

Technical HL7 Conformance Profile

ENTERPRISE IMAGING

INBOUND ADT_A04

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Message Profile

About this Conformance

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.

Conformance parameters

Message Profile

- HL7 Version: 2.3, 2.3.1, 2.4, 2.5
- Profile Type: Constrainable
- Topics: confsig-Agfa Healthcare-2.3, 2.3.1, 2.4, 2.5-profile-accNE_accAL-Deferred

Encoding Method

ER7

Interaction 1

Dynamic Definition

- Accept Acknowledgement: NE
- Application Acknowledgement: AL
- Acknowledgement Mode: Deferred

Static Definition

- Event Description: ADT/ACK - Register a patient
- Message Type: ADT
- Trigger Event: A04
- Message Structure: ADT_A01
- Topics: confsig-Agfa Healthcare-2.3, 2.3.1, 2.4, 2.5-static-ADT-A04-null-ADT_A01-V1.0-DRAFT-Receiver

Message structure

MSH EVN PID [PD1] [PV1] {[OBX]} {[AL1]}

MSH - Message Header

- Usage: Required
- Cardinality:1..1

Seq.	Name	Opt.	Card.	Type	Table	Contents
1	Field Separator	R	1..1	ST		
2	Encoding Characters	R	1..1	ST		
3	Sending Application	O	0..1	HD	HL70361	
3.1	namespace ID	O	0..	IS	HL70363	
4	Sending Facility	O	0..1	HD	HL70362	
4.1	namespace ID	O	0..	IS	HL70363	
5	Receiving Application	O	0..1	HD	HL70361	
5.1	namespace ID	O	0..	IS	HL70363	
6	Receiving Facility	O	0..1	HD	HL70362	
6.1	namespace ID	O	0..	IS	HL70363	
7	Date/Time Of Message	O	0..1	TS		
7.1	Date/Time	O	0..	NM		
9	Message Type	R	1..1	CM_MSG	HL70076	
9.1	message type	R	1..1	ID	HL70076	e.g. ADT
9.2	trigger event	R	1..1	ID	HL70003	e.g. A04
9.3	message structure	O	0..	ID	HL70354	e.g. ADT_A01
10	Message Control ID	R	1..1	ST		
11	Processing ID	O	0..1	PT		
11.1	processing ID	O	0..	ID	HL70103	
12	Version ID	R	1..1	VID	HL70104	
12.1	version ID	R	1..1	ID	HL70104	e.g. 2.4

Seq.	Name	Opt.	Card.	Type	Table	Contents
18	Character Set	O	0..1	ID	HL70211	

1. Field Separator

2. Encoding Characters

3. Sending Application

4. Sending Facility

5. Receiving Application

6. Receiving Facility

7. Date/Time Of Message

7.1. Date/Time

YYYYMMDD[HHMM[SS]][+-ZZZZ]

If timezone information is present, it is taken into account for all date/time fields in the message.

If timezone information is present also in other datetime fields, it overrules the timezone information in this field

9. Message Type

10. Message Control ID

11. Processing ID

12. Version ID

Highest supported version 2.5

18. Character Set

EVN - Event Type

- Usage: Required

- Cardinality:1..1

Seq.	Name	Opt.	Card.	Type	Table	Contents
2	Recorded Date/Time	R	1..1	TS		
2.1	Date/Time	R	1..1	NM		e.g. 20040328134602+0600

2. Recorded Date/Time

2.1. Date/Time

YYYYMMDD[HHHMM[SS]][+-ZZZ Z]

If timezone information is present it overrules the timezone information if available in MSH-7

