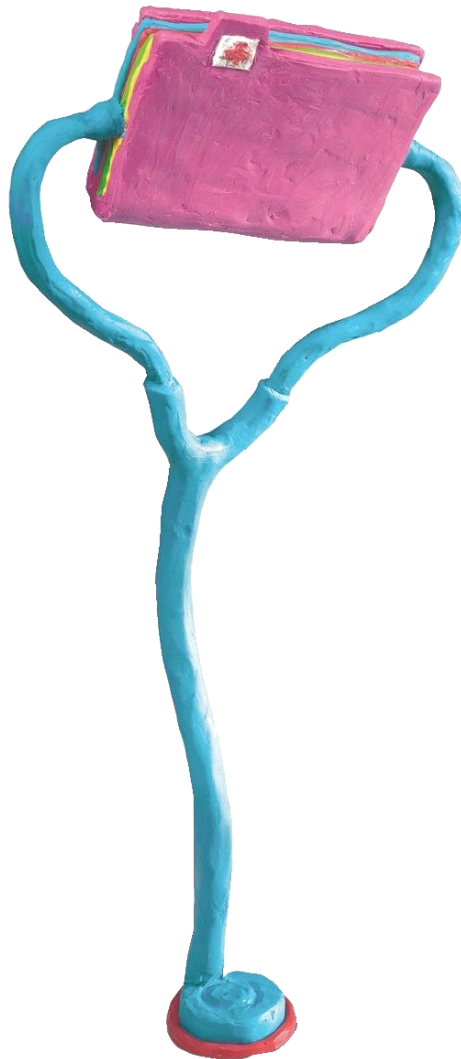


## Health Engine – HL7 Conformance Statement

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Abstract            This document provides information about the HL7 Conformance of the Health Engine.

Manufacturer        the i-engineers AG, 8004 Zürich, Switzerland

Support              the i-engineers AG, 8004 Zürich, Switzerland, [www.tie.ch](http://www.tie.ch)

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## 2. Introduction

### 2.1 Revision History

|           |               |                                   |
|-----------|---------------|-----------------------------------|
| 1.0 Rev C | Aug 29, 2018  | Format changes                    |
| 1.0 Rev B | June 02, 2016 | Added PV1-6                       |
| 1.0 Rev A | May 27, 2016  | Initial Version for Health Engine |

### 2.2 Audience

This document is intended for hospital staff, health system integrators, software designers or implementers. It is assumed that the reader has a working understanding of HL7.

### 2.3 Remarks

HL7, by itself, does not guarantee interoperability. However, the Conformance Statement facilitates a first-level validation for interoperability between different applications supporting the same HL7 message types.

This Conformance Statement is not intended to replace validation with other HL7 equipment to ensure proper exchange of information intended.

The scope of this Conformance Statement is to facilitate communication between the Health Engine and other HL7 systems.

The user should be aware of the following important issues:

- The comparison of different Conformance Statements is the first step towards assessing interconnectivity between Health Engine and other HL7 conformant equipment.
- Test procedures should be defined to validate the desired level of connectivity.

HL7 is an evolving standard, constantly being amended and augmented. In consideration of this fact, The i-engineers reserves the right to make changes to Health Engine as it sees fit to keep abreast of these changes.

The Conformance Statement should be read and understood in conjunction with the HL7 standard [1].

### 2.4 Definitions and Abbreviations

|      |  |
|------|--|
| ADT  | Admission, Discharge, and Transfer message |
| EVN  | Event Type segment                         |
| HE   | Health Engine                              |
| HIS  | Hospital Information System                |
| HL7  | Health Level 7                             |
| IHE  | Integrating the Healthcare Enterprise      |
| MFH  | Master Files Notification message          |
| MF1  | Master File Identification                 |
| MFE  | Master File Entry                          |
| MLLP |  |
| MRG  | Merge Patient Information segment          |
| MSH  | Message Header                             |
| ORU  | Observation Results                        |



|        |   |
|--------|---|
| PID    | Patient ID segment                              |
| PRA    | Practitioner Detail                             |
| STF    | Staff Identification                            |
| TCP/IP | Transmission Control Protocol/Internet Protocol |
| UI     | User Interface                                  |
| UID    | Unique Identifier                               |

The following identifiers are used:

| <b>Table 2-1: Use Identifiers</b> |                                  |
|-----------------------------------|----------------------------------|
| <b>Use Identifier</b>             | <b>Description</b>               |
| D                                 | Definierbar                      |
| F                                 | Fix – Kann nicht geändert werden |
| O                                 | Optional                         |
| R                                 | Required                         |
| U                                 | Unused                           |

## 2.5 References

- [1] HL7 Standard, Health Level Seven International, Ann Arbor, MI 48104, USA  
<http://www.hl7.com>
- [2] HL7 ADT Detailspezifikationen, the i-engineers, Switzerland
- [3] HL7 MDM-In Detailspezifikationen, the i-engineers, Switzerland
- [4] HL7 MFN Detailspezifikationen, the i-engineers, Switzerland
- [5] HL7 ORU Detailspezifikationen, the i-engineers, Switzerland
- [6] HL7 SRM/SIU Detailspezifikationen, the i-engineers, Switzerland
- [7] HL7 MDM-Out Detailspezifikationen, the i-engineers, Switzerland
- [8] HL7 DataMapping Tabellen, the i-engineers, Switzerland



### 3. General Health Engine Behavior

#### 3.1 Supported HL7 Versions

Versions 2.2 through 2.6 are supported by the HE.

#### 3.2 Meta Data

In general, all incoming data delivered in a HL7 message will be imported into the Health Engine. The importing process expects:

- The messages to arrive in the same order as they were created.
- The messages to include up to date data.
- The segments to include the correct data (not complete data is allowed).
- Meta data to be consistent.

Therefore, theoretically it is possible that a patient name is being changed using a “Cancel Discharge (A03) message, even though this should not happen. A “Update Patient Information (A08)” should be received first.

In case a field is empty, data in the HE will not be changed. To delete a field in the HE a delete symbol needs to be agreed first.

#### 3.3 Value Lists

Attributes can be transferred with a code and being translated at import. If the import does not find a dedicated code in the specified value list, the value received will be stored.

Which fields use value lists is being described in chapter 4 while defining the segments in detail. Default lists are available but are commonly adopted by the project.

Codes can be processed in three different ways:

- The code is being saved as delivered in the HL7 message. The translation to text happens in the UI.
- The code is being translated to text at import, then saved.
- The HL7 code is being translated into an i-engine code before the save process.

The definition of this translation and where it shall happen is part of the individual HE configuration.

#### 3.4 Multiple Use of a Field

The HL7 format allows for multiple use of a field (marked with ~~~). The HE imports by default only the first value. This can be changed on customer request.

#### 3.5 Confirmation

Neither receiving nor processing by the HE will cause a confirmation (ACK) to be sent to the sending system: „fire and forget“.

#### 3.6 Customization

##### 3.6.1 Events

In a customized solution, any HL7 event available in the HL7 standard may be added to the list of supported events.

##### 3.6.2 Fields

Any field marked as “Optional” may be defined as “Required” field in the customized solution.

Any field marked as “Unused” may be defined as “Optional” or “Required” in the customized solution.



### 3.7 Transport Layer

File importer: The HE does the housekeeping, all incoming or outgoing messages are being stored in the database and deleted on the file share.

Instead of deleting the incoming or outgoing messages they can be moved to a folder (e.g. "Done"). This is commonly used during implementation phase and testing of the configuration.

Rules during processing:

- The writing process renames the file to \*.hl7 only once it's done writing.
- The file is only being deleted (or moved to the „Done“ folder) once the HE saved the message in the database.
- Possible protocols: FTP, URN, SMB
- TCP/IP MLLP: Incoming transport layer can also be TCP/IP MLLP. Such messages will be saved as objects, which allows logging them properly.

