

# HL7 Conformance Profile

# **ADT Inbound A28**

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## About this Conformance Profile

HL7Server5 - Release 2005.1.4 - Conformance profile ADT Inbound

History:

2005-11-05 - Creation - Nico Vannieuwenhuyze

Remarks:

When messages are received via HL7 MLLP (socket) HL7Server5 processes the message before sending an acknowledgement message. For certain events (eg A40) this can take a few seconds, so please configure the sending application to wait eg 180 seconds for an acknowledgment.

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: 2.4
- Profile Type: Constrainable
- Topics: confsig-AGFA/QUADRAT-2.4-profile-accNE\_accNE-Immediate

### Encoding Method

ER7

## Interaction 1

### Dynamic Definition

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

### Static Definition

- Message Type: ADT
- Trigger Event: A28
- Message Structure: ADT\_A05
- Topics: confsig-AGFA/QUADRAT-2.4-static-ADT-A28-null-ADT\_A05-2005.1.4--Receiver

### Message structure

MSH EVN PID [PD1] {[ROL]} {[NK1]} {[PV1]} {[PV2]} {[ROL]} {[DB1]} {[OBX]} {[AL1]} {[DG1]}  
 {[DRG]} {[PR1]} {[ROL]} {[GT1]} {[IN1]} {[IN2]} {[IN3]} {[ROL]} {[ACC]} {[UB1]} {[UB2]}

### 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    |
| 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. A28          |
| 9.3  | message structure        | ID     | HL70354 | 7    | O    | ..    | e.g. ADT_A05      |
| 10   | Message Control ID       | ST     |         | 20   | R    | 1..1  | e.g. 0000001      |
| 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          |
| 18   | Character Set            | ID     | HL70211 | 16   | O    | 0..*  | e.g. 8859/1       |
| 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. Message Type

Should be ADT^A01^ADT\_A01 for an admission notification

#### 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

### 18. Character Set

Character set has to be a subset of the Windows ANSI codepage of the pc where HL7SERVER5 is running ! e.g. ISO 8859/1 on a windows 1252 code page UTF-8 is not supported !

## 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. A28          |
| 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 |

#### 1. Event Type Code

If empty the value is taken from MSH-9-1

#### 2. Recorded Date/Time

Only used when EVN-6 Event Occurred is empty

#### 6. Event Occurred

This field contains the date/time that the event actually occurred. For example, on a transfer (A02 (transfer a patient)), this field would contain the date/time the patient was actually transferred. On a cancellation event, this field should contain the date/time that the event being canceled occurred.

## PID - Patient identification

- Usage: Required

- Cardinality:1..1

| Seq.  | Name   | Type | Table   | Len. | Opt. | Card. | Contents       |
|-------|--|------|---------|------|------|-------|----------------|
| 2     | Patient ID   | CX   |         | 1913 | O    | 0..1  |                |
| 2.1   | ID   | ST   |         | 20   | O    | ..    | e.g. 1234567   |
| 3     | Patient Identifier List                            | CX   |         | 1913 | R    | 1..*  |                |
| 3.1   | ID   | ST   |         | 20   | R    | ..    | e.g. 1234567   |
| 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    | ..    |                |
| 4     | Alternate Patient ID - PID                         | CX   |         | 1913 | O    | 0..1  |                |
| 4.1   | ID   | ST   |         | 20   | O    | ..    | e.g. 1234567   |
| 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.       |
| 6     | Mother's Maiden Name                               | XPN  |         | 1103 | O    | 0..1  |                |
| 6.1   | family name  | FN   |         | 174  | O    | ..    |                |
| 6.1.1 | surname  | ST   |         | 30   | O    | ..    |                |
| 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 | O    | 0..1  |                |
| 9.1   | family name  | FN   |         | 174  | O    | ..    |                |
| 9.1.1 | surname  | ST   |         | 30   | O    | ..    | e.g. Simmons   |
| 9.2   | given name   | ST   |         | 15   | O    | ..    | e.g. Neil      |
| 9.3   | second and further given names or initials thereof | ST   |         | 3    | O    | ..    |                |
| 9.4   | suffix (e.g., JR or III)                           | ST   |         | 3    | O    | ..    |                |
| 9.5   | prefix (e.g., DR)                                  | ST   |         | 30   | O    | ..    |                |
| 9.6   | degree (e.g., MD)                                  | IS   | HL70360 | 3    | O    | ..    |                |