PID - Patient identification

- Usage: Required
- Cardinality:1..1

Seq.	Name	Opt.	Card.	Type	Table	Contents
3	Patient Identifier List	R	1..*	CX		
3.1	ID	R	1..1	ST		
3.4	assigning authority	O	0..	HD		
3.4.1	namespace ID	O	0..	IS	HL70363	
3.4.2	universal ID	O	0..	ST		
3.4.3	universal ID type	O	0..	ID	HL70301	
3.5	identifier type code (ID)	O	0..	ID	HL70203	
3.6	assigning facility	O	0..	HD		
3.6.1	namespace ID	O	0..	IS	HL70363	
3.7	effective date (DT)	O	0..	DT		
3.8	expiration date	O	0..	DT		
5	Patient Name	R	1..*	XPN		
5.1	family name	R	1..1	FN		
5.1.1	surname	R	1..1	ST		
5.1.2	own surname prefix	O	0..	ST		
5.1.3	own surname	O	0..	ST		
5.2	given name	O	0..	ST		
5.3	second and further given names or initials thereof	O	0..	ST		
5.4	suffix (e.g., JR or III)	O	0..	ST		
5.5	prefix (e.g., DR)	O	0..	ST		
5.7	name type code	O	0..	ID	HL70200	
5.8	Name Representation code	O	0..	ID	HL70465	
7	Date/Time Of Birth	O	0..1	TS		
7.1	Date/Time	O	0..	NM		
8	Administrative Sex	O	0..1	IS	HL70001	
11	Patient Address	O	0..*	XAD		
11.1	street address (SAD)	O	0..	SAD		
11.1.1	street or mailing address	O	0..	ST		
11.1.2	street name	O	0..	ST		
11.1.3	dwelling number	O	0..	ST		
11.2	other designation	O	0..	ST		
11.3	city	O	0..	ST		
11.4	state or province	O	0..	ST		
11.5	zip or postal code	O	0..	ST		

Seq.	Name	Opt.	Card.	Type	Table	Contents
11.6	country	O	0..	ID	HL70399	
11.7	address type	O	0..	ID	HL70190	
11.8	other geographic designation	O	0..	ST		
11.9	county/parish code	O	0..	IS	HL70289	
13	Phone Number - Home	O	0..1	XTN		
13.1	Telephone Number	O	0..	TN		
13.2	telecommunication use code	R	1..1	ID	HL70201	
13.3	telecommunication equipment type (ID)	R	1..1	ID	HL70202	
13.4	Email address	O	0..	ST		
14	Phone Number - Business	O	0..1	XTN		
14.1	Telephone Number	O	0..	TN		
14.2	telecommunication use code	R	1..1	ID	HL70201	
14.3	telecommunication equipment type (ID)	R	1..1	ID	HL70202	
14.4	Email address	O	0..	ST		
19	SSN Number - Patient	O	0..1	ST		
23	Birth Place	O	0..1	ST		
29	Patient Death Date and Time	C	0..1	TS		
29.1	Date/Time	O	0..	NM		
30	Patient Death Indicator	O	0..1	ID	HL70136	

3. Patient Identifier List

3.1. ID

Identification number or code for the patient.

3.4. assigning authority

The "Assigning authority" aka "Issuer of Patient ID" can consist of the following three parts:

- Namespace ID // Issuer of Patient ID
- Universal ID // Universal Entity ID
- Universal ID Type // Universal Entity ID Type

Namespace ID, or combination of Universal ID and Universal ID Type, unique define the issuer.

Either only Namespace is specified, or only Universal ID and Universal ID Type are specified, or all three components are specified.

The combination of "Namespace ID" - "Universal ID" - "Universal ID Type" must be unique in EI!
Though the component is not required, it is strongly advised to provide a value.

3.4.1. namespace ID

Identifier of the Assigning Authority that issued the patient id.

If not available an unique internal assigning authority will be used

3.4.2. universal ID

Universal Entity ID.

This ID must be unique in EI and must be in the correct format, i.e. containing only digits and dots.

3.4.3. universal ID type

Universal Entity ID Type.

