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# HL7 Conformance Profile

# ADT A04 & A08 Outbound

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**Publication date:**

03 11 2021

**Publication number:**

Not yet assigned

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## About this Conformance Profile

Conformance profile ADT Outbound from AGFA RIS HL7PACS interface

HL7PACS

This profile describes the HL7 ADT message structure to send out patient demographics and visit data to a PACS system.

History:

2013-06-14 - Creation - C\_deric Missinne

For more information on HL7 conformance profiles please consult HL7 ANSI standard chapter 2 and HL7 Implementation/Conformance Technical Committee documents at <http://www.hl7.org/special/committees/ictc/docs.cfm>

## Conformance parameters

### Message Profile

- HL7 Version: 2.3.1
- Profile Type: Constraining
- Topics: confsig-AGFA-2.3.1-profile-accNE\_accNE-Immediate

### Encoding Method

ER7

## Use Case

### Actors

- HIS:"ADT system - where patients/visits are registered"
- Agfa (R)IS:"Departmental system (e.g Radiology Information System)"

### Pre Conditions

### Event Flow

### Post Conditions

### Derived Events

## Interaction 1

### Dynamic Definition

- Accept Acknowledgement: NE
- Application Acknowledgement: NE
- Acknowledgement Mode: Immediate

### Static Definition

- Message Type: ADT
- Trigger Event: A04-08
- Topics: confsig-AGFA-2.3.1-static-ADT-A04-08-null----Sender

### Message structure

MSH EVN PID PV1

### MSH - Message Header

- Usage: Required
- Cardinality:1..1

| Seq. | Name                     | Type   | Table   | Len. | Opt. | Card. | Contents          |
|------|--------------------------|--------|---------|------|------|-------|-------------------|
| 1    | Field Separator          | ST     |         | 1    | R    | 1..1  | e.g.              |
| 2    | Encoding Characters      | ST     |         | 4    | R    | 1..1  | e.g. ^~\&         |
| 3    | Sending Application      | HD     |         | 227  | R    | 1..1  |                   |
| 3.1  | namespace ID             | IS     |         | 50   | R    | ..    | e.g. HIS          |
| 4    | Sending Facility         | HD     |         | 227  | O    | 0..1  |                   |
| 4.1  | namespace ID             | IS     |         | 50   | O    | ..    | e.g. FACILITY1    |
| 5    | Receiving Application    | HD     | HL70361 | 227  | O    | 0..1  |                   |
| 5.1  | namespace ID             | IS     |         | 50   | O    | ..    | e.g. AGFA         |
| 5.2  | universal ID             | ST     |         | 3    | O    | ..    |                   |
| 5.3  | universal ID type        | ID     | HL70301 | 3    | O    | ..    |                   |
| 6    | Receiving Facility       | HD     | HL70362 | 227  | O    | 0..1  |                   |
| 6.1  | namespace ID             | IS     | HL70363 | 50   | O    | ..    | e.g. RIS          |
| 6.2  | universal ID             | ST     |         | 3    | O    | ..    |                   |
| 6.3  | universal ID type        | ID     | HL70301 | 3    | O    | ..    |                   |
| 7    | Date/Time Of Message     | TS     |         | 26   | R    | 1..1  |                   |
| 7.1  | Date/Time                | NM     |         | 24   | R    | ..    | e.g. 200511070945 |
| 9    | Message Type             | CM_MSG | HL70076 | 15   | R    | 1..1  |                   |
| 9.1  | message type             | ID     | HL70076 | 3    | R    | ..    | e.g. ADT          |
| 9.2  | trigger event            | ID     | HL70003 | 3    | R    | ..    | e.g. A01          |
| 9.3  | message structure        | ID     | HL70354 | 7    | O    | ..    | e.g. ADT_A01      |
| 10   | Message Control ID       | ST     |         | 20   | R    | 1..1  | e.g. 00000001     |
| 11   | Processing ID            | PT     |         | 3    | R    | 1..1  |                   |
| 11.1 | processing ID            | ID     | HL70103 | 3    | R    | ..    | e.g. P            |
| 12   | Version ID               | VID    | HL70104 | 973  | R    | 1..1  |                   |
| 12.1 | version ID               | ID     | HL70104 | 60   | R    | ..    | e.g. 2.4          |
| 21   | Conformance Statement ID | ID     |         | 10   | O    | 0..*  |                   |

### 1. Field Separator

This field contains the separator between the segment ID and the first real field, MSH-2-encoding characters. As such it serves as the separator and defines the character to be used as a separator for the rest of the message.

