



**GE Healthcare**  
ViewPoint

# Technical Publication

**ViewPoint**

**HL7 Interface**

**Technical Reference Guide**

**Version 6**



**ViewPoint Software Version 5.6**

Copyright 1992 - 2009 General Electric Company



### **Imprint**

Viewpoint Bildverarbeitung GmbH

Argelsrieder Feld 12

82234 Wessling, Germany

Tel. +49 8153 9311-0

Fax +49 8153 9311-30

E-mail: [vpinfo@med.ge.com](mailto:vpinfo@med.ge.com)

Internet: [www.gehealthcare.com/viewpoint](http://www.gehealthcare.com/viewpoint)

## Table of Contents

1.	Introduction.....	3
2.	Assumptions.....	3
3.	Interface Workflow Overview .....	4
	Inbound Workflow Overview.....	4
	Support of Movement Information .....	4
	Processing of Outcome messages.....	5
	Outbound Workflow Overview .....	7
	Processing of Acknowledge Messages .....	7
4.	HL7 Data Description.....	7
	Delimiter Definition .....	7
	Data Types.....	8
	Data Type Definition.....	8
	Inbound HL7 Interface .....	12
	Fields With Insufficient Length .....	12
	Supported HL7 Events.....	13
	Structure of ADT Messages.....	13
	Structure of ADT^Z99 Event .....	14
	Structure of ADT^A40 Event.....	14
	Structure of OMG^O19 Event.....	15
	Structure of ORM^O01 Event.....	15
	HL7 Segments and Fields Definition for Inbound Workflow.....	16
	Outbound HL7 Interface.....	29
	HL7 Event Definition .....	29
	Structure of outbound HL7 events .....	29
	HL7 Segment & Field Definitions .....	34
	Export of discrete findings.....	54

## Document Version History

Version	Date	Description	Author
0.1	15.05.05	Initial Creation	Juan de Hoyos
1	19.10.2005	M3	Gabriele Rieger
2	1. 12.2005	Movement table revised	Gabriele Rieger Bernhard Hornung Juan de Hoyos
2.1	19.1.2006	Outbound updated PV1-50 added	Juan de Hoyos
2.2	18.2.2006	Mapping for OBR-32 and 43 outbound added	Juan de Hoyos
2.3	27.2.2006	Mapping for OBR-14 and PR1-14 outbound added	Juan de Hoyos
2.4	24.4.2006	Update modus added	Juan de Hoyos
2.5	2.5.2006	ZVP-8 mapping added	Juan de Hoyos
3	31.8.2006	DG1 and PR1 mapping corrected	Juan de Hoyos
3	31.8.2006	VKNR type changed to numeric	Juan de Hoyos
3	31.8.2006	PDF export added	Juan de Hoyos
3.1	18.10.2006	OBX-3 in MDM^T02 event set to ,IMAGE_REF'	Juan de Hoyos
4	27.10.2006	BAR^P12 and discrete findings added	Juan de Hoyos
5	2.11.2006	ORU^R01 message structure for discrete findings added  Made PV1 segment optional for all export events	Bernhard Hornung
5.1	14.11.2006	NF and Lateral Ventricle marked as available in FDB_USA version, only.	Juan de Hoyos
5.2	9.1.2007	ZDD, ZOX segments added	Juan de Hoyos
5.3	16.1.2007	SPR 84147 updates	Juan de Hoyos
5.4	14.9.2007	PV1-21 mapping added OBR-46 mapping added PV1-8.13,PV1-8.14,PV1-9.13,PV1- 9.14 mapping added Coding of DG1-3 and PR1-3 added for French version	Juan de Hoyos Bernhard Hornung
5.5	19.11.2007	TXA-4 used to carry ref. Doctor information ZEX, ZEP segments added	Juan de Hoyos
5.6	11.01.2008	2nd trim. Diagnosis added to discrete export list	Juan de Hoyos
5.8	30.4.2008	New fields 2.3, 5.1 and 5.2 in ZEX segment added	Juan de Hoyos
5.9	29.5.2008	New fields from 3.4 to 3.11 in ZEX segment added	Juan de Hoyos
5.10	5.5.2009	New fields 7 and 8 added to ZEX	Juan de Hoyos

5.11	5. Nov. 2009	Typo corrected Manufacture's address symbol added	Gabriele Rieger
5.12	13.Nov.2009	Table 0005 updated Flag "C" added to OBX-11 in MDM^T02 event	Juan de Hoyos
6	11. Dec. 2009	Version after review	Gabriele Rieger

# 1. Introduction

This document describes the HL7 interface, as it relates to the ViewPoint 5.5 application.

The ViewPoint (VP) HL7 Interface communicates with a Hospital Information System (HIS) or other third-party transcription systems via HL7 formatted messages that import relevant clinical information. This interface is designed to send and receive messages using the TCP/IP protocol, via a socket connection, and minimal layer protocol (MLP). These HL7 messages are created automatically, depending upon the event(s) within the ViewPoint application. The interface communication is at the server level, rather than at each individual client workstation, although a client is able to produce the necessary triggers. Successful implementation requires the assistance of a ViewPoint Interface Specialist, who can provide training, technical, and project management information.

# 2. Assumptions

- a) It is assumed that the reader of this document is familiar with the HL7 standard. This document is not intended to be used standalone, but should be used in conjunction with the HL7 Specification Version 2.4\*.
- b) The HL7 interface can only be processed using the TCP/IP protocol.
- c) The VP customer is responsible for ensuring that the receiving HIS or transcription system is capable and ready to receive HL7 messages from VPHiscomServer for processing.

\*HL7 standards committee members can acquire a free copy of the current HL7 specification from the Internet via the HL7 World Wide Web page (<http://www.HL7.org>). Non-members can order a copy from the same location or by contacting the appropriate representatives:

Health Level Seven  
3300 Washtenaw Ave.,  
Suite 227  
Ann Arbor, MI 48104-4250  
Phone: (313) 677-7777; Fax: (313) 677-6622

## 3. Interface Workflow Overview

### Inbound Workflow Overview

Supported incoming HL7 messages triggered from HIS systems are processed and their content saved into the local database.

Successfully processed messages are acknowledged. Messages, which for any reason were not processed, are rejected with a non-acknowledge ACK HL7 message (as defined in HL7 Specification 2.4). The VPHisComServer can log every incoming message and its internal processing.

Incoming streams that are not MLLP formatted are ignored.

### Support of Movement Information

ViewPoint can receive and use information about patient movements. Since there is no HL7 standard yet, which describes how movement information should be transmitted, ViewPoint uses the ZBE segment. The chosen implementation should be compatible to the IHE standard and to the German extension of the HL7 2.4 standard.

The ZBE segment is optional and can be included in every ADT message. In order to be IHE compatible, ViewPoint also accepts the ADT^Z99 event for updating movement information.

ViewPoint requires that the Movement-ID sent in ZBE-1 is unique across all movements in the system.

For every message containing a ZBE segment, ViewPoint will use the field PV1-3 (Assigned Patient Location) for the Medical and Nursing ward.

Unless ZBE-3 specifies the Movement End Time, ViewPoint assumes Movement Start + 24h as Movement End Time for movements of type 'visit'.

ViewPoint treats UPDATE or INSERT commands similarly; if a movement record exists in the ViewPoint database, it will be updated. If it doesn't exist, it will be inserted.

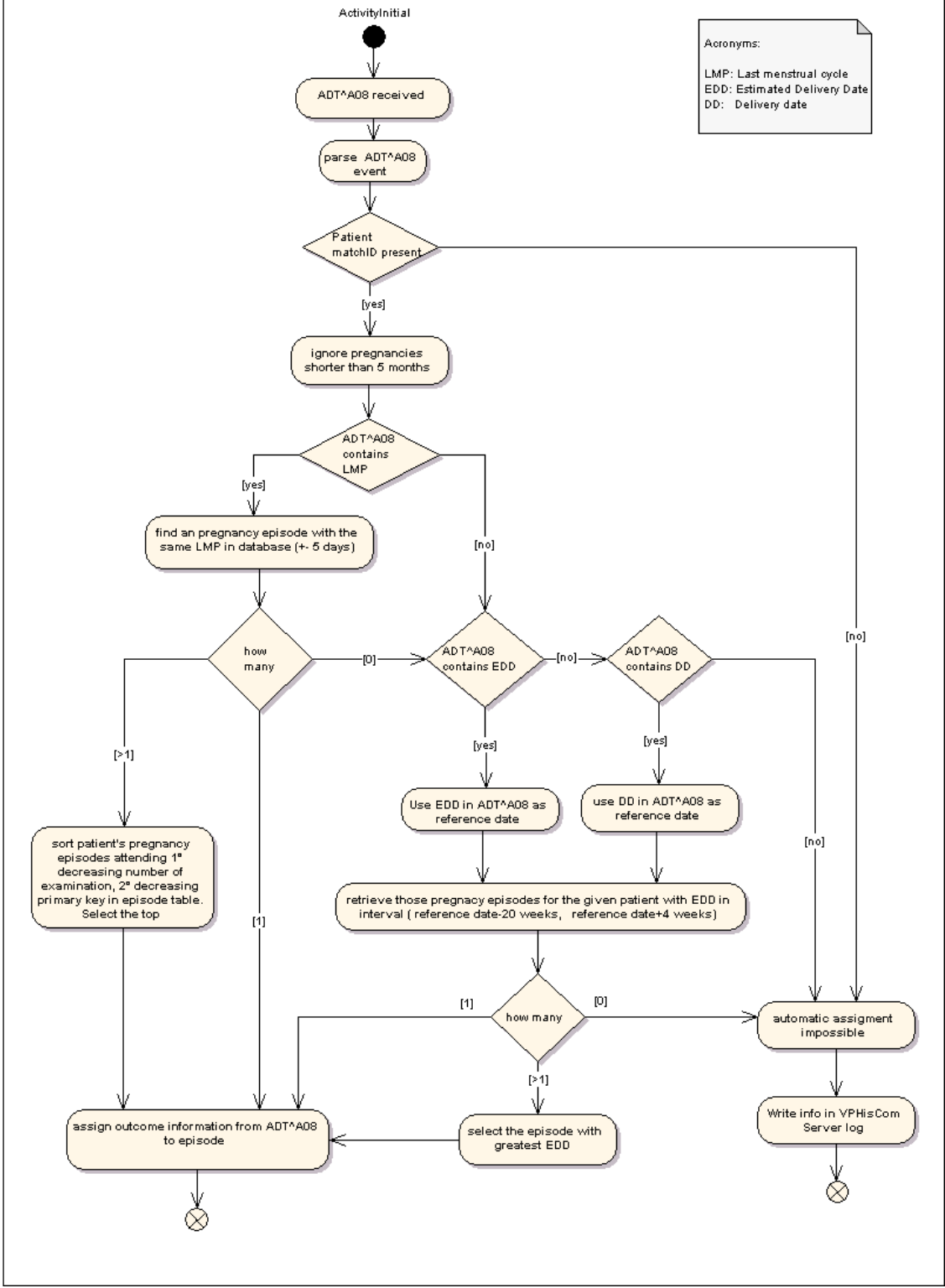
ViewPoint uses the trigger event the value of PV1-2 and ZBE-4 to determine some additional information about the movement as shown in the following table:

Trigger Event	ZBE-4	PV1-2	Impact on Movement Information
ADT^A01 - Admit/visit notification ADT^A02 - Transfer a patient ADT^A05 - Pre-admit a patient ADT^A08 - Update patient inform. ADT^Z99 - Update movement inform.	DELETE or CANCEL	<irrelevant>	Movement will be deleted.
	<all other>	out patient	'visit' movement will be created /
		<all other>	'stay' movement will be created / updated.
ADT^A03 - Discharge/end visit	DELETE or CANCEL	<irrelevant>	Movement will be deleted.
	<all other>	out patient	'visit' movement will be created /
		<all other>	'discharge' movement will be created / updated.
ADT^A04 - Register patient (one day visit)	DELETE or CANCEL	<irrelevant>	Movement will be deleted.
	<all other>	<irrelevant>	'visit' movement will be created / updated.
ADT^A06 - outpatient to inpatient ADT^A07 - inpatient to outpatient ADT^A11 - Cancel admit/visit notification ADT^A29 - Delete person information ADT^A40 - Merge patient	<irrelevant>	<irrelevant>	ZBE segment will be ignored.
ADT^A12 - Cancel transfer ADT^A13 - Cancel discharge/end visit	INSERT or UPDATE	out patient	'visit' movement will be created /
		<all other>	'stay' movement will be created /
	<all other>	<irrelevant>	Movement will be deleted.

## Processing of Outcome messages

ViewPoint 5.5 offers an interface to populate outcome information through HL7 AD^A08 events containing the non-standard segment ZDD. The association between incoming outcomes and existing medical cases in ViewPoint follows the algorithm described in the diagram below. It shows all the preconditions and filters that have been taken into consideration in order to avoid a wrong assignation of outcomes.





Acronyms:  
 LMP: Last menstrual cycle  
 EDD: Estimated Delivery Date  
 DD: Delivery date

## Outbound Workflow Overview

### Processing of Acknowledge Messages

ViewPoint expects to receive an acknowledge message for each message sent. ViewPoint waits a configurable time period for such a message (10 – 120 seconds).

If no acknowledge is received within the configured time frame, ViewPoint tries to re-send the message after some time. No other messages are sent by ViewPoint unless an acknowledgment is received (or the message was removed from the queue by an administrator).

ViewPoint uses the field MSA-1 to check whether the acknowledgment was positive or negative (AA: accepted, AE: error). ViewPoint checks the field MSA-2 to ensure that the acknowledge message belongs to the message that was just sent by ViewPoint. If MSA-2 is empty, ViewPoint always assumes, that the ACK message belongs to the message that was just sent.

ViewPoint ignores any acknowledge message which is not related to the last message sent by ViewPoint.

If ViewPoint does not receive an acknowledge message within the configured time frame, it will terminate the connection to the socket of the receiving system, wait for 60 seconds and re-connect to the socket.

In rare circumstances, ViewPoint will send a message twice. These duplicates can be identified by the receiving system by means of the Message Control ID. This can happen e.g. when:

- Network problems prevented the reception of an acknowledge message.
- The VPHISComServer process was killed during a send operation.

## 4. HL7 Data Description

The VPHISComServer HL7 interface uses a socket connection. For the import, the HL7 interface process is a server on a configurable port. The message itself has got a HL7 MLLP frame, i.e. a leading `\x0B` and trailing `\x1C\x0D`. Acknowledge messages can be returned after a message is received.

### Delimiter Definition

ViewPoint supports the standard HL7 encoding rules. Other encodings are not supported.

Delimiter	Value	Encoding Character Position	Usage
Segment Terminator	<cr> hex 0D	-	Terminates a segment record. This value cannot be changed by implementors.
Field Separator		-	Separates two adjacent data fields within a segment. It also separates the segment ID from the first data field in each segment.
Component Separator	^	1	Separates adjacent components of data fields where allowed.
Subcomponent Separator	&	4	Separates adjacent subcomponents of data fields where allowed. If there are no subcomponents, this character may be omitted.
Repetition Separator	~	2	Separates multiple occurrences of a field where allowed.
Escape Character	\	3	Escape character for use with any field represented by an ST, TX or FT data type, or for use with the data (fourth) component of the ED data type. If no escape characters are used in a message, this character may be omitted. However, it must be present if subcomponents are used in the message.