### 3.8 Data Mapping

For data mapping details, refer to [8] HL7 DataMapping Tabellen, the i-engineers, Switzerland.





## 4. Inbound Messages

### 4.1 Health Engine

#### 4.1.1 Supported Trigger Events

##### 4.1.1.1 Supported ACK Events

| Table 4-1: Supported ACK Events |                           |
|---------------------------------|---------------------------|
| Event Code                      | Trigger Event Description |
| ALL                             | General ACK Message       |

##### 4.1.1.2 Supported ADT Events

For more information about the processed segments and segment mappings, refer to [2] HL7 ADT Detailspezifikationen, the i-engineers, Switzerland.

| Table 4-2: Supported ADT Events |                                       |
|---------------------------------|---------------------------------------|
| Event Code                      | Trigger Event Description             |
| A01                             | Admit a Patient                       |
| A02                             | Transfer a patient                    |
| A03                             | Discharge a Patient                   |
| A04                             | Register a patient                    |
| A05                             | Pre-Admit a patient                   |
| A06                             | Change an Outpatient-to Inpatient     |
| A07                             | Change an Inpatient-to Outpatient     |
| A08                             | Update Patient Information            |
| A11                             | Cancel Admit                          |
| A12                             | Cancel Transfer                       |
| A13                             | Cancel Discharge                      |
| A14                             | Pending Admit                         |
| A15                             | Pending Transfer                      |
| A16                             | Pending Discharge                     |
| A25                             | Cancel Pending Discharge              |
| A26                             | Cancel Pending Transfer               |
| A27                             | Cancel Pending Admit                  |
| A28                             | Add Person Information                |
| A29                             | Delete Person Information             |
| A31                             | Update Person Information             |
| A38                             | Cancel Pre-Admit                      |
| A40                             | Merge Person - Internal ID            |
| A45                             | Move Visit Information - Visit Number |



## 4.1.1.2.1 Important Fields in ADT Segments

The ADT segments and associated fields supported by the health engine are described in the conformance profile documents. The purpose of this chapter is to emphasize the importance of certain fields:

- PID, NK1, PV1, PV2, DG1, PR1, GT1, IN1

## 4.1.1.3 Supported MDM Events

For more information about the processed segments and segment mappings, refer to [3] HL7 MDM-In Detailspezifikationen, the i-engineers, Switzerland.

| <b>Table 4-3: Supported MDM Events</b> |   |
|--|---|
| <b>Event Code</b>                      | <b>Trigger Event Description</b>                |
| <b>T02</b>                             | Original document notification and content      |
| <b>T04</b>                             | Document status change notification and content |
| <b>T08</b>                             | Document edit notification and content          |
| <b>T11</b>                             | Document cancel notification                    |

## 4.1.1.3.1 Important Fields in MDM Segments

The MDM segments and associated fields supported by the health engine are described in the conformance profile documents. The purpose of this chapter is to emphasize the importance of certain fields:

- PID, PV1, TXA, OBX

## 4.1.1.4 Supported MFN Events

For more information about the processed segments and segment mappings, refer to [4] HL7 MFN Detailspezifikationen, the i-engineers, Switzerland.

| <b>Table 4-4: Supported MFN Events</b> |                                  |
|--|----------------------------------|
| <b>Event Code</b>                      | <b>Trigger Event Description</b> |
| <b>M02</b>                             | Staff/Practitioner               |

## 4.1.1.4.1 Important Fields in MFN Segments

The MFN segments and associated fields supported by the health engine are described in the conformance profile documents. The purpose of this chapter is to emphasize the importance of certain fields:

- MFI, MFE, STF, PRA

## 4.1.1.5 Supported ORU Events

For more information about the processed segments and segment mappings, refer to [5] HL7 ORU Detailspezifikationen, the i-engineers, Switzerland.

| <b>Table 4-5: Supported ORU Events</b> |                                  |
|--|----------------------------------|
| <b>Event Code</b>                      | <b>Trigger Event Description</b> |
| <b>R01</b>                             | Unsolicited observation message  |



## 4.1.1.5.1 Important Fields in ORU Segments

The ORU segments and associated fields supported by the health engine are described in the conformance profile documents. The purpose of this chapter is to emphasize the importance of certain fields:

- PID, PV1, PV2, NK1, ZXX, ORC, OBR, OBX

## 4.1.1.6 Supported SRM/SIU Events

For more information about the processed segments and segment mappings, refer to [6] HL7 SRM/SIU Detailspezifikationen, the i-engineers, Switzerland.

| <b>Table 4-6: Supported SIU Events</b> |   |                    |
|--|---|--------------------|
| <b>Event Code</b>                      | <b>Trigger Event Description</b>                                    | <b>Standard-HE</b> |
| <b>SRM</b>                             |   |                    |
| <b>S01</b>                             | Request new appointment booking                                     | Yes                |
| <b>S02</b>                             | Request appointment rescheduling                                    | Yes                |
| <b>S03</b>                             | Request appointment modification                                    | Yes                |
| <b>S04</b>                             | Request appointment cancellation                                    | Yes                |
| <b>S05</b>                             | Request appointment discontinuation                                 | Yes                |
| <b>S06</b>                             | Request appointment deletion  | Yes                |
| <b>S07</b>                             | Request addition of service/resource on appointment                 | Yes                |
| <b>S08</b>                             | Request modification of service/resource on appointment             | Yes                |
| <b>S09</b>                             | Request cancellation of service/resource on appointment             | Yes                |
| <b>S10</b>                             | Request discontinuation of service/resource on appointment          | Yes                |
| <b>S11</b>                             | Request deletion of service/resource on appointment                 | Yes                |
| <b>SIU</b>                             |   |                    |
| <b>S12</b>                             | Notification of new appointment booking                             | Yes                |
| <b>S13</b>                             | Notification of appointment rescheduling                            | Yes                |
| <b>S14</b>                             | Notification of appointment modification                            | Yes                |
| <b>S15</b>                             | Notification of appointment cancellation                            | No                 |
| <b>S16</b>                             | Notification of appointment discontinuation                         | No                 |
| <b>S17</b>                             | Notification of appointment deletion                                | No                 |
| <b>S18</b>                             | Notification of addition of service/resource on appointment         | No                 |
| <b>S19</b>                             | Notification of modification of service/resource on appointment     | No                 |
| <b>S20</b>                             | Notification of cancellation of service/resource on appointment     | No                 |
| <b>S21</b>                             | Notification of discontinuation of service/resource on appointment  | No                 |
| <b>S22</b>                             | Notification of deletion of service/resource on appointment         | No                 |
| <b>S23</b>                             | Notification of blocked schedule time slot(s)                       | No                 |
| <b>S24</b>                             | Notification of opened ("un-blocked") schedule time slot(s)         | No                 |
| <b>S26</b>                             | Notification that patient did not show up for scheduled appointment | No                 |



## 4.1.1.6.1 Important Fields in SRM/SIU Segments

The SRM/SIU segments and associated fields supported by the health engine are described in the conformance profile documents. The purpose of this chapter is to emphasize the importance of certain fields:

- PID, PV1, PV2, NK1, ZXX, ORC, OBR, OBX

## 4.1.2 Supported HL7 Fields

## 4.1.2.1 MSH - Message Header – Segment Mapping

| Table 4-7: MSH – Message Header |  |     |   |
|---------------------------------|--|-----|---|
| Seq                             | HL7 Field Name                           | Use | Comments  |
| 1                               | Field separator                          | R   |   |
| 2                               | Encoding characters                      | R   | ^~\&<br>^ Component<br>~ Repeat<br>\ Escape<br>& Subcomponent |
| 3                               | Sending application                      | O   |   |
| 4                               | Sending facility                         | O   |   |
| 5                               | Receiving application                    | O   | HE  |
| 6                               | Receiving facility                       | O   |   |
| 7                               | Date/Time of message                     | R   | YYYYMMDDhhmmss  |
| 8                               | Security                                 | U   | Value is ignored  |
| 9                               | Message type                             | R   | Example: ADT^A01  |
| 10                              | Message control ID                       | R   | Increasing number generated by sending application            |
| 11                              | Processing ID                            | R   | P   |
| 12                              | Version ID                               | R   | Supported versions:<br>2.2 – 2.6                              |
| 13                              | Sequence number                          | U   | Value is ignored  |
| 14                              | Continuation pointer                     | U   | Value is ignored  |
| 15                              | Accept acknowledgement type              | O   | NE  |
| 16                              | Application acknowledgement type         | O   | NE  |
| 17                              | Country code                             | O   | DE  |
| 18                              | Character Set                            | U   | Value is ignored  |
| 19                              | Principal Language of Message            | U   | Value is ignored  |
| 20                              | Alternate Character Set hand-ling Scheme | U   | Value is ignored  |
| 21                              | Conformance Statement ID                 | U   | Value is ignored  |



## 4.1.2.2 EVN - Event Type – Segment Mapping

| Table 4-8: EVN Attribute Support |                         |     |                  |
|----------------------------------|-------------------------|-----|------------------|
| Seq                              | HL7 Field Name          | Use | Comments         |
| 1                                | Event Type Code         | O   | Expl. "A01"      |
| 2                                | Recorded Date/Time      | O   | YYYYMMDDhhmmss   |
| 3                                | Date/Time Planned Event | U   | Value is ignored |
| 4                                | Event Reason Code       | O   |                  |
| 5                                | Operator ID             | U   | Value is ignored |
| 6                                | Event Occurred          | U   |                  |
| 7                                | Event Facility          | U   | Value is ignored |

## 4.1.2.3 PID - Patient identification – Segment Mapping

| Table 4-9: PID Attribute Support |                         |     |  |
|----------------------------------|-------------------------|-----|--|
| Seq                              | HL7 Field Name          | Use | Comments   |
| 1                                | Set ID - Patient ID     | U   | Value is ignored   |
| 2                                | Patient ID              | R   | Could also be taken from ID-3.1  |
| 3                                | Patient Identifier List | O   |  |
| 4                                | Alternate Patient ID    | U   | Value is ignored   |
| 5                                | Patient Name            | R   | Also supported:<br>5.1.1 Family Name<br>5.1.2 Own Family Prefix<br>5.2 Given Name  |
| 6                                | Mother's Maiden Name    | O   |  |
| 7                                | Date of Birth           | O   | YYYYMMDD   |
| 8                                | Administrative Sex      | O   | List 0001  |
| 9                                | Patient Alias           | U   | Value is ignored   |
| 10                               | Race                    | U   | Value is ignored   |
| 11                               | Patient Address         | O   | Also supported:<br>11.1 Street Address<br>11.3 City<br>11.4 State or province<br>11.5 Zip Code<br>11.6 Country (List 0399) |
| 12                               | County Code             | U   | Value is ignored   |
| 13                               | Phone Number - Home     | O   |  |
| 14                               | Phone Number - Business | O   |  |
| 15                               | Language - Patient      | U   | Value is ignored   |
| 16                               | Marital Status          | O   | List 0002  |
| 17                               | Religion                | O   | List 0006  |
| 18                               | Patient Account Number  | U   | Value is ignored   |
| 19                               | SSN Number - Patient    | O   |  |



| <b>Table 4-9: PID Attribute Support</b> |                            |            |                  |
|---|----------------------------|------------|------------------|
| <b>Seq</b>                              | <b>HL7 Field Name</b>      | <b>Use</b> | <b>Comments</b>  |
| 20                                      | Driver's licence - Patient | U          | Value is ignored |
| 21                                      | Mother's identifier        | O          |                  |
| 22                                      | Ethnic group               | U          | Value is ignored |
| 23                                      | Birth place                | O          |                  |
| 24                                      | Multiple birth indicator   | O          |                  |
| 25                                      | Birth order                | O          |                  |
| 26                                      | Citizenship                | O          | List 0399        |
| 27                                      | Veterans military status   | O          | Occupation       |
| 28                                      | Nationality                | O          | List 0399        |
| 29                                      | Patient death date/time    | O          | YYYYMMDDhhmmss?  |
| 30                                      | Patient death indicator    | O          | Y/N              |
| 31                                      | Identity unknown indicator | U          | Value is ignored |
| 32                                      | Identity reliability code  | U          | Value is ignored |
| 33                                      | Last update date/time      | U          | Value is ignored |
| 34                                      | Last update facility       | U          | Value is ignored |
| 35                                      | Species code               | U          | Value is ignored |
| 36                                      | Breed code                 | U          | Value is ignored |
| 37                                      | Strain                     | U          | Value is ignored |
| 38                                      | Production class code      | U          | Value is ignored |

## 4.1.2.4 PV1 – Patient Visit – Segment Mapping

| <b>Table 4-10: PV1 Attribute Support</b> |                           |            |   |
|--|---------------------------|------------|---|
| <b>Seq</b>                               | <b>HL7 Field Name</b>     | <b>Use</b> | <b>Comments</b>   |
| 1  | Set ID - Patient Visit    | O          | Always "1" or {empty}   |
| 2  | Patient Class             | R          | List 0004   |
| 3  | Assigned Patient Location | O          | Also supported:<br>3.1 Point of Care (List)<br>3.2 Room (List)<br>3.3 Bed (List)<br>3.4 Facility (List)<br>3.5 Status<br>3.7 Department |
| 4  | Admission Type            | O          |   |
| 5  | Preadmit Number           | U          | Value is ignored  |
| 6  | Prior Patient Location    | O          |   |



| Table 4-10: PV1 Attribute Support |                         |     |   |
|-----------------------------------|-------------------------|-----|---|
| Seq                               | HL7 Field Name          | Use | Comments  |
| 7                                 | Attending Doctor        | O   | Also supported:<br>7.1 ID Number<br>7.2.1 Family Name<br>7.2.2 Own Family Prefix<br>7.3 Given Name<br>7.7 Degree<br>7.16 Street<br>7.17 Zip Code<br>7.18 City<br>7.19 Country (List 0399)<br>7.21 Phone 1<br>7.22 Phone 2 |
| 8                                 | Referring Doctor        | O   | Also supported:<br>8.1 ID Number<br>8.2.1 Family Name<br>8.2.2 Own Family Prefix<br>8.3 Given Name<br>8.7 Degree<br>8.16 Street<br>8.17 Zip Code<br>8.18 City<br>8.19 Country (List 0399)<br>8.21 Phone 1<br>8.22 Phone 2 |
| 9                                 | Consulting Doctor       | O   | Also supported:<br>9.1 ID Number<br>9.2.1 Family Name<br>9.2.2 Own Family Prefix<br>9.3 Given Name<br>9.7 Degree<br>9.16 Street<br>9.17 Zip Code<br>9.18 City<br>9.19 Country (List 0399)<br>9.21 Phone 1<br>9.22 Phone 2 |
| 10                                | Hospital Service        | U   | Value is ignored  |
| 11                                | Temporary Location      | U   | Value is ignored  |
| 12                                | Preadmit Test Indicator | U   | Value is ignored  |
| 13                                | Readmission indicator   | U   | Value is ignored  |
| 14                                | Admit Source            | U   | Value is ignored  |
| 15                                | Ambulatory Status       | U   | Value is ignored  |
| 16                                | VIP Indicator           | O   |   |