| Seq.   | Name                                  | Type | Table   | Len. | Opt. | Card. | Contents                   |
|--------|---------------------------------------|------|---------|------|------|-------|----------------------------|
| 9.7    | name type code                        | ID   | HL70200 | 3    | O    | ..    | e.g. P                     |
| 9.8    | Name Representation code              | ID   | HL70465 | 3    | O    | ..    |                            |
| 9.9    | name context                          | CE   | HL70448 | 20   | O    | ..    |                            |
| 9.9.1  | identifier                            | ST   |         |      | O    | ..    |                            |
| 9.9.2  | text                                  | ST   |         | 3    | O    | ..    |                            |
| 9.9.3  | name of coding system                 | IS   | HL70396 | 3    | O    | ..    |                            |
| 9.9.4  | alternate identifier                  | ST   |         | 3    | O    | ..    |                            |
| 9.9.5  | alternate text                        | ST   |         | 3    | O    | ..    |                            |
| 9.9.6  | name of alternate coding system       | IS   | HL70396 | 3    | O    | ..    |                            |
| 9.11   | name assembly order                   | ID   | HL70444 | 3    | O    | ..    |                            |
| 10     | Race                                  | CE   | HL70005 | 483  | O    | 0..1  |                            |
| 10.1   | identifier                            | ST   |         | 40   | O    | ..    | e.g. 2106-3                |
| 11     | Patient Address                       | XAD  |         | 631  | O    | 0..*  |                            |
| 11.1   | street address (SAD)                  | SAD  |         | 764  | O    | ..    |                            |
| 11.1.1 | street or mailing address             | ST   |         | 254  | O    | ..    | e.g.<br>Kortrijksesteenweg |
| 11.1.2 | street name                           | ST   |         | 254  | O    | ..    |                            |
| 11.1.3 | dwelling number                       | ST   |         | 254  | O    | ..    |                            |
| 11.2   | other designation                     | ST   |         | 254  | O    | ..    | e.g. 254                   |
| 11.3   | city                                  | ST   |         | 30   | O    | ..    | e.g. Sint Martens<br>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. BE                    |
| 11.7   | address type                          | ID   | HL70190 | 10   | O    | ..    | e.g. P                     |
| 13     | Phone Number - Home                   | XTN  |         | 850  | O    | 0..1  |                            |
| 13.1   | [(999)] 999-9999 [X99999][C any text] | TN   |         | 30   | O    | ..    |                            |
| 13.3   | telecommunication equipment type (ID) | ID   | HL70202 | 3    | O    | ..    | e.g. PH                    |
| 13.4   | Email address                         | ST   |         |      | O    | ..    |                            |
| 13.5   | Country Code                          | NM   |         | 15   | O    | ..    | e.g. 32                    |
| 13.6   | Area/city code                        | NM   |         | 15   | O    | ..    | e.g. 3                     |
| 13.7   | Phone number                          | NM   |         | 15   | O    | ..    | e.g. 4448150               |
| 13.8   | Extension                             | NM   |         | 15   | O    | ..    | e.g. 500                   |
| 14     | Phone Number - Business               | XTN  |         | 850  | O    | 0..1  |                            |
| 14.1   | [(999)] 999-9999 [X99999][C any text] | TN   |         | 30   | O    | ..    | e.g. 024448150             |
| 14.3   | telecommunication equipment type (ID) | ID   | HL70202 | 3    | O    | ..    |                            |
| 14.4   | Email address                         | ST   |         |      | O    | ..    |                            |
| 14.5   | Country Code                          | NM   |         |      | O    | ..    |                            |
| 14.6   | Area/city code                        | NM   |         |      | O    | ..    |                            |
| 14.7   | Phone number                          | NM   |         |      | O    | ..    |                            |
| 14.8   | Extension                             | NM   |         |      | O    | ..    |                            |
| 15     | Primary Language                      | CE   |         | 483  | O    | 0..1  |                            |
| 15.1   | identifier                            | ST   |         | 20   | O    | ..    | e.g. EN                    |
| 16     | Marital Status                        | CE   | HL70002 | 483  | O    | 0..1  |                            |

