



# **HL7 Interface Specification**

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## HL7 Interface Specification

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## 1. Introduction

**MillenSys** provides a broker-less PACS/RIS interface. This means that, both the offered PACS and RIS can recognize both DICOM and HL7 messages. This document gives a brief overview of MillenSys' HL7 PACS/RIS Interface. The interface is based on the HL7 version 2.4 definitions. Modules communicating using previous HL7 versions should have no communication problem due to the backward compatibility nature of the HL7 standard.

### 1.1 Communication Protocol

The PACS/RIS communicate using TCP-IP socket interface, implementing the HL7 "Minimal Lower Layer Protocol".

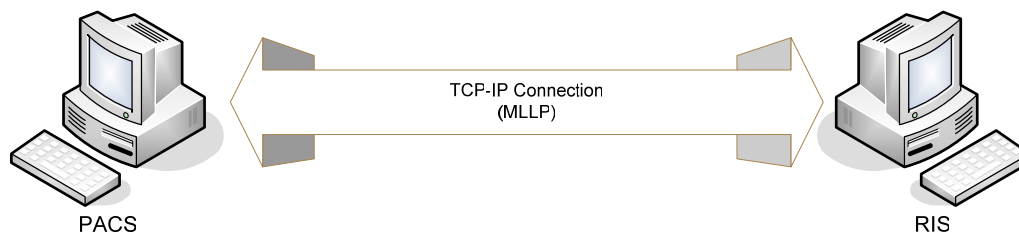


Figure 1 - HL7 Communication Model

### 1.2 Reference

Health Level Seven Version 2.3.1, 2.4

## 2. Message Details

### 2.1 Supported HL7 Message Types

HL7 supports a wide variety of hospital events. Such events include Scheduling, Reporting, Patient Administration, Patient Care, Financial Events...etc. Not every department in a health care system would be interested in sending/receiving all different kinds of events. Therefore, it is of great importance for a good HL7 interface to be smart enough to “choose” the types of events that would satisfy the health care needs of every department. A system with so many unnecessary transmitted messages would only cause high network traffic which can degrade the performance of the healthcare system.

Listed below, is a list of the message types supported by **MillenSys**:

| <b>Message Type</b> | <b>Description</b>                       |
|---------------------|--|
| <b>ACK</b>          | General Acknowledgment message.          |
| <b>ADT</b>          | Patient Admit/Discharge/Transfer message |
| <b>ORM</b>          | Order message.                           |
| <b>ORR</b>          | Order Acknowledgment message             |
| <b>ORU</b>          | Observation Reporting                    |
| <b>QRY</b>          | Query message                            |
| <b>SIU</b>          | Scheduling message                       |

**Table 1: Supported Message Types**

### 2.2 HL7 Message Description

An HL7 message can be described as a normal character string that is divided into segments. Each segment contains data related to a specific information category. For example, the PID segment contains a patient’s basic personal information (name, sex, address,...etc.), the IN1 segment contains information related to the patient’s insurance status(company, expiration data,...etc.).

Message segments can have one or more of the following characteristics:

- **Required:** This is due when the message segment contains information that always exists, and should be available for reliable healthcare information flow. For example, the

PID (Patient Identification) segment contains ‘always-existing’ data elements (name, sex, date of birth,...etc) that must be available to link the patient to the healthcare system.

- **Optional:** This is due when the message segment contains information that either can be missing or irrelevant to certain patients. For example, a patient that doesn’t suffer from any allergy will not need the allergy-related segment (AL1). An optional segment is denoted by brackets [].

- **Can Repeat:** This is due when information for a certain instance can exist more than one time. For example, a patient vulnerable to more than one allergy would use more than one AL1 (Allergy Information) segment. If a segment can repeat, it will be denoted by braces { }. If it both optional and can repeat, it will be denoted by < >.

### 2.2.1 - General Acknowledgment Message (ACK)

When a healthcare department sends an HL7 message, it usually needs a feedback from the host. This feedback is needed to make sure that the host received the message successfully and managed to process it correctly.

#### Message Direction

Input / Output

#### Message Structure

| Segment | Description            |
|---------|------------------------|
| MSH     | Message Header         |
| MSA     | Message Acknowledgment |
| [ERR]   | Error                  |

**Table 2: ACK Message Structure**

### 2.2.2 - Patient Admit/Discharge/Transmit (ADT)

ADT messages are related to events concerning patient administration events. Such events include patient admittance, transfer, discharge, tracking, and information update. The Supported ADT messages are described below.

