



Canonical Guide

HL7 Version 2.6 – Immunizations

Version 1.1



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1. INTRODUCTION

1.1 Overview

HL7 (Health Level Seven) is a standard application protocol for electronic data exchange in Healthcare environments. The term “Level 7” refers to the highest implementation protocol level for a definition of a networking framework as presented in the Open System Interconnection (OSI) model. To add on, In the OSI conceptual model, the functions of both communications software and hardware are separated into seven layers, or levels. The HL7 Standard is primarily focused on the issues that occur within the seventh, or application, level. These are the definitions of the data to be exchanged, the timing of the exchanges, and the communication of certain application-specific errors between the applications.

The HL7 Version 2.x Standard currently addresses the interfaces among various healthcare IT systems that send or receive patient admissions/registration, discharge or transfer (ADT) data, queries, resource and patient scheduling, orders, results, clinical observations, billing, master file update information, medical records, scheduling, patient referral, patient care, clinical laboratory automation, application management and personnel management messages. It does not try to assume a particular architecture with respect to the placement of data within applications. Instead, HL7 Version 2.x serves as a way for inherently disparate applications and data architectures operating in a heterogeneous system environment to communicate with each other. As an example, HL7 Version 2.6 is designed (and used) to support a central patient care system as well as a more distributed environment where data resides in departmental systems.

1.2 Scope

The scope of this document is limited to the definitions of HL7 method with respect to transaction type: Immunizations. This canonical guide is unique to OneHealthPort and its interfaces. The document talks about implementation & setup, HL7 data structures along-with mandatory and optional elements within the data structures with samples use cases and results describing the transaction set required for sending structured patient oriented clinical data from one computer system to another.

The chapter consists of three sections:

- a general section explaining process flow
- section outlining message type, specific data format and content within the message types for HL7 version 2.6
- a sample scenario of a Transaction that is illustrated as both a data string and mapped transaction