| Seq.   | Name                        | Type | Table   | Len. | Opt. | Card. | Contents         |
|--------|-----------------------------|------|---------|------|------|-------|------------------|
| 16.1   | identifier                  | ST   |         | 10   | O    | ..    | e.g. M           |
| 17     | Religion                    | CE   | HL70006 | 483  | O    | 0..1  |                  |
| 17.1   | identifier                  | ST   |         | 40   | O    | ..    |                  |
| 17.2   | text                        | ST   |         | 40   | O    | ..    |                  |
| 18     | Patient Account Number      | CX   |         | 1913 | O    | 0..1  |                  |
| 18.1   | ID                          | ST   |         | 30   | O    | ..    | e.g. 2590852     |
| 18.4   | assigning authority         | HD   |         | 257  | O    | ..    |                  |
| 18.4.1 | namespace ID                | IS   |         | 50   | O    | ..    | e.g. HIS1        |
| 18.7   | effective date (DT)         | DT   |         | 24   | O    | ..    | e.g. 20051107    |
| 18.8   | expiration date             | DT   |         | 24   | O    | ..    |                  |
| 19     | SSN Number - Patient        | ST   |         | 50   | O    | 0..1  | e.g. 19931022175 |
| 21     | Mother's Identifier         | CX   |         | 1913 | O    | 0..1  |                  |
| 21.1   | ID                          | ST   |         | 40   | O    | ..    | e.g. 1234560     |
| 22     | Ethnic Group                | CE   | HL70189 | 483  | O    | 0..1  |                  |
| 22.1   | identifier                  | ST   |         | 40   | O    | ..    |                  |
| 23     | Birth Place                 | ST   |         | 30   | O    | 0..1  | e.g. Deinze      |
| 24     | Multiple Birth Indicator    | ID   | HL70136 | 1    | O    | 0..1  | e.g. Y           |
| 25     | Birth Order                 | NM   |         | 2    | O    | 0..1  | e.g. 2           |
| 26     | Citizenship                 | CE   | HL70171 | 483  | O    | 0..1  |                  |
| 26.1   | identifier                  | ST   |         | 20   | O    | ..    | e.g. BE          |
| 28     | Nationality                 | CE   | HL70212 | 483  | O    | 0..1  |                  |
| 28.1   | identifier                  | ST   |         | 20   | O    | ..    | e.g. BE          |
| 29     | Patient Death Date and Time | TS   |         | 26   | O    | 0..1  |                  |
| 29.1   | Date/Time                   | NM   |         | 24   | O    | ..    |                  |
| 30     | Patient Death Indicator     | ID   | HL70136 | 1    | O    | 0..1  | e.g. N           |

## 2. Patient ID

Please use PID-3 and map them using the parameters PIDDomainForCode, PIDDomainForHISCode ... to the PATIENTS.xxx columns

## 3. Patient Identifier List

Patient Identifier (list) which UNIQUELY identifies a single patient. Combination of components ID and Assigning Authority should be sufficient to UNIQUELY identify a patient.

### 3.4. assigning authority

Authority/System that generated the patient identifier

### 3.6. assigning facility

Facility in which the patient identifier was generated

## 4. Alternate Patient ID - PID

Please use PID-3 and map them using the parameters PIDDomainForCode, PIDDomainForHISCode ... to the PATIENTS.xxx columns

## 5. Patient Name

Patient name - no repetitions allowed!

## 6. Mother's Maiden Name

Sometimes used in France to exchange the patients maiden name

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**7. Date/Time Of Birth**

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

**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.

**11.2. other designation**

If 11.1.3 (Dwelling Number) is not filled. This value is taken into account. If the value starts with a number and smaller then 15 characters, it will be used as for patients.p\_straatnr column, otherwise the value will be appended to the patients.p\_straat column.

**11.6. country**

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

**11.7. address type**

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

**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. If PID 13.5 is filled. PID13.1 is ignored and only PID 13.5, 13.6, 13.7 and 13.8 are used.

**14. Phone Number - Business**

Additional (second) phone number

**14.1. [(999)] 999-9999 [X99999][C any text]**

RIS version < 560: max length = 15. If PID 14.5 is filled. PID14.1 is ignored and only PID 14.5, 14.6, 14.7 and 14.8 are used.