**2.2.2.1- Admit/Visit Notification (Event A01)**

An A01 event is sent as a result of a patient undergoing the admission process which assigns the patient to a bed. It signals the beginning of a patient’s stay in the healthcare facility.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| EVN            | Event Type             |
| PID            | Patient Identification |
| <NK1>          | Next Of Kin            |
| PV1            | Patient Visit          |
| <OBX>          | Observation            |
| <AL1>          | Allergy Information    |
| <PR1>          | Procedures             |
| <IN1>          | Insurance              |

**Table 3: ADTA01 Message Structure**

**2.2.2.2 - Transfer a patient (event A02)**

An A02 event is issued as a result of the patient changing his or her assigned physical location.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| EVN            | Event Type             |
| PID            | Patient Identification |
| PV1            | Patient Visit          |
| <OBX>          | Observation            |

**Table 4: ADTA02 Message Structure**

**2.2.2.3 - Discharge/end visit (Event A03)**

An A03 event signals the end of a patient’s stay in the healthcare facility. It signals that the patient has completed the discharge process.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| EVN            | Event Type             |
| PID            | Patient Identification |
| PV1            | Patient Visit          |
| <PR1>          | Procedures             |
| <OBX>          | Observation            |

**Table 5: ADTA03 Message Structure**

**2.2.2.4 - Register a patient (Event A04)**

An A04 event signals that the patient has arrived or checked in as an outpatient, and is not assigned to a bed.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| EVN            | Event Type             |
| PID            | Patient Identification |
| <NK1>          | Next Of Kin            |

|       |                     |
|-------|---------------------|
| PV1   | Patient Visit       |
| <OBX> | Observation         |
| <AL1> | Allergy Information |
| <PR1> | Procedures          |
| <IN1> | Insurance           |

**Table 6: ADTA04 Message Structure**

**2.2.2.5 - Change an Outpatient to an Inpatient (Event A06)**

An A06 event is sent when it is decided that a registered patient is to be admitted. This situation usually occurs after an evaluation of the seriousness of the patient’s condition.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>        |
|----------------|---------------------------|
| MSH            | Message Header            |
| EVN            | Event Type                |
| PID            | Patient Identification    |
| MRG            | Merge Patient Information |
| <NK1>          | Next Of Kin               |
| PV1            | Patient Visit             |
| <OBX>          | Observation               |
| <AL1>          | Allergy Information       |
| <PR1>          | Procedures                |
| <IN1>          | Insurance                 |

**Table 7: ADTA06 Message Structure**

**2.2.2.6 - Change an Inpatient to an Outpatient (Event A07)**

An A07 event is sent when a patient who was admitted changes his/her status to “no longer admitted” but is still being seen for this episode of care.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>        |
|----------------|---------------------------|
| MSH            | Message Header            |
| EVN            | Event Type                |
| PID            | Patient Identification    |
| MRG            | Merge Patient Information |
| <NK1>          | Next Of Kin               |
| PV1            | Patient Visit             |
| <OBX>          | Observation               |
| <AL1>          | Allergy Information       |
| <PR1>          | Procedures                |
| <IN1>          | Insurance                 |

**Table 8: ADTA07 Message Structure**

### **2.2.2.7 - Update Patient Information (Event A08)**

This trigger event is used when any patient information has changed. For example, an A08 event can be used to notify the receiving systems of a change of address or a name change. This message can not be used to notify of information associated with other trigger events.

#### **Message Direction**

Input / Output

#### **Message Structure**

| <b>Segment</b> | <b>Description</b>        |
|----------------|---------------------------|
| MSH            | Message Header            |
| EVN            | Event Type                |
| PID            | Patient Identification    |
| MRG            | Merge Patient Information |
| <NK1>          | Next Of Kin               |
| PV1            | Patient Visit             |
| <OBX>          | Observation               |
| <AL1>          | Allergy Information       |
| <PR1>          | Procedures                |
| <IN1>          | Insurance                 |

**Table 9: ADTA08 Message Structure**

**2.2.2.8 - Patient Departing - tracking (Event A09)**

The A09 event is used when there is a temporary change in a patient’s physical location. This does not include a change in the patient’s assigned bed.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| EVN            | Event Type             |
| PID            | Patient Identification |
| PV1            | Patient Visit          |
| <OBX>          | Observation            |