Only supported value :

-ISO

3.5. identifier type code (ID)

Supported values:

- PI = Patient Primary Identifier,
- SS = Social Security number

* If empty PI will be used by default

5. Patient Name**5.1. family name**

When representation code = alphabetic or Name type code indicates maiden name is specified following rule applies:

if Surname (PID.5.1.1) is empty, Own Surname Prefix (PID.5.1.2) and Own Surname (PID.5.1.3) are concatenated as last name.

5.1.1. surname

Patient's lastname

5.2. given name

Patient's firstname

5.3. second and further given names or initials thereof

Patient Middle Name

5.4. suffix (e.g., JR or III)

Patient's suffix

5.5. prefix (e.g., DR)

Patient's prefix

5.7. name type code

M = maiden name, only support storing last name for maiden name.

5.8. Name Representation code

Supported are :

- A = Alphabetic
- I = Ideographic

- P = Phonetic

7. Date/Time Of Birth

7.1. Date/Time

YYYYMMDD[HHMM[SS]]

8. Administrative Sex

11. Patient Address

11.1. street address (SAD)

This component specifies the street or mailing address of a person or institution.

11.1.1. street or mailing address

Text value used when SAD-2 (Street Name) is empty.

11.1.2. street name

Name of the street.

11.1.3. dwelling number

House number.

11.3. city

Municipality code of the city. If field is empty, the city will be listed as 'Unknown' (code UKW).

11.4. state or province

Is always the highest region level, but there can be a lower subdividing region level for a state or province.

11.5. zip or postal code

Zip or postal code of the city.

11.6. country

A 3-digit code defining the country.

This is necessary in EI for the address segment to be processed.

It defaults to UKW (Unknown country) when left empty.

11.7. address type

O (office), H (home address) are supported.

L (Legal Address) defaults to office and the rest defaults to H (home address)

13. Phone Number - Home

Segment is used for all home communication.

First one is the primary home communication channel

13.1. Telephone Number

In case of telephone number/fax number/cellular number, the phone number is put in this field

[(999)] 999-9999 [X99999][C any text]

13.2. telecommunication use code

Required. If this is empty the communication cannot be registered.

Supported are:

- Primary Residence Number (PRN)
- Work Number (WPN)
- Network (email) Address (NET)

13.3. telecommunication equipment type (ID)

Required. If this is empty the communication cannot be registered.

Supported are:

- Telephone (PH)
- Fax (FX)
- Cellular Phone (CP)
- Internet Address (Internet)

13.4. Email address

In case of Network Email Address, this needs to be filled in.

14. Phone Number - Business

Segment is used for all business communication.

First one is the primary home business channel

14.1. Telephone Number

In case of telephone number/fax number/cellular number, the phone number is put in this field

[(999)] 999-9999 [X99999][C any text]

14.2. telecommunication use code

Required. If this is empty the communication cannot be registered.

Supported are:

- Primary Residence Number (PRN)
- Work Number (WPN)
- Other Residence Number (ORN)
- Network (email) Address (NET)

14.3. telecommunication equipment type (ID)

Required. If this is empty the communication cannot be registered.

Supported are:

- Telephone (PH)
- Fax (FX)
- Cellular Phone(CP)
- Internet Address (Internet)

14.4. Email address

In case of Network Email Address, this needs to be filled in.

19. SSN Number - Patient

Social security number of the patient.

23. Birth Place

29. Patient Death Date and Time

Condition Predicate:

If Patient Death Indicator (PID.30) has value Y, this field also needs a value.

29.1. Date/Time

YYYYMMDD[HHMM[SS]][+ -ZZZ Z]

If timezone information is present it overrules the timezone information if available in MSH-7

30. Patient Death Indicator

Y or N

PD1 - Patient Additional Demographic

- Usage: Optional
- Cardinality:0..1

Seq.	Name	Opt.	Card.	Type	Table	Contents
4	Patient Primary Care Provider Name & ID No.	O	0..1	XCN		
4.1	ID number (ST)	O	0..	ST		
4.2	family name	O	0..	FN		
4.2.1	surname	O	0..	ST		
4.3	given name	O	0..	ST		
4.9	assigning authority	O	0..	HD		
4.9.1	namespace ID	O	0..	IS	HL70363	

4. Patient Primary Care Provider Name & ID No.

4.1. ID number (ST)

Primary Care Physician code.