**16.1. identifier**

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

**18. Patient Account Number**

Account number (billing) will be linked to the visit number (PV1-19). In a multi-site environment with multiple HIS systems, make sure that the component Assigning Authority is provided !

**19. SSN Number - Patient**

Social security number

**21. Mother's Identifier**

ID of the mother in case of a newborn

**28. Nationality**

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

**PD1 - patient additional demographic**

- Usage: Optional



- Cardinality: 0..1
- Implementation note: Additional patient information like primary care physician

| Seq.  | Name  | Type | Table   | Len. | Opt. | Card. | Contents  |
|-------|---|------|---------|------|------|-------|-----------|
| 4     | Patient Primary Care Provider Name & ID No. | XCN  |         | 3002 | O    | 0..1  |           |
| 4.1   | ID number (ST)                              | ST   |         | 20   | O    | ..    | e.g. 1282 |
| 4.2   | family name                                 | FN   |         | 184  | O    | ..    |           |
| 4.2.1 | surname                                     | ST   |         | 40   | O    | ..    | e.g. Pew  |
| 4.3   | given name                                  | ST   |         | 30   | O    | ..    | e.g. John |
| 11    | Publicity Code                              | CE   | HL70215 | 483  | O    | 0..1  |           |
| 11.1  | identifier                                  | ST   |         | 40   | O    | ..    | e.g. EMP  |

#### 4.1. ID number (ST)

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

#### 11. Publicity Code

Used to indicate that a patient is a member of the facility personnel

##### 11.1. identifier

Only EMP supported

### ROL - Role

- Usage: Optional
- Cardinality:0..\*
- Implementation note: Used to convey patient related physicians

| Seq.  | Name                | Type | Table   | Len. | Opt. | Card. | Contents      |
|-------|---------------------|------|---------|------|------|-------|---------------|
| 4     | Role Person         | XCN  |         | 3002 | R    | 1..*  |               |
| 4.1   | ID number (ST)      | ST   |         | 20   | R    | ..    | e.g. 53342    |
| 4.2   | family name         | FN   |         | 184  | O    | ..    |               |
| 4.2.1 | surname             | ST   |         | 40   | O    | ..    | e.g. Prentice |
| 4.3   | given name          | ST   |         | 30   | O    | ..    | e.g. Michael  |
| 4.18  | name assembly order | ID   | HL70444 | 3    | O    | ..    |               |

#### 4. Role Person

Patient-related physicians

##### 4.1. ID number (ST)

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

### NK1 - Next of kin / associated parties

- Usage: Optional
- Cardinality:0..\*
- Implementation note: Patient relations (spouse, parents, brother ...)

| Seq. | Name         | Type | Table | Len. | Opt. | Card. | Contents |
|------|--------------|------|-------|------|------|-------|----------|
| 1    | Set ID - NK1 | SI   |       | 4    | R    | 1..1  | e.g. 1   |
| 2    | Name         | XP   |       | 1103 | O    | 0..*  |          |
| 2.1  | family name  | FN   |       | 174  | O    | ..    |          |