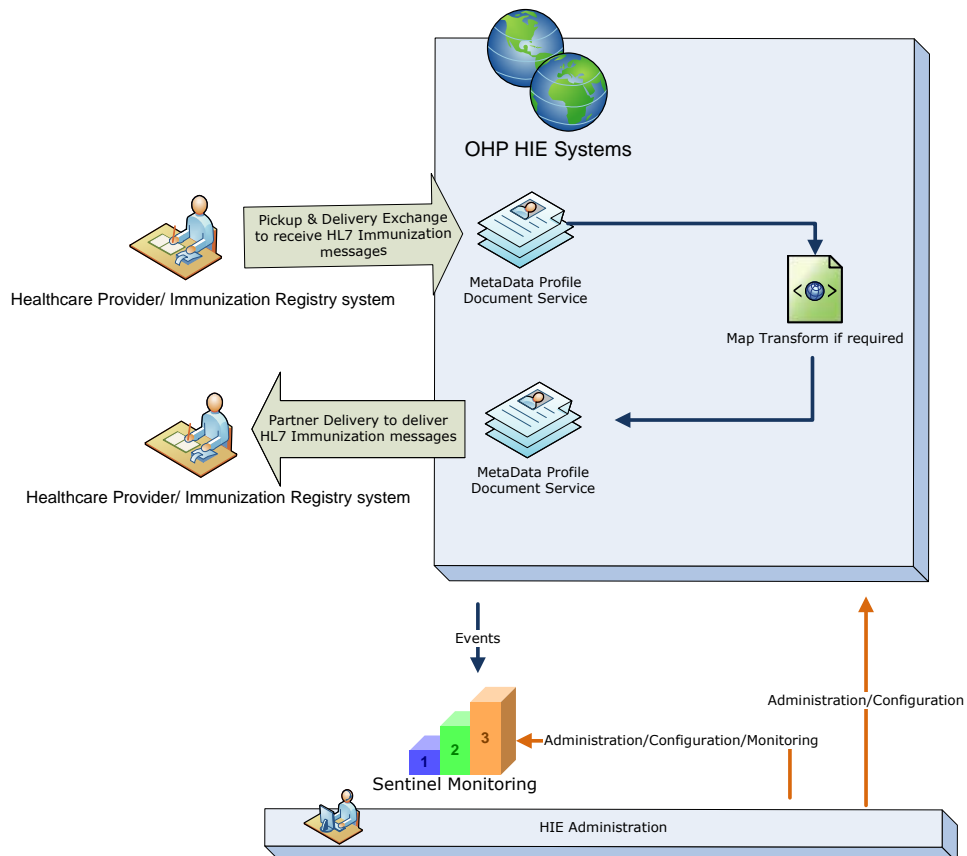
2. PROCESS FLOW

Actors

Healthcare Provider, Immunization Registry system

High Level Process Flow

Healthcare Provider	Immunization Registry System	OneHealthPort HIE System Tasks
<ul style="list-style-type: none"> • VXQ: Query for Vaccination Record. • VXU: Information sent to update a record: regular report to a registry that a shot has been given. • ORU: Message used to report a range of information to a registry. 	<ul style="list-style-type: none"> • VXR: Send Responses to vaccination Query. • VXX: Send Responses to vaccination Query returning multiple PID matches. • ACK: Sends General Acknowledgement that the message was received. • QCK: Sends a no matching record response when receiving registry was not able to match patient. 	<ul style="list-style-type: none"> • Receives various types of messages. • Validates the Sender of the document. If sending partner is not listed as a trusted partner the document is not processed. • Parsing header to get the receiver info and transmits the document to lab-result receiver.



3. STRUCTURE

3.1 General Structural Notes

The terms used in this document are listed below:

- **Messages:** A "message" is considered the minimal unit of data transferred between systems using HL7. Messages are comprised of two or more "segments" that act as building blocks for each message.
- **Segments:** HL7 messages are comprised of several HL7 segments.
- **Fields:** Each segment begins with a unique 3 byte message identifier field (e.g., MSH for "message header", etc.). Subsequent fields within the same segment are separated from one another by the field separator character, the "pipe" symbol, "|".
- **Field Components and Subcomponents:** A few HL7 fields are defined as having more than one portion, each of which is separated by a component separator, "^". Blank components are shown with two component separators with nothing between them: "^^". Components may be divided into subcomponents, separated by the subcomponent separator, "&".
- **Data Types:** Listed below.

Data Type Code	Name
CE	Coded element with formatted values
CK	Composite ID with check digit
CM	Composite
CNE	coded with no exceptions (Coded values from HL7 or user defined tables)
CP	Composite Price
CWE	coded with exceptions
CQ	Composite Quantity with units (Numeric)
CX	extended composite ID with check digit
DLN	Driver's License Number
DR	Date/ Time Range
DT	Date
DTM	Date/ Time
EI	Entity Identifier
FC	Financial Class
FT	Formatted Text data
HD	hierarchic designator
ID	Identifier (Coded values from HL7 tables)
IS	Identifier (Coded values from user-defined tables)
JCC	Job Code/ Class
MO	Money
NM	Numeric
PL	Person Location
PM	Person Name
PT	Processing Type

SI	Sequence ID
ST	String
TQ	Timing Quantity
TS	Time Stamp
TX	Text Data
VID	Version Identifier
XAD	Extended Address
XCN	Extended composite ID number and name for persons
XON	Extended composite name and identification number for organizations
XPN	Extended Person Name
XTN	Extended Telecommunication Number

- **Field Requirements:** R = required, O= Optional, C = Conditional (if used, these will be explained), W = Withdrawn and removed from standards and B = included for backwards compatibility with previous versions.

Message Segments

MSH – Message Header

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

The HL7 attribute table below explains in detail each field associated with MSH segment. Read column 'Sequence' as MSH-1, MSH-2, and MSH-3 so on. If MSH segment is present in the document, the required data elements are elaborated with definitions in the same table.