4.2. family name

Physician Family Name

4.3. given name

Physician Given Name

4.9. assigning authority

Assigning authority that issued the physicians code.

PV1 - Patient visit

- Usage: Optional

- Cardinality:0..1

Seq.	Name	Opt.	Card.	Type	Table	Contents
1	Set ID - PV1	O	0..1	SI		
2	Patient Class	R	1..1	IS	HL70004	
3	Assigned Patient Location	O	0..1	PL		
3.1	point of care	O	0..	IS	HL70302	
3.2	room	O	0..	IS	HL70303	
3.3	bed	O	0..	IS	HL70304	
3.4	facility (HD)	O	0..	HD		
3.4.1	namespace ID	O	0..	IS	HL70300	
3.11	assigning authority for location	O	0..	HD		
3.11.1	namespace ID	O	0..	IS	HL70300	
4	Admission Type	O	0..1	IS	HL70007	
7	Attending Doctor	O	0..*	XCN	HL70010	
7.1	ID number (ST)	O	0..	ST		
7.2	family name	O	0..	FN		
7.2.1	surname	O	0..	ST		
7.3	given name	O	0..	ST		
7.4	second and further given names or initials thereof	O	0..	ST		
7.5	suffix (e.g., JR or III)	O	0..	ST		
7.6	prefix (e.g., DR)	O	0..	ST		
7.9	assigning authority	O	0..	HD		
7.9.1	namespace ID	O	0..	IS	HL70363	
8	Referring Doctor	O	0..*	XCN	HL70010	
8.1	ID number (ST)	O	0..	ST		
8.2	family name	O	0..	FN		
8.2.1	surname	O	0..	ST		
8.3	given name	O	0..	ST		
8.4	second and further given names or initials thereof	O	0..	ST		

Seq.	Name	Opt.	Card.	Type	Table	Contents
8.5	suffix (e.g., JR or III)	O	0..	ST		
8.6	prefix (e.g., DR)	O	0..	ST		
8.9	assigning authority	O	0..	HD		
8.9.1	namespace ID	O	0..	IS	HL70363	
15	Ambulatory Status	O	0..*	IS	HL70009	
16	VIP Indicator	O	0..1	IS	HL70099	
17	Admitting Doctor	O	0..*	XCN	HL70010	
17.1	ID number (ST)	O	0..	ST		
17.2	family name	O	0..	FN		
17.2.1	surname	O	0..	ST		
17.3	given name	O	0..	ST		
17.4	second and further given names or initials thereof	O	0..	ST		
17.5	suffix (e.g., JR or III)	O	0..	ST		
17.6	prefix (e.g., DR)	O	0..	ST		
17.9	assigning authority	O	0..	HD		
17.9.1	namespace ID	O	0..	IS	HL70363	
18	Patient Type	O	0..1	IS	HL70018	
19	Visit Number	R	1..1	CX		
19.1	ID	R	1..1	ST		
19.4	assigning authority	O	0..	HD		
19.4.1	namespace ID	O	0..	IS	HL70363	
44	Admit Date/Time	O	0..1	TS		
44.1	Date/Time	O	0..	NM		
45	Discharge Date/Time	O	0..*	TS		
45.1	Date/Time	O	0..	NM		

1. Set ID - PV1

2. Patient Class

Patient Class

3.1. point of care

Patient

3.2. room

Room in the department

3.3. bed

Bed in the room

3.4.1. namespace ID

Partient

3.11.1. namespace ID

Assigning authority of the issuer of department/facility code.

4. Admission Type

Type of admission, the circumstances under which the patient was or will be admitted.

7. Attending Doctor

Attending physician information.

8. Referring Doctor

Referring physician information.

15. Ambulatory Status

Code indicating any permanent or transient handicapped conditions.