| Seq.   | Name   | Type | Table   | Len. | Opt. | Card. | Contents                   |
|--------|--|------|---------|------|------|-------|----------------------------|
| 2.1.1  | surname  | ST   |         | 30   | R    | ..    | e.g. Simmons               |
| 2.2    | given name                                       | ST   |         | 15   | O    | ..    | e.g. Neil                  |
| 3      | Relationship                                     | CE   | HL70063 | 483  | O    | 0..1  |                            |
| 3.1    | identifier                                       | ST   |         | 10   | R    | ..    | e.g. SPO                   |
| 3.2    | text   | ST   |         | 30   | O    | ..    | e.g. Spouse                |
| 4      | Address  | XAD  |         | 631  | O    | 0..*  |                            |
| 4.1    | street address (SAD)                             | SAD  |         | 764  | O    | ..    |                            |
| 4.1.1  | street or mailing address                        | ST   |         | 254  | O    | ..    | e.g.<br>Kortrijksesteenweg |
| 4.1.2  | street name                                      | ST   |         | 254  | O    | ..    |                            |
| 4.1.3  | dwelling number                                  | ST   |         | 254  | O    | ..    |                            |
| 4.2    | other designation                                | ST   |         | 10   | O    | ..    | e.g. 254                   |
| 4.3    | city   | ST   |         | 30   | O    | ..    | e.g. Sint Martens<br>Latem |
| 4.4    | state or province                                | ST   |         | 3    | O    | ..    |                            |
| 4.5    | zip or postal code                               | ST   |         | 7    | O    | ..    | e.g. 9831                  |
| 4.6    | country  | ID   |         | 20   | O    | ..    | e.g. BE                    |
| 5      | Phone Number                                     | XTN  |         | 850  | O    | 0..1  |                            |
| 5.1    | [(999)] 999-9999 [X99999][C any text]            | TN   |         | 15   | O    | ..    | e.g. 049879284             |
| 5.3    | telecommunication equipment type (ID)            | ID   | HL70202 | 3    | O    | ..    |                            |
| 5.4    | Email address                                    | ST   |         |      | O    | ..    |                            |
| 5.5    | Country Code                                     | NM   |         | 15   | O    | ..    |                            |
| 5.6    | Area/city code                                   | NM   |         | 15   | O    | ..    |                            |
| 5.7    | Phone number                                     | NM   |         | 15   | O    | ..    |                            |
| 5.8    | Extension  | NM   |         | 15   | O    | ..    |                            |
| 7      | Contact Role                                     | CE   | HL70131 | 483  | O    | 0..1  |                            |
| 7.2    | text   | ST   |         | 254  | O    | ..    | e.g. Emergency<br>contact  |
| 7.5    | alternate text                                   | ST   |         | 254  | O    | ..    |                            |
| 11     | Next of Kin / Associated Parties Job Code/Class  | JCC  | HL70327 | 292  | O    | 0..1  |                            |
| 11.1   | job code   | IS   |         | 10   | O    | ..    |                            |
| 11.2   | job class  | IS   |         | 10   | O    | ..    |                            |
| 15     | Administrative Sex                               | IS   | HL70001 | 1    | O    | 0..1  | e.g. M                     |
| 23     | Protection Indicator                             | ID   | HL70136 | 1    | O    | 0..1  | e.g. N                     |
| 33     | Next of Kin/Associated Party's Identifiers       | CX   |         | 1913 | O    | 0..*  |                            |
| 33.1   | ID   | ST   |         | 20   | R    | ..    |                            |
| 33.3   | code identifying the check digit scheme employed | ID   | HL70061 | 3    | O    | ..    |                            |
| 33.4   | assigning authority                              | HD   |         | 602  | O    | ..    |                            |
| 33.4.1 | namespace ID                                     | IS   | HL70363 | 200  | O    | ..    |                            |
| 33.4.2 | universal ID                                     | ST   |         | 200  | O    | ..    |                            |
| 33.4.3 | universal ID type                                | ID   | HL70301 | 200  | O    | ..    |                            |
| 33.5   | identifier type code (ID)                        | ID   | HL70203 | 200  | O    | ..    |                            |
| 33.6   | assigning facility                               | HD   |         | 602  | O    | ..    |                            |

| Seq.   | Name                | Type | Table   | Len. | Opt. | Card. | Contents |
|--------|---------------------|------|---------|------|------|-------|----------|
| 33.6.1 | namespace ID        | IS   | HL70363 | 200  | O    | ..    |          |
| 33.6.2 | universal ID        | ST   |         | 200  | O    | ..    |          |
| 33.6.3 | universal ID type   | ID   | HL70301 | 200  | O    | ..    |          |
| 33.7   | effective date (DT) | DT   |         | 3    | O    | ..    |          |
| 33.8   | expiration date     | DT   |         | 3    | O    | ..    |          |

## 1. Set ID - NK1

Not stored in database but used to trigger a delete of existing relations added by the interface

### 3.1. identifier

Special processing for SPO/SPOUSE and SEL/SELF. In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same code-set.

## 7. Contact Role

Stored as comment

## 11. Next of Kin / Associated Parties Job Code/Class

Only processed when NK1-3 = SEL !