**Table 10: ADTA09 Message Structure**

**2.2.2.9 - Patient Arriving - tracking (Event A10)**

The A10 event is sent when a patient arrives at a new location in the healthcare facility.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| EVN            | Event Type             |
| PID            | Patient Identification |
| PV1            | Patient Visit          |
| <OBX>          | Observation            |

**Table 11: ADTA10 Message Structure**

**2.2.2.10 - Cancel Admit / Visit Notification (Event A11)**

The A11 event is sent when an A01 (admit/visit notification) event is canceled, either because of an erroneous entry of the A01 event, or because of a decision not to admit the patient.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| EVN            | Event Type             |
| PID            | Patient Identification |
| PV1            | Patient Visit          |
| <OBX>          | Observation            |

**Table 12: ADTA11 Message Structure**

**2.2.2.11 - Cancel Transfer (Event A12)**

The A12 event is sent when an A02 (transfer a patient) event is canceled, either because of erroneous entry of the A02 event or because of a decision not to transfer the patient.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| EVN            | Event Type             |
| PID            | Patient Identification |
| PV1            | Patient Visit          |
| <OBX>          | Observation            |

**Table 13: ADTA12 Message Structure**

**2.2.2.12 - Cancel Discharge / End Visit (Event A13)**

The A13 event is sent when an A03 (discharge/end visit) event is canceled, either because of erroneous entry of the A03 event or because of a decision not to discharge or end the visit of the patient.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| EVN            | Event Type             |
| PID            | Patient Identification |
| <NK1>          | Next Of Kin            |
| PV1            | Patient Visit          |
| <OBX>          | Observation            |
| <AL1>          | Allergy Information    |
| <PR1>          | Procedures             |
| <IN1>          | Insurance              |

**Table 14: ADTA13 Message Structure**

**2.2.2.13 - Swap Patients (Event A17)**

The A17 is used when it is decided that two patients will exchange beds.

**Message Direction**

Input

**Message Structure**

| <b>Segment</b> | <b>Description</b>       |
|----------------|--------------------------|
| MSH            | Message Header           |
| EVN            | Event Type               |
| PID            | Patient 1 Identification |
| PV1            | Patient 1 Visit          |
| <OBX>          | Patient 1 Observation    |
| PID            | Patient 2 Identification |
| PV1            | Patient 2 Visit          |
| <OBX>          | Patient 2 Observation    |

**Table 15: ADTA17 Message Structure**

**2.2.2.14 - Merge Patient Information (Event A18)**

The A18 event is used to merge patient information related to the same patient that is linked to two different identification numbers: This is required, for example, when a previous patient is registered under a new patient identification number because of an error, or because the actual patient identification number was not determined. The merge event is used to combine the information under either the new or the old identifier.

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>        |
|----------------|---------------------------|
| MSH            | Message Header            |
| EVN            | Event Type                |
| PID            | Patient Identification    |
| MRG            | Merge Patient Information |
| PV1            | Patient Visit             |

**Table 16: ADTA18 Message Structure**

**2.2.2.15 - Merge Person Information (Event A30)**

An A30 event can be used to merge a person's information in an MPI (Master Patient Index).

**Message Direction**

Input

**Message Structure**

| <b>Segment</b> | <b>Description</b>        |
|----------------|---------------------------|
| MSH            | Message Header            |
| EVN            | Event Type                |
| PID            | Patient Identification    |
| MRG            | Merge Patient Information |

**Table 17: ADTA30 Message Structure**

**2.2.2.16 - Update Person Information (Event A31)**

An A31 event can be used to update person information on an MPI. It can also be used for backloading MPI information for the person, or for backloading person and historical information.

**Message Direction**

Input

**Message Structure**

| Segment | Description            |
|---------|------------------------|
| MSH     | Message Header         |
| EVN     | Event Type             |
| PID     | Patient Identification |
| <NK1>   | Next Of Kin            |
| PV1     | Patient Visit          |
| <OBX>   | Observation            |
| <AL1>   | Allergy Information    |
| PR1     | Procedures             |
| IN1     | Insurance              |

**Table 18: ADTA31 Message Structure**

**2.2.2.17 - Cancel Patient Arriving - tracking (Event A32)**

The A32 event is sent when an A10 (patient arriving-tracking) event is canceled, either because of erroneous entry of the A10 event or because of a decision not to receive the patient.