| Table 4-10: PV1 Attribute Support |                           |     |  |
|-----------------------------------|---------------------------|-----|--|
| Seq                               | HL7 Field Name            | Use | Comments   |
| 17                                | Admitting doctor          | O   | Also supported:<br>17.1 ID Number<br>17.2.1 Family Name<br>17.2.2 Own Family Prefix<br>17.3 Given Name<br>17.7 Degree<br>17.16 Street<br>17.17 Zip Code<br>17.18 City<br>17.19 Country (List 0399)<br>17.21 Phone 1<br>17.22 Phone 2 |
| 18                                | Patient Type              | U   | Value is ignored   |
| 19                                | Visit Number              | R   | FID<br>Could also be in PV1-50   |
| 20                                | Financial Class           | O   |  |
| 21                                | Charge Price Indicator    | O   |  |
| 22                                | Courtesy Code             | U   | Value is ignored   |
| 23                                | Credit Rating             | U   | Value is ignored   |
| 24                                | Contract Code             | U   | Value is ignored   |
| 25                                | Contract Effective Date   | U   | Value is ignored   |
| 26                                | Contract Amount           | U   | Value is ignored   |
| 27                                | Contract Period           | U   | Value is ignored   |
| 28                                | Interest Code             | U   | Value is ignored   |
| 29                                | Transfer to Bad Debt Code | U   | Value is ignored   |
| 30                                | Transfer to Bad Debt Date | U   | Value is ignored   |
| 31                                | Bad Debt Agency Code      | U   | Value is ignored   |
| 32                                | Bad Debt Transfer Amount  | U   | Value is ignored   |
| 33                                | Bad Debt Recovery Amount  | U   | Value is ignored   |
| 34                                | Delete Account Indicator  | U   | Value is ignored   |
| 35                                | Delete Account Date       | U   | Value is ignored   |
| 36                                | Discharge Disposition     | O   | List 0112  |
| 37                                | Discharged to Location    | O   | List 0113  |
| 38                                | Diet Type Kostform plus   | U   | Value is ignored   |
| 39                                | Servicing Facility        | U   | Value is ignored   |
| 40                                | Bed Status                | U   | Value is ignored   |
| 41                                | Account Status            | U   | Value is ignored   |
| 42                                | Pending Location          | U   | Value is ignored   |
| 43                                | Prior Temporary Location  | U   | Value is ignored   |





| <b>Table 4-10: PV1 Attribute Support</b> |                           |            |                         |
|--|---------------------------|------------|-------------------------|
| <b>Seq</b>                               | <b>HL7 Field Name</b>     | <b>Use</b> | <b>Comments</b>         |
| 44                                       | Admit Date/Time           | O          | YYYYMMDDhhmmss          |
| 45                                       | Discharge Date/Time       | O          | YYYYMMDDhhmmss          |
| 46                                       | Current Patient Balance   | U          | Value is ignored        |
| 47                                       | Total Charges             | U          | Value is ignored        |
| 48                                       | Total Adjustments         | U          | Value is ignored        |
| 49                                       | Total Payments            | U          | Value is ignored        |
| 50                                       | Alternate Visit ID        | O          | Could also be in PV1-19 |
| 51                                       | Visit Indicator           | U          | Value is ignored        |
| 52                                       | Other Healthcare Provider | U          | Value is ignored        |

## 4.1.2.5 PV2 – Patient Visit – additional information – Segment Mapping

| <b>Table 4-11: PV2 Attribute Support</b> |                          |            |                 |
|--|--------------------------|------------|-----------------|
| <b>Seq</b>                               | <b>HL7 Field Name</b>    | <b>Use</b> | <b>Comments</b> |
| 2.1                                      | Accommodation Code       | O          | List            |
| 3  | Admin Reason             | O          |                 |
| 8  | Expected Admit Date      | O          |                 |
| 9  | Expected Discharge Date  | O          |                 |
| 10                                       | Estimated Length of Stay | O          |                 |

## 4.1.2.6 NK1 – Next of kin – Segment Mapping

| <b>Table 4-12: NK1 Attribute Support</b> |                       |            |  |
|--|-----------------------|------------|--|
| <b>Seq</b>                               | <b>HL7 Field Name</b> | <b>Use</b> | <b>Comments</b>  |
| 1  | Set ID                | R          |  |
| 2  | Name                  | O          | Also supported:<br>2.1 Family Name<br>2.2 Given Name   |
| 3  | Relationship          | O          | List 0063  |
| 4  | Address               | O          | Also supported:<br>4.1 Street Address<br>4.3 City<br>4.5 Zip Code<br>4.6 Country (List 0399) |
| 5  | Phone number          | O          |  |
| 6  | Business phone number | O          |  |
| 8  | Contact Begin Date    | O          |  |
| 9  | Contact End Date      | O          |  |
| 10                                       | Title                 | O          |  |
| 15                                       | Sex                   | O          | List 0001  |
| 29                                       | Contact Reason        | O          | List 0222  |



## 4.1.2.7 GT1 – Guarantor – Segment Mapping

| <b>Table 4-13: GT1 Attribute Support</b> |                              |            |                 |
|--|------------------------------|------------|-----------------|
| <b>Seq</b>                               | <b>HL7 Field Name</b>        | <b>Use</b> | <b>Comments</b> |
| 1  | Set ID – GT1                 | R          |                 |
| 2  | Guarantor Number             | O          |                 |
| 3  | Guarantor Name               | R          |                 |
| 4  | Guarantor Spouse Name        | O          |                 |
| 5  | Guarantor Address            | O          |                 |
| 6  | Guarantor Ph Num – Home      | O          |                 |
| 7  | Guarantor Ph Num – Business  | O          |                 |
| 8  | Guarantor Date/Time Of Birth | O          |                 |
| 9  | Guarantor Administrative Sex | O          |                 |
| 10                                       | Guarantor Type               | O          |                 |
| 11                                       | Guarantor Relationship       | O          |                 |
| 12                                       | Guarantor SSN                | O          |                 |
| 13                                       | Guarantor Date – Begin       | O          |                 |
| 14                                       | Guarantor Date – End         | O          |                 |
| 15                                       | Guarantor Priority           | O          |                 |

## 4.1.2.8 DG1 – Diagnosis – Segment Mapping

| <b>Table 4-14: DG1 Attribute Support</b> |                         |            |   |
|--|-------------------------|------------|---|
| <b>Seq</b>                               | <b>HL7 Field Name</b>   | <b>Use</b> | <b>Comments</b>   |
| 1  | Set ID                  | R          |   |
| 2  | Diagnosis Coding Method | U          | Value is ignored  |
| 3  | Diagnosis Code          | O          | Also supported:<br>3.1 Identifier<br>3.2 Text<br>3.3.1 Diag. Coding Syst. |
| 4  | Diagnosis Description   | U          | Value is ignored  |
| 5  | Diagnosis Date/Time     | O          | YYYYMMDDhhmmss  |
| 6  | Diagnosis Type          | O          | List  |
| 15                                       | Diagnosis Priority      | O          | List  |
| 16                                       | Diagnosing Clinician    | O          | ID or Name&GivenName  |
| 20.1                                     | Diagnosis Identifier    | O          |   |
| 20.4                                     | Signing Authority       | O          | Could also be in MSH-3  |