## 23. Protection Indicator

VIP indicator only when NK1-3 = SEL

## PV1 - Patient visit

- Usage: Not supported

## PV2 - Patient visit - additional information

- Usage: Not supported

## ROL - Role

- Usage: Not supported

## DB1 - Disability

- Usage: Not supported

## OBX - Observation/Result

- Usage: Optional

- Cardinality:0..\*

- Implementation note: Used to convey additional patient information, like weighth, height ...

| Seq. | Name                   | Type | Table   | Len. | Opt. | Card. | Contents    |
|------|------------------------|------|---------|------|------|-------|-------------|
| 1    | Set ID - OBX           | SI   |         | 4    | O    | 0..1  | e.g. 1      |
| 2    | Value Type             | ID   | HL70125 | 2    | R    | 1..1  | e.g. NM     |
| 3    | Observation Identifier | CE   |         | 483  | R    | 1..1  |             |
| 3.1  | identifier             | ST   |         | 30   | O    | ..    | e.g. WEIGHT |
| 3.2  | text                   | ST   |         | 200  | O    | ..    | e.g. Weight |
| 5    | Observation Value      | ST   |         | 40   | R    | 1..1  | e.g. 76     |
| 6    | Units                  | CE   |         | 483  | O    | 0..1  |             |
| 6.1  | identifier             | ST   |         | 40   | O    | ..    | e.g. kg     |

## 2. Value Type

Not stored in db, but used to transform OBX-5

## **AL1 - Patient allergy information**

- Usage: Optional
- Cardinality:0..\*
- Implementation note: Used to convey patient allergies - when an allergy is present - a remark ALLERGY is set at patient level and the allergy details are stored as "extra" patient info.

| Seq. | Name                               | Type | Table   | Len. | Opt. | Card. | Contents          |
|------|------------------------------------|------|---------|------|------|-------|-------------------|
| 1    | Set ID - AL1                       | CE   |         | 483  | R    | 1..1  |                   |
| 1.1  | identifier                         | ST   |         | 1    | R    | ..    | e.g. 1            |
| 2    | Allergen Type Code                 | CE   | HL70127 | 483  | O    | 0..1  |                   |
| 2.2  | text                               | ST   |         | 40   | O    | ..    | e.g. Drug allergy |
| 3    | Allergen Code/Mnemonic/Description | CE   |         | 483  | R    | 1..1  |                   |
| 3.2  | text                               | ST   |         | 40   | O    | ..    | e.g. Penicillins  |
| 5    | Allergy Reaction Code              | ST   |         | 254  | O    | 0..1  | e.g. sneeze       |
| 6    | Identification Date                | DT   |         | 8    | O    | 0..1  | e.g. 20020901     |

## **DG1 - Diagnosis**

- Usage: Optional
- Cardinality:0..\*
- Implementation note: Diagnosis information - stored as a visit remark (for usage in QDoc) and also stored in a specific table for use in Medar

| Seq. | Name                            | Type | Table   | Len. | Opt. | Card. | Contents  |
|------|---------------------------------|------|---------|------|------|-------|---|
| 1    | Set ID - DG1                    | SI   |         | 4    | O    | 0..1  | e.g. 1  |
| 3    | Diagnosis Code - DG1            | CE   | HL70051 | 483  | O    | 0..1  |   |
| 3.1  | identifier                      | ST   |         | 100  | O    | ..    | e.g. V76.1  |
| 3.2  | text                            | ST   |         | 100  | O    | ..    | e.g. OTH SCREEN<br>MAMMO-MALIGN<br>NEOPLASM OF BREAST |
| 3.3  | name of coding system           | IS   | HL70396 | 3    | O    | ..    | e.g. I9   |
| 3.4  | alternate identifier            | ST   |         | 3    | O    | ..    |   |
| 3.5  | alternate text                  | ST   |         | 3    | O    | ..    |   |
| 3.6  | name of alternate coding system | IS   | HL70396 | 3    | O    | ..    |   |
| 4    | Diagnosis Description           | ST   |         | 100  | O    | 0..1  | e.g. OTH SCREEN<br>MAMMO-MALIGN<br>NEOPLASM OF BREAST |
| 5    | Diagnosis Date/Time             | TS   |         | 26   | O    | 0..1  |   |
| 5.1  | Date/Time                       | NM   |         | 24   | R    | ..    | e.g. 20051107   |
| 6    | Diagnosis Type                  | IS   | HL70052 | 2    | R    | 1..1  | e.g. A  |