Sequence	Element Name	Data Types	Length	Required
1	Field Separator	ST	1	R
The separator between the segment ID and the first real field. This field contains the separator between the segment ID and the first real field, MSH-2-encoding characters. As such it serves as the separator and defines the character to be used as a separator for the rest of the message. Recommended value is (ASCII 124).				
2	Encoding Characters	ST	4	R
Four characters: the component separator, repetition separator, escape character, and subcomponent separator. Best practice is to always include all four characters. Recommended values are ^~\& (ASCII 94, 126, 92, and 38, respectively).				
3	Sending Application	HD	227	O
This field uniquely identifies the sending application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise.				
4	Sending Facility	HD	227	O
This field further describes the sending application, MSH-3-sending application. With the promotion of this field to an HD data type, the usage has been broadened to include not just the sending facility but other organizational entities such as a) the organizational entity responsible for sending application; b) the responsible unit; c) a product or vendor's identifier, etc				
5	Receiving Application	HD	227	O
This field uniquely identifies the receiving application among all other applications within the network enterprise. The network enterprise consists of all those applications that participate in the exchange of HL7 messages within the enterprise.				
6	Receiving Facility	HD	227	O
This field identifies the receiving application among multiple identical instances of the application running on behalf of different organizations.				
7	Date/Time of Message	DTM	24	R
Date/time that the sending system created the message. If the time zone is specified, it will be used throughout the message as the default time zone.				
8	Security	ST	40	O
This field implements security features in some of the applications of HL7.				
9	Message Type	MSG	15	R
Contains the message type, trigger event, and the message structure ID for the message.				

10	Message Control ID	ST	199	R
Number or other identifier that uniquely identifies the message. The receiving system echoes this ID back to the sending system in the Message acknowledgment segment (MSA).				
11	Processing ID	PT	3	R
This field is used to decide whether to process the message as defined in HL7 Application (level 7) Processing rules.				
12	Version ID	VID	60	R
This field is matched by the receiving system to its own version to be sure the message will be interpreted correctly.				
13	Sequence Number	NM	15	O
A non null value in this field implies that the sequence number protocol is in use.				
14	Continuation Pointer	ST	180	O
Only the sender of a fragmented message values this field. This numeric field is incremented by one for each subsequent value.				
15	Accept Acknowledgment Type	ID	2	O
This field identifies the conditions under which accept acknowledgments are required to be returned in response to this message. Required for enhanced acknowledgment mode.				
16	Application Acknowledgment Type	ID	2	O
Conditions under which application acknowledgments are required to be returned in response to this message. Required for enhanced acknowledgment mode. Suggested values: AL Always NE Never ER Error/reject conditions only SU Successful completion only				
17	Country Code	ID	3	O
The country of origin for the message. . It will be used primarily to specify default elements, such as currency denominations. The values to be used are those of ISO 3166.				
18	Character Set	ID	16	O
Character set for the entire message				
19	Principal Language Of Message	CWE	250	O
Principal language of the message				
20	Alternate Character Set Handling Scheme	ID	20	O
When any alternative character sets are used (as specified in the second or later iterations of MSH-18 character sets), and if any special handling scheme is needed, this component is to specify the scheme used.				
21	Message Profile Identifier	EI	427	O
Sites may use this field to assert adherence to, or reference, a message profile. Message profiles contain detailed explanations of grammar, syntax, and usage for a particular message or set of messages.				
22	Sending Responsible Organization	XON	567	O

Business organization that originated and is accountable for the content of the message

23	Receiving Responsible Organization	XON	567	O
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Business organization that is the intended receiver of the message and is accountable for acting on the data conveyed by the transaction

24	Sending Network Address	HD	227	O
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Identifier of the network location the message was transmitted from. Identified by an OID or text string (e.g., URI).

25	Receiving Network Address	HD	227	O
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Identifier of the network location the message was transmitted to. Identified by an OID or text string (e.g., URI).

MSA – Message Acknowledgement

This segment contains information sent while acknowledging another message.

The HL7 attribute table below explains in detail each field associated with MSA segment. Read column 'Sequence' as MSA-1, MSA-2, MSA-3 so on. If MSA segment is present in the document, the required data elements are elaborated with definitions in the same table.