Recommended value and used by Agfa is |, (ASCII 124).

## 2. Encoding Characters

This field contains the four characters in the following order: the component separator, repetition separator, escape character, and subcomponent separator.

Recommended values and used by Agfa Healthcare are ^~\&, (ASCII 94, 126, 92, and 38).

## 3. Sending Application

This field uniquely identifies the sending application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise.

Entirely site-defined and a parameter for Agfa.

## 7. Date/Time Of Message

This field contains the date/time that the sending system created the message.

If the time zone is specified, it is expected to be the local time zone !

## 9.3. message structure

Only used when input is hl7 v2.xml

## 10. Message Control ID

This field contains a number or other identifier that uniquely identifies the message. The receiving system echoes this ID back to the sending system in the Message acknowledgment segment (MSA).

## 11.1. processing ID

No difference in processing by HL7SERVER5 if Production or Test

## 12.1. version ID

Versions supported by HL7SERVER5 are 2.2, 2.3, 2.3.1, 2.4

## EVN - Event Type

- Usage: Required

- Cardinality:1..1

| Seq. | Name               | Type | Table   | Len. | Opt. | Card. | Contents          |
|------|--------------------|------|---------|------|------|-------|-------------------|
| 1    | Event Type Code    | ID   |         | 3    | O    | 0..1  | e.g. A01          |
| 2    | Recorded Date/Time | TS   |         | 26   | R    | 1..1  |                   |
| 2.1  | Date/Time          | NM   |         | 24   | R    | ..    | e.g. 200511070945 |
| 4    | Event Reason Code  | IS   | HL70062 | 3    | O    | 0..1  | e.g. 2            |
| 6    | Event Occurred     | TS   |         | 26   | O    | 0..1  |                   |
| 6.1  | Date/Time          | NM   |         | 24   | R    | ..    | e.g. 200511070945 |

## 6. Event Occurred

Contains the startdate form the transfer.

## PID - Patient identification

- Usage: Required

- Cardinality:1..1

| Seq. | Name                    | Type | Table | Len. | Opt. | Card. | Contents     |
|------|-------------------------|------|-------|------|------|-------|--------------|
| 3    | Patient Identifier List | CX   |       | 1913 | R    | 1..*  |              |
| 3.1  | ID                      | ST   |       | 20   | R    | ..    | e.g. 1234567 |