## Data Types

The data types in this section are listed in alphabetical order.

### Note

The examples given in this section do not specify the choice of the component or subcomponents for data types which contain multiple components or subcomponents. This must be specified in the field definitions that follow the formal segment attribute tables to a maximum length of 64K.

Except for the TS data type and the maximum or minimum lengths for several other data types (CE, PN, TX, FT), the field length of HL7 attributes is specified in the segment attribute tables, and any specific length of the components or subcomponents of those attributes must be specified in the field definitions that follow the formal segment attribute tables. In general, HL7 does not specify the lengths of components and/or subcomponents.

In certain data type definitions, square brackets, “[ ]”, are used to specify optional parts of a data type (or of a data type component or subcomponent).

## Data Type Definition

Data Type Category/ Data Type	Data Type Name	Notes/Format
Alphanumeric		
ST	String	
TX	Text data	
FT	Formatted text	
Numerical		

Data Type Category/ Data Type	Data Type Name	Notes/Format
MO	Composite quantity with units	<quantity (NM)> ^ <units (CE)>
	Money	<quantity (NM)> ^ <denomination (ID)>
	Numeric	
SN	Sequence ID	
	Structured numeric	<comparator> ^ <num1 (NM)> ^ <separator/suffix> ^ <num2 (NM)>
<b>Identifier</b>		
ID	Coded values for HL7 tables	
IS	Coded value for user-defined tables	
HD	Hierarchic designator	<namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)> Used only as part of EI and other data types.
EI	Entity identifier	<entity identifier (ST)> ^ <namespace ID (IS)> ^ <universal ID (ST)> ^ <universal ID type (ID)>
RP	Reference pointer	<pointer (ST) > ^ < application ID (HD)> ^ <type of data (ID)> ^ <subtype (ID)>
PL	Person location	<point of care (IS) > ^ <room (IS) > ^ <bed (IS) > ^ <facility (HD) > ^ < location status (IS) > ^ <person location type (IS) > ^ <building (IS) > ^ <floor (IS) > ^ <location description (ST)>
PT	Processing type	<processing ID (ID)> ^ <processing mode (ID)>
<b>Date/Time</b>		
DT	Date	YYYY[MM[DD]]
TM	Time	HH[MM[SS[S[S[S[S]]]]][+/-ZZZZ]
TS	Time stamp	YYYY[MM[DD[HHMM[SS[S[S[S[S]]]]]]][+/-ZZZZ] ^ <degree of precision>
<b>Code Values</b>		
CE	Coded element	<identifier (ST)> ^ <text (ST)> ^ <name of coding system (ST)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (ST)>
CK	Composite ID with check digit	<ID number (NM)> ^ <check digit (NM)> ^ <code identifying the check digit scheme employed (ID)> ^ < assigning authority (HD)>

Data Type Category/ Data Type	Data Type Name	Notes/Format
CN	Composite ID number and name	<ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <source table (IS)> ^ <assigning authority (HD)>
CX	Extended composite ID with check digit	<ID (ST)> ^ <check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ < assigning authority (HD) )> ^ <identifier type code (IS)> ^ < assigning facility (HD)
XCN	Extended composite ID number and name	In Version 2.3, use instead of the CN data type. <ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <source table (IS)> ^ <assigning authority (HD)> ^ <name type code (ID)> ^ <identifier check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ <identifier type code (IS)> ^ <assigning facility (HD)>
Generic		
CM	Composite	No new CM's are allowed after HL7 Version 2.2. Hence there are no new CM's in Version 2.3.
Demographics		
AD	Address	<street address (ST)> ^ < other designation (ST)> ^ <city (ST)> ^ <state or province (ST)> ^ <zip or postal code (ST)> ^ <country (ID)> ^ <address type (ID)> ^ <other geographic designation (ST)>
PN	Person name	<family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)>
TN	Telephone number	[NN] [(999)]999-9999[X99999][B99999][C any text]
XAD	Extended address	In Version 2.3, replaces the AD data type. <street address (ST)> ^ <other designation (ST)> ^ <city (ST)> ^ <state or province (ST)> ^ <zip or postal code (ST)> ^ <country (ID)> ^ < address type (ID)> ^ <other geographic designation (ST)> ^ <county/parish code (IS)> ^ <census tract (IS)>
XPN	Extended person name	In Version 2.3, replaces the PN data type. <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <name type code (ID) >

Data Type Category/ Data Type	Data Type Name	Notes/Format
XON	Extended composite name and ID number for organizations	<organization name (ST)> ^ <organization name type code (IS)> ^ <ID number (NM)> ^ <check digit (NM)> ^ <code identifying the check digit scheme employed (ID)> ^ <assigning authority (HD)> ^ <identifier type code (IS)> ^ <assigning facility ID (HD)>
XTN	Extended telecommunications number	In Version 2.3, replaces the TN data type. [NNN] [(999)]999-9999 [X999999] [B999999] [C any text] ^ <telecommunication use code (ID)> ^ <telecommunication equipment type (ID)> ^ <email address (ST)> ^ <country code (NM)> ^ <area/city code (NM)> ^ <phone number (NM)> ^ <extension (NM)> ^ <any text (ST)>
Specialty/Chapter Specific		
Waveform		
CD	Channel definition	For waveform data only, see Chapter 7, Section 7.15.3. <channel identifier (*)> ^ <channel number (NM)> & <channel name (ST)>> ^ <electrode names (*)> ^ <channel sensitivity/units (*)> ^ <calibration parameters (*)> ^ <sampling frequency (NM)> ^ <minimum/maximum data values (*)>
Specialty/Chapter Specific		
NA	Numeric array	For waveform data only, see Chapter 7, Section 7.15.1. <value1 (NM)> ^ <value2 (NM)> ^ <value3 (NM)> ^ <value4 (NM)> ^ ...
ED	Encapsulated data	Supports ASCII MIME-encoding of binary data. <source application (HD)> ^ <main type of data (ID)> ^ <data subtype (ID)> ^ <encoding (ID)> ^ <data (ST)>
Price data		
CP	Composite price	In Version 2.3, replaces the MO data type. <price (MO)> ^ <price type (ID)> ^ <from value (NM)> ^ <to value (NM)> ^ <range units (CE)> ^ <range type (ID)>
Patient Administration/Financial Information		
FC	Financial class	<financial class (ID)> ^ <effective date (TS)>
Extended Queries		
QSC	Query selection criteria	<name of field (ST)> ^ <relational operator (ID)> ^ <value (ST)> ^ <relational conjunction (ID)>
QIP	Query input parameter list:	<field name (ST)> ^ <value1 (ST) & value2 (ST) & value3 (ST) ...>
RCD	Row column definition:	<HL7 item number (ST)> ^ <HL7 data type (ST)> ^ <maximum column width (NM)>
Master Files		

Data Type Category/ Data Type	Data Type Name	Notes/Format
DLN	Driver's license number	<license number (ST)> ^ <issuing state, province, country (IS)> ^ <expiration date (DT)>
JCC	Job code/class	<job code (IS)> ^ <job class (IS)>
VH	Visiting hours	<start day range (ID)> ^ <end day range (ID)> ^ <start hour range (TM)> ^ <end hour range (TM)>
Medical Records/Information Management		
PPN	Performing person time stamp:	<ID number (ST)> ^ <family name (ST)> ^ <given name (ST)> ^ <middle initial or name (ST)> ^ <suffix (e.g., JR or III) (ST)> ^ <prefix (e.g., DR) (ST)> ^ <degree (e.g., MD) (ST)> ^ <source table (IS)> ^ <assigning authority (HD)> ^ <name type code(ID)> ^ <identifier check digit (ST)> ^ <code identifying the check digit scheme employed (ID)> ^ <identifier type code (IS)> ^ <assigning facility (HD)> ^ < date/time action performed (TS)>
Time Series:		
DR	Date/time range	Scheduling Chapter Only: <range start date/time (TS)> ^ <range end date/time (TS)>
RI	Repeat interval	Scheduling Chapter Only: <repeat pattern (IS)> ^ <explicit time interval (ST)>
SCV	Scheduling class value pair	Scheduling Chapter Only: <parameter class (IS)> ^ <parameter value (IS)>
TQ	Timing/quantity	For timing/quantity specifications for orders, see Chapter 4, Section 4.4. <quantity (CQ)> ^ <interval (*)> ^ <duration (*)> ^ <start date/time (TS)> ^ <end date/time (TS)> ^ <priority (ID)> ^ <condition (ST)> ^ <text (TX)> ^ <conjunction (ID)> ^ <order sequencing (*)>

- for subcomponents of these elements please refer to the definition in the text.
- for additional data types please refer to the HL7 standard documentation

## Inbound HL7 Interface

### Fields With Insufficient Length

<b>Note</b>	<p><b>Danger of Data Falsification!</b></p> <p>The length of certain fields in ViewPoint is shorter than recommended by the HL7 standard. You must not use the ViewPoint HL7 interface if your HL7 implementation uses fields that exceed the max. length supported by ViewPoint.</p> <p>The table below shows the maximum field lengths supported by ViewPoint.</p>
-------------	--

Field	Max. Length (characters)	Element Name
PID-3 (or PID-2, if empty)	30	Patient ID (External ID)
PV1-19	15	Visit Number
PV1-8.1	40	Referring Doctor ID
PV1-9.1	40	Consulting Doctor ID
ORC-2	30	Placer Order Number

## Supported HL7 Events

Message Type	Event	Usage
ADT	A01	Admit/visit notification
ADT	A02	Transfer a patient
ADT	A03	Discharge/end visit
ADT	A04	Register a patient (one day visit)
ADT	A05	Pre-admit a patient
ADT	A06	Change an outpatient to an inpatient
ADT	A07	Change an inpatient to an outpatient
ADT	A08	Update patient information
ADT	A11	Cancel admit/visit notification
ADT	A12	Cancel transfer
ADT	A13	Cancel discharge/end visit
ADT	A29	Delete person information
ADT	A40	Merge patient
OMG	O19	Submit a clinical order
ORM	O01	Submit a clinical order
ADT	Z99	Update Patient Movement Information

## Structure of ADT Messages

ADT^A(\*) ADT Message



MSH	Message Header
[EVN]	Event
PID	Patient Identification
[PV1]	Patient Visit
[ZBE]	Patient Movement Information
[IN1]	Insurance information
[ZDD]	Outcome information

### **ACK^A(\*) Acknowledgment**

MSH	Message Header
MSA	Message Acknowledgment

(\*): The message structure is identical for the following ADT events:

ADT^A01,ADT^A02,ADT^A03,ADT^A04,ADT^A05,ADT^A06,ADT^A07,ADT^A08,ADT^A11,ADT^A12,ADT^A13 and ADT^A29.

## **Structure of ADT^Z99 Event**

### **ADT^Z99 ADT Message**

MSH	Message Header
[EVN]	Event
PID	Patient Identification
[PV1]	Patient Visit
[ZBE]	Patient Movement Information

### **ACK^Z99 Acknowledgment**

MSH	Message Header
MSA	Message Acknowledgment

## **Structure of ADT^A40 Event**

### **ADT^A40 ADT Message**

MSH	Message Header
[EVN]	Event
PID	Patient Identification

[PV1]	Patient Visit
MGR	Merge information

**ACK^A40 Acknowledgment**

MSH	Message Header
MSA	Message Acknowledgment

Note: Multiple PID/MGR pairs are not supported.

## Structure of OMG^O19 Event

**OMG^O19 General Clinical Order Message**

MSH	Message Header
[EVN]	Event
PID	Patient Identification
[PV1]	Patient Visit
ORC	Common Order
OBR	Observation

**ACK^O19 Acknowledgment**

MSH	Message Header
MSA	Message Acknowledgment

## Structure of ORM^O01 Event

**ORM^O01 General Clinical Order Message**

MSH	Message Header
[EVN]	Event
PID	Patient Identification
[PV1]	Patient Visit
ORC	Common Order
[OBR]	Observation

**ACK^O01 Acknowledgment**

MSH Message Header  
 MSA Message Acknowledgment

## HL7 Segments and Fields Definition for Inbound Workflow

### MSH - Message Header Segment

The MSH segment defines the intent, source, destination, and some specifics of the syntax of a message.

A sample MSH segment:

```
MSH|^~\&~|Viewpoint|Orders|||20040330144907||ORM^O01|116|P|2.4.1|||
```

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	1	ST	R		Field Separator	
2	4	ST	R		Encoding Characters	^~\&
3	180	HD	O		Sending Application	Sending Application
4	180	HD	O		Sending Facility	NOT USED
5	180	HD	O		Receiving Application	Name of the receiving application as defined in the configuration of the VP HL7 interface.
6	180	HD	O		Receiving Facility	NOT USED
7	26	TS	O		Date/Time Of Message	Time of the Message
8	40	ST	O		Security	NOT USED
9	7	CM	R		Message Type	HL7 Message Type
10	20	ST	R		Message Control ID	MESSAGE IDENTIFIER
11	3	PT	R		Processing ID	NOT USED
12	8	ID	R		Version ID	NOT USED
13	15	NM	O		Sequence Number	NOT USED
14	180	ST	O		Continuation Pointer	NOT USED
15	2	ID	O		Accept Acknowledgment Type	Values Comparison: "AL" or not "AL"
16	2	ID	O		Application Acknowledgment Type	Values Comparison: "AL" or not "AL"
17	2	ID	O		Country Code	NOT USED
18	6	ID	O	Y/3	Character Set	NOT USED
19	60	CE	O		Principal Language Of Message	NOT USED

## MSA – Message acknowledgement segment

The MSA segment contains acknowledge information.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	2	ID	R		Acknowledgment Code	Acknowledgment Code: AA: accepted AE: error
2	20	ST	R		Message Control ID	Message Control ID
3	80	ST	O		Text Message	Error message if any
4	15	NM	O		Expected Sequence Number	NOT USED
5	1	ID	B		Delayed Acknowledgment Type	NOT USED
6	250	CE	O		Error Condition	NOT USED

## EVN – Event type segment

The EVN segment is used to communicate necessary trigger event information to receiving applications. This information is used only for HL7 definitions and is not used specifically for any field(s) within the ViewPoint application. This segment is required.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	3	ID	B		Event type code	Type of the event (e.g. P12)
2	26	TS	R		Recorded date/time	YYYYMMDDHHmmss
3	26	TS	O		Date/time planned event	NOT USED
4	3	IS	O		Event reason code	NOT USED
5	60	XCN	O		Operator ID	NOT USED
6	26	TS	O		Event occurred	NOT USED

## PID – Patient Identification Segment

The PID segment is used by the VP HL7 interface for receiving patient identification information. This segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change frequently.

The Patient ID is expected in PID-3. Only if PID-3 is empty the patient ID is assumed to be in PID-2.

