

# HL7 Conformance Profile

# **ADT A21 Inbound**

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## About this Conformance Profile

Conformance profile ADT Inbound from a HIS

HL7Server5 - Release 2005.3.6

This profile describes the HL7 ADT message structure used to import patient demographics and visit data from a 3rd party HIS application.

History:

2012-15-03 - Creation

Remarks:

Segments present in the message structure, but marked as -not supported- are allowed to be present in the message, but are not processed.  
The same counts for fields, components, subcomponents marked as not supported.

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.

HL7Server5 only supports original mode acknowledgements, enhanced acks are not supported.

Please verify length attributes at the lowest level of detail if a field consists of components, subcomponents.

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

## Use Case

### Actors

- HIS:"ADT system - where patients/visits are registered"
- Agfa (R)IS:"Departemental 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

- Event Description: leave of absence
- Message Type: ADT
- Trigger Event: A21
- Message Structure: ADT\_A21
- Topics: confsig-AGFA/QUADRAT-2.4-static-ADT-A21-null-ADT\_A21-2005.3.6--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]} {[PDA]}

### 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. A21
9.3	message structure	ID	HL70354	7	O	..	e.g. ADT_A21
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
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

ADT\_A21

#### 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. A21
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	U	0..*	
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
9.5	prefix (e.g., DR)	ST		30	O	..	
9.7	name type code	ID	HL70200	3	O	..	e.g. P
10	Race	CE	HL70005	483	O	0..1	
10.1	identifier	ST		40	O	..	e.g. 2106-3

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
11	Patient Address	XAD		631	O	0..*	
11.1	street address (SAD)	SAD		765	O	..	
11.1.1	street or mailing address	ST		254	O	..	e.g. Kortrijksesteenweg 250
11.1.2	street name	ST		254	O	..	e.g. Kortrijksesteenweg
11.1.3	dwelling number	ST		254	O	..	e.g. 250
11.2	other designation	ST		254	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
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	..	
13.2	telecommunication use code	ID	HL70201	3	O	..	e.g. PRN
13.3	telecommunication equipment type (ID)	ID	HL70202	3	O	..	e.g. PH
13.4	Email address	ST		250	O	..	e.g. support@agfa.com
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
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	
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	..	

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
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	U	0..*	
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. 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

## 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

## 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.

### 11.1. street address (SAD)

First address line

#### 11.1.2. street name

Subcomponent street name and dwelling number can be used if you wish to separate street and house number. Subcomponent PID-11-1-1 can be empty in that case.

### 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.

### 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

#### 13.2. telecommunication use code

NET: email FX: fax otherwise phone

### 14. Phone Number - Business

Additional (second) phone number

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

RIS version < 560: max length = 15

### 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	XPN		1103	O	0..*	
2.1	family name	FN		174	O	..	
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		318	O	..	
4.1.1	street or mailing address	ST		254	O	..	e.g. Kortrijksesteenweg 254
4.3	city	ST		30	O	..	e.g. Sint Martens Latem

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
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
5.5	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 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	..	
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: 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
8	Referring Doctor	XCN	HL70010	3002	O	0..1	
8.1	ID number (ST)	ST		15	O	..	e.g. 1282
8.2	family name	FN		184	O	..	
8.2.1	surname	ST		40	O	..	e.g. Blichfeldt
8.3	given name	ST		30	O	..	e.g. Erik
9	Consulting Doctor	XCN	HL70010	3002	U	0..*	
9.1	ID number (ST)	ST		15	O	..	
9.2	family name	FN		184	O	..	
9.2.1	surname	ST		40	O	..	
9.3	given name	ST		30	O	..	
10	Hospital Service	IS		10	O	0..1	e.g. MED
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
20	Financial Class	FC		47	O	0..1	
20.1	Financial Class	IS		10	O	..	e.g. 4
21	Charge Price Indicator	IS	HL70032	10	O	0..1	e.g. 1
44	Admit Date/Time	TS		26	O	0..1	

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
44.1	Date/Time	NM		24	R	..	e.g. 200511070945
45	Discharge Date/Time	TS		26	O	0..1	
45.1	Date/Time	NM		24	O	..	
47	Total Charges	NM		10	O	0..1	e.g. 1000
50	Alternate Visit ID	CX	HL70203	1913	O	0..1	
50.1	ID	ST		50	O	..	e.g. 200411143_01

## 2. Patient Class

Important field ! Can be mapped to specific patient class in RIS. In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same code-set.