| Seq.   | Name                                               | Type | Table   | Len. | Opt. | Card. | Contents                    |
|--------|----------------------------------------------------|------|---------|------|------|-------|-----------------------------|
| 3.2    | Check digit                                        | ST   |         | 200  | O    | ..    | e.g. 4                      |
| 3.3    | code identifying the check digit scheme employed   | ID   | HL70061 | 200  | O    | ..    | e.g. M11                    |
| 3.4    | assigning authority                                | HD   |         | 603  | O    | ..    |                             |
| 3.4.1  | namespace ID                                       | IS   |         | 200  | O    | ..    | e.g. HIS1                   |
| 3.4.2  | universal ID                                       | ST   |         | 200  | O    | ..    |                             |
| 3.4.3  | universal ID type                                  | ID   |         | 200  | O    | ..    |                             |
| 3.5    | identifier type code (ID)                          | ID   | HL70203 | 200  | O    | ..    | e.g. MR                     |
| 3.6    | assigning facility                                 | HD   |         | 603  | O    | ..    |                             |
| 3.6.1  | namespace ID                                       | IS   |         | 200  | O    | ..    | e.g. FACILITY1              |
| 3.6.2  | universal ID                                       | ST   |         | 200  | O    | ..    |                             |
| 3.6.3  | universal ID type                                  | ID   |         | 200  | O    | ..    |                             |
| 3.7    | effective date (DT)                                | DT   |         | 24   | O    | ..    | e.g. 20051107               |
| 3.8    | expiration date                                    | DT   |         | 24   | O    | ..    |                             |
| 5      | Patient Name                                       | XPN  |         | 1103 | R    | 1..1  |                             |
| 5.1    | family name                                        | FN   |         | 174  | O    | ..    |                             |
| 5.1.1  | surname                                            | ST   |         | 30   | R    | ..    | e.g. Yarmey                 |
| 5.2    | given name                                         | ST   |         | 30   | O    | ..    | e.g. Jane                   |
| 5.3    | second and further given names or initials thereof | ST   |         | 30   | O    | ..    | e.g. C                      |
| 5.4    | suffix (e.g., JR or III)                           | ST   |         | 15   | O    | ..    |                             |
| 5.5    | prefix (e.g., DR)                                  | ST   |         | 100  | O    | ..    | e.g. DR.                    |
| 7      | Date/Time Of Birth                                 | TS   |         | 26   | O    | 0..1  |                             |
| 7.1    | Date/Time                                          | NM   |         | 24   | R    | ..    | e.g. 19931022               |
| 8      | Administrative Sex                                 | IS   | HL70001 | 1    | O    | 0..1  | e.g. F                      |
| 9      | Patient Alias                                      | XPN  |         | 1103 | U    | 0..*  |                             |
| 11     | Patient Address                                    | XAD  |         | 631  | O    | 0..*  |                             |
| 11.1   | street address (SAD)                               | SAD  |         | 319  | O    | ..    |                             |
| 11.1.1 | street or mailing address                          | ST   |         | 254  | O    | ..    | e.g. Kortrijksesteenweg 250 |
| 11.2   | other designation                                  | ST   |         | 1    | O    | ..    | e.g. Building A             |
| 11.3   | city                                               | ST   |         | 30   | O    | ..    | e.g. Sint Martens Latem     |
| 11.4   | state or province                                  | ST   |         | 20   | O    | ..    | e.g. OVL                    |
| 11.5   | zip or postal code                                 | ST   |         | 20   | O    | ..    | e.g. 9831                   |
| 11.6   | country                                            | ID   |         | 20   | O    | ..    | e.g. BEL                    |
| 13     | Phone Number - Home                                | XTN  |         | 850  | O    | 0..1  |                             |
| 13.1   | [(999)] 999-9999 [X99999][C any text]              | TN   |         | 30   | O    | ..    |                             |
| 16     | Marital Status                                     | CE   | HL70002 | 483  | O    | 0..1  |                             |
| 16.1   | identifier                                         | ST   |         | 10   | O    | ..    | e.g. M                      |
| 19     | SSN Number - Patient                               | ST   |         | 50   | O    | 0..1  | e.g. 19931022175            |
| 23     | Birth Place                                        | ST   |         | 30   | O    | 0..1  | e.g. Deinze                 |
| 28     | Nationality                                        | CE   | HL70212 | 483  | U    | 0..*  |                             |

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**3. Patient Identifier List**

Patient Identifier (list) which UNIQUELY identifies a single patient.

The combination of components ID and Assigning Authority should be sufficient to UNIQUELY identify a patient.

Each identifier occurrence (!) specified in PID-3 (combination of ID & Assigning Authority) should be globally unique.

**3.4. assigning authority**

Authority/System that generated the patient identifier

**3.6. assigning facility**

Facility in which the patient identifier was generated

**5. Patient Name**

Patient name - no repetitions allowed!

**7. Date/Time Of Birth**

Patient birth date - is a required field in the RIS database

**8. Administrative Sex**

M, F or U

**9. Patient Alias**

ONLY TYPE P is supported and only when COUNTRY - COUNTRY parameter is N and ApplyCountrySpecificNameRules is true

**11. Patient Address**

The occurrence that has an address type (PID-11-7) of P or M or blank is considered the main address and is stored in the PATIENTS table.

ALL occurrences are stored in PAT\_ADDRESSES.

**11.1. street address (SAD)**

First address line

**11.2. other designation**

Second address line

**11.6. country**

In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same code-set.

Suggested to use 3 character ISO codes.

**13. Phone Number - Home**

Patients primary phone number - only the first occurrence is used !

**13.1. [(999)] 999-9999 [X99999][C any text]**

RIS version < 560: max length = 15

**16.1. identifier**

M or S

**19. SSN Number - Patient**

Social security number

**28. Nationality**

In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same

code-set.