## 4.1.2.9 PR1 – Procedures – Segment Mapping

| <b>Table 4-15: PR1 Attribute Support</b> |                       |            |                 |
|--|-----------------------|------------|-----------------|
| <b>Seq</b>                               | <b>HL7 Field Name</b> | <b>Use</b> | <b>Comments</b> |
| 1  | Set ID                | R          |                 |



| Table 4-15: PR1 Attribute Support |                           |     |  |
|-----------------------------------|---------------------------|-----|--|
| Seq                               | HL7 Field Name            | Use | Comments   |
| 2                                 | Procedure Coding Method   | O   |  |
| 3                                 | Diagnosis Code            | O   | Also supported:<br>3.1 Identifier<br>3.2 Text<br>3.3.1 Coding System |
| 4                                 | Procedure Description     | O   |  |
| 5                                 | Procedure Date/Time       | O   | YYYYMMDDhhmmss   |
| 6                                 | Procedure Functional Type | O   | List   |
| 7                                 | Procedure Minutes         | O   | In minutes   |
| 12                                | Procedure Practitioner    | O   | ID or Name&GivenName   |
| 14                                | Procedure Priority        | O   | List   |
| 15                                | Associated Diagnosis Code | O   | Only if the Identifier of the Diagnose is provided                   |
| 19.1                              | Procedure Identifier      | O   |  |
| 19.4                              | Signing Authority         | U   | Could also be in MSH-3   |

## 4.1.2.10 IN1 – Insurance – Segment Mapping

| Table 4-16: IN1 Attribute Support |                                   |     |  |
|-----------------------------------|-----------------------------------|-----|--|
| Seq                               | HL7 Field Name                    | Use | Comments   |
| 1                                 | Set ID – IN1                      | R   |  |
| 2                                 | Insurance Plan ID                 | U   | Value is ignored   |
| 3.1                               | Insurance Company ID              | O   |  |
| 3.5                               | Namespace                         | O   |  |
| 4                                 | Insurance Company Name            | O   |  |
| 5                                 | Insurance Company Address         | O   | Also supported:<br>5.1 Street Address<br>5.3 City<br>5.5 Zip Code<br>5.6 Country (List 0399) |
| 7(1)<br>.1.1                      | Insurance Co Phone Number         | O   | Telephone  |
| 7(2)<br>.1.1                      | Insurance Co Phone Number         | O   | Fax  |
| 12                                | Plan Effective Date               | O   |  |
| 13                                | Plan Expiration Date              | O   |  |
| 15                                | Plan Type                         | O   |  |
| 16                                | Name of Insured                   | O   |  |
| 17                                | Insured's Relationship to Patient | O   |  |
| 18                                | Insured's Date of Birth           | O   | YYYYMMDD   |
| 19                                | Insured's Address                 | O   | Also supported:<br>19.1 Street Address   |



| Table 4-16: IN1 Attribute Support |                              |     |  |
|-----------------------------------|------------------------------|-----|--|
| Seq                               | HL7 Field Name               | Use | Comments   |
|                                   |                              |     | 19.3 City<br>19.5 Zip Code<br>19.6 Country (List 0399) |
| 42                                | Insured's Employment Status  | U   | Value is ignored                                       |
| 43                                | Insured's Sex                | O   |  |
| 44                                | Insured's Employer's Address | O   |  |
| 49                                | Insured's ID Number          | O   |  |

## 4.1.2.11 MRG – Merge patient information – Segment Mapping

| Table 4-17: MRG Attribute Support |                               |     |                        |
|-----------------------------------|-------------------------------|-----|------------------------|
| Seq                               | HL7 Field Name                | Use | Comments               |
| 1                                 | Prior Patient Identifier List | R   |                        |
| 2                                 | Prior Alternate Patient ID    | U   | Value is ignored       |
| 3                                 | Prior Patient Account Number  | U   | Value is ignored       |
| 4                                 | Prior Patient ID              | U   | Value is ignored       |
| 5                                 | Prior Visit Number            | O   | Only used with ADT A45 |
| 6                                 | Prior Alternate Visit ID      | U   | Value is ignored       |
| 7                                 | Prior Patient Name            | U   | Value is ignored       |

## 4.1.2.12 TXA – Transcription Document Header – Segment Mapping

| Table 4-18: TXA Attribute Support |                                     |     |   |
|-----------------------------------|-------------------------------------|-----|---|
| Seq                               | HL7 Field Name                      | Use | Comments  |
| 1                                 | Set ID- TXA                         | R   |   |
| 2                                 | Document type                       | R   | List 0270   |
| 3                                 | Document content presentation       | O   |   |
| 4                                 | Activity date/time                  | O   |   |
| 5                                 | Primary activity provider code/name | O   | Also supported:<br>5.1 ID Number<br>5.2.1 Family Name<br>5.2.2 Own Family Prefix<br>5.3 Given Name<br>5.7 Degree<br>5.16 Street<br>5.17 Zip Code<br>5.18 City<br>5.19 Country (List 0399)<br>5.21 Phone<br>5.22 Fax |
| 6                                 | Origination date/time               | O   |   |
| 7                                 | Transcription date/time             | O   |   |



| Table 4-18: TXA Attribute Support |                                 |     |  |
|-----------------------------------|---------------------------------|-----|--|
| Seq                               | HL7 Field Name                  | Use | Comments   |
| 8                                 | Edit date/time                  | O   |  |
| 9                                 | Originator code/name            | O   | Also supported:<br>9.1 ID Number<br>9.2.1 Family Name<br>9.2.2 Own Family Prefix<br>9.3 Given Name<br>9.7 Degree<br>9.16 Street<br>9.17 Zip Code<br>9.18 City<br>9.19 Country (List 0399)<br>9.21 Phone<br>9.22 Fax            |
| 10                                | Assigned document authenticator | O   | Also supported:<br>10.1 ID Number<br>10.2.1 Family Name<br>10.2.2 Own Family Prefix<br>10.3 Given Name<br>10.7 Degree<br>10.16 Street<br>10.17 Zip Code<br>10.18 City<br>10.19 Country (List 0399)<br>10.21 Phone<br>10.22 Fax |
| 11                                | Transcriptionist Code/Name      | O   | Also supported:<br>11.1 ID Number<br>11.2.1 Family Name<br>11.2.2 Own Family Prefix<br>11.3 Given Name<br>11.7 Degree<br>11.16 Street<br>11.17 Zip Code<br>11.18 City<br>11.19 Country (List 0399)<br>11.21 Phone<br>11.22 Fax |
| 12                                | Unique document number          | O   | MSH-3 is signing authority<br>Also supported:<br>12.1 Entity Identifier<br>12.2 Namespace ID (List or MSH-3)   |
| 13                                | Parent document number          | U   | Value is ignored   |
| 14                                | Placer order number             | O   |  |
| 15                                | Filler order number             | O   |  |



| Table 4-18: TXA Attribute Support |  |     |  |
|-----------------------------------|--|-----|--|
| Seq                               | HL7 Field Name                                   | Use | Comments                                   |
| 16                                | Unique document file name                        | R   | Max. length incl file extension: 100 chars |
| 17                                | Document completion status                       | O   | Workflow or list                           |
| 18                                | Document confidentiality status                  | O   |  |
| 19                                | Document availability status                     | O   |  |
| 20                                | Document storage status                          | U   | Value is ignored                           |
| 21                                | Document change reason                           | U   | Value is ignored                           |
| 22                                | Authentication person, time stamp                | U   | Value is ignored                           |
| 23                                | Distributed copies (code and name of recipients) | U   | Value is ignored                           |