**Message Direction**

Input

**Message Structure**

| Segment | Description |
|---------|-------------|
|---------|-------------|

|       |                        |
|-------|------------------------|
| MSH   | Message Header         |
| EVN   | Event Type             |
| PID   | Patient Identification |
| PV1   | Patient Visit          |
| <OBX> | Observation            |

**Table 19: ADTA32 Message Structure**

**2.2.2.18 - Cancel Patient Departing - tracking (Event A33)**

The A33 event is sent when an A09 (patient departing-tracking) event is canceled.

**Message Direction**

Input

**Message Structure**

| Segment | Description            |
|---------|------------------------|
| MSH     | Message Header         |
| EVN     | Event Type             |
| PID     | Patient Identification |
| PV1     | Patient Visit          |
| <OBX>   | Observation            |

**Table 20: ADTA33 Message Structure**

**2.2.2.19 - Merge patient information - Patient ID only (event A34)**

An A34 event is intended for merging or changing patient identifiers. It would be used to change patient identifiers on all of this patient's existing accounts.

**Message Direction**

Input

**Message Structure**

| Segment | Description    |
|---------|----------------|
| MSH     | Message Header |

|     |                           |
|-----|---------------------------|
| EVN | Event Type                |
| PID | Patient Identification    |
| MRG | Merge Patient Information |

**Table 21: ADTA34 Message Structure**

### 2.2.3 - Order Messages (ORM)

Order messages are used to transmit orders or information about orders between healthcare departments that need the order and those that fulfill the order, and other applications as needed. An order is a request for material or services, usually for a specific patient. Examples can be films from radiology, linens from housekeeping, supplies from central supply...etc.

#### 2.2.3.1 - General Order Message (Event O01)

The function of this message is to initiate the transmission of information about an order. This includes placing new orders, cancellation of existing orders, discontinuation, holding, etc. The trigger event for this message is any change to an order. Such changes include submission of new orders, cancellations, updates, patient and nonpatient-specific orders, etc.

#### Message Direction

Input / Output

#### Message Structure

| Segment | Description            |
|---------|------------------------|
| MSH     | Message Header         |
| [PID]   | Patient Identification |
| [PV1]   | Patient Visit          |
| <IN1>   | Insurance              |
| <AL1>   | Allergy Information    |
| {ORC}   | Common Order           |
| {OBR}   | Observation Request    |
| <NTE>   | Notes and Comments     |
| <OBX>   | Observation            |
| <FT1>   | Financial Transaction  |
| [BLG]   | Billing                |

**Table 22: ORM001 Message Structure**

**2.2.3.2 - General Order Response Message (Event ORRO02)**

The function of this message is to respond to an ORM message. i.e. It is the application acknowledgment to an ORM message

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>      |
|----------------|-------------------------|
| MSH            | Message Header          |
| MSA            | Message Acknowledgement |
| [PID]          | Patient Identification  |
| {ORC}          | Common Order            |
| {OBR}          | Observation Request     |
| <NTE>          | Notes and Comments      |

**Table 23: ORRO02 Message Structure**

**2.2.4 - Observation Reporting (ORU)**

The main goal of observation reporting is to send structured patient-oriented clinical data from one computer system to another. Such data may be observations and results of diagnostic studies from the producing system (e.g., laboratory, image viewing station...etc), to the ordering system (e.g., HIS order entry, physician's office) or to archival medical record systems.

**2.2.4.1 – Observation Reporting Message (Event ORUR01)**

A clinical report is sent in the ORUR01 message. It is formed as a three-level hierarchy, with the PID (Patient Identification) segment at the upper level, an order record (OBR) at the next level and one or more observation records (OBX) at the bottom. One result segment (OBX) is transmitted for each component of a diagnostic report,

**Message Direction**

Input / Output

**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| [PID]          | Patient Identification |
| [PV1]          | Patient Visit          |
| <ORC>          | Common Order           |
| {OBR}          | Observation Request    |
| <NTE>          | Notes and Comments     |
| <OBX>          | Observation            |

**Table 24: ORUR01 Message Structure**

**2.2.5 - Query Messages (QRY)**

**2.2.5.1 - Patient Query (Event A19)**

A QRYA19 message is used when certain patient information is needed in a healthcare department. The receiver replies to the sender’s request for data by a Query Response message (ADR).