A sample PID segment:

```
PID||1234567890111111|000011|123456789011|ULTRASOUND^P1^APPLE||19700101|M
```

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	4	SI	O		Set ID - Patient ID	NOT USED
2	20	CX	O		<b>Patient ID (External ID)</b>	<b>Patient ID</b>
3	20	CX	R		<b>Patient ID (Internal ID)</b>	<b>Patient ID</b>
4	20	CX	O	Y	Alternate Patient ID - PID	NOT USED
5	48	XP	O	Y	<b>Patient Name</b>	<b>Patient Name</b>
6	48	XP	O		<b>Mother's Maiden Name</b>	<b>Patient's Maiden Name</b>
7	26	TS	O		<b>Date/Time of Birth</b>	<b>DOB</b>
8	1	IS	O		<b>Sex</b>	<b>Patient Sex</b>
9	48	XP	O	Y	Patient Alias	NOT USED
10	1	IS	O		Race	NOT USED
11	106	XAD	O	Y	<b>Patient Address</b>	<b>Address/City/State/Zip/Country</b>
12	4	IS	B		County Code	NOT USED
13	40	XTN	O	Y	<b>Phone Number - Home</b>	<b>Private Phone</b>
14	40	XTN	O	Y	<b>Phone Number - Business</b>	<b>Work Phone</b>
15	60	CE	O		Primary Language	NOT USED
16	1	IS	O		Marital Status	NOT USED
17	3	IS	O		Religion	NOT USED
18	20	CX	O		Patient Account Number	NOT USED
19	16	ST	O		<b>SSN Number - Patient</b>	<b>SSN (USA version only)</b>
20	25	DLN	O		Driver's License Number - Patient	NOT USED
21	20	CX	O	Y	Mother's Identifier	NOT USED
22	3	IS	O		<b>Ethnic Group</b>	<b>Patient Ethnic Group</b>
23	60	ST	O		Birth Place	NOT USED
24	2	ID	O		Multiple Birth Indicator	NOT USED
25	2	NM	O		Birth Order	NOT USED
26	4	IS	O	Y	Citizenship	NOT USED
27	60	CE	O		Veterans Military Status	NOT USED
28	80	CE	O		Nationality	NOT USED
29	26	TS	O		Patient Death Date and Time	NOT USED
30	1	ID	O		Patient Death Indicator	NOT USED

### PV1 – Patient Visit Segment

The PV1 segment is used by Registration/Patient Administration applications to communicate information on a visit-specific basis.

A sample PV1 segment:

PV1||E|Trauma room|A||||1234567894^MATHER^JOANNE^W.^DR.^|||In the  
 hall|||||1234567898^TIESSSEN^YEVES^ANDREW.^DR.^||000000001|||||||||||||PA|||||2004  
 0630060709|20040703060709

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	4	SI	O		Set ID - PV1	NOT USED
2	1	IS	O		<b>Patient Class</b>	<b>Patient Class (see user defined table 0004 below for values)</b>
3	80	PL	O		<b>Assigned Patient Location</b>	<b>Assigned Patient Location</b>
4	2	IS	O		Admission Type	NOT USED
5	20	CX	O		Preadmit Number	NOT USED
6	80	PL	O		<b>Prior Patient Location</b>	<b>Prior Patient Location</b>
7	60	XCN	O	Y	Attending Doctor	NOT USED
8	60	XCN	O	Y	<b>Referring Doctor</b>	<b>Referring Doctor<sup>1)</sup></b>
9	60	XCN	O	Y	<b>Consulting Doctor</b>	<b>Consulting Doctor<sup>1)</sup></b>
10	3	IS	O		Hospital Service	NOT USED
11	80	PL	O		Temporary Location	NOT USED
12	2	IS	O		Preadmit Test Indicator	NOT USED
13	2	IS	O		Readmission Indicator	NOT USED
14	3	IS	O		Admit Source	NOT USED
15	2	IS	O	Y	Ambulatory Status	NOT USED
16	2	IS	O		<b>VIP Indicator</b>	<b>VIP Indicator</b>
17	60	XCN	O	Y	Admitting Doctor	NOT USED
18	2	IS	O		Patient Type	NOT USED
19	20	CX	R		<b>Visit Number</b>	<b>Hospital Case ID</b>
20	50	FC	O	Y	Financial Class	NOT USED
21	2	IS	O		<b>Charge Price Indicator</b>	<b>Private patient(see user defined table 0005 below for values)</b>
22	2	IS	O		Courtesy Code	NOT USED
23	2	IS	O		Credit Rating	NOT USED
24	2	IS	O	Y	<b>Contract Code</b>	<b>Contract Code</b>
25	8	DT	O	Y	Contract Effective Date	NOT USED
26	12	NM	O	Y	Contract Amount	NOT USED
27	3	NM	O	Y	Contract Period	NOT USED
28	2	IS	O		Interest Code	NOT USED
29	1	IS	O		Transfer to Bad Debt Code	NOT USED
30	8	DT	O		Transfer to Bad Debt Date	NOT USED
31	10	IS	O		Bad Debt Agency Code	NOT USED
32	12	NM	O		Bad Debt Transfer Amount	NOT USED
33	12	NM	O		Bad Debt Recovery Amount	NOT USED

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
34	1	IS	O		Delete Account Indicator	NOT USED
35	8	DT	O		Delete Account Date	NOT USED
36	3	IS	O		Discharge Disposition	NOT USED
37	25	CM	O		Discharged to Location	NOT USED
38	2	IS	O		Diet Type	NOT USED
<b>39</b>	<b>2</b>	<b>IS</b>	<b>O</b>		<b>Servicing Facility</b>	<b>Servicing Facility</b>
40	1	IS	B		Bed Status	NOT USED
41	2	IS	O		Account Status	NOT USED
42	80	PL	O		Pending Location	NOT USED
43	80	PL	O		Prior Temporary Location	NOT USED
<b>44</b>	<b>26</b>	<b>TS</b>	<b>O</b>		<b>Admit Date/Time</b>	<b>Admit Date/Time</b>
<b>45</b>	<b>26</b>	<b>TS</b>	<b>O</b>		<b>Discharge Date/Time</b>	<b>Discharge Date/Time</b>
46	12	NM	O		Current Patient Balance	NOT USED
47	12	NM	O		Total Charges	NOT USED
48	12	NM	O		Total Adjustments	NOT USED
49	12	NM	O		Total Payments	NOT USED
50	20	CX	O		Alternate Visit ID	NOT USED
51	1	IS	O		Visit Indicator	NOT USED
52	60	XCN	O	Y	Other Healthcare Provider	NOT USED

Note 1:

Sequence of sub-fields for **Referring and Consulting Doctor** (PV1-8 and PV1-9):

ID^lastname^firstname^^^title^country^postcode^town^address^^phone^fax  
greeting

Example:

4711^Meier^Anton^^^Dr.^D^69152^Heidelberg^Example Avenue

7^^06221884733^06221884734^^ Dear Anton,

User-defined Table 0004 – Patient class (inbound)

Value	Description (English)	Description (German)
E	Outpatient	ambulant
O	Outpatient	ambulant
A	Outpatient	ambulant
I	Inpatient	stationär
S	Inpatient	stationär
V	Preadmit	vorstationär
P	Preadmit	vorstationär
R	Recurring patient	nachstationär

Value	Description (English)	Description (German)
N	Recurring patient	nachstationär
T		teilstationär

User-defined Table 0005 – Private Patient (inbound)

Value	Description
P	Private patient
PA	Private patient
otherwise	Non private patient

## ORC – Common Order Segment

The Common Order segment (ORC) is used to transmit fields that are common to all orders.

A sample ORC segment:

ORC|CA|DMS\_10074|||||^1^INDEF^20040330142522^||20040330142522|||||||

SEQ	LEN	DT	OP T	RP/#	SEQ	USAGE
1	2	ID	R		<b>Order Control</b>	<b>Order Control</b>
2	22	EI	R		<b>Placer Order Number</b>	<b>Order Number</b>
3	22	EI	C		Sequence ID	NOT USED
4	22	EI	O		Placer Group Number	NOT USED
5	2	ID	O		Order Status	NOT USED
6	1	ID	O		Response Flag	NOT USED
7	200	TQ	O		<b>Quantity/Timing</b>	<b>Priority, Quantity, Frequency, and Timing of an Atomic Service.</b>
8	200	CM	O		Parent	NOT USED
9	26	TS	O		<b>Date/Time of Transaction</b>	<b>Date/Time of Transaction</b>
10	120	XC N	O		Entered By	NOT USED
11	120	XC N	O		Verified By	NOT USED
12	120	XC N	O		<b>Ordering Provider</b>	<b>Identity of the person who is responsible for creating the request</b>
13	80	PL	O		Enterer's Location	NOT USED



SEQ	LEN	DT	OP T	RP/#	SEQ	USAGE
14	40	XT N	O	Y/2	Call Back Phone Number	Telephone number to call for clarification of a request or other information regarding the order.
15	26	TS	O		Order Effective Date/Time	NOT USED
16	200	CE	O		Order Control Code Reason	Indication
17	60	CE	O		Entering Organization	NOT USED
18	60	CE	O		Entering Device	NOT USED
19	120	XC	O		Action By	NOT USED
20	-	N	-		NOT USED (Reserved)	NOT USED (Reserved for future use)
21	60	CE	O		Ordering Facility	Ordering Facility

## OBR – Observation Request Segment

The Observation Request (OBR) segment is used to transmit information specific to an order for a diagnostic study or observation, physical exam, or assessment.

A sample OBR segment:

```
OBR||DMS_10074||DEFAULT_CATH^Default CATH Emergency Universal Service
ID^^^^||||||||||||DMS_10094|92|||||^1^INDEF^20040330142522^||||^^^^^||||||||
```

SEQ	LE N	DT	OP T	RP/#	ELEMENT NAME	USAGE
1	4	SI	C		Set ID - OBR	NOT USED
2	75	EI	C		Placer Order Number	identical to ORC-2-placer order number.
3	75	EI	C		Filler Order Number	NOT USED
4	200	CE	O		Universal Service ID	identifier code for the requested observation/test/battery
5	2	ID	B		Priority	NOT USED
6	26	TS	B		Requested Date/time	NOT USED
7	26	TS	C		Observation Date/Time #	NOT USED
8	26	TS	O		Observation End Date/Time #	NOT USED
9	20	CQ	O		Collection Volume *	NOT USED
10	60	XC N	O	Y	Collector Identifier *	NOT USED
11	1	ID	O		Specimen Action Code *	NOT USED
12	60	CE	O		Danger Code	NOT USED
13	300	ST	O		Relevant Clinical Info.	NOT USED

SEQ	LE N	DT	OP T	RP/#	ELEMENT NAME	USAGE
14	26	TS	C		Specimen Received Date/Time *	NOT USED
15	300	CM	O		Specimen Source *	NOT USED
16	80	XC N	O	Y	Ordering Provider	provider who ordered the test.
17	40	XT N	O	Y/2	Order Callback Phone Number	telephone number for reporting a status or a result using the standard format with extension and/or beeper number when applicable.
18	60	ST	O		Placer field 1	Placer field 1 (diagnosis)
19	60	ST	O		Placer field 2	Placer field 2
20	60	ST	O		Filler Field 1 +	NOT USED
21	60	ST	O		Filler Field 2 +	NOT USED
22	26	TS	C		Rpt/Status Chng - Date/Time	NOT USED
23	40	CM	O		Charge to Practice +	NOT USED
24	10	ID	O		Diagnostic Serv Sect ID	NOT USED
25	1	ID	C		Result Status +	NOT USED
26	400	CM	O		Parent Result +	NOT USED
27	200	TQ	O	Y	Quantity/Timing	information about how many services to perform at one service time and how often the service times are repeated, and to fix duration of the request.
28	150	XC N	O	Y/5	Result Copies To	NOT USED
29	150	CM	O		Parent	NOT USED
30	20	ID	O		Transportation Mode	This field identifies how (or whether) to transport a patient, when applicable.
31	300	CE	O	Y	Reason for Study	code or text using the conventions for coded fields
32	200	CM	O		Principal Result Interpreter +	NOT USED
33	200	CM	O	Y	Assistant Result Interpreter +	NOT USED
34	200	CM	O	Y	Technician +	NOT USED
35	200	CM	O	Y	Transcriptionist +	NOT USED
36	26	TS	O		Scheduled Date/Time +	NOT USED
37	4	NM	O		Number of Sample Containers	NOT USED
38	250	CE	O	Y	Transport Logistics of Collected Sample	NOT USED
39	250	CE	O	Y	Collector's Comment	NOT USED
40	250	CE	O		Transport Arrangement Responsibility	NOT USED

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
41	30	ID	O		Transport Arranged	NOT USED
42	1	ID	O		Escort Required	NOT USED
43	250	CE	O	Y	Planned Patient Transport Comment	NOT USED
44	250				Procedure Code	NOT USED
45	250				Procedure Code Modifier	NOT USED
46	250	CE	O	Y	Placer Supplemental Service Information	Filler Facility (provided by the placer) in field 2

### MRG – Patient merge segment

The MRG segment provides the VP HL7 Interface with information necessary to initiate the merging of patient data.

A sample MRG segment:

MRG|33498715|||||

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	250	CX	R		Prior Patient Identifier List	Prior Patient Identifier List .No repetition allowed
2	250	CX	B	Y	Prior Alternate Patient ID	NOT USED
3	250	CX	O		Prior Patient Account Number	NOT USED
4	250	CX	B		Prior Patient ID	NOT USED
5	250	CX	O		Prior Visit Number	NOT USED
6	250	CX	O		Prior Alternate Visit ID	NOT USED
7	250	XPN	O	Y	Prior Patient Name	NOT USED

### IN1 – Insurance segment

The IN1 segment contains insurance policy coverage information necessary to produce properly pro-rated patient and insurance bills.