16. VIP Indicator

This field identifies the type of VIP.

- 1 set VIP or personnel as yes

- 0 set as no

17. Admitting Doctor

Admitting physician information.

18. Patient Type

Site-specific values that identify the patient type.

19. Visit Number**19.1. ID**

Unique number identifying the admission.

44. Admit Date/Time

When no admit date/time is present in the message, a fallback is done to EVN-2.

44.1. Date/Time

YYYYMMDD[HHHMM[SS]][+-ZZZ Z]

If timezone information is present it overrules the timezone information if available in MSH-7

45. Discharge Date/Time**45.1. Date/Time**

YYYYMMDD[HHHMM[SS]][+-ZZZ Z]

If timezone information is present it overrules the timezone information if available in MSH-7

OBX - Observation/Result

- Usage: Optional
- Cardinality:0..*

Seq.	Name	Opt.	Card.	Type	Table	Contents
1	Set ID - OBX	O	0..1	SI		
2	Value Type	R	1..1	ID	HL70125	
3	Observation Identifier	R	1..1	CE		
3.1	identifier	R	1..1	ST		
3.2	text	O	0..	ST		
3.3	name of coding system	O	0..	IS	HL70396	
3.4	alternate identifier	O	0..	ST		
3.5	alternate text	O	0..	ST		
3.6	name of alternate coding system	O	0..	IS	HL70396	
4	Observation Sub-Id	C	0..1	ST		
5	Observation Value	R	1..1	*		
6	Units	O	0..1	CE		
6.2	text	O	0..	ST		
6.3	name of coding system	O	0..	IS	HL70396	
6.4	alternate identifier	O	0..	ST		
6.5	alternate text	O	0..	ST		
6.6	name of alternate coding system	O	0..	IS	HL70396	
7	References Range	O	0..1	ST		
8	Abnormal Flags	O	0..1	IS	HL70078	
9	Probability	O	0..*	NM		
10	Nature of Abnormal Test	O	0..1	ID	HL70080	
11	Observation Result Status	R	1..1	ID	HL70085	
12	Date Last Observation Normal Value	O	0..1	TS		
13	User Defined Access Checks	O	0..1	ST		
14	Date/Time of the Observation	O	0..1	TS		
14.1	Date/Time	O	0..	NM		e.g. 20040328134602.1234+0600
15	Producer's ID	O	0..1	CE		
15.2	text	O	0..	ST		
15.3	name of coding system	O	0..	IS	HL70396	
15.4	alternate identifier	O	0..	ST		
15.5	alternate text	O	0..	ST		
15.6	name of alternate coding system	O	0..	IS	HL70396	
16	Responsible Observer	O	0..1	XCN		
16.1	ID number (ST)	O	0..	ST		

Seq.	Name	Opt.	Card.	Type	Table	Contents
16.2	family name	O	0..	FN		
16.2.1	surname	O	0..	ST		
16.2.2	own surname prefix	O	0..	ST		
16.2.3	own surname	O	0..	ST		
16.2.4	surname prefix from partner/spouse	O	0..	ST		
16.2.5	surname from partner/spouse	O	0..	ST		
16.3	given name	O	0..	ST		
16.4	second and further given names or initials thereof	O	0..	ST		
16.5	suffix (e.g., JR or III)	O	0..	ST		
16.6	prefix (e.g., DR)	O	0..	ST		
16.7	degree (e.g., MD)	O	0..	IS	HL70360	
16.8	source table	O	0..	IS	HL70297	
16.9	assigning authority	O	0..	HD		
16.9.1	namespace ID	O	0..	IS	HL70363	
16.9.2	universal ID	O	0..	ST		
16.9.3	universal ID type	O	0..	ID	HL70301	
16.10	name type code	O	0..	ID	HL70200	
16.11	identifier check digit	O	0..	ST		
16.12	code identifying the check digit scheme employed	O	0..	ID	HL70061	
16.13	identifier type code (IS)	O	0..	IS		
16.14	assigning facility	O	0..	HD		
16.14.1	namespace ID	O	0..	IS	HL70363	
16.14.2	universal ID	O	0..	ST		
16.14.3	universal ID type	O	0..	ID	HL70301	
16.15	Name Representation code	O	0..	ID	HL70465	
16.16	name context	O	0..	CE	HL70448	
16.16.1	identifier	O	0..	ST		
16.16.2	text	O	0..	ST		
16.16.3	name of coding system	O	0..	IS	HL70396	
16.16.4	alternate identifier	O	0..	ST		
16.16.5	alternate text	O	0..	ST		
16.16.6	name of alternate coding system	O	0..	IS	HL70396	
16.17	name validity range	O	0..	DR		
16.17.1	range start date/time	O	0..	TS		
16.17.2	range end date/time	O	0..	TS		
16.18	name assembly order	O	0..	ID	HL70444	

