary doctor id issuer (AA) |
| 2 | Staff ID Code | 0 | |
| 2.1 | >ID | 0 | The other doctor id |
| 2.4 | >Assigning Authority | 0 | |
| 2.4.1 | >>Namespace ID | 0 | The other doctor id issuer (AA) |
| 2.5 | >Identifier Type code (ID) | 0 | |
| 3 | Staff name | 0 | |
| 3.1 | >Family name | 0 | |
| 3.1.1 | >>Surname | 0 | |
| 3.1.2 | >>Own surname prefix | 0 | |
| 3.1.3 | >>Own surname | 0 | |
| 3.1.4 | >>Surname prefix from partner/ spouse | 0 | |
| 3.1.5 | >>Surname from partner /spouse | 0 | |
| 3.2 | >Given name | | |
| 3.3 | >Second and further given names or initials thereof | 0 | Middle name |
| 3.4 | >Suffix | 0 | e.g: JR or III |
| 3.5 | >Prefix | 0 | e.g: DR |
| 4 | Staff Type | 0 | Used as professional-department relationship type. Default = EMPLOYEE |



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| Seq | HL7 Field Name | Option | Comments |
|---------|--|--------|--|
| 5 | Administrative Sex | 0 | |
| 6 | Date/Time Of Birth | 0 | |
| 6.1 | >Date/Time | R | |
| 7 | Active/Inactive Flag | 0 | |
| 8 | Department | 0 | Will be added as department relationship to the professional |
| 8.1 | >Identifier | 0 | Department id |
| 8.2 | >Text | 0 | Department name |
| 8.3 | >Name of coding system | 0 | The department id issuer (AA) |
| 9 | Hospital service | 0 | Will be used as the facility in the department-relationship |
| 9.1 | >Identifier | 0 | Facility id |
| 9.2 | >Text | 0 | Facility name |
| 9.3 | >Name of coding system | 0 | |
| 9.4 | >Alternate identifier | 0 | |
| 9.5 | >Alternate text | 0 | |
| 9.6 | >Name of alternate coding system | 0 | |
| 10 | Phone | 0 | |
| 10.1 | >Telephone number | 0 | In case of telephone number/fax number/cellular number, the phone number is put in this field. [(999)] 999-9999 [X99999][C any text] |
| 10.2 | >Telecommunication use code | R | If this is empty the communication cannot be registered. Supported are: - Primary Residence Number (PRN) - Work Number (WPN) - Network (email) Address (NET) |
| 10.3 | >Telecommunication equipment type (ID) | R | If this is empty the communication cannot be registered. Supported are: - Telephone (PH) - Fax (FX) - Cellular Phone(CP) - Internet Address (Internet) |
| 10.4 | >Email address | 0 | In case of Network Email Address, this needs to be filled in |
| 11 | Office/Home Address | 0 | |
| 11.1 | >Street Address (SAD) | 0 | |
| 11.1.1 | >>Street or mailing address | 0 | |
| 11.1.2 | >>Street name | 0 | |
| 11.1.3 | >>Dwelling number | 0 | |
| 11.3 | >City | 0 | |
| 11.4 | >State or province | 0 | |
| 11.5 | >Zip or postal code | 0 | |
| 11.6 | >Country | 0 | |
| 11.7 | >Address type | 0 | |
| 11.12 | >Address validity range | 0 | |
| 11.12.1 | >>Range start date/time | 0 | |
| 11.12.2 | >>range end date/time | 0 | |
| 12 | Institution Activation Date | 0 | Begin date of the professional/department relationship |
| 12.1 | >Date | 0 | |
| 12.1.1 | >>Date/Time | R | |



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| Seq | HL7 Field Name | Option | Comments |
|--------|-------------------------------|--------|--|
| 13 | Institution Inactivation date | 0 | End date of the professional/department relationship |
| 13.1 | >Date | 0 | |
| 13.1.1 | >>Date/Time | R | |
| 17 | Marital Status | 0 | |
| 17.1 | >Identifier | R | |
| 17.2 | >Text | 0 | |
| 17.3 | >Name of coding system | 0 | |