A Sample IN1 segment:

IN1||KK-3653|88566-OM|34465786|||||||||||||||||||||ABC-5564|

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	4		SI	R	Set ID IN1	NOT USED

SEQ	LEN	DT	OP T	RP/#	ELEMENT NAME	USAGE
2	250	NM	R		Insurance Plan ID	Insurance_VKNR
3	250	CX	R	Y	Insurance Company ID	Insurance_CO_Number
4	250	XON	O	Y	Insurance Company Name	Insurance
5	250	XAD	O	Y	Insurance Company Address	NOT USED
6	250	XPN	O	Y	Insurance Co Contact Person	NOT USED
7	250	XTN	O	Y	Insurance Co Phone Number	NOT USED
8	12	ST	O		Group Number	NOT USED
9	250	XON	O	Y	Group Name	NOT USED
10	250	CX	O	Y	Insured's Group Emp ID	NOT USED
11	250	XON	O	Y	Insured's Group Emp Name	NOT USED
12	8	DT	O		Plan Effective Date	NOT USED
13	8	DT	O		Plan Expiration Date	NOT USED
14	250	CM	O		Authorization Information	NOT USED
15	3	IS	O		Plan Type	NOT USED
16	250	XPN	O	Y	Name Of Insured	NOT USED
17	250	CE	O		Insured's Relationship To Patient	NOT USED
18	26	TS	O		Insured's Date Of Birth	NOT USED
19	250	XAD	O	Y	Insured's Address	NOT USED
20	2	IS	O		Assignment Of Benefits	NOT USED
21	2	IS	O		Coordination Of Benefits	NOT USED
22	2	ST	O		Coord Of Ben. Priority	NOT USED
23	1	ID	O		Notice Of Admission Flag	NOT USED
24	8	DT	O		Notice Of Admission Date	NOT USED
25	1	ID	O		Report Of Eligibility Flag	NOT USED
26	8	DT	O		Report Of Eligibility Date	NOT USED
27	2	IS	O		Release Information Code	NOT USED
28	15	ST	O		Pre-Admit Cert (PAC)	NOT USED
29	26	TS	O		Verification Date/Time	NOT USED
30	250	XCN	O	Y	Verification By	NOT USED
31	2	IS	O		Type Of Agreement Code	NOT USED
32	2	IS	O		Billing Status	NOT USED
33	4	NM	O		Lifetime Reserve Days	NOT USED
34	4	NM	O		Delay Before L.R. Day	NOT USED
35	8	IS	O		Company Plan Code	NOT USED

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
36	15	ST	O		Policy Number	Insurance Number
37	12	CP	O		Policy Deductible	NOT USED
38	12	CP	B		Policy Limit –Amount	NOT USED
39	4	NM	O		Policy Limit – Days	NOT USED
40	12	CP	B		Room Rate - Semi-Private	NOT USED
41	12	CP	B		Room Rate - Private	NOT USED
42	25	CE	O		Insured's Employment Status	NOT USED
43	1	IS	O		Insured's Administrative Sex	NOT USED
44	250	XAD	O	Y	Insured's Employer's Address	NOT USED
45	2	ST	O		Verification Status	NOT USED
46	8	IS	O		Prior Insurance Plan ID	NOT USED
47	3	IS	O		Coverage Type	NOT USED
48	2	IS	O		Handicap	NOT USED
49	250	CX	O	Y	Insured's ID Number	NOT USED

### ZBE- Movement Information

The ZBE segment contains information concerning the current or historical location of a patient within the clinic.

A sample ZBE segment:

ZBE|4242|20051130060709||UPDATE

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	15	EI	R		Movement – ID	Movement ID (ViewPoint does not support the repetition of this field and will always take the first repetition). Maximum 15 characters long.
2	8	TS	R		Movement Start Time	Movement Start Time
3	8	TS	O		Movement End Time	Movement End Time
4	10	ST	O		Movement Action	Movement Action (INSERT / UPDATE / CANCEL)
5		ID	O		Historical movement indicator ( values: Y/N)	NOT USED

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
6		ID	O		Original trigger event code [in the case of an UPDATE of the movement (trigger A08), this field conveys the original trigger event that was sent with the INSERT]	NOT USED
7		CWE	O		Responsible Ward (Medical or Nursing Ward, depending of the trigger event of the message)	NOT USED

### ZDD - Outcome information

The non standard ZDD segment contains information about outcome(s). Each outcome is documented in one separate ZDD segment.

A sample ZDD segment:

```
ZDD|1|QM123456^^^MR^HNO|TestSurname^Baby^^^^^L|20061016||1|40^2|1|1|1|M|3
500|350|500|9|9|9|7.1|7.2|20061104|20060518
```

SEQ	LEN	DT	O PT	RP/ #	ELEMENT NAME	USAGE
<b>1</b>	<b>1</b>	<b>SI</b>	<b>O</b>	<b>N</b>	<b>ID / Birth Order</b> <b>Range 1-9 (unique ID for each segment)</b>	<b>Fetus number</b>
2		CX	O	N	Patient Identifier	NOT USED
2.1		ST	O	N	ID	NOT USED
2.4		HD	O	N	Assigning Authority	NOT USED
2.5		ID	O	N	Identifier Type Code	NOT USED
<b>3</b>	<b>250</b>	<b>XPN</b>	<b>O</b>	<b>N</b>	<b>Baby Patient Name</b>	
<b>3.1</b>	<b>250</b>	<b>ST</b>	<b>O</b>	<b>N</b>	<b>Family name</b>	<b>Added as comments in outcome mask</b>
<b>3.2</b>	<b>250</b>	<b>ST</b>	<b>O</b>	<b>N</b>	<b>Given Name</b>	<b>Added as comments in outcome mask</b>
3.5		ST	O	N	Prefix	NOT USED
3.7		ID	O	N	Name Representation	NOT USED
<b>4</b>	<b>8</b>	<b>DT</b>	<b>O</b>	<b>N</b>	<b>Date of delivery (YYYYMMDD)</b>	<b>Delivery date</b>
<b>5</b>	<b>8</b>	<b>DT</b>	<b>O</b>	<b>N</b>	<b>Date of death (blank if alive) (YYYYMMDD)</b>	<b>Date of death</b>
6	1	NM	O	N	Number of births this confinement. Range 1-9	NOT USED

SEQ	LEN	DT	O PT	RP/ #	ELEMENT NAME	USAGE
7			O	N	Gestation Age	
7.1		NM	O	N	Weeks - Range 0, 10 - 49 (0 indicates unknown gestation length)	Outcome gestation age weeks
	2					
7.2	2	NM	O	N	Days - Range 0-7	Outcome gestation age days
8		IS	O	N	Outcome type	1 - Live Birth 2 - NND > 1 Week postpartal 3 - NND < 1 Week postpartal 4 - IUD 5 - SA 6 - Termination 7 - Missed Abortion 8 - No follow up 9 - Ongoing
	1					
9		IS	O	N	Labour onset	1 - Spontaneous 2 - Induced 3 - No labour 4 - Not known
	1					
10		IS	O	N	Delivery	1 - Vaginal 2 - Elective Section 3 - Emergency Section 4 - ERPC 5 - Forceps 6 - Not known
	1					
11		IS	O	N	Sex of child	M - Male F - Female I - Indeterminate
	1					
12	4	NM	O	N	Birth Weight (grams)	Outcome birth weight
13	3	NM	O	N	Head Circumference (mms)	Outcome HC
14		NM	O	N	Length (mms)	Outcome lenght
	3				Range 0 - 999 (0 indicates not measured)	
15	2	NM	O	N	Apgar Score - 1 Minute	Apgar Score - 1 Minute
16	2	NM	O	N	Apgar Score - 5 Minute	Apgar Score - 5 Minute
17	2	NM	O	N	Apgar Score - 10 Minute	Apgar Score - 10 Minute
18	4	NM	O	N	Venous Cord PH	Outcome Cord PH-Vein
19	4	NM	O	N	Arterial Cord PH	Outcome Cord PH-Artery
20	8	DT	R	N	Estimated day of delivery (YYYYMMDD)	Added as comment in outcome mask
21	8	DT	O	N	Last menstrual period (YYYYMMDD)	Added as comment in outcome mask

# Outbound HL7 Interface

## HL7 Event Definition

Message Type	Event	Usage
ADT	A01	Admit/Visit notification
BAR	P01	Diagnosis / procedures
BAR	P12	Diagnosis / procedures ( update modus )
DFT	P03	Post detailed financial information (snapshot)
DFT	VP1	ViewPoint 4.12 custom event
DFT	VP2	ViewPoint 4.12 custom event (FetaDoc only)
ORU	R01	Unsolicited observation message
MDM	T02	Document management (export of examination in PDF format)
ACK		General acknowledgment

## Structure of outbound HL7 events

### ADT^A01

MSH	Message Header
EVN	Event type
PID	Patient Identification
ZOx	Pregnancy information (non-standard segment)

### ACK^A01 Acknowledgment

MSH	Message Header
MSA	Message Acknowledgment

### BAR^P01 Event

MSH	Message Header
EVN	Event type



PID	Patient Identification
[PV1]	Patient Visit
{{DG1}}	Diagnosis
{{PR1}}	Procedures

### **ACK^P01 Acknowledgment**

MSH	Message Header
MSA	Message Acknowledgment

### **BAR^P12 Event**

MSH	Message Header
EVN	Event type
PID	Patient Identification
[PV1]	Patient Visit
{{DG1}}	Diagnosis
{{PR1}}	Procedures

### **ACK^P12 Acknowledgment**

MSH	Message Header
MSA	Message Acknowledgment

### **DFT^P03 Event**

MSH	Message Header
EVN	Event type
PID	Patient Identification
[PV1]	Patient Visit
[ORC]	Common order segment
{{FT1}}	Financial transaction

### **ACK^P03 Acknowledgment**

MSH	Message Header
MSA	Message Acknowledgment

## DFT^VP1 Event

This GE ViewPoint specific segment is used for backwards compatibility to PIA / ViewPACS 4.12. Its use is depreciated.

MSH	Message Header
EVN	Event type
PID	Patient Identification
[PV1]	Patient Visit
ZVP	Viewpoint specific segment
[ORC]	Common order segment
{{FT1}}	Financial transaction
{{PR1}}	Procedures
{{DG1}}	Diagnosis
OBR	Observation request
OBX	Observation segment

## ACK^VP1 Acknowledgment

MSH	Message Header
MSA	Message Acknowledgment

## DFT^VP2 Event

This GE ViewPoint specific segment is used for backwards compatibility to PIA / ViewPACS 4.12. Its use is depreciated.

MSH	Message Header
EVN	Event type
PID	Patient Identification
[PV1]	Patient Visit
ZGB	Viewpoint specific segment
{{PR1}}	Procedures
{{DG1}}	Diagnosis
OBR	Observation request
OBX	Observation segment
{	(Repeated for each child up to 4)
PID	Patient Identification for the child
PV1	Patient visit for the child
PR1	Procedures for the child
{{DG1}}	Diagnosis for the child

}

### **ACK^VP2 Acknowledgment**

MSH	Message Header
MSA	Message Acknowledgment

### **ORU^R01 Event (for report text report)**

This event is used to export report information to the receiving system.

MSH	Message Header
PID	Patient Identification
[PV1]	Patient Visit
[ORC]	Common order segment
{ OBR	Observation report
{OBX} }	Observation result

### **ACK^R01 Acknowledgment**

MSH	Message Header
MSA	Message Acknowledgment

### **ORU^R01 Event (for discrete finding elements)**

This event is used to export report information to the receiving system. It is much more detailed as the event described above.

There is one OBR segment and the according OBX segment(s) for the patient. If the report is about a pregnancy, then there are additional OBR segments with the according OBX segments for each child.

MSH	Message Header
PID	Patient Identification
[PV1]	Patient Visit
[ORC]	Common order segment
[	
OBR	Observation report for the patient
{OBX}	Observation results
]	

```

[
  OBR                Observation report for fetus 1
  {OBX}              Observation results
]
[
  OBR                Observation report for fetus 2
  {OBX}              Observation results
]
[
  OBR                Observation report for fetus 3
  {OBX}              Observation results
]
[
  OBR                Observation report for fetus 4
  {OBX}              Observation results
]

```

### **ACK^R01 Acknowledgment**

```

MSH                Message Header
MSA                Message Acknowledgment

```

### **MDM^T02 Event**

This event is used to export PDF formatted documents to the receiving system.

```

MSH                Message Header
EVN                Event
PID                Patient Identification
[PV1]              Patient Visit
TXA                Document notification
OBX                Observation result

```

### **ACK^T02 Acknowledgment**

```

MSH                Message Header
MSA                Message Acknowledgment

```

## HL7 Segment & Field Definitions

### MSH - message header segment

The MSH segment defines the intent, source, destination, and some specifics of the syntax of a message. This information is used only for HL7 definitions and is not used specifically for any field(s) within the GE ViewPoint application. This segment is required.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	1	ST	R		Field Separator	
2	4	ST	R		Encoding Characters	^~\&
3	180	HD	O		Sending Application	GE
4	180	HD	O		Sending Facility	ViewPoint
5	180	HD	O		Receiving Application	Name of HL7 destination as configured in VPAdmin
6	180	HD	O		Receiving Facility	NOT USED
7	26	TS	O		Date/Time Of Message	Date/Time of the Message
8	40	ST	O		Security	NOT USED
9	7	CM	R		Message Type	HL7 Message Type
10	20	ST	R		Message Control ID	MESSAGE IDENTIFIER
11	3	PT	R		Processing ID	P
12	8	ID	R		Version ID	2.4
13	15	NM	O		Sequence Number	NOT USED
14	180	ST	O		Continuation Pointer	NOT USED
15	2	ID	O		Accept Acknowledgment Type	AL = Always
16	2	ID	O		Application Acknowledgment Type	NE = Never
17	2	ID	O		Country Code	NOT USED
18	6	ID	O	Y/3	Character Set	NOT USED
19	60	CE	O		Principal Language Of Message	NOT USED

### EVN – Event type segment

The EVN segment is used to communicate necessary trigger event information to receiving applications. This information is used only for HL7 definitions and is not used specifically for any field(s) within the ViewPoint application. This segment is required.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
-----	-----	----	-----	------	--------------	-------

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	3	ID	B		Event type code	Type of the event (e.g. P12)
2	26	TS	R		Recorded date/time	YYYYMMDDHHmmss
3	26	TS	O		Date/time planned event	NOT USED
4	3	IS	O		Event reason code	NOT USED
5	60	XCN	O		Operator ID	NOT USED
6	26	TS	O		Event occurred	NOT USED

## PID – Patient Identification Segment

The PID segment is used by the VP HL7 interface for receiving patient identification information. This segment contains permanent patient identifying and demographic information that, for the most part, is not likely to change frequently.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	4	SI	O		Set ID - Patient ID	NOT USED
2	20	CX	B		Patient ID (External ID)	Patient ID external to the VP system as received from the HIS
3	20	CX	R(*)	Y	Patient ID (Internal ID)	Patient ID external to the VP system as received from the HIS
4	20	CX	B	Y	Alternate Patient ID - PID	VP internal Patient ID
5	48	XPN	O	Y	Patient Name	Patient Name
6	48	XPN	O		Mother's Maiden Name	Patient's Maiden Name
7	26	TS	O		Date/Time of Birth	DOB (YYYYMMDD)
8	1	IS	O		Sex	Patient Sex
9	48	XPN	O	Y	Patient Alias	NOT USED
10	1	IS	O		Race	NOT USED
11	106	XAD	O	N	Patient Address information	Patient's address
11.1	32000	ST	O	N	Patient Address	Address
11.3	40	ST	O	N	Patient city	Town
11.4	25	ST	O	N	Patient state or province	State
11.5	8	ST	O	N	Patient zip code	Post/Zip code
11.6	3	ID	O	N	Patient country	Country
12	4	IS	B	N	County Code	NOT USED
13	40	XTN	O	Y	Phone Number - Home	Private Phone
14	40	XTN	O	Y	Phone Number - Business	Work Phone
15	60	CE	O		Primary Language	NOT USED
16	1	IS	O		Marital Status	NOT USED