### 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 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.

### 8.1. ID number (ST)

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

## 9. Consulting Doctor

Stored as patient related physician - NOT linked to the visit

### 9.1. 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

## 20. Financial Class

Paymode linked to the visit - can be mapped to a QDoc paymode. In a multi-site environment with multiple HIS systems, make sure that each HIS is using the same code-set.

## 44. Admit Date/Time

Admission date/time

## 47. Total Charges

Stored as patient extra info

## 50. Alternate Visit ID

Can be used to uniquely identify a TRANSFERS record - requires specific parameter settings

## PV2 - Patient visit - additional information

- Usage: Optional

- Cardinality: 0..1

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
22	Visit Protection Indicator	ID	HL70136	1	O	0..1	e.g. N

## ROL - Role

- Usage: Optional

- Cardinality: 0..\*

- Implementation note: Used to create or update a patient physician relation. Physicians are only created if parameter 'addunexistingphysiciansfromrol' is set to True (default is False).

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
1	Role Instance ID	EI		427	C	0..1	
1.1	entity identifier	ST		3	O	..	
1.2	namespace ID	IS	HL70363	3	O	..	
1.3	universal ID	ST		3	O	..	
1.4	universal ID type	ID	HL70301	3	O	..	
2	Action Code	ID	HL70287	2	O	0..1	e.g. UP
3	Role-ROL	CE	HL70443	483	R	1..1	
3.1	identifier	ST		10	O	..	e.g. PP
3.2	text	ST		3	O	..	
3.3	name of coding system	IS	HL70396	3	O	..	
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	Role Person	XCN		3002	R	1..*	
4.1	ID number (ST)	ST		10	O	..	e.g. 01021476
4.2	family name	FN		116	O	..	
4.2.1	surname	ST		100	O	..	
4.2.2	own surname prefix	ST		3	O	..	
4.2.3	own surname	ST		3	O	..	
4.2.4	surname prefix from partner/spouse	ST		3	O	..	
4.2.5	surname from partner/spouse	ST		3	O	..	

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
4.3	given name	ST		30	O	..	
4.4	second and further given names or initials thereof	ST		3	O	..	
4.5	suffix (e.g., JR or III)	ST		3	O	..	
4.6	prefix (e.g., DR)	ST		3	O	..	
4.7	degree (e.g., MD)	IS	HL70360	3	O	..	
4.8	source table	IS	HL70297	3	O	..	
4.9	assigning authority	HD		11	O	..	
4.9.1	namespace ID	IS	HL70363	3	O	..	
4.9.2	universal ID	ST		3	O	..	
4.9.3	universal ID type	ID	HL70301	3	O	..	
4.10	name type code	ID	HL70200	3	O	..	
4.11	identifier check digit	ST		3	O	..	
4.12	code identifying the check digit scheme employed	ID	HL70061	3	O	..	
4.13	identifier type code (IS)	IS		3	O	..	
4.14	assigning facility	HD		11	O	..	
4.14.1	namespace ID	IS	HL70363	3	O	..	
4.14.2	universal ID	ST		3	O	..	
4.14.3	universal ID type	ID	HL70301	3	O	..	
4.15	Name Representation code	ID	HL70465	3	O	..	
4.16	name context	CE	HL70448	20	O	..	
4.16.1	identifier	ST			O	..	
4.16.2	text	ST		3	O	..	
4.16.3	name of coding system	IS	HL70396	3	O	..	
4.16.4	alternate identifier	ST		3	O	..	
4.16.5	alternate text	ST		3	O	..	
4.16.6	name of alternate coding system	IS	HL70396	3	O	..	
4.17	name validity range	DR		7	O	..	
4.17.1	range start date/time	TS		3	O	..	
4.17.2	range end date/time	TS		3	O	..	
4.18	name assembly order	ID	HL70444	3	O	..	
5	Role Begin Date/Time	TS		26	O	0..1	
6	Role End Date/Time	TS		26	O	0..1	
7	Role Duration	CE		483	O	0..1	
7.2	text	ST		3	O	..	
7.3	name of coding system	IS	HL70396	3	O	..	
7.4	alternate identifier	ST		3	O	..	
7.5	alternate text	ST		3	O	..	
7.6	name of alternate coding system	IS	HL70396	3	O	..	
8	Role Action Reason	CE		483	O	0..1	
8.2	text	ST		3	O	..	
8.3	name of coding system	IS	HL70396	3	O	..	
8.4	alternate identifier	ST		3	O	..	