## 4.1.2.13 OBX – Observation/Result – Segment Mapping

| Table 4-19: OBX Attribute Support |                                    |     |  |
|-----------------------------------|------------------------------------|-----|--|
| Seq                               | HL7 Field Name                     | Use | Comments   |
| 1                                 | Set ID – OBX                       | R   |  |
| 2                                 | Value type                         | U   | Value is ignored   |
| 3                                 | Observation identifier             | U   | Value is ignored<br>Also supported:<br>3.1 Identifier<br>3.2 Text<br>3.3 Coding Scheme<br>3.4 Alternate Identifier<br>3.5 Alternate Text<br>3.6 Alt. Coding Scheme |
| 4                                 | Observation sub-ID                 | U   | Value is ignored   |
| 5                                 | Observation value                  | R   | OBX-5.5 is required.   |
| 6                                 | Units                              | U   | Value is ignored   |
| 7                                 | Reference range                    | U   | Value is ignored   |
| 8                                 | Abnormal flag                      | U   | Value is ignored   |
| 9                                 | Probability                        | U   | Value is ignored   |
| 10                                | Nature of abnormal test            | U   | Value is ignored   |
| 11                                | Observation result status          | U   | Value is ignored   |
| 12                                | Date last observation normal value | U   | Value is ignored   |
| 13                                | User defined access checks         | U   | Value is ignored   |
| 14                                | Date/time of the observation       | U   | Value is ignored   |
| 15                                | Producer's ID                      | U   | Value is ignored   |
| 16                                | Responsible observer               | U   | Value is ignored   |
| 17                                | Observation method                 | U   | Value is ignored   |
| 18                                | Equipment instance identifier      | U   | Value is ignored   |



| Table 4-19: OBX Attribute Support |                           |     |                  |
|-----------------------------------|---------------------------|-----|------------------|
| Seq                               | HL7 Field Name            | Use | Comments         |
| 19                                | Date/time of the analysis | U   | Value is ignored |

## 4.1.2.14 MFI – Master File Identification – Segment Mapping

| Table 4-20: MFI Attribute Support |                                    |     |   |
|-----------------------------------|------------------------------------|-----|---|
| Seq                               | HL7 Field Name                     | Use | Comments  |
| 1                                 | Master File Identifier             | R   | The message is only being processed with PRA in MFI-1, otherwise the message is being ignored.<br>This means if a Guarantor is being delivered with GT1 in this field, this message is being ignored. |
| 2                                 | Master File Application Identifier | O   |   |
| 3                                 | File-Level Event Code              | R   |   |
| 4                                 | Entered Date/Time                  | O   |   |
| 5                                 | Effective Date/Time                | O   | Every message is immediately being processed. The timeline is not being taken into account.   |
| 6                                 | Response Level Code                | R   |   |

## 4.1.2.15 MFE – Master File Entry – Segment Mapping

| Table 4-21: MFE Attribute Support |                         |     |  |
|-----------------------------------|-------------------------|-----|--|
| Seq                               | HL7 Field Name          | Use | Comments   |
| 1                                 | Record-Level Event Code | R   | MAD = Add record to master file<br>MDL = Delete record from master file<br>MUP = Update record for master file<br>MDC = Deactivate: discontinue using record in master file, but do not delete from database<br>MAC = Reactivate deactivated record<br><br>This code is not being interpreted. The HE always tries to update a record (MUP) and if update doesn't work it will add a record (MAD). |
| 2                                 | MFN Control ID          | U   |  |
| 3                                 | Effective Date/Time     | O   | YYYYMMDD<br>Every message is immediately being processed. The timeline is not being taken into account.  |
| 4                                 | Primary Key Value – MFE | R   |  |
| 5                                 | Primary Key Value Type  | R   |  |

## 4.1.2.16 STF – Staff Identification – Segment Mapping

| Table 4-22: STF Attribute Support |                         |     |          |
|-----------------------------------|-------------------------|-----|----------|
| Seq                               | HL7 Field Name          | Use | Comments |
| 1                                 | Primary Key Value – STF | R   |          |
| 2                                 | Staff ID Code           | O   |          |



| Table 4-22: STF Attribute Support |                                  |     |   |
|-----------------------------------|----------------------------------|-----|---|
| Seq                               | HL7 Field Name                   | Use | Comments  |
| 3                                 | Staff Name                       | O   | 3.1 Family Name<br>3.2 Given Name<br>3.5 Prefix<br>3.6 Degree |
| 4                                 | Staff Type                       | O   |   |
| 5                                 | Administrative Sex               | O   |   |
| 6                                 | Date/Time Of Birth               | O   |   |
| 7                                 | Active/Inactive Flag             | O   |   |
| 8                                 | Department                       | O   |   |
| 9                                 | Hospital Service                 | O   |   |
| 10                                | Phone                            | O   |   |
| 11                                | Office/Home Address              | O   |   |
| 12                                | Institution Activation Date      | O   |   |
| 13                                | Institution Inactivation Date    | O   |   |
| 14                                | Backup Person ID                 | O   | 14.1 HIN-ID   |
| 15                                | E-Mail Address                   | O   | 15.1 HIN-Mail 1<br>15.2 HIN-Mail 2                            |
| 16                                | Preferred Method Of Contact      | O   |   |
| 17                                | Marital Status                   | O   |   |
| 18                                | Job Title                        | O   |   |
| 19                                | Job Code/Class                   | O   |   |
| 20                                | Employment Status Code           | O   |   |
| 21                                | Additional Insured on Auto       | O   |   |
| 22                                | Driver's License Number – Staff  | O   |   |
| 23                                | Copy Auto Insurance              | O   |   |
| 24                                | Auto Ins. Expires                | O   |   |
| 25                                | Date Last DMV Review             | O   |   |
| 26                                | Date Next DMV Review             | O   |   |
| 27                                | Race                             | O   |   |
| 28                                | Ethnic Group                     | O   |   |
| 29                                | Re-activation Approval Indicator | O   |   |

## 4.1.2.17 PRA – Practitioner Detail – Segment Mapping

| Table 4-23: PRA Attribute Support |                       |     |               |
|-----------------------------------|-----------------------|-----|---------------|
| Seq                               | HL7 Field Name        | Use | Comments      |
| 1                                 | Primary Key Value     | O   |               |
| 2                                 | Practitioner Group    | O   |               |
| 3                                 | Practitioner Category | O   | Text, no list |





| <b>Table 4-23: PRA Attribute Support</b> |  |            |                 |
|--|--|------------|-----------------|
| <b>Seq</b>                               | <b>HL7 Field Name</b>                        | <b>Use</b> | <b>Comments</b> |
| 4  | Provider Billing                             | O          |                 |
| 5  | Specialty                                    | O          |                 |
| 6  | Practitioner ID Numbers                      | O          | EAN Number      |
| 7  | Privileges                                   | O          |                 |
| 8  | Date Entered Practice                        | O          |                 |
| 9  | Institution                                  | O          |                 |
| 10                                       | Date Left Practice                           | O          |                 |
| 11                                       | Government Reimbursement Billing Eligibility | O          |                 |
| 12                                       | Set ID – PRA                                 | O          |                 |



## 5. Outbound Messages

### 5.1 Health Engine

#### 5.1.1 Supported Trigger Events

By default, the HE is creating MDM Events only. Other events may be added on request.

##### 5.1.1.1 Supported MDM Events

For more information about the processed segments and segment mappings, refer to [7] HL7 MDM-Out Detailspezifikationen, the i-engineers, Switzerland.

| Table 5-1: Supported MDM Events |  |
|---------------------------------|--|
| Event Code                      | Trigger Event Description                  |
| T01                             | Original document notification             |
| T02                             | Original document notification and content |
| T03                             | Document status change notification        |

##### 5.1.1.1.1 Important Fields in MDM Segments

The MDM segments and associated fields supported by the health engine are described in the conformance profile documents. The purpose of this chapter is to emphasize the importance of certain fields:

- PID, PV1, TXA

### 5.1.2 Supported HL7 Fields

#### 5.1.2.1 MSH Segment Mapping

| Table 5-2: MSH – Message Header |                       |     |   |
|---------------------------------|-----------------------|-----|---|
| Seq                             | HL7 Field Name        | Use | Comments  |
| 1                               | Field separator       | F   |   |
| 2                               | Encoding characters   | F   | ^~\&  |
| 3                               | Sending application   | F   | iengine   |
| 4                               | Sending facility      | F   | HE  |
| 5                               | Receiving application | D   | {empty}   |
| 6                               | Receiving facility    | D   | {empty}   |
| 7                               | Date/Time of message  | F   | YYYYMMDDhhmmss  |
| 8                               | Security              | U   | Value is ignored  |
| 9                               | Message type          | F   | Example: ADT^A01  |
| 10                              | Message control ID    | D   | Increasing number generated by sending application                      |
| 11                              | Processing ID         | D   | P   |
| 12                              | Version ID            | D   | Configurable, supported versions: 2.2, 2.3, 2.3.1, 2.4, 2.5, 2.5.1, 2.6 |
| 13                              | Sequence number       | D   | Obj_ID + Date   |
| 14                              | Continuation pointer  | D   | Value is ignored  |



| <b>Table 5-2: MSH – Message Header</b> |   |            |                  |
|--|---|------------|------------------|
| <b>Seq</b>                             | <b>HL7 Field Name</b>                   | <b>Use</b> | <b>Comments</b>  |
| 15                                     | Accept acknowledgement type             | D          | NE               |
| 16                                     | Application acknowledgement type        | D          | NE               |
| 17                                     | Country code                            | D          | DE               |
| 18                                     | Character Set                           | D          | Value is ignored |
| 19                                     | Principal Language of Message           | D          | Value is ignored |
| 20                                     | Alternate Character Set handling Scheme | U          | Value is ignored |
| 21                                     | Conformance Statement ID                | U          | Value is ignored |

## 5.1.2.2 EVN Segment Mapping

| <b>Table 5-3: EVN Attribute Support</b> |                         |            |                                |
|---|-------------------------|------------|--------------------------------|
| <b>Seq</b>                              | <b>HL7 Field Name</b>   | <b>Use</b> | <b>Comments</b>                |
| 1                                       | Event Type Code         | F          | Expl. "A01"                    |
| 2                                       | Recorded Date/Time      | D          |                                |
| 3                                       | Date/Time Planned Event | D          | Creation date : YYYYMMDDhhmmss |
| 4                                       | Event Reason Code       | D          |                                |
| 5                                       | Operator ID             | D          |                                |
| 6                                       | Event Occurred          | F          | Last update: YYYYMMDDhhmmss    |
| 7                                       | Event Facility          | D          |                                |

## 5.1.2.3 PID Segment Mapping

| <b>Table 5-4: PID Attribute Support</b> |                         |            |   |
|---|-------------------------|------------|---|
| <b>Seq</b>                              | <b>HL7 Field Name</b>   | <b>Use</b> | <b>Comments</b>   |
| 1                                       | Set ID – Patient ID     | F          | Always "1"  |
| 2                                       | Patient ID              | D          |   |
| 3                                       | Patient Identifier List | D          |   |
| 4                                       | Alternate Patient ID    | D          |   |
| 5                                       | Patient Name            | D          | Also supported:<br>5.1.1 Family Name<br>5.1.2 Own Family Prefix<br>5.2 Given Name |
| 6                                       | Mother's Maiden Name    | D          |   |
| 7                                       | Date of Birth           | D          | YYYYMMDD  |
| 8                                       | Administrative Sex      | D          | List 0001   |
| 9                                       | Patient Alias           | D          |   |
| 10                                      | Race                    | D          |   |



| <b>Table 5-4: PID Attribute Support</b> |                            |            |  |
|---|----------------------------|------------|--|
| <b>Seq</b>                              | <b>HL7 Field Name</b>      | <b>Use</b> | <b>Comments</b>  |
| 11                                      | Patient Address            | D          | Also supported:<br>11.1 Street Address<br>11.3 City<br>11.5 Zip Code<br>11.6 Country (List 0399) |
| 12                                      | County Code                | D          |  |
| 13                                      | Phone Number – Home        | D          |  |
| 14                                      | Phone Number – Business    | D          |  |
| 15                                      | Language – Patient         | D          |  |
| 16                                      | Marital Status             | D          | List 0002  |
| 17                                      | Religion                   | D          | List 0006  |
| 18                                      | Patient Account Number     | D          |  |
| 19                                      | SSN Number – Patient       | D          |  |
| 20                                      | Driver’s licence – Patient | D          |  |
| 21                                      | Mother’s identifier        | D          |  |
| 22                                      | Ethnic group               | D          |  |
| 23                                      | Birth place                | D          |  |
| 24                                      | Multiple birth indicator   | D          |  |
| 25                                      | Birth order                | D          |  |
| 26                                      | Citizenship                | D          | List 0399  |
| 27                                      | Veterans military status   | D          |  |
| 28                                      | Nationality                | D          | List 0399  |
| 29                                      | Patient death date/time    | D          |  |
| 30                                      | Patient death indicator    | D          | Y/N  |
| 31                                      | Identity unknown indicator | D          |  |
| 32                                      | Identity reliability code  | D          |  |
| 33                                      | Last update date/time      | D          |  |
| 34                                      | Last update facility       | D          |  |
| 35                                      | Species code               | D          |  |
| 36                                      | Breed code                 | D          |  |
| 37                                      | Strain                     | D          |  |
| 38                                      | Production class code      | D          |  |

## 5.1.2.4 PV1 Segment Mapping

| <b>Table 5-5: PV1 Attribute Support</b> |                        |            |                       |
|---|------------------------|------------|-----------------------|
| <b>Seq</b>                              | <b>HL7 Field Name</b>  | <b>Use</b> | <b>Comments</b>       |
| 1                                       | Set ID – Patient Visit | F          | Always “1” or {empty} |
| 2                                       | Patient Class          | D          | List 0004             |



| Table 5-5: PV1 Attribute Support |                           |     |   |
|----------------------------------|---------------------------|-----|---|
| Seq                              | HL7 Field Name            | Use | Comments  |
| 3                                | Assigned Patient Location | D   | Also supported:<br>3.1 Point of Care (List)<br>3.2 Room (List)<br>3.3 Bed (List)<br>3.4 Facility (List)   |
| 4                                | Admission Type            | D   |   |
| 5                                | Preadmit Number           | D   |   |
| 6                                | Prior Patient Location    | D   |   |
| 7                                | Attending Doctor          | D   | Also supported:<br>7.1 ID Number<br>7.2.1 Family Name<br>7.2.2 Own Family Prefix<br>7.3 Given Name<br>7.7 Degree<br>7.16 Street<br>7.17 Zip Code<br>7.18 City<br>7.19 Country (List 0399)<br>7.21 Phone 1<br>7.22 Phone 2 |
| 8                                | Referring Doctor          | D   | Also supported:<br>8.1 ID Number<br>8.2.1 Family Name<br>8.2.2 Own Family Prefix<br>8.3 Given Name<br>8.7 Degree<br>8.16 Street<br>8.17 Zip Code<br>8.18 City<br>8.19 Country (List 0399)<br>8.21 Phone 1<br>8.22 Phone 2 |
| 9                                | Consulting Doctor         | D   | Also supported:<br>9.1 ID Number<br>9.2.1 Family Name<br>9.2.2 Own Family Prefix<br>9.3 Given Name<br>9.7 Degree<br>9.16 Street<br>9.17 Zip Code<br>9.18 City<br>9.19 Country (List 0399)<br>9.21 Phone 1<br>9.22 Phone 2 |