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
17	3	IS	O		Religion	NOT USED
18	20	CX	O		Patient Account Number	NOT USED
19	16	ST	O		<b>SSN Number - Patient</b>	<b>SSN (USA version only)</b>
20	25	DLN	O		Driver's License Number - Patient	NOT USED
21	20	CX	O	Y	Mother's Identifier	NOT USED
22	3	IS	O		Ethnic Group	NOT USED
23	60	ST	O		Birth Place	NOT USED
24	2	ID	O		Multiple Birth Indicator	NOT USED
25	2	NM	O		Birth Order	NOT USED
26	4	IS	O	Y	Citizenship	NOT USED
27	60	CE	O		Veterans Military Status	NOT USED
28	80	CE	O		Nationality	NOT USED
29	26	TS	O		Patient Death Date and Time	NOT USED
30	1	ID	O		Patient Death Indicator	NOT USED

(\*) PID-3 optional in MDM^T02 event

## PV1 – Patient Visit Segment

The PV1 segment is used by Registration/Patient Administration applications to communicate information on a visit-specific basis.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	4	SI	O		Set ID - PV1	NOT USED
2	1	IS	O		<b>Patient Class</b>	<b>Patient Class (see user defined table 0004 below)</b>
3	80	PL	O		<b>Assigned Patient Location</b>	<b>Assigned Patient Location</b>
4	2	IS	O		Admission Type	NOT USED
5	20	CX	O		Preadmit Number	NOT USED
6	80	PL	O		<b>Prior Patient Location</b>	<b>Prior Patient Location</b>
7	60	XCN	O	Y	Attending Doctor	NOT USED
8	60	XCN	O	Y	<b>Referring Doctor</b>	<b>Referring Doctor<sup>1)</sup></b>
9	60	XCN	O	Y	<b>Consulting Doctor</b>	<b>Consulting Doctor<sup>1)</sup></b>
10	3	IS	O		Hospital Service	NOT USED
11	80	PL	O		Temporary Location	NOT USED
12	2	IS	O		Preadmit Test Indicator	NOT USED
13	2	IS	O		Readmission Indicator	NOT USED
14	3	IS	O		Admit Source	NOT USED

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
15	2	IS	O	Y	Ambulatory Status	NOT USED
<b>16</b>	<b>2</b>	<b>IS</b>	<b>O</b>		<b>VIP Indicator</b>	<b>VIP Indicator</b>
17	60	XCN	O	Y	Admitting Doctor	NOT USED
18	2	IS	O		Patient Type	NOT USED
<b>19</b>	<b>20</b>	<b>CX</b>	<b>R</b>		<b>Visit Number</b>	<b>Hospital Case ID</b>
20	50	FC	O	Y	Financial Class	NOT USED
21	2	IS	O		Charge Price Indicator	NOT USED
22	2	IS	O		Courtesy Code	NOT USED
23	2	IS	O		Credit Rating	NOT USED
<b>24</b>	<b>2</b>	<b>IS</b>	<b>O</b>	<b>Y</b>	<b>Contract Code</b>	<b>Contract Code</b>
25	8	DT	O	Y	Contract Effective Date	NOT USED
26	12	NM	O	Y	Contract Amount	NOT USED
27	3	NM	O	Y	Contract Period	NOT USED
28	2	IS	O		Interest Code	NOT USED
29	1	IS	O		Transfer to Bad Debt Code	NOT USED
30	8	DT	O		Transfer to Bad Debt Date	NOT USED
31	10	IS	O		Bad Debt Agency Code	NOT USED
32	12	NM	O		Bad Debt Transfer Amount	NOT USED
33	12	NM	O		Bad Debt Recovery Amount	NOT USED
34	1	IS	O		Delete Account Indicator	NOT USED
35	8	DT	O		Delete Account Date	NOT USED
36	3	IS	O		Discharge Disposition	NOT USED
37	25	CM	O		Discharged to Location	NOT USED
38	2	IS	O		Diet Type	NOT USED
<b>39</b>	<b>2</b>	<b>IS</b>	<b>O</b>		<b>Servicing Facility</b>	<b>Servicing Facility</b>
40	1	IS	B		Bed Status	NOT USED
41	2	IS	O		Account Status	NOT USED
42	80	PL	O		Pending Location	NOT USED
43	80	PL	O		Prior Temporary Location	NOT USED
<b>44</b>	<b>26</b>	<b>TS</b>	<b>O</b>		<b>Admit Date/Time</b>	<b>Admit Date/Time</b>
<b>45</b>	<b>26</b>	<b>TS</b>	<b>O</b>		<b>Discharge Date/Time</b>	<b>Discharge Date/Time</b>
46	12	NM	O		Current Patient Balance	NOT USED
47	12	NM	O		Total Charges	NOT USED
48	12	NM	O		Total Adjustments	NOT USED
49	12	NM	O		Total Payments	NOT USED



SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
50	20	CX	O		Alternate Visit ID	Field 1: - one character specifying the table: e for exam, p for episode and o for outcome - @Id from the specified table  Field 4: Assigning Authority is 'GE ViewPoint'
51	1	IS	O		Visit Indicator	NOT USED
52	60	XCN	O	Y	Other Healthcare Provider	NOT USED

i) Sequence of sub-fields:

ID^lastname^firstname^^^title^country^postcode^town^address^^phone

Example: 4711^Meier^Anton^^^Dr. med.^D^69152^Heidelberg^Im

Hexenkotten^^06221884733

Mapping der db-Felder:

doctor.matchid^doctor.name^doctor.other\_names^^^doctor.title^doctor.country^doctor.postcode^doctor.address^^doctor.telephone\_1

User-defined Table 0004 – Patient class (outbound)

Value	Description (English)	Description (German)
O	Outpatient	ambulant
I	Inpatient	stationär
P	Preadmit	vorstationär
R	Recurring patient	nachstationär
T		teilstationär

## ORC – Common Order Segment

The Common Order segment (ORC) is used to transmit fields that are common to all orders. The ORC segment is used specifically by ViewPoint to communicate back to the HIS receiving system that generated the original order in the first place. This segment is optional and is non-repeating. **Note:** the customer must have purchased the “Order Management module” within ViewPoint for this segment to be available as an export. In addition, customer must follow the correct procedures to assign orders to examinations. Please refer to your ViewPoint user manual.

SEQ	LEN	DT	OPT	RP/#	SEQ	USAGE
1	2	ID	R		Order Control	Constant value “OK”
2	22	EI	C		Placer Order Number	Order Number
3	22	EI	C		Sequence ID	Sequence ID

SEQ	LEN	DT	OP T	RP/#	SEQ	USAGE
4	22	EI	O		Placer Group Number	NOT USED
5	2	ID	O		Order Status	NOT USED
6	1	ID	O		Response Flag	NOT USED
7	200	TQ	O		Quantity/Timing	NOT USED
8	200	CM	O		Parent	NOT USED
9	26	TS	O		Date/Time of Transaction	NOT USED
10	120	XC N	O		Entered By	NOT USED
11	120	XC N	O		Verified By	NOT USED
12	120	XC N	O		Ordering Provider	NOT USED
<b>13</b>	<b>80</b>	<b>PL</b>	<b>O</b>		<b>Enterer's Location</b>	<b>Enterer's Location</b>
14	40	XT N	O	Y/2	Call Back Phone Number	NOT USED
15	26	TS	O		Order Effective Date/Time	NOT USED
<b>16</b>	<b>200</b>	<b>CE</b>	<b>O</b>		<b>Order Control Code Reason</b>	<b>Indication for the Order</b>
17	60	CE	O		Entering Organization	NOT USED
18	60	CE	O		Entering Device	NOT USED
19	120	XC	O		Action By	NOT USED
20	-	N	-		NOT USED (Reserved)	NOT USED
21	60	CE	O		<b>Ordering Facility</b>	<b>Ordering Facility</b>

## OBR – Observation Request Segment

The Observation Request (OBR) segment is used to transmit information specific to an order for a diagnostic study or observation, physical exam, or assessment. For ViewPoint, this single order corresponds to a single examination (or to a single pregnancy in case of FetaDoc). This segment is required and is non-repeating.

If the exam is not assigned to an order, than most of the fields of this segment remain empty. All those fields are marked with an asterisk (\*).

SEQ	LE N	DT	OP T	RP/#	ELEMENT NAME	USAGE
1	4	SI	C		Set ID – OBR	NOT USED
2	75	EI	C (* )		Placer Order Number	identical to <i>ORC-2-placer order number</i> .
3	75	EI	C (* )		Filler Order Number	VP internal order id (examorder.@id)

SEQ	LE N	DT	OP T	RP/#	ELEMENT NAME	USAGE
4	200	CE	O (*)		Universal Service ID	Ordered Procedure
5	2	ID	B		Priority	NOT USED
6	26	TS	B		Requested Date/time	NOT USED
7	26	TS	C		Observation Date/Time	Observation Date/Time (YYYYMMDDhhmmss)
8	26	TS	O		Observation End Date/Time #	NOT USED
9	20	CQ	O		Collection Volume *	NOT USED
10	60	XCN	O	Y	Collector Identifier *	NOT USED
11	1	ID	O		Specimen Action Code *	NOT USED
12	60	CE	O		Danger Code	NOT USED
13	300	ST	O		Relevant Clinical Info.	NOT USED
14	26	TS	C		Specimen Received Date/Time *	Observation Date/Time (YYYYMMDDhhmmss)
15	300	CM	O		Specimen Source *	NOT USED
16	80	XCN	O	Y	Ordering Provider	NOT USED
17	40	XTN	O	Y/2	Order Callback Phone Number	NOT USED
18	60	ST	O		Placer field 1	Placer field 1
19	60	ST	O		Placer field 2	Placer field 2
20	60	ST	O (*)		Filler Field 1	Filler comment
21	60	ST	O		Filler Field 2 +	NOT USED
22	26	TS	C		Rpt/Status Chng - Date/Time	NOT USED
23	40	CM	O		Charge to Practice +	NOT USED
24	10	ID	O		Diagnostic Serv Sect ID	NOT USED
25	1	ID	C		Result Status +	P=Preliminary, F=Final, U=Update to Final
26	400	CM	O		Parent Result +	NOT USED
27	200	TQ	O	Y	Quantity/Timing	NOT USED
28	150	XCN	O	Y/5	Result Copies To	NOT USED
29	150	CM	O		Parent	NOT USED
30	20	ID	O		Transportation Mode	NOT USED
31	300	CE	O	Y	Reason for Study	NOT USED
32	200	CM	O		Principal Result Interpreter +	First operator
33	200	CM	O	Y	Assistant Result Interpreter +	Second operator
34	200	CM	O	Y	Technician +	Assistant

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
35	200	CM	O	Y	Transcriptionist +	NOT USED
36	26	TS	O		Scheduled Date/Time +	NOT USED
37	4	NM	O		01028	NOT USED
38	60	CE	O	Y	01029	NOT USED
39	200	CE	O	Y	01030	NOT USED
40	60	CE	O		01031	NOT USED
41	30	ID	O		01032	NOT USED
42	1	ID	O		01033	NOT USED
43	200	CE	O	Y	01034	NOT USED

### OBX – Observation segment

The OBX segment is used to transmit an entire observation result for a specific examination (one examination only). This segment is repeating.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	10	SI	O		<b>Set ID - OBX</b>	<b>Set ID – OBX</b>
2	2	ID	C		<b>Value Type</b>	<b>Value Type</b>
3	590	CE	R		<b>Observation Identifier</b>	<b>Observation Identifier</b>
4	20	ST	C		Observation Sub-ID	NOT USED
5	65536	ST	C		<b>Observation Value</b>	<b>Observation value</b>
6	60	CE	O		<b>Units</b>	<b>Observation units</b>
7	10	ST	O		References Range	NOT USED
8	5	ID	O	Y/5	Abnormal Flags	NOT USED
9	5	NM	O		Probability	NOT USED
10	2	ID	O	Y	Nature of Abnormal Test	NOT USED
11	1	ID	R		Observation Result Status	NOT USED
12	26	TS	O		Date Last Obs Normal Values	NOT USED
13	20	ST	O		User Defined Access Checks	NOT USED
14	26	TS	O		<b>Date/Time of the Observation</b>	<b>Exam Date/Time (YYYYMMDDhhmmss)</b>
15	60	CE	O		Producer's ID	NOT USED
16	80	XCN	O		<b>Responsible Observer</b>	<b>Sonographer name</b>
17	60	CE	O	Y	Observation Method	NOT USED

The following table describes the possible values for the fields 2 to 6.

Content	Value Type	Observation Value
Report text of an examination or pregnancy	ST  NM	Flat Result Text separated by line breaks \.br\ which designate "new line".

### FT1 – Financial Transaction Server

The FT1 segment contains the detail data necessary to post charges, payments, adjustments, etc. to patient accounting records. This segment is optional and repeating, where the number of repeating segments is dependent upon the number of "other codes" selected in the ViewPoint application, pertaining to a single exam. Please refer to your ViewPoint user manual.

SEQ	LEN	DT	OPT	RP/ #	ELEMENT NAME	USAGE
1	4	SI	O		<b>Set ID -FT1</b>	<b>Set ID -FT1</b>
2	12	ST	O		Transaction ID	NOT USED
3	10	ST	O		Transaction Batch ID	NOT USED
4	26	TS	R		<b>Transaction Date</b>	<b>Exam Date/Time (YYYYMMDDHHMMSS)</b>
5	26	TS	O		Transaction Posting Date	NOT USED
6	8	IS	R		Transaction Type	NOT USED
7	80	CE	R		<b>Transaction Code</b>	<b>Field 1 : code Field 2 : description Field 3: catalog</b>
8	40	ST	B		Transaction Description	NOT USED
9	40	ST	B		Transaction Description - Alt	NOT USED
10	6	NM	O		<b>Transaction Quantity</b>	<b>Quantity (Default = 1)</b>
11	12	CP	O		Transaction Amount - Extended	NOT USED
12	12	CP	O		Transaction Amount - Unit	NOT USED
13	60	CE	O		Department Code	NOT USED
14	60	CE	O		Insurance Plan ID	NOT USED
15	12	CP	O		Insurance Amount	NOT USED

SEQ	LEN	DT	OPT	RP/ #	ELEMENT NAME	USAGE
16	80	PL	O		Assigned Patient Location	NOT USED
17	1	IS	O		Fee Schedule	NOT USED
18	2	IS	O		Patient Type	NOT USED
19	60	CE	O		Diagnosis Code	NOT USED
20	120	XCN	O		<b>Performed By Code</b>	<b>Performed By Code</b>
21	120	XCN	O		<b>Ordered By Code</b>	<b>Ordered By Code</b>
22	12	CP	O		Unit cost	NOT USED
23	22	EI	O		Filler Order Number	NOT USED
24	120	XCN	O		Entered By Code	NOT USED
25	80	CE	O		Procedure Code	NOT USED

### PR1- Procedures segment

The PR1 segment contains information relative to various types of procedures that can be performed on a patient. The PR1 segment is used to send multiple procedures, for example, for medical records encoding or for billing systems. This segment is optional and repeating, where the number of repeating segments is dependent upon the number of "cpt codes" selected in the ViewPoint application, pertaining to a single exam. Please refer to your ViewPoint user manual.