Sequence	Element Name	Data Types	Length	Required
1	Acknowledgment Code	ID	2	R
This field contains an acknowledgment code. AA – Application Accept, AE – Application Error, AR – Application Reject, CA – Commit Accept, CE – Commit Error, CR – Commit Reject.				
2	Message Control ID	ST	199	R
This field contains the message control ID of the message sent by the sending system. It allows the sending system to associate this response with the message for which it is intended				
3	Text Message	ST	80	B
This optional field further describes an error condition. This text may be printed in error logs or presented to an end user.				
4	Expected Sequence Number	NM	15	O
5	Delayed Acknowledgment Type			W
6	Error Condition	CE	250	B
7	Message Waiting Number	NM	5	O
8	Message Waiting Priority	ID	1	O

PID - Patient Identification Segment

This segment is used for communicating patient identification and demographic information. The following HL7 attribute table explains in detail each field associated with PID segment. Read column 'Sequence' as PID-1, PID-2, PID-3 so on. If this segment is present in the document, the required data elements are elaborated with definitions in the same table.

Sequence	Element Name	Data Types	Length	Required
1	Set ID - Patient ID	SI	4	O
It contains the number that identifies this transaction. For the first occurrence of the segment, the sequence number shall be one, for the second occurrence, the sequence number shall be two, etc.				
2	Patient ID (External ID)	CX	20	B
From V2.3.1, this field has been retained for backward compatibility only; the arbitrary term of "external ID" has been removed from the name of this field.				
3	Patient ID (Internal ID)	CX	250	R
Contains the list of identifiers (one or more) used by the healthcare facility to uniquely identify a patient (e.g., medical record number, billing number, birth registry, national unique individual identifier, etc.). In Canada, the Canadian Provincial Healthcare Number should be sent in this field. The arbitrary term of "internal ID" has been removed from the name of this field for clarity.				
4	Alternate Patient ID - PID	CX	20	B
From V2.3.1, this field has been retained for backward compatibility only; it is recommended to use PID-3 - Patient Identifier List for all patient identifiers. When used for backward compatibility, this field contains the alternate, temporary, or pending optional patient identifier to be used if needed - or additional numbers that may be required to identify a patient.				
5	Patient Name	XPN	250	R
This field contains the names of the patient, the primary or legal name of the patient is reported first. For example, the name type code in this field should be "L - Legal", "A - Alias".				
6	Mother's Maiden Name	XPN	250	O
Contains the family name under which the mother was born (i.e., before marriage). It is used to distinguish between patients with the same last name.				
7	Date/Time of Birth	DTM	24	O
Contains the patient's year, month and day of birth.				
8	Sex	IS	1	O
Patient's sex. Suggested values: F Female M Male O Other U Unknown A Ambiguous N Not applicable				
9	Patient Alias	XPN	250	B
From V2.4, this field has been retained for backward compatibility only; it is recommended to use PID-5 - Patient Name for all patient names.				

10	Race	CWE	705	O
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Patient's race. Suggested values:
 1002-5 American Indian or Alaska Native
 2028-9 Asian
 2054-5 Black or African American
 2076-8 Native Hawaiian or Other Pacific Islander
 2106-3 White
 2131-1 Other Race

11	Patient Address	XAD	250	O
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Mailing address of the patient.

12	County Code	IS	4	B
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Backward Compatibility.

13	Phone Number - Home	XTN	250	O
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Patient's personal phone numbers. All personal phone numbers for the patient are sent in the following sequence. The first sequence is considered the primary number (for backward compatibility). If the primary number is not sent, then a repeat delimiter is sent in the first sequence.

14	Phone Number - Business	XTN	250	O
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Patient's business phone numbers. All business numbers for the patient are sent in the following sequence. The first sequence is considered the patient's primary business phone number (for backward compatibility). If the primary business phone number is not sent, then a repeat delimiter must be sent in the first sequence.