| Table 5-5: PV1 Attribute Support |                           |     |  |
|----------------------------------|---------------------------|-----|--|
| Seq                              | HL7 Field Name            | Use | Comments   |
| 10                               | Hospital Service          | D   |  |
| 11                               | Temporary Location        | D   |  |
| 12                               | Preadmit Test Indicator   | D   |  |
| 13                               | Readmission indicator     | D   |  |
| 14                               | Admit Source              | D   |  |
| 15                               | Ambulatory Status         | D   |  |
| 16                               | VIP Indicator             | D   |  |
| 17                               | Admitting doctor          | D   | Also supported:<br>17.1 ID Number<br>17.2.1 Family Name<br>17.2.2 Own Family Prefix<br>17.3 Given Name<br>17.7 Degree<br>17.16 Street<br>17.17 Zip Code<br>17.18 City<br>17.19 Country (List 0399)<br>17.21 Phone 1<br>17.22 Phone 2 |
| 18                               | Patient Type              | D   |  |
| 19                               | Visit Number              | D   |  |
| 20                               | Financial Class           | D   |  |
| 21                               | Charge Price Indicator    | D   |  |
| 22                               | Courtesy Code             | D   |  |
| 23                               | Credit Rating             | D   |  |
| 24                               | Contract Code             | D   |  |
| 25                               | Contract Effective Date   | D   |  |
| 26                               | Contract Amount           | D   |  |
| 27                               | Contract Period           | D   |  |
| 28                               | Interest Code             | D   |  |
| 29                               | Transfer to Bad Debt Code | D   |  |
| 30                               | Transfer to Bad Debt Date | D   |  |
| 31                               | Bad Debt Agency Code      | D   |  |
| 32                               | Bad Debt Transfer Amount  | D   |  |
| 33                               | Bad Debt Recovery Amount  | D   |  |
| 34                               | Delete Account Indicator  | D   |  |
| 35                               | Delete Account Date       | D   |  |
| 36                               | Discharge Disposition     | D   | List 0112  |
| 37                               | Discharged to Location    | D   | List   |



| Table 5-5: PV1 Attribute Support |                           |     |                |
|----------------------------------|---------------------------|-----|----------------|
| Seq                              | HL7 Field Name            | Use | Comments       |
| 38                               | Diet Type Kostform plus   | D   |                |
| 39                               | Servicing Facility        | D   |                |
| 40                               | Bed Status                | D   |                |
| 41                               | Account Status            | D   |                |
| 42                               | Pending Location          | D   |                |
| 43                               | Prior Temporary Location  | D   |                |
| 44                               | Admit Date/Time           | D   | YYYYMMDDhhmmss |
| 45                               | Discharge Date/Time       | D   | YYYYMMDDhhmmss |
| 46                               | Current Patient Balance   | D   |                |
| 47                               | Total Charges             | D   |                |
| 48                               | Total Adjustments         | D   |                |
| 49                               | Total Payments            | D   |                |
| 50                               | Alternate Visit ID        | D   |                |
| 51                               | Visit Indicator           | D   |                |
| 52                               | Other Healthcare Provider | D   |                |

5.1.2.5 TXA Segment Mapping

| Table 5-6: TXA Attribute Support |                                     |     |   |
|----------------------------------|-------------------------------------|-----|---|
| Seq                              | HL7 Field Name                      | Use | Comments  |
| 1                                | Set ID- TXA                         | D   | Segment number TXA  |
| 2                                | Document type                       | D   | List 0270   |
| 3                                | Document content presentation       | D   | Application/pdf<br>[MIME-Type]  |
| 4                                | Activity date/time                  | D   |   |
| 5                                | Primary activity provider code/name | D   | Also supported:<br>5.1 ID Number<br>5.2.1 Family Name<br>5.2.2 Own Family Prefix<br>5.3 Given Name<br>5.7 Degree<br>5.16 Street<br>5.17 Zip Code<br>5.18 City<br>5.19 Country (List 0399)<br>5.21 Phone<br>5.22 Fax |
| 6                                | Origination date/time               | D   |   |
| 7                                | Transcription date/time             | D   |   |
| 8                                | Edit date/time                      | D   |   |



| Table 5-6: TXA Attribute Support |                                 |     |  |
|----------------------------------|---------------------------------|-----|--|
| Seq                              | HL7 Field Name                  | Use | Comments   |
| 9                                | Originator code/name            | D   | Also supported:<br>9.1 ID Number<br>9.2.1 Family Name<br>9.2.2 Own Family Prefix<br>9.3 Given Name<br>9.7 Degree<br>9.16 Street<br>9.17 Zip Code<br>9.18 City<br>9.19 Country (List 0399)<br>9.21 Phone<br>9.22 Fax            |
| 10                               | Assigned document authenticator | D   | Also supported:<br>10.1 ID Number<br>10.2.1 Family Name<br>10.2.2 Own Family Prefix<br>10.3 Given Name<br>10.7 Degree<br>10.16 Street<br>10.17 Zip Code<br>10.18 City<br>10.19 Country (List 0399)<br>10.21 Phone<br>10.22 Fax |
| 11                               | Transcriptionist Code/Name      | D   | Also supported:<br>11.1 ID Number<br>11.2.1 Family Name<br>11.2.2 Own Family Prefix<br>11.3 Given Name<br>11.7 Degree<br>11.16 Street<br>11.17 Zip Code<br>11.18 City<br>11.19 Country (List 0399)<br>11.21 Phone<br>11.22 Fax |
| 12                               | Unique document number          | D   | MSH-3 is signing authority<br>Also supported:<br>12.1 Entity Identifier<br>12.2 Namespace ID: HE<br>12.3 Universal ID<br>12.4 Universal ID Type  |
| 13                               | Parent document number          | D   |  |
| 14                               | Placer order number             | D   |  |
| 15                               | Filler order number             | D   |  |





| <b>Table 5-6: TXA Attribute Support</b> |  |            |                              |
|---|--|------------|------------------------------|
| <b>Seq</b>                              | <b>HL7 Field Name</b>                            | <b>Use</b> | <b>Comments</b>              |
| 16                                      | Unique document file name                        | D          | T02 only: exported file name |
| 17                                      | Document completion status                       | D          | Workflow or list             |
| 18                                      | Document confidentiality status                  | D          |                              |
| 19                                      | Document availability status                     | D          |                              |
| 20                                      | Document storage status                          | D          |                              |
| 21                                      | Document change reason                           | D          |                              |
| 22                                      | Authentication person, time stamp                | D          |                              |
| 23                                      | Distributed copies (code and name of recipients) | D          |                              |

## 5.1.2.6 OBX Segment Mapping

| <b>Table 5-7: OBX Attribute Support</b> |                                    |            |  |
|---|------------------------------------|------------|--|
| <b>Seq</b>                              | <b>HL7 Field Name</b>              | <b>Use</b> | <b>Comments</b>  |
| 1                                       | Set ID – OBX                       | D          | OBX segment number   |
| 2                                       | Value type                         | D          |  |
| 3                                       | Observation identifier             | D          | Also supported:<br>3.1 Identifier<br>3.2 Text<br>3.3 Coding Scheme<br>3.4 Alternate Identifier<br>3.5 Alternate Text<br>3.6 Alt. Coding Scheme |
| 4                                       | Observation sub-ID                 | D          |  |
| 5                                       | Observation value                  | D          |  |
| 6                                       | Units                              | D          |  |
| 7                                       | Reference range                    | D          |  |
| 8                                       | Abnormal flag                      | D          |  |
| 9                                       | Probability                        | D          |  |
| 10                                      | Nature of abnormal test            | D          |  |
| 11                                      | Observation result status          | D          |  |
| 12                                      | Date last observation normal value | D          |  |
| 13                                      | User defined access checks         | D          |  |
| 14                                      | Date/time of the observation       | D          |  |
| 15                                      | Producer's ID                      | D          |  |



| <b>Table 5-7: OBX Attribute Support</b> |                               |            |   |
|---|-------------------------------|------------|---|
| <b>Seq</b>                              | <b>HL7 Field Name</b>         | <b>Use</b> | <b>Comments</b>   |
| <b>16</b>                               | Responsible observer          | D          | Also supported:<br>16.1 Responsible observer ID<br>16.2 Responsible observer family name<br>16.3 Responsible observer given name<br>16.7 Responsible observer title |
| <b>17</b>                               | Observation method            | D          |   |
| <b>18</b>                               | Equipment instance identifier | D          |   |
| <b>19</b>                               | Date/time of the analysis     | D          |   |