SEQ	LEN	DT	OPT	RP/ #	ELEMENT NAME	USAGE
1	4	SI	R		Set ID - PR1	Set ID - PR1
2	2	IS	B		Procedure Coding Method	Coding method ( only in DFT^VP1 and DFT^VP2 events )
3	80	CE	R		Procedure Code	Procedure Code (OPS or CPT Code) (see note 1)
4	40	ST	B		Procedure Description	Procedure Description
5	26	TS	R		Procedure Date/Time	Exam Date/Time (YYYYMMDDHHMMSS)
6	2	IS	R		Procedure Functional Type	NOT USED
7	4	NM	O		Procedure Minutes	NOT USED
8	120	XCN	B	Y	Anesthesiologist	NOT USED
9	2	IS	O		Anesthesia Code	NOT USED
10	4	NM	O		Anesthesia Minutes	NOT USED
11	120	XCN	B	Y	Surgeon	NOT USED
12	230	XCN	B	Y	Procedure Practitioner	Performed By Code

SEQ	LEN	DT	OPT	RP/ #	ELEMENT NAME	USAGE
13	60	CE	O		Consent Code	NOT USED
14	2	NM	O		Procedure Priority	Priority
15	80	CE	O		Associated Diagnosis Code	NOT USED
19	250	EI	C		Procedure Identifier	19-1: Unique ID for the Procedure 19-2: Unique ID for the sending entity (see note 2)
20	1	ID	C		Procedure Action Code	Procedure Action Code: A - Add U - Update D - Delete (see note 2)

**Note 1:**

For the French version of ViewPoint, the format of PR1-3 is as follows:

CCAMCode\_Thera^CCAMCode\_Thera\_activity^CCAMCode\_Thera\_phase^CCAMCode\_Thera\_modif

**Note 2:**

Fields 19 and 20 are present only in a BAR^P12 message. To assure the uniqueness of DG1-20/PR1-19, the following format was implemented:

<Key1>[E|O|P]<Key2><Short description>^<Product description><Installation UID>

Where:

Key1: unique number to refer an examination, perinatal or outcome.  
E: the diagnosis or procedure refers to an examination  
O: the diagnosis or procedure refers to an outcome  
P: the diagnosis or procedure refers to an perinatal  
Key2: Unique number to refer a diagnosis or procedure  
Short description: Short acronym to identify the diagnosis or procedure  
Product description: Short description about the ViewPoint product  
Installation UID: Unique number generated to identify a ViewPoint installation

Example:

301E1023MP^FDB\_DE\_DE000078369517633.1140527628 : Main procedure nr. 1023 belonging to examination nr. 301. Generated by an FDB\_DE VPHisCom Server with Installation UID 000078369517633.1140527628.

203O188OD^FDB\_DE\_DE000078369517633.1140527628: Other diagnosis nr. 188 belonging to outcome nr. 203. Generated by an FDB\_DE VPHisCom Server with Installation UID 000078369517633.1140527628.

34P221MP^FDB\_DE\_DE000078369517633.1140527628: Main procedure nr. 221 belonging to perinatal nr. 34. Generated by an FDB\_DE VPHisCom Server with Installation UID 000078369517633.1140527628.

If there is only one ViewPoint product in the system, the sub field 20-1 is enough to univocally identify a diagnosis/procedure.

## DG1 – Diagnosis segment

The DG1 segment contains patient diagnosis information of various types, for example, admitting, primary, etc. The DG1 segment is used to send multiple diagnosis (for example, for medical records encoding). This segment is optional and repeating, where the number of repeating segments is dependent upon the number of “icd9 codes” selected in the ViewPoint application, pertaining to a single exam. Please refer to your ViewPoint user manual.

SEQ	LEN	DT	OPT	RP/ #	ELEMENT NAME	USAGE
1	4	SI	R		Set ID - DG1	Set ID - DG1
2	2	ID	R		Diagnosis Coding Method	Diagnosis Coding Method ( only in DFT^VP1 and DFT^VP2 events )
3	60	CE	O		Diagnosis Code	Diagnosis Code (ICD9 or ICD10 Code) (see note 1)
4	40	ST	B		Diagnosis Description	Diagnosis Description (ICD9 Description)
5	26	TS	O		Diagnosis Date/Time	Exam Date/Time (YYYYMMDDHHMMSS)
6	2	IS	R		Diagnosis Type	Diagnosis Type (constant = W)
7	60	CE	B		Major Diagnostic Category	NOT USED
8	60	CE	B		Diagnostic Related Group	NOT USED
9	2	ID	B		DRG Approval Indicator	NOT USED
10	2	IS	B		DRG Grouper Review Code	NOT USED
11	60	CE	B		Outlier Type	NOT USED
12	3	NM	B		Outlier Days	NOT USED
13	12	CP	B		Outlier Cost	NOT USED
14	4	ST	B		Grouper Version And Type	NOT USED
15	2	NM	B		Diagnosis Priority	NOT USED
16	60	XCN	O		Diagnosing Clinician	Sonographer
17	3	IS	O		Diagnosis Classification	NOT USED
18	1	ID	O		Confidential Indicator	NOT USED NOT USED



SEQ	LEN	DT	OPT	RP/ #	ELEMENT NAME	USAGE
19	26	TS	O		Attestation Date/Time	NOT USED
20	250	EI	C		Diagnosis Identifier	20-1: Unique ID for the Diagnosis 20-2: Unique ID for the sending entity (see note 2) Diagnosis Action Code: A – Add U – Update D – Delete (see note 2)
21	1	ID	C		Diagnosis Action Code	

**Note 1:**

For the French version of ViewPoint, the format of DG1-3 is as follows:

CCAM\_Code\_Diag^CCAM\_Code\_Diag\_activity^CCAM\_Code\_Diag\_phase^CCAM\_Code\_Diag\_modif

**Note 2:**

Fields 20 and 21 are present only in a BAR^P12 message. To assure the uniqueness of DG1-20/PR1-19, the following format was implemented:

<Key1>[E|O|P]<Key2><Short description>^<Product description><Installation UID>

Where:

Key1: unique number to refer an examination, perinatal or outcome.  
E: the diagnosis or procedure refers to an examination  
O: the diagnosis or procedure refers to an outcome  
P: the diagnosis or procedure refers to an perinatal  
Key2: Unique number to refer a diagnosis or procedure  
Short description: Short acronym to identify the diagnosis or procedure  
Product description: Short description about the ViewPoint product  
Installation UID: Unique number generated to identify a ViewPoint installation

Example:

301E1023MP^FDB\_DE\_DE000078369517633.1140527628 : Main procedure nr. 1023 belonging to examination nr. 301. Generated by an FDB\_DE VPHisCom Server with Installation UID 000078369517633.1140527628.

203O188OD^FDB\_DE\_DE000078369517633.1140527628: Other diagnosis nr. 188 belonging to outcome nr. 203. Generated by an FDB\_DE VPHisCom Server with Installation UID 000078369517633.1140527628.

34P221MP^FDB\_DE\_DE000078369517633.1140527628: Main procedure nr. 221 belonging to perinatal nr. 34. Generated by an FDB\_DE VPHisCom Server with Installation UID 000078369517633.1140527628.

If there is only one ViewPoint product in the system, the sub field 20-1 is enough to univocally identify a diagnosis/procedure.

### TXA - transcription document header segment

The TXA segment contains information specific to a transcribed document but does not include the text of the document. The message is created as a result of a document status change. This information is used to update other healthcare systems to identify reports that are available in the transcription system. By maintaining the TXA message information in these systems, the information is available when constructing queries to the transcription system requesting the full document text.

A sample TXA segment:

```
TXA|26|DR||20060829102922|Dr. Albert^Dr.
Fried|||20060829174903998|pia|||26||9999|4||DO
```

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	ViewPoint Value
1	4	SI	R		Set ID- TXA	Unique Number identifying the document (Document ID)  ViewPoint will not send any further messages referencing this number.
2	30	IS	R		Document Type	DR : Diagnostic Report Other
3	2	ID	C		Document Content Presentation	Not Used
4	26	TS	O		Activity Date/Time	Exam / Episode Date/Time
5	250	XCN	C	Y	Primary Activity Provider Code/Name	Operator or Sonographer name. The names are transferred completely in the second component of the field (Family Name <FN>).  Repetitions are used to transfer the different persons: <ol style="list-style-type: none"> <li>1. Operator 1 (US Version: Sonographer)</li> <li>2. Operator 2 (US Version: Physician)</li> <li>3. Risk Assessment Operator</li> <li>4. Referring physician <ol style="list-style-type: none"> <li>1. ID</li> <li>2. matchid</li> <li>3. Family name</li> <li>4. First name</li> <li>5. clinic</li> <li>6. town</li> <li>7. postcode</li> </ol> </li> </ol>
6	26	TS	O		Origination Date/Time	Not Used
7	26	TS	C		Transcription Date/Time	Not Used

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	ViewPoint Value
8	26	TS	O	Y	<b>Edit Date/Time</b>	Date/time the document was edited
9	250	XCN	O	Y	<b>Originator Code/Name</b>	VP User 9.2 – Name 9.8 – Main user group
10	250	XCN	O	Y	Assigned Document Authenticator	Not Used
11	250	XCN	C	Y	Transcriptionist Code/Name	Not Used
12	30	EI	R		<b>Unique Document Number</b>	<b>Document ID</b>
13	30	EI	C		Parent Document Number	Not Used
14	22	EI	O	Y	<b>Placer Order Number</b>	<b>Placer order number</b>
15	22	EI	O		<b>Filler Order Number</b>	<b>VP internal order id (examorder.@id)</b>
16	30	ST	O		Unique Document File Name	Not Used
17	2	ID	R		<b>Document Completion Status</b>	<b>DO (documented): VP record not locked</b> <b>AU (authenticated): VP record locked</b>
18	2	ID	O		Document Confidentiality Status	Not Used
19	2	ID	O		Document Availability Status	Not Used
20	2	ID	O		Document Storage Status	Not Used
21	30	ST	C		Document Change Reason	Not Used
22	250	PPN	C	Y	<b>Authentication Person(s)</b>	<b>Only if 'Document Completion Status' is set to 'AU', (otherwise field will be empty):</b>  <b>Operator or Sonographer name.</b> <b>The names are transferred completely in the second component of the field (Family Name &lt;FN&gt;).</b> <b>Repetitions are used to transfer the different persons:</b> <ol style="list-style-type: none"> <li>1. Operator 1 (US Version: Sonographer)</li> <li>2. Operator 2 (US Version: Physician)</li> <li>3. Risk Assessment Operator</li> </ol>
23	250	XCN	O	Y	Distributed Copies (Code and Name of Recipients)	Not Used

## MSA – Message acknowledgement segment

The MSA segment contains acknowledge information.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	2	ID	R		Acknowledgment Code	Acknowledgment Code: AA: accepted AE: error
2	20	ST	R		Message Control ID	Message Control ID
3	80	ST	O		Text Message	Error message if any
4	15	NM	O		Expected Sequence Number	NOT USED
5	1	ID	B		Delayed Acknowledgment Type	NOT USED
6	250	CE	O		Error Condition	NOT USED

## OBX - observation/result segment

The OBX segment is used to transmit a single observation or observation fragment. It represents the smallest indivisible unit of a report. Its structure is summarized in Figure 7-5.

The following map applies to OBX segment only when used inside a MDM event

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	ViewPoint value
1	4	SI	O		Set ID - OBX	1
2	2	ID	C		Value Type	ST (String)
3	250	CE	R		Observation Identifier	Generated by VphicomServer. In MDM^T02 events, this field contains the string 'IMAGE_REF'
4	20	ST	C		Observation Sub-ID	Not Used
5	655 36 <sup>1</sup>	*	C	Y <sup>2</sup>	Observation Value	UNC path to the PDF file to export.
6	250	CE	O		Units	Not Used
7	60	ST	O		References Range	Not Used
8	5	IS	O	Y/5	Abnormal Flags	Not Used
9	5	NM	O		Probability	Not Used
10	2	ID	O	Y	Nature of Abnormal Test	Not Used

<sup>1</sup> The length of the observation field is variable, depending upon value type. See *OBX-2 value type*.

<sup>2</sup> May repeat for multipart, single answer results with appropriate data types, e.g., CE, TX, and FT data types.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	ViewPoint value
11	1	ID	R		Observation Result Status	P=Preliminary, F=Final, U=Update to Final C=Corrected
12	26	TS	O		Date Last Observation Normal Value	Not Used
13	20	ST	O		User Defined Access Checks	Not Used
14	26	TS	O		Date/Time of the Observation	Not Used
15	250	CE	O		Producer's ID	Not Used
16	250	XCN	O	Y	Responsible Observer	Not Used
17	250	CE	O	Y	Observation Method	Not Used
18	22	EI	O	Y	Equipment Instance Identifier	Not Used
19	26	TS	O		Date/Time of the Analysis	Not Used

### ZVP – ViewPoint specific segment

The ZVP segment is used specifically by ViewPoint to communicate exam related information and the doctors/observers (resources) involved with the specified exam. This segment is required and is non-repeating.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	10	SI	O		SET ID – ZVP	SET ID – ZVP ^ ID of exam ^ record state
2	26	TS	R		Date / Time of the observation	Exam date/time (YYYYMMDDHHmmss)
3	-	-	-		Date / Time of end of observation	End of exam date/time (YYYYMMDDHHmmss), only for German USEndo
4	60	XCN	O		Ordered by code	Ordered by code
5	60	XCN	O		Performed by code	Performed by code
6	60	XCN	O		Responsible observer	Sonographer (operator 1)
7	60	XCN	O		Attending doctor	Physician (operator 2)
8	30	ST	O		HL7ExamType	Examination type ( USEndo only)
9	60	XCN	O		Ordered by facility name	Facility name (Ordered by)
10	60	XCN	O		Performed by facility name	Facility name (Performed by)
11	48	PPN	R		Message origin	User^Department^Computer Name which generated the message
12	60	XCN	O		Assistant	Assistant

## ZOX – Pregnancy information (non-standard segment)

The ZOX segment is used specifically by ViewPoint to communicate pregnancy related information. This segment is non-repeating.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	32	SI	R	N	Index	Fixed to '1'
5						
5.1	32	NM	O	N	Gravida	Gravida
5.2	32	NM	O	N	Para	Para
5.5	8	NM	O	N	LMP	Last menstrual period
5.6	8	DT	O	N	EDD_US	Estimate date of delivery. (according with ultrasound examination, if present, otherwise according with LMP)
5.7	32	NM	O	N	Case number	Episode number