### **6. Diagnosis Type**

HL7 required field

## **DRG - Diagnosis Related Group**

- Usage: Not supported

## **Segment group: G10**

- Usage: Not supported

## **PR1 - Procedures**

- Usage: Not supported

## **ROL - Role**

- Usage: Not supported

### ***End of segment group G10***

## **GT1 - Guarantor**

- Usage: Optional

- Cardinality:0..\*

| Seq.  | Name                   | Type | Table   | Len. | Opt. | Card. | Contents      |
|-------|------------------------|------|---------|------|------|-------|---------------|
| 1     | Set ID - GT1           | SI   |         | 4    | R    | 1..1  | e.g. 1        |
| 2     | Guarantor Number       | CX   |         | 1913 | O    | 0..2  |               |
| 2.1   | ID                     | ST   |         | 20   | O    | ..    | e.g. 44141241 |
| 3     | Guarantor Name         | XPN  |         | 1103 | R    | 1..*  |               |
| 3.1   | family name            | FN   |         | 189  | O    | ..    |               |
| 3.1.1 | surname                | ST   |         | 45   | O    | ..    | e.g. Yarmey   |
| 3.2   | given name             | ST   |         | 45   | O    | ..    | e.g. Mark     |
| 11    | Guarantor Relationship | CE   | HL70063 | 483  | O    | 0..1  |               |
| 11.1  | identifier             | ST   |         | 1    | O    | ..    | e.g. 1        |

## **Segment group: G3O**

- Usage: Optional

- Cardinality:0..\*

## **IN1 - Insurance**

- Usage: Required

- Cardinality:1..1

| Seq.  | Name                        | Type | Table   | Len. | Opt. | Card. | Contents             |
|-------|-----------------------------|------|---------|------|------|-------|----------------------|
| 1     | Set ID - IN1                | SI   |         | 4    | R    | 1..1  | e.g. 1               |
| 2     | Insurance Plan ID           | CE   | HL70072 | 483  | R    | 1..1  |                      |
| 2.1   | identifier                  | ST   |         | 250  | R    | ..    | e.g. MCR             |
| 3     | Insurance Company ID        | CX   |         | 1913 | R    | 1..*  |                      |
| 3.1   | ID                          | ST   |         | 20   | R    | ..    | e.g. MCR             |
| 4     | Insurance Company Name      | XON  |         | 567  | O    | 0..*  |                      |
| 4.1   | organization name           | ST   |         | 30   | O    | ..    | e.g. MEDICARE        |
| 5     | Insurance Company Address   | XAD  |         | 631  | O    | 0..*  |                      |
| 5.1   | street address (SAD)        | SAD  |         | 38   | O    | ..    |                      |
| 5.1.1 | street or mailing address   | ST   |         | 30   | O    | ..    | e.g. 2 GANNETT DRIVE |
| 5.1.2 | street name                 | ST   |         | 3    | O    | ..    |                      |
| 5.1.3 | dwelling number             | ST   |         | 3    | O    | ..    |                      |
| 5.2   | other designation           | ST   |         | 30   | O    | ..    |                      |
| 5.3   | city                        | ST   |         | 30   | O    | ..    | e.g. SOUTH PORTLAND  |
| 5.5   | zip or postal code          | ST   |         | 7    | O    | ..    | e.g. 04106           |
| 6     | Insurance Co Contact Person | XPN  |         | 1103 | O    | 0..*  |                      |