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
8.5	alternate text	ST		3	O	..	
8.6	name of alternate coding system	IS	HL70396	3	O	..	
9	Provider Type	CE		483	O	0..2	
9.2	text	ST		3	O	..	
9.3	name of coding system	IS	HL70396	3	O	..	
9.4	alternate identifier	ST		3	O	..	
9.5	alternate text	ST		3	O	..	
9.6	name of alternate coding system	IS	HL70396	3	O	..	
10	Organization Unit Type - ROL	CE	HL70406	483	O	0..1	
10.2	text	ST		3	O	..	
10.3	name of coding system	IS	HL70396	3	O	..	
10.4	alternate identifier	ST		3	O	..	
10.5	alternate text	ST		3	O	..	
10.6	name of alternate coding system	IS	HL70396	3	O	..	
11	Office/Home Address	XAD		631	O	0..*	
11.1	street address (SAD)	SAD		11	O	..	
11.1.1	street or mailing address	ST		3	O	..	
11.1.2	street name	ST		3	O	..	
11.1.3	dwelling number	ST		3	O	..	
11.2	other designation	ST		3	O	..	
11.3	city	ST		3	O	..	
11.4	state or province	ST		3	O	..	
11.5	zip or postal code	ST		3	O	..	
11.6	country	ID	HL70399	3	O	..	
11.7	address type	ID	HL70190	3	O	..	
11.8	other geographic designation	ST		3	O	..	
11.9	county/parish code	IS	HL70289	3	O	..	
11.10	census tract	IS	HL70288	3	O	..	
11.11	address representation code	ID	HL70465	3	O	..	
11.12	address validity range	DR		7	O	..	
11.12.1	range start date/time	TS		3	O	..	
11.12.2	range end date/time	TS		3	O	..	
12	Phone	XTN		850	O	0..*	
12.1	[(999)] 999-9999 [X99999][C any text]	TN		3	O	..	
12.2	telecommunication use code	ID	HL70201	3	O	..	
12.3	telecommunication equipment type (ID)	ID	HL70202	3	O	..	
12.4	Email address	ST		3	O	..	
12.5	Country Code	NM		3	O	..	
12.6	Area/city code	NM		3	O	..	
12.7	Phone number	NM		3	O	..	
12.8	Extension	NM		3	O	..	
12.9	any text	ST		3	O	..	

## 2. Action Code

If not set, fall back on default value 'AD'.

### 3.1. identifier

Defines the role of patient physician. PP = Primary Care Provider AD = Admitting Doctor AT = Attending Doctor RP = Referring Physician FHCP = Family Health Care Provider

## 4. Role Person

Patient physician personal data.

### 4.1. ID number (ST)

Physician code.

## 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

### 3.1. identifier

PATIENT\_REMARK --> write as patient remark in the db otherwise look to tab EXTRA

## 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 MAMMO-MALIGN 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 MAMMO-MALIGN 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: PROCEDURE**

- Usage: Not supported

## **PR1 - Procedures**

- Usage: Not supported

## **ROL - Role**

- Usage: Not supported

**End of segment group PROCEDURE**

## **GT1 - Guarantor**

- Usage: Optional
- Cardinality:0..\*
- Implementation note: The GT1 segment is only taken into account if it is followed by an IN1 segment.

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..*	

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
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: INSURANCE**

- Usage: Optional
- Cardinality:0..\*

### **IN1 - Insurance**

- Usage: Optional
- Cardinality: 0..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..*	
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
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	..	

Seq.	Name	Type	Table	Len.	Opt.	Card.	Contents
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		94	O	..	
44.1.1	street or mailing address	ST		30	O	..	e.g. Kortrijksesteenweg
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
47	Coverage Type	IS		7	O	0..1	
49	Insured's ID Number	CX		1913	O	0..1	
49.1	ID	ST		20	O	..	

## 2.1. identifier

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

## 47. Coverage Type

Can be used in Belgium to send KG1/KG2 (CT1/CT2) codes.

## 49.1. ID

Used when IN1-36 is not filled in.

## IN2 - Insurance Additional Information

- Usage: Not supported

## IN3 - Insurance Additional Information, Certification

- Usage: Not supported

## ROL - Role

- Usage: Not supported

## *End of segment group INSURANCE*

## ACC - Accident

- Usage: Optional
- Cardinality: 0..1
- Implementation note: The ACC segment is only taken into account if it is preceded by an IN1 segment that describes a work-accident.

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

### PDA - Patient death and autopsy

- Usage: Not supported