## ZEX – Additional examination information (non-standard segment)\*

The ZEX segment is used specifically by ViewPoint to communicate additional examination information. This segment is non-repeating.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	32	SI	R	N	Index	Fixed to '1'
2						
2.1	512	ST	O	N	Locker user	Locker user long name.(User who locked the exam, if any)
2.2	512	ST	C	N	Computer name	Locker user's computer name. Conditioned to 2.1
2.3	26	TS	C	N	Date / Time when the exam was locked	Locked date/time (YYYYMMDDHHmmss)
3						
3.1	32	NM	O	N	Exam id	<a href="#">Exam.@id</a>
3.2	64	ST	O	N	Exam description	Exam.type
3.3	32	ST	O	N	Dicom accession number	Dicom accession number
3.4	32	ST	O	N	Exam ordered by code	Exam ordered by code
3.5	32	ST	O	N	Exam ordered by facility	Exam ordered by facility
3.6	32	ST	O	N	Exam performed by code	Exam performed by code
3.7	32	ST	O	N	Exam performed by facility	Exam performed by facility
3.8	26	TS	O	N	Exam termination timestamp	Exam termination timestamp

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
3.9	32	ST	O	N	Operator 1	Operator 1
3.10	32	ST	O	N	Operator 2	Operator 2
3.11	32	ST	O	N	Operator 3	Operator 3 (Assistant)
4						
4.1	32	NM	O	N	Episode id	<a href="#">Episode.@id</a>
4.2	64	ST	O	N	Episode description	episode.type
5						
5.1	1	NM	R	N	Previous state	Previous state
5.2	1	NM	R	N	Actual state	Actual state
6						
6.1	32	ST	O	N	Patient hospital number	Patient hospital number
7					1 <sup>st</sup> referring physician	
7.1	32	NM	O	N	id	id
7.2	64	ST	O	N	MatchID	MatchID
7.3	64	ST	O	N	Name	Name
7.4	64	ST	O	N	Other Names	Other Names
7.5	64	ST	O	N	Clinic	Clinic
7.6	64	ST	O	N	Town	Town
7.7	64	ST	O	N	Email	Email
7.8	64	ST	O	N	Communication provider	Communication provider
8					2 <sup>nd</sup> referring physician	
8.1	32	NM	O	N	id	id
8.2	64	ST	O	N	MatchID	MatchID
8.3	64	ST	O	N	Name	Name
8.4	64	ST	O	N	Other Names	Other Names
8.5	64	ST	O	N	Clinic	Clinic
8.6	64	ST	O	N	Town	Town
8.7	64	ST	O	N	Email	Email
8.8	64	ST	O	N	Communication provider	Communication provider

The Segment ZEX is not available in ViewPoint installation by default. In order to allow ViewPoint to add the ZEX segment as part of the exam related outbound HL7 events, the following formula must be added to the file user\_formula.dat, under user directory:

```
[HL7UseExamZSegment]
/calc="1";
```

This action will override the default implementation of HL7UseExamZSegment present in common\_formula.dat, which returns 0 by default.

### ZPE – Additional perinatal information (non-standard segment)\*

The ZPE segment is used specifically by ViewPoint to communicate additional perinatal information. This segment is non-repeating.

SEQ	LEN	DT	OPT	RP/#	ELEMENT NAME	USAGE
1	32	SI	R	N	Index	Fixed to '1'
2						
2.1	512	ST	O	N	Locker user	Locker user long name.(User who locked the exam, if any)
2.2	512	ST	C	N	Computer name	Locker user's computer name. Conditioned to 2.1
3						
3.1	32	NM	O	N	perinatal id	Perinatal.@id
3.2	8	NM	O	N	Patient visit Estimated time	perinatal.KlinikLiegedauer
3.3	8	NM	O	N	Patien visit time	perinatal. MutterAufenthalt

The Segment ZPE is not available in ViewPoint installation by default. In order to allow ViewPoint to add the ZPE segment as part of the perinatal related outbound HL7 events, the following formula must be added to the file user\_formula.dat, under user directory:

```
[HL7UsePerinatalZSegment]
/calc="1";
```

This action will override the default implementation of HL7UsePerinatalZSegment present in common\_formula.dat, which returns 0 by default.



## Export of discrete findings

The ViewPoint HL7 interface offers the possibility to export finding values in an ORU^R01 HL7 event, where each finding value is transmitted in a separate OBX segment. The values exported depend on the different ViewPoint flavors and are described in the table below.

Most of the values are coded according with the LOINC code system. However, some ViewPoint specific finding are not classified as LOINC topic, and, therefore, are exported with a proprietary identifier. The corresponding coding system for each finding value is also transmitted to the hospital information system as described in HL7 standard in OBX-3.3.

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Gestational Age	Gestational age	Time	weeks /Days	11884-4	1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
LMP	Last menstrual period	Date	Date	8665-2	2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
CRL	Crown-rump length	Numeric	mm.	11957-8	3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
BPD	Biparietal diameter	Numeric	mm.	11820-8	4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
HC	Head circumference	Numeric	mm.	11984-2	5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
AC	Abdominal circumference	Numeric	mm.	11979-2	6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
FL_L	Left Femur length	Numeric	mm.	11963-6	7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
OFD	Occipitofrontal diameter	Numeric	mm.	8288-3	9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
TCD	Transcerebellar diameter	Numeric	mm.	11863-8	10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
GSD	Gestational sac diameter	Numeric	mm.	11850-5	11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
NT	Nuchal translucency	Numeric	mm.	33069-6	12	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
NB	Nasal bone length	Numeric	mm.	None	13	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
FHR	Fetus heart rate	Numeric	bpm	11948-7	15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
TAD	Abdomen transverse	Numeric	mm.	11862-0	16	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
APAD	Abdominal diameter AP	Numeric	mm.	11818-2	17	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
HUM_L	Left Humerus length	Numeric	mm.	11966-9	18	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
RAD_L	Left Radius length	Numeric	mm.	11967-7	20	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Ulna_L	Left Ulna	Numeric	mm.	11969-3	22	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
5th Digit_L	5th Digit Left	Numeric	mm.	None	24	Yes	No	No	No	No	No	No	No
5th Digit_R	5th Digit Right	Numeric	mm.	None	25	Yes	No	No	No	No	No	No	No
Scapula_L	Scapula Left	Numeric	mm.	None	26	Yes	No	No	No	No	No	No	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Scapula_R	Scapula Right	Numeric	mm.	None	27	Yes	No	No	No	No	No	No	No
Clavicle_L	Clavicle Left	Numeric	mm.	11962-8	28	Yes	No	No	No	No	No	No	No
Iliac Crest_L	Iliac Crest Left	Numeric	mm.	None	30	Yes	No	No	No	No	No	No	No
Iliac Crest Right	Iliac Crest Right	Numeric	mm.	None	31	Yes	No	No	No	No	No	No	No
TIB_L	Left Tibia length	Numeric	mm.	11968-5	32	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
FIB_L	Left Fibula length	Numeric	mm.	11964-4	34	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
CM	Cisterna magna	Numeric	mm.	11860-4	36	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
NF	Nuchal fold	Numeric	mm.	12146-7	37	Yes	No	No	No	No	No	No	No
LLV	Left lateral ventricle	Numeric	mm.	12171-5	38	Yes	No	No	No	No	No	No	No
Foot_L	Left foot length	Numeric	mm.	11965-1	40	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
3rd. Ventricle	3rd. Ventricle	Numeric	mm.	12067-5	42	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
4th. Ventricle	4th. Ventricle	Numeric	mm.	12059-2	43	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Va	Anterior ventricle	Numeric	mm.	33197-5	44	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Vp	Posterior ventricle	Numeric	mm.	None	45	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Hem	Hemisphere	Numeric	mm.	12170-7	46	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Left ear	Left ear	Numeric	mm.	None	47	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Right ear	Right ear	Numeric	mm.	None	48	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Left eye	Left eye	Numeric	mm.	11792-9	49	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
IOD	Intra-orbital diameter	Numeric	mm.	33070-4	51	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
EOD	Extra-orbital diameter	Numeric	mm.	11629-3	52	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Mandible	Mandible length	Numeric	mm.	None	53	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Thorax transverse diameter	Thorax transverse diameter	Numeric	mm.	11864-6	54	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Thorax AP diameter	Thorax AP diameter	Numeric	mm.	11819-0	55	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Thorax circumference	Thorax circumference	Numeric	mm.	11988-3	56	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Cardiac transverse diameter	Cardiac transverse diameter	Numeric	mm.	None	57	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Cardiac AP diameter	Cardiac AP diameter	Numeric	mm.	None	58	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Cardiac circumference	Cardiac circumference	Numeric	mm.	None	59	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Left lung diameter	Left lung diameter	Numeric	mm.	None	60	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Right lung diameter	Right lung diameter	Numeric	mm.	None	61	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Aorta diameter	Aorta diameter	Numeric	mm.	18025-7	62	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Pulmonary A. Diameter	Pulmonary A. Diameter	Numeric	mm.	11806-7	63	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
RVD (Diast)	Right ventricular width	Numeric	mm.	None	64	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
RVD (Sys)	Right ventricle diameter	Numeric	mm.	None	65	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
LVD (Diast)	Left ventricular width	Numeric	mm.	None	66	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
LVD ( Sys)	Left ventricle diameter	Numeric	mm.	None	67	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Umbilical artery PS	Umbilical artery Peak Systolic velocity	Numeric	cm/s	11726-7	68	Yes	Yes	No	No	Yes	Yes	Yes	No
Umbilical artery ED	Umbilical artery Enddiastolic velocity	Numeric	cm/s	11662-4	69	Yes	Yes	No	No	No	No	No	No
Umbilical artery S/D Ratio	Umbilical artery S/D ratio (SD RATIO = BLOOD FLOW.SYSTOLIC. MAX / BLOOD FLOW.DIASTOLIC. MIN)	Numeric	None	12141-8	70	Yes	No	Yes	Yes	No	No	Yes	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Umbilical artery RI	Umbilical artery Resistivity index	Numeric	None	12020-4	71	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Umbilical artery PI	Umbilical artery Pulsatility index	Numeric	None	12005-5	72	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Umbilical artery TAMX	Umbilical artery time-averaged mean-maximum	Numeric	cm/s	11689-7	73	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
MCA PS	Middle cerebral artery Peak Systolic velocity	Numeric	cm/s	11701-0	74	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
MCA ED	Middle cerebral artery Enddiastolic velocity	Numeric	cm/s	11656-6	75	Yes	No	No	No	No	No	No	No
MCA S/R Ratio	Middle cerebral artery S/D Ratio (SD RATIO = BLOOD FLOW.SYSTOLIC. MAX / BLOOD FLOW.DIASTOLIC. MIN)	Numeric	None	12135-0	76	Yes	No	No	No	No	No	No	No
MCA RI	Middle cerebral artery Resistivity index	Numeric	None	12014-7	77	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
MCA PI	Middle cerebral artery Pulsatility index	Numeric	None	11999-0	78	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
MCA TAMX	Middle cerebral artery time-averaged mean-maximum	Numeric	cm/s	11672-3	79	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Left Uterine Artery PS	Left Uterine Artery Peak Systolic velocity	Numeric	cm/s	11724-2	80	Yes	No	No	No	No	No	No	No
Left Uterine Artery ED	Left Uterine Artery Enddiastolic velocity	Numeric	cm/s	11663-2	81	Yes	No	No	No	No	No	No	No
Left Uterine Artery S/D Ratio	Left Uterine Artery S/D ratio (SD RATIO = BLOOD FLOW.SYSTOLIC. MAX / BLOOD FLOW.DIASTOLIC. MIN)	Numeric	None	12142-6	82	Yes	No	No	No	No	No	Yes	No
Left Uterine Artery RI	Left Uterine Artery Resistivity index	Numeric	None	12021-2	83	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Left Uterine Artery PI	Left Uterine Artery Pulsatility index	Numeric	None	12006-3	84	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Right Uterine Artery PS	Right Uterine Artery Peak Systolic velocity	Numeric	cm/s	11725-9	85	Yes	No	No	No	Np	Np	No	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Right Uterine Artery ED	Right Uterine Artery Enddiastolic velocity	Numeric	cm/s	11664-0	86	Yes	No	No	No	No	No	No	No
Right Uterine Artery S/D Ratio	Right Uterine Artery S/D ratio (SD RATIO = BLOOD FLOW.SYSTOLIC. MAX / BLOOD FLOW.DIASTOLIC. MIN)	Numeric	None	12143-4	87	Yes	No	No	No	No	No	Yes	No
Right Uterine Artery RI	Right Uterine Artery Resistivity index	Numeric	None	12022-0	88	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Right Uterine Artery PI	Right Uterine Artery Pulsatility index	Numeric	None	12007-1	89	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
ICA PS	Internal Carotid Artery Peak Systolic velocity	Numeric	cm/s	None	90	Yes	No	Yes	No	No	No	Yes	No
ICA ED	Internal Carotid Artery Enddiastolic velocity	Numeric	cm/s	None	91	Yes	No	No	No	No	No	No	No



Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
ICA S/D Ratio	Internal Carotid Artery S/D ratio (SD RATIO = BLOOD FLOW.SYSTOLIC. MAX / BLOOD FLOW.DIASTOLIC. MIN)	Numeric	None	None	92	Yes	No	No	No	No	No	No	No
ICA RI	Internal Carotid Artery Resistivity index	Numeric	None	None	93	Yes	No	Yes	Yes	No	No	Yes	No
ICA PI	Internal Carotid Artery Pulsatility index	Numeric	None	None	94	Yes	No	Yes	Yes	No	No	Yes	No
ICA TAMX	Internal Carotid Artery artery time-averaged mean-maximum	Numeric	cm/s	None	95	Yes	No	Yes	Yes	No	No	Yes	No
Fetal Aorta PS	Fetal Aorta Artery Peak Systolic velocity	Numeric	cm/s	11695-4	96	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Fetal Aorta ED	Fetal Aorta Artery Enddiastolic velocity	Numeric	cm/s	None	97	Yes	Yes	No	No	No	No	Yes	No
Fetal Aorta S/D Ratio	Fetal Aorta Artery S/D ratio (SD RATIO = BLOOD FLOW.SYSTOLIC. MAX / BLOOD FLOW.DIASTOLIC. MIN)	Numeric	None	None	98	Yes	Yes	No	No	No	No	No	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Fetal Aorta RI	Fetal Aorta Artery Resistivity index	Numeric	None	None	99	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Fetal Aorta PI	Fetal Aorta Artery Pulsatility index	Numeric	None	None	100	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Fetal Aorta TAMX	Fetal Aorta Artery time-averaged mean-maximum	Numeric	cm/s	11668-1	101	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
MAC/Aorta PI	Middle cerebral artery Pulsatility index / Fetal aorta artery pulsatility index	Numeric	None	None	102	Yes	No	No	Yes	Yes	No	Yes	No
Hepatic artery PS	Hepatic artery Peak Systolic velocity	Numeric	cm/s	None	103	Yes	No	No	No	No	No	No	No
Hepatic artery S/D Ratio	Hepatic artery S/D ratio (SD RATIO = BLOOD FLOW.SYSTOLIC. MAX / BLOOD FLOW.DIASTOLIC. MIN)	Numeric	None	None	105	Yes	No	No	No	No	No	No	No
Hepatic artery RI	Hepatic artery Resistivity index	Numeric	None	None	106	Yes	No	No	No	No	No	No	No
Hepatic artery PI	Hepatic artery Pulsatility index	Numeric	None	None	107	Yes	No	No	No	No	No	No	No
Hepatic artery Angle	Hepatic artery artery angle	Numeric	°	None	108	Yes	No	No	No	No	No	No	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Splenic artery PS	Splenic artery Peak Systolic velocity	Numeric	cm/s	None	109	Yes	No	No	No	No	No	No	No
Splenic artery S/D Ratio	Splenic artery S/D ratio (SD RATIO = BLOOD FLOW.SYSTOLIC. MAX / BLOOD FLOW.DIASTOLIC. MIN)	Numeric	None	None	111	Yes	No	No	No	No	No	No	No
Splenic artery RI	Splenic artery Resistivity index	Numeric	None	None	112	Yes	No	No	No	No	No	No	No
Splenic artery PI	Splenic artery Pulsatility index	Numeric	None	None	113	Yes	No	No	No	No	No	No	No
Splenic artery Angle	Splenic artery artery angle	Numeric	°	None	114	Yes	No	No	No	No	No	No	No
Right Renal artery PS	Right Renal artery Peak Systolic velocity	Numeric	cm/s	None	115	Yes	No	No	No	No	No	No	No
Right Renal artery S/D Ratio	Right Renal artery S/D ratio (SD RATIO = BLOOD FLOW.SYSTOLIC. MAX / BLOOD FLOW.DIASTOLIC. MIN)	Numeric	None	None	117	Yes	No	No	No	No	No	No	No
Right Renal artery RI	Right Renal artery Resistivity index	Numeric	None	None	118	Yes	No	No	No	No	No	No	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Right Renal artery PI	Right Renal artery Pulsatility index	Numeric	None	None	119	Yes	No	No	No	No	No	No	No
Right Renal artery Angle	Right Renal artery artery angle	Numeric	°	None	120	Yes	No	No	No	No	No	No	No
Left Renal artery PS	Left Renal artery Peak Systolic velocity	Numeric	cm/s	None	121	Yes	No	No	No	No	No	No	No
Left Renal artery S/D Ratio	Left Renal artery S/D ratio (SD RATIO = BLOOD FLOW.SYSTOLIC. MAX / BLOOD FLOW.DIASTOLIC. MIN)	Numeric	None	None	123	Yes	No	No	No	No	No	No	No
Left Renal artery RI	Left Renal artery Resistivity index	Numeric	None	None	124	Yes	No	No	No	No	No	No	No
Left Renal artery PI	Left Renal artery Pulsatility index	Numeric	None	None	125	Yes	No	No	No	No	No	No	No
Left Renal artery Angle	Left Renal artery artery angle	Numeric	°	None	126	Yes	No	No	No	No	No	No	No
Ductus Venosus systole	Ductus Venosus systole	Numeric	cm/s	None	127	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Ductus Venosus diastole	Ductus Venosus diastole	Numeric	cm/s	None	128	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Ductus Venosus Vm	Ductus Venosus Vm	Numeric	cm/s	None	129	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Ductus Venosus TAMX	Ductus Venosus TAMX	Numeric	cm/s	None	130	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Ductus Venosus A-Wave	Ductus Venosus A-Wave	Numeric	cm/s	None	131	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Ductus Venosus PVIV	Ductus Venosus PVIV	Numeric	None	None	132	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Ductus Venosus PIV	Ductus Venosus PIV	Numeric	None	None	133	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Hepatic Vein systole	Hepatic Vein systole	Numeric	cm/s	29471-0	134	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Hepatic Vein diastole	Hepatic Vein diastole	Numeric	cm/s	29472-8	135	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Hepatic Vein Vm	Hepatic Vein Vm	Numeric	cm/s	None	136	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Hepatic Vein TAMX	Hepatic Vein TAMX	Numeric	cm/s	None	137	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Hepatic Vein A-Wave	Hepatic Vein A-Wave	Numeric	cm/s	29474-4	138	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Hepatic Vein PVIV	Hepatic Vein PVIV	Numeric	None	None	139	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Hepatic Vein PIV	Hepatic Vein PIV	Numeric	None	None	140	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Inferior Vena Cava systole	Inferior Vena Cava systole	Numeric	cm/s	None	141	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Inferior Vena Cava diastole	Inferior Vena Cava diastole	Numeric	cm/s	None	142	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Inferior Vena Cava Vm	Inferior Vena Cava Vm	Numeric	cm/s	None	143	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Inferior Vena Cava TAMX	Inferior Vena Cava TAMX	Numeric	cm/s	None	144	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Inferior Vena Cava A-Wave	Inferior Vena Cava A-Wave	Numeric	cm/s	None	145	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Inferior Vena Cava PVIV	Inferior Vena Cava PVIV	Numeric	None	None	146	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Inferior Vena Cava PIV	Inferior Vena Cava PIV	Numeric	None	None	147	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Umbilical Vein Vmax	Umbilical Vein Vmax	Numeric	cm/s	None	148	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Umbilical Vein Vm	Umbilical Vein Vm	Numeric	cm/s	None	149	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Sinus transverse Vm	Sinus transverse Vm	Numeric	cm/s	None	150	Yes	No	Yes	Yes	No	No	Yes	No
Sinus transverse PIV	Sinus transverse PIV	Numeric	None	None	151	Yes	No	Yes	Yes	No	No	Yes	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Sinus transverse dPIV	Sinus transverse dPIV	Numeric	None	None	152	Yes	No	Yes	Yes	No	No	Yes	No
Tricuspid valve E-Wave	Tricuspid valve E-Wave	Numeric	cm/s	11647-5	153	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Tricuspid valve A-Wave	Tricuspid valve A-Wave	Numeric	cm/s	11643-4	154	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Tricuspid valve E/A	Tricuspid valve E/A	Numeric	None	11651-7	155	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Mitral valve E-Wave	Mitral valve E-Wave	Numeric	cm/s	11645-9	156	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Mitral valve A-Wave	Mitral valve A-Wave	Numeric	cm/s	11641-8	157	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Mitral valve E/A	Mitral valve E/A	Numeric	None	11649-1	158	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Head	Head	Text	None	12070-9	159	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Brain	Brain	Text	None	None	160	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Face	Face	Text	None	12056-8	161	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Spine	Spine	Text	None	12111-1	162	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Neck/Skin	Neck/Skin	Text	None	None	163	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Thorax	Thorax	Text	None	12115-2	164	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No

Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
Heart	Heart	Text	None	12076-6	165	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Abd. Wall	Abd. Wall	Text	None	12031-1	166	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Gastroint. Track	Gastroint. Track	Text	None	None	167	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Kidneys	Kidneys	Text	None	12099-8	168	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Bladder	Bladder	Text	None	12119-4	169	Yes	No	No	No	No	No	No	No
Genitalia	Genitalia	Text	None	11400-9	170	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Extremities	Extremities	Text	None	10196-4	171	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Skeleton	Skeleton	Text	None	None	172	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Diagnosis	Diagnosis	Text	None	30954-2	173	No	No	No	No	No	No	No	Yes
Procedere	Procedere	Text	None	None	175	No	No	No	No	No	No	No	Yes
Histology	Histology	Text	None	None	176	No	No	No	No	No	No	No	Yes
AFI	Amniotic Fluid Index	Numeric	Cm	11627-7	177	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
EFW	Estimated Fetal Weight	Numeric	G	11727-5	178	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Growth Percentile	Growth Percentile	Text	None	None	179	Yes	No	No	No	No	No	No	No
Cervical Length	Cervical Length	Numeric	Mm	None	180	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No



Name	Description	Type	Units	LOINC Code	ViewPoint Code	Present in FDB_USA	Present in FDB_German	Present in FDB_UK	Present in FDB_Spanish	Present in FDB_Italian_it	Present in FDB_Italian_DE	Present in FDB_French	Present in USENDO_DE
2 <sup>nd</sup> Trim. Diagnosis	2 <sup>nd</sup> Trim. Diagnosis	Text	None	None	181	Yes	No	No	No	No	No	No	No
2 <sup>nd</sup> Trim. Diagnosis text	2 <sup>nd</sup> Trim. Diagnosis text	Text	None	None	182	Yes	No	No	No	No	No	No	No
Diagnosis	Diagnosis	Text	None	None	183	Yes	No	No	No	No	No	No	No

## Example of discrete finding export

```
MSH|^~\&|GE|ViewPoint|sap||20060926160345||ORU^R01|9|P|2.4||AL|AL
PID|TEMP0|TEMP0|1|IMAGE_D0^Test||19811212|||^^^0
PV1||^WCC|||||0|||||20050610123725|20050611214309||||E1^^GE ViewPoint
ORC|1
OBR|1|||||20060925153842|||||20060925153842|||||Observation patient|||||A. Smith|Dr. Williams
OBX|1|NM|8665-2^Last period^LN||03/03/2006|||||F
OBX|2|NM|11884-4^GA^LN||29W + 3D|||||F
OBX|3|NM|11724-2^L. Uterine artery Vmax^LN||6.0|cm/s|||||F
OBX|4|NM|11663-2^Enddiastolic velocity^LN||7.0|cm/s|||||F
OBR|2^1|||||Observation Fetus 1
OBX|5|NM|11820-8^BPD^LN||12.0|mm|||||F
OBX|6|NM|11984-2^HC^LN||23.0|mm|||||F
OBX|7|NM|11979-2^AC^LN||12.0|mm|||||F
OBX|8|NM|11963-6^Femur^LN||89.0|mm|||||F
OBX|9|NM|8288-3^OFD^LN||86.0|mm|||||F
OBX|10|NM|11863-8^TCD^LN||23.0|mm|||||F
OBX|11|NM|33069-6^Nuchal Translucency^LN||61.0|mm|||||F
OBX|12|NM|11862-0^TAD^LN||98.0|mm|||||F
OBX|13|NM|11818-2^APAD^LN||21.0|mm|||||F
OBX|14|NM|11966-9^Humerus^LN||23.0|mm|||||F
OBX|15|NM|11967-7^Radius^LN||23.0|mm|||||F
OBX|16|NM|11968-5^Tibia^LN||55.0|mm|||||F
OBX|17|NM|11964-4^Fibula^LN||23.0|mm|||||F
OBX|18|NM|11860-4^CM^LN||13.0|mm|||||F
OBX|19|NM|12146-7^Nuchal Fold^LN||1.8|mm|||||F
OBX|20|NM|12171-5^Left Lat. Ventricle^LN||23.8|mm|||||F
OBX|21|NM|11726-7^Umbilical artery Vmax^LN||21.0|cm/s|||||F
OBX|22|NM|11662-4^Enddiastolic velocity^LN||23.0|cm/s|||||F
OBX|23|NM|12141-8^Umbilical Artery SD^LN||33.0|cm/s|||||F
OBX|24|NM|12020-4^Umbilical Artery RI^LN||2.0|cm/s|||||F
OBX|25|NM|12005-5^Umbilical Artery PI^LN||34.0|cm/s|||||F
OBX|26|NM|11689-7^Umbilical Artery TAMX^LN||45.0|cm/s|||||F
OBX|27|NM|11701-0^Middle cerebral Vmax^LN||56.0|cm/s|||||F
OBX|28|NM|12135-0^Middle cerebral S/D ratio^LN||65.000000|||||F
OBX|29|NM|11999-0^Middle Cerebral PI^LN||98.000000|||||F
OBX|30|NM|11672-3^Middle Cerebral Vm^LN||6.0|cm/s|||||F
OBX|31|NM|90^Common Carotid Vmax^ViewPoint||12.8|cm/s|||||F
OBX|32|NM|91^Carotid Enddiastolic velocity^ViewPoint||89.0|cm/s|||||F
OBX|33|NM|92^Carotid S/D ratio^ViewPoint||1.200000|||||F
OBX|34|NM|93^Common Carotid RI^ViewPoint||1.700000|||||F
OBX|35|NM|94^Common Carotid PI^ViewPoint||5.800000|||||F
OBX|36|NM|95^Common Carotid Vm^ViewPoint||8.8|cm/s|||||F
OBX|37|NM|97^Thoracic Aorta Vmax^ViewPoint||90.0|cm/s|||||F
OBX|38|NM|98^Thoracic Aorta S/D Ratio^ViewPoint||7.800000|||||F
OBX|39|NM|99^Thoracic Aorta RI^ViewPoint||1.200000|||||F
OBX|40|NM|100^Thoracic Aorta PI^ViewPoint||1.600000|||||F
OBX|41|NM|11695-4^Thoracic Aorta Vmax^LN||90.0|cm/s|||||F
OBX|42|NM|127^DV Systole^ViewPoint||6.0|cm/s|||||F
OBX|43|NM|128^DV Diastole^ViewPoint||87.0|cm/s|||||F
```

OBX|44|NM|129^DV Vm^ViewPoint||29.0|cm/s||||F  
 OBX|45|NM|130^DV TamX^ViewPoint||8.0|cm/s||||F  
 OBX|46|NM|131^DV A^ViewPoint||8.0|cm/s||||F  
 OBX|47|NM|132^DV PVIV^ViewPoint||21.000000||||F  
 OBX|48|NM|133^DV PIV^ViewPoint||22.000000||||F  
 OBX|49|NM|136^HV Vm^ViewPoint||6.3|cm/s||||F  
 OBX|50|NM|137^HV TamX^ViewPoint||98.0|cm/s||||F  
 OBX|51|NM|141^IVC Systole^ViewPoint||3.0|cm/s||||F  
 OBX|52|NM|142^IVC Diastole^ViewPoint||675.0|cm/s||||F  
 OBX|53|NM|143^IVC Vm^ViewPoint||87.0|cm/s||||F  
 OBX|54|NM|144^IVC TamX^ViewPoint||8.0|cm/s||||F  
 OBX|55|NM|145^IVC A^ViewPoint||56.0|cm/s||||F  
 OBX|56|NM|146^IVC PVIV^ViewPoint||8.000000||||F  
 OBX|57|NM|148^Umbilical Vein Vmax^ViewPoint||68.0|cm/s||||F  
 OBX|58|NM|149^Umbilical Vein Vm^ViewPoint||9.0|cm/s||||F  
 OBX|59|NM|11668-1^Thoracic Aorta Vm^LN||98.0|cm/s||||F  
 OBX|60|NM|29471-0^Hepatic Vein Systole^LN||7.0|cm/s||||F  
 OBX|61|NM|29472-8^Hepatic Vein Diastole^LN||8.0|cm/s||||F  
 OBX|62|NM|29474-4^HV A^LN||769.0|cm/s||||F  
 OBX|63|NM|11647-5^Tricuspid E-wave^LN||6.0|cm/s||||F  
 OBX|64|NM|11643-4^Tricuspid A-wave^LN||5.0|cm/s||||F  
 OBX|65|NM|11651-7^Tricuspid E/A^LN||1.200000||||F  
 OBX|66|NM|11645-9^Mitral E-wave^LN||9.0|cm/s||||F  
 OBX|67|NM|11641-8^Mitral A-wave^LN||876.0|cm/s||||F