2.2.16 PRA Segment

Table 2-26 PRA Fields Support in Enterprise Imaging

| Seq | HL7 Field Name | Option | Comments |
|-------|------------------------|--------|--|
| 3 | Practitioner Category | 0 | Corresponds with professional's position in El. |
| | | | Possible values: |
| | | | - RAD / RADIOLOGIST |
| | | | - PHYS / PHYSICIAN |
| | | | - TECH / TECHNOLOGIST |
| | | | - TRANS / TRANSCRIPTIONIST |
| | | | - SYSADM / SYSTEM ADMINISTRATOR |
| | | | - MAN / MANAGER |
| | | | - AGFA / AGFA SERVICE |
| | | | - REC / RECEPTIONIST |
| | | | If another value is present in this field this will not be added as a position of the professional |
| 7 | Privileges | 0 | |
| 7.1 | >Privilege | 0 | |
| 7.1.1 | >>Identifier | R | Supported value(s): INTERNAL, INT |
| 9 | Institution | 0 | Will be used if STF-9 is empty |
| 9.1 | >Identifier | 0 | |
| 9.2 | >Text | 0 | |
| 9.3 | >Name of coding system | 0 | |



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3 OUTBOUND MESSAGES

3.1 Core Server supported Trigger Events

3.1.1 Supported DFT Events

For more information about the processed segments and segment mappings, refer to the document specified in the 'Conformance profile document' column .

Table 3-1 Supported DFT Events

| Func Area | Event Code | DFT Trigger Event Description | Conformance profile document |
|--------------|---------------|-------------------------------|---|
| DFT | P03 | Order message | ENTERPRISE IMAGING OUTBOUND DFT_P03.pdf |

3.1.2 Supported ORM Events

For more information about the processed segments and segment mappings, refer to the document specified in the 'Conformance profile document' column.

Table 3-2 Supported ORM Events

| Func Area | Event Code | ORM Trigger Event Description | Conformance profile document |
|--------------|---------------|-------------------------------|---|
| ORM | O01 | Order message | ENTERPRISE IMAGING OUTBOUND ORM_O01.pdf |

3.1.3 Supported ORU Events

For more information about the processed segments and segment mappings, refer to the document specified in the 'Conformance profile document' column.

Table 3-3 Supported ORU Events

| Func Area | Event Code | ORU Trigger Event Description | Conformance profile document |
|--------------|---------------|--|---|
| ORU | R01 | Unsolicited transmission of an observation Message | ENTERPRISE IMAGING OUTBOUND ORU_R01 - ASCII ENCAPSULATED DATA-ORU_R01.pdf |
| ORU | R01 | Unsolicited transmission of an observation Message | ENTERPRISE IMAGING OUTBOUND ORU_R01 - ASCII LINE BY LINE.pdf |
| ORU | R01 | Unsolicited transmission of an observation Message | ENTERPRISE IMAGING OUTBOUND ORU_R01 - ASCII NARRATIVE REPORTING.pdf |
| ORU | R01 | Unsolicited transmission of an observation Message | ENTERPRISE IMAGING OUTBOUND ORU_R01 - Base64 ENCAPSULATED DATA PDF.pdf |
| ORU | R01 | Unsolicited transmission of an observation Message | ENTERPRISE IMAGING OUTBOUND ORU_R01 - FORMATTED TEXT.pdf |
| ORU | R01 | Unsolicited transmission of an observation Message | ENTERPRISE IMAGING OUTBOUND ORU_R01 - REFERENCE POINTER.pdf |



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4 **QUERIES**

4.1 **Web Server Query**

Web Server translates user based patient-level queries into HL7 PDQ messages.

Web Server uses the HL7 PIX services to combine patients together as well as to allow querying for longitudinal records against external non-HL7 systems which require specific patient identities.

Web Server can use v2.5 and will accept the related responses, as well as v3 SOAP based queries.

4.1.1 **Supported Query events**

For more information about the processed segments and segment mappings, refer to the document specified in the Conformance profile document column.

Table 4 Supported Query Events

| Func Area | Event Code | QRY Trigger Event | Conformance profile document ¹ |
|--------------|---------------|---|---|
| QBP | Q23 | Query for associated patient identities | EnterpriseImaging_WS_PIX_Outbound_QPB_Q23.pdf EnterpriseImaging_WS_PIX_Inbound_RSP_K23.pdf |
| QBP | Q22 | Query for patient demographics | EnterpriseImaging_WS_PDQ_Outbound_QBP_Q22.pdf EnterpriseImaging_WS_PDQ_Inbound_RSP_K22.pdf EnterpriseImaging_WS_PDQ_Inbound_RSP_K21.pdf |

¹ These documents are included in the zip file "001570 Enterprise Imaging 8.1.2 HL7 conformance profiles", also available on http://global.agfahealthcare.com/hl7.



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