**Message Direction**

Output

**Message Structure**

| <b>Segment</b> | <b>Description</b> |
|----------------|--------------------|
| MSH            | Message Header     |
| QRD            | Query Definition   |
| [QRF]          | Query Filter       |

**Table 25: QRYA19 Message Structure**

**Message Direction**

Input

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**Message Structure**

| <b>Segment</b> | <b>Description</b>     |
|----------------|------------------------|
| MSH            | Message Header         |
| MSA            | Message Acknowledgment |
| [ERR]          | Error                  |
| [QAK]          | Query Acknowledgment   |
| QRD            | Query Definition       |
| [QRF]          | Query Filter           |
| {PID}          | Patient Identification |
| {PV1}          | Patient Visit          |
| <OBX>          | Observation            |
| <AL1>          | Allergy Information    |
| <PR1>          | Procedures             |
| <IN1>          | Insurance              |

**Table 26: ADR Message Structure**

**2.2.6 - Scheduling Messages (SIU)**

Scheduling messages are needed to communicate various events related to the scheduling of appointments for services or for the use of resources.

**2.2.6.1 - Notification of New Appointment Booking (Event S12)**

This message is sent from a filler application to notify other applications that a new appointment has been booked. The information provided in the SCH segment and the other detail segments as appropriate describe the appointment that has been booked by the filler application.

**Message Direction**

Input

**Message Structure**

| <b>Segment</b> | <b>Description</b>              |
|----------------|---------------------------------|
| MSH            | Message Header                  |
| SCH            | Scheduling Activity Information |



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|        |                        |
|--------|------------------------|
| <NTE>  | Notes and Comments     |
| <PID   | Patient Identification |
| [PV1]  | Patient Visit          |
| <OBX>> | Observation            |
| {RGS } | Resource Group         |

**Table 27: SIUS12 Message Structure**



### **3. Example Segments**

Next, we give a few examples of the structures of some data segments used. The table headers are described below:

**SEQ:** Sequence number of the data component in the segment.

**Element Name:** The name of the segment data component.

**DT:** HL7 defined data type used to hold the element

**OPT:** Optionality field. It can take one of the following values:

**R:** HL7 Required Field

**R1:** Optional, but is recommended.

**O:** Optional

**RPT:** Indicates if a field can repeat

### 3.1 PID - Patient Identification Segment

| Seq | Element Name                     | DT  | OPT | RPT |
|-----|----------------------------------|-----|-----|-----|
| 1   | Set ID – PID                     | SI  |     |     |
| 2   | Patient ID                       | CX  |     |     |
| 3   | Patient Identifier List          | CX  | R   | Y   |
| 4   | Alternate Patient ID - PID       | CX  |     | Y   |
| 5   | Patient Name                     | XPN | R   | Y   |
| 6   | Mother's Maiden Name             | XPN |     | Y   |
| 7   | Date/Time of Birth               | TS  | R1  |     |
| 8   | Sex                              | IS  | R1  |     |
| 9   | Patient Alias                    | XPN |     | Y   |
| 10  | Race                             | CE  |     | Y   |
| 11  | Patient Address                  | XAD | R1  | Y1  |
| 12  | County Code                      | IS  |     |     |
| 13  | Phone Number - Home              | XTN | R1  | Y   |
| 14  | Phone Number - Business          | XTN | R1  | Y   |
| 15  | Primary Language                 | CE  |     |     |
| 16  | Marital Status                   | CE  | R1  |     |
| 17  | Religion                         | CE  | R1  |     |
| 18  | Patient Account Number           | CX  |     |     |
| 19  | SSN Number - Patient             | ST  | R1  |     |
| 20  | Driver's License Number- Patient | DLN | R1  |     |
| 21  | Mother's Identifier              | CX  |     | Y   |
| 22  | Ethnic Group                     | CE  |     | Y   |
| 23  | Birth Place                      | ST  |     |     |
| 24  | Multiple Birth Indicator         | ID  |     |     |
| 25  | Birth Order                      | NM  |     |     |
| 26  | Citizenship                      | CE  |     | Y   |
| 27  | Veterans Military Status         | CE  |     |     |
| 28  | Nationality                      | CE  | R1  |     |
| 29  | Patient Death Date and Time      | TS  |     |     |
| 30  | Patient Death Indicator          | ID  |     |     |
| 31  | Identity Unknown Indicator       | ID  |     |     |
| 32  | Identity Reliability Code        | IS  |     |     |
| 33  | Last Update Date/Time            | TS  |     |     |
| 34  | Last Update Facility             | HD  |     |     |
| 35  | Species Code                     | CE  |     |     |
| 36  | Breed Code                       | CE  |     |     |
| 37  | Strain                           | ST  |     |     |
| 38  | Production Class Code            | CE  |     |     |