Seq.	Name	Opt.	Card.	Type	Table	Contents
17	Observation Method	O	0..2	CE		
17.2	text	O	0..	ST		
17.3	name of coding system	O	0..	IS	HL70396	
17.4	alternate identifier	O	0..	ST		
17.5	alternate text	O	0..	ST		
17.6	name of alternate coding system	O	0..	IS	HL70396	
18	Equipment Instance Identifier	O	0..*	EI		
18.1	entity identifier	O	0..	ST		
18.2	namespace ID	O	0..	IS	HL70363	
18.3	universal ID	O	0..	ST		
18.4	universal ID type	O	0..	ID	HL70301	
19	Date/Time of the Analysis	O	0..1	TS		

1. Set ID - OBX

2. Value Type

Supported value(s)

- TX (For Text Attachment type or Pregnancy information)
- FT (For Text Attachment type)

3. Observation Identifier

3.1. identifier

Must correspond with an attachment code that is setup in Administrator desktop as a __Patient level__-attachment.

For Pregnancy : PREGNANT to indicate Pregnancy information

4. Observation Sub-Id

5. Observation Value

Supported:

- plain text (in case of Text attachment type)
- YES/NO/UNKNOWN (in case of pregnancy information)

6. Units

7. References Range

8. Abnormal Flags

9. Probability

10. Nature of Abnormal Test

11. Observation Result Status

12. Date Last Observation Normal Value

13. User Defined Access Checks

14. Date/Time of the Observation

YYYYMMDD (date/time of last menstrual period - in case of pregnancy information)

14.1. Date/Time

YYYYMMDD[HHMM[SS[.SSSS]]][+-ZZZZ]

15. Producer's ID

16. Responsible Observer

17. Observation Method

18. Equipment Instance Identifier

19. Date/Time of the Analysis

AL1 - Patient allergy information

- Usage: Optional

- Cardinality:0..*

Seq.	Name	Opt.	Card.	Type	Table	Contents
2	Allergen Type Code	O	0..1	CE	HL70127	
2.2	text	O	0..	ST		
2.3	name of coding system	O	0..	IS	HL70396	
2.4	alternate identifier	O	0..	ST		
2.5	alternate text	O	0..	ST		
2.6	name of alternate coding system	O	0..	IS	HL70396	
3	Allergen Code/Mnemonic/Description	R	1..1	CE		
3.1	identifier	R	1..1	ST		
4	Allergy Severity Code	O	0..1	CE	HL70128	
4.1	identifier	O	0..	ST		

Seq.	Name	Opt.	Card.	Type	Table	Contents
5	Allergy Reaction Code	O	0..1	ST		
6	Identification Date	O	0..1	DT		

2. Allergen Type Code

Category

3. Allergen Code/Mnemonic/Description

Allergy code, name

4. Allergy Severity Code

Severity code, supported values : SV - Severe, MO - Moderate, MI - Mild, U - Unknown.

5. Allergy Reaction Code

Reaction code

6. Identification Date

The start date/time when allergy identified.