| Seq.   | Name                                  | Type | Table   | Len. | Opt. | Card. | Contents                   |
|--------|---------------------------------------|------|---------|------|------|-------|----------------------------|
| 6.1    | family name                           | FN   |         | 174  | O    | ..    |                            |
| 6.1.1  | surname                               | ST   |         | 30   | O    | ..    | e.g. De Vos                |
| 6.2    | given name                            | ST   |         | 30   | O    | ..    | e.g. Joe                   |
| 7      | Insurance Co Phone Number             | XTN  |         | 850  | O    | 0..*  |                            |
| 7.1    | [(999)] 999-9999 [X99999][C any text] | TN   |         | 15   | O    | ..    | e.g. 051405632             |
| 7.3    | telecommunication equipment type (ID) | ID   | HL70202 | 3    | O    | ..    |                            |
| 7.4    | Email address                         | ST   |         |      | O    | ..    |                            |
| 7.5    | Country Code                          | NM   |         |      | O    | ..    |                            |
| 7.6    | Area/city code                        | NM   |         |      | O    | ..    |                            |
| 7.7    | Phone number                          | NM   |         |      | O    | ..    |                            |
| 7.8    | Extension                             | NM   |         |      | O    | ..    |                            |
| 10     | Insured's Group Emp ID                | CX   |         | 1913 | O    | 0..2  |                            |
| 10.1   | ID                                    | ST   |         | 40   | O    | ..    | e.g. ABK0094               |
| 11     | Insured's Group Emp Name              | XON  |         | 567  | O    | 0..*  |                            |
| 11.1   | organization name                     | ST   |         | 30   | O    | ..    | e.g. AGFA                  |
| 12     | Plan Effective Date                   | DT   |         | 8    | O    | 0..1  | e.g. 20050101              |
| 13     | Plan Expiration Date                  | DT   |         | 8    | O    | 0..1  | e.g. 20060101              |
| 15     | Plan Type                             | IS   |         | 3    | O    | 0..1  | e.g. WA                    |
| 16     | Name Of Insured                       | XPN  |         | 1103 | O    | 0..*  |                            |
| 16.1   | family name                           | FN   |         | 189  | O    | ..    |                            |
| 16.1.1 | surname                               | ST   |         | 45   | O    | ..    | e.g. Jarmey                |
| 16.2   | given name                            | ST   |         | 45   | O    | ..    | e.g. Jane                  |
| 17     | Insured's Relationship To Patient     | CE   | HL70063 | 483  | O    | 0..1  |                            |
| 17.1   | identifier                            | ST   |         | 1    | O    | ..    | e.g. 1                     |
| 36     | Policy Number                         | ST   |         | 20   | O    | 0..1  | e.g. WA655839              |
| 44     | Insured's Employer's Address          | XAD  |         | 631  | O    | 0..1  |                            |
| 44.1   | street address (SAD)                  | SAD  |         | 540  | O    | ..    |                            |
| 44.1.1 | street or mailing address             | ST   |         | 30   | O    | ..    | e.g.<br>Kortrijksesteenweg |
| 44.1.2 | street name                           | ST   |         | 254  | O    | ..    |                            |
| 44.1.3 | dwelling number                       | ST   |         | 254  | O    | ..    |                            |
| 44.2   | other designation                     | ST   |         | 30   | O    | ..    | e.g. 157                   |
| 44.3   | city                                  | ST   |         | 30   | O    | ..    | e.g. Drongen               |
| 44.5   | zip or postal code                    | ST   |         | 7    | O    | ..    | e.g. 9000                  |

## 2.1. identifier

Not stored in database but can be used to determine in which table to store the insurance data (mutgegevens, agegevens, facgegevens)

## 3.1. ID

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

## 10. Insured's Group Emp ID

Patients employer

## 12. Plan Effective Date

Start-date insurance

### 15. Plan Type

Can be used to determine in which table to store the insurance data (mutgegevens, aogegevens, facgegevens)

### IN2 - Insurance Additional Information

- Usage: Not supported

### IN3 - Insurance Additional Information, Certification

- Usage: Not supported

### ROL - Role

- Usage: Not supported

*End of segment group G30*

### ACC - Accident

- Usage: Optional

- Cardinality: 0..1

| Seq. | Name                 | Type | Table   | Len. | Opt. | Card. | Contents          |
|------|----------------------|------|---------|------|------|-------|-------------------|
| 1    | Accident Date/Time   | TS   |         | 26   | O    | 0..1  |                   |
| 1.1  | Date/Time            | NM   |         | 24   | O    | ..    | e.g. 20051106     |
| 2    | Accident Code        | CE   | HL70050 | 483  | O    | 0..1  |                   |
| 2.1  | identifier           | ST   |         | 50   | O    | ..    | e.g. CA           |
| 8    | Accident Description | ST   |         | 50   | O    | 0..1  | e.g. Car accident |

#### 2.1. identifier

Stored as remark

#### 8. Accident Description

Stored as remark

### UB1 - UB82

- Usage: Not supported

### UB2 - UB92 Data

- Usage: Not supported