**Table 28: PID field definitions**

### 3.2 AL1- Patient Allergy Information Segment

| SEQ | ELEMENT NAME                      | DT | OPT | RPT |
|-----|-----------------------------------|----|-----|-----|
| 1   | Set ID - AL1                      | SI | R   |     |
| 2   | Allergy Type                      | IS | O   |     |
| 3   | Allergy Code/Mnemonic/Description | CE | R   |     |
| 4   | Allergy Severity                  | IS | O   |     |
| 5   | Allergy Reaction                  | ST | O   | Y   |
| 6   | Identification Date               | DT | O   |     |

**Table 29: AL1 Field Definitions**

### 3.3 MRG - Patient Merge Information Segment

| SEQ | ELEMENT NAME                  | DT  | OPT | RP/# |
|-----|-------------------------------|-----|-----|------|
| 1   | Prior Patient Identifier List | CX  | R   | Y    |
| 2   | Prior Alternate Patient ID    | CX  | O   | Y    |
| 3   | Prior Patient Account Number  | CX  | O   |      |
| 4   | Prior Patient ID              | CX  | O   |      |
| 5   | Prior Visit Number            | CX  | O   |      |
| 6   | Prior Alternate Visit ID      | CX  | O   |      |
| 7   | Prior Patient Name            | XPN | R1  | Y    |

**Table 30: MRG Field Definitions**

### 3.4 QRD - Query Definition Segment

| SEQ | ELEMENT NAME      | Data Type | Opt | RPT |
|-----|-------------------|-----------|-----|-----|
| 1   | Query Date/Time   | TS        | R   |     |
| 2   | Query Format Code | ID        | R   |     |

| SEQ | ELEMENT NAME                | Data Type | Opt | RPT |
|-----|-----------------------------|-----------|-----|-----|
| 3   | Query Priority              | ID        | R   |     |
| 4   | Query ID                    | ST        | R   |     |
| 5   | Deferred Response Type      | ID        | O   |     |
| 6   | Deferred Response Date/Time | TS        | O   |     |
| 7   | Quantity Limited Request    | CQ        | R   |     |
| 8   | Who Subject Filter          | XCN       | R   | Y   |
| 9   | What Subject Filter         | CE        | R   | Y   |
| 10  | What Department Data Code   | CE        | R   | Y   |
| 11  | What Data Code Value Qual.  | CM        | O   | Y   |
| 12  | Query Results Level         | ID        | O   |     |

**Table 31: QRD Field Definitions**

### 3.5 ORC – Common Order Segment

| SEQ | ELEMENT NAME                     | DT  | OPT | RP/# |
|-----|----------------------------------|-----|-----|------|
| 1   | Order Control                    | ID  | R   |      |
| 2   | Placer Order Number              | EI  | C   |      |
| 3   | Filler Order Number              | EI  | C   |      |
| 4   | Placer Group Number              | EI  | O   |      |
| 5   | Order Status                     | ID  | O   |      |
| 6   | Response Flag                    | ID  | O   |      |
| 7   | Quantity/Timing                  | TQ  | O   |      |
| 8   | Parent                           | CM  | O   |      |
| 9   | Date/Time of Transaction         | TS  | R1  |      |
| 10  | Entered By                       | XCN | R1  | Y    |
| 11  | Verified By                      | XCN | O   | Y    |
| 12  | Ordering Provider                | XCN | O   | Y    |
| 13  | Enterer's Location               | PL  | O   |      |
| 14  | Call Back Phone Number           | XTN | O   | Y/2  |
| 15  | Order Effective Date/Time        | TS  | O   |      |
| 16  | Order Control Code Reason        | CE  | O   |      |
| 17  | Entering Organization            | CE  | O   |      |
| 18  | Entering Device                  | CE  | O   |      |
| 19  | Action By                        | XCN | O   | Y    |
| 20  | Advanced Beneficiary Notice Code | CE  | O   |      |

**Table 32: ORC Field Definitions**