## **PV1 - Patient visit**

- Usage: Required

- Cardinality:1..1

| Seq.   | Name                      | Type | Table   | Len. | Opt. | Card. | Contents       |
|--------|---------------------------|------|---------|------|------|-------|----------------|
| 1      | Set ID - PV1              | SI   |         | 4    | O    | 0..1  | e.g. 1         |
| 2      | Patient Class             | IS   | HL70004 | 1    | R    | 1..1  | e.g. I         |
| 3      | Assigned Patient Location | PL   |         | 1230 | O    | 0..1  |                |
| 3.1    | point of care             | IS   |         | 25   | O    | ..    | e.g. U31       |
| 3.2    | room                      | IS   |         | 8    | O    | ..    | e.g. 310       |
| 3.3    | bed                       | IS   |         | 25   | O    | ..    | e.g. A         |
| 3.4    | facility (HD)             | HD   |         | 223  | O    | ..    |                |
| 3.4.1  | namespace ID              | IS   |         | 15   | O    | ..    | e.g. FACILITY1 |
| 4      | Admission Type            | IS   |         | 2    | O    | 0..1  | e.g. R         |
| 6      | Prior Patient Location    | PL   |         | 1230 | O    | 0..1  |                |
| 6.1    | point of care             | IS   | HL70302 | 3    | O    | ..    |                |
| 7      | Attending Doctor          | XCN  | HL70010 | 3002 | O    | 0..1  |                |
| 7.1    | ID number (ST)            | ST   |         | 15   | O    | ..    | e.g. 759       |
| 7.2    | family name               | FN   |         | 184  | O    | ..    |                |
| 7.2.1  | surname                   | ST   |         | 40   | O    | ..    | e.g. Rudjord   |
| 7.3    | given name                | ST   |         | 30   | O    | ..    | e.g. Anders    |
| 16     | VIP Indicator             | IS   |         | 2    | O    | 0..1  | e.g. N         |
| 18     | Patient Type              | IS   |         | 10   | O    | 0..1  | e.g. H1        |
| 19     | Visit Number              | CX   |         | 1913 | R    | 1..1  |                |
| 19.1   | ID                        | ST   |         | 20   | R    | ..    | e.g. 200411143 |
| 19.4   | assigning authority       | HD   |         | 258  | O    | ..    |                |
| 19.4.1 | namespace ID              | IS   |         | 50   | O    | ..    | e.g. HIS1      |
| 21     | Charge Price Indicator    | IS   | HL70032 | 10   | O    | 0..1  | e.g. 1         |
| 47     | Total Charges             | NM   |         | 10   | O    | 0..1  | e.g. 1000      |

## **2. Patient Class**

TRANSFERS.TR\_PATTYPE translated to

Case "E","A"

MapPatientClass = "O"

Case "H", "I", "J", "L", "N", "P", "Z"

MapPatientClass = "I"

Case "U"

MapPatientClass = "E"

Case "S"

MapPatientClass = "R"

Case Else

MapPatientClass = "I"

## **3.1. point of care**

Care unit where the patient resides.

In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same

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code-set.

**3.4. facility (HD)**

Facility where the patient resides - encouraged to use this field - certainly in a multi-site implementation. In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same code-set.

**6. Prior Patient Location**

Only used for lookup of prior transfer - not stored in the database

**6.1. point of care**

Only used for lookup of prior transfer - not stored in the database

**7.1. ID number (ST)**

In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same code-set.

**16. VIP Indicator**

If there is no value in PV1-16 or the value = "", patients.p\_vip = N

If patients.p\_vip = TRUE (Y):

The patient item VIP\_INDICATOR will contain the value of the constant HL7\_VIP\_INDICATOR. If this constant doesn't exist, the value of PV1-16 is used

**18. Patient Type**

In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same code-set.

**19. Visit Number**

Required field for Agfa RIS when exchanging visit information Identifier generated per patient stay in a facility.

In a multi-site environment with multiple HIS systems make sure the component Assigning Authority is provided

**19.4. assigning authority**

Encouraged to use this component in a multi-site environment

**47. Total Charges**

Stored as patient extra info