15	Primary Language	CWE	705	O
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Patient's primary language.

16	Marital Status	CWE	705	O
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Patient's marital (civil) status. Suggested Values:
 A Separated
 D Divorced
 M Married
 S Single
 W Widowed
 C Common law
 G Living together
 P Domestic partner
 R Registered domestic partner
 E Legally Separated
 N Annulled
 I Interlocutory
 B Unmarried
 U Unknown
 O Other
 T Unreported

17	Religion	CWE	705	O
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Patient's religion. Suggested values:

AGN Agnostic
ATH Atheist
BAH Baha'i
BRE Brethren
BUD Buddhist
BMA Buddhist: Mahayana
BTH Buddhist: Theravada
BTA Buddhist: Tantrayana
BOT Buddhist: Other
CFR Chinese Folk Religionist
CHR Christian
ABC Christian: American Baptist Church
AMT Christian: African Methodist Episcopal
AME Christian: African Methodist Episcopal Zion
ANG Christian: Anglican
AOG Christian: Assembly of God
BAP Christian: Baptist
CRR Christian: Christian Reformed
CHS Christian: Christian Science
CMA Christian: Christian Missionary Alliance
COC Christian: Church of Christ
COG Christian: Church of God
COI Christian: Church of God in Christ
COM Christian: Community
COL Christian: Congregational
EOT Christian: Eastern Orthodox
EVC Christian: Evangelical Church
EPI Christian: Episcopalian
FWB Christian: Free Will Baptist
FRQ Christian: Friends
FUL Christian: Full Gospel
GRE Christian: Greek Orthodox
JWN Christian: Jehovah's Witness
MOM Christian: Latter-day Saints
LUT Christian: Lutheran
LMS Christian: Lutheran Missouri Synod
MEN Christian: Mennonite
MET Christian: Methodist
NAZ Christian: Church of the Nazarene
ORT Christian: Orthodox
PEN Christian: Pentecostal
COP Christian: Other Pentecostal
PRE Christian: Presbyterian
PRO Christian: Protestant
PRC Christian: Other Protestant
REC Christian: Reformed Church
REO Christian: Reorganized Church of Jesus Christ-LDS
CAT Christian: Roman Catholic

- SAA Christian: Salvation Army
- SEV Christian: Seventh Day Adventist
- SOU Christian: Southern Baptist
- UCC Christian: United Church of Christ
- UMD Christian: United Methodist
- UNI Christian: Unitarian
- UNU Christian: Unitarian Universalist
- WES Christian: Wesleyan
- WMC Christian: Wesleyan Methodist
- COT Christian: Other
- CNF Confucian
- DOC Disciples of Christ
- ERL Ethnic Religionist
- HIN Hindu
- HSH Hindu: Shaivites
- HVA Hindu: Vaishnavites
- HOT Hindu: Other
- JAI Jain
- JEW Jewish
- JCO Jewish: Conservative
- JOR Jewish: Orthodox
- JRC Jewish: Reconstructionist
- JRF Jewish: Reform
- JRN Jewish: Renewal
- JOT Jewish: Other
- MOS Muslim
- MSH Muslim: Shiite
- MSU Muslim: Sunni
- MOT Muslim: Other
- NAM Native American
- NRL New Religionist
- NOE Nonreligious
- SHN Shintoist
- SIK Sikh
- SPI Spiritist
- OTH Other
- VAR Unknown

18	Patient Account Number	CX	250	O
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Patient account number assigned by accounting to which all charges are recorded.

19	SSN Number - Patient	ST	16	B
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From V2.3.1 onward, this field has been retained for backward compatibility only. It is recommended to use PID-3 - Patient Identifier List for all patient identifiers. However, in order to maintain backward compatibility, this field should also be populated. When used for backward compatibility, this field contains the patient's social security number. This number may also be a RR retirement number.

20	Driver's License Number - Patient	DLN	25	B
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Backward Compatibility.

21	Mother's Identifier	CX	250	O
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This field is used, for example, as a link field for newborns. Typically a patient ID or account number may be used. This field can contain multiple identifiers for the same mother.

22	Ethnic Group	CWE	705	O
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Patient's ancestry. Suggested values:

- H Hispanic or Latino
- N Not Hispanic or Latino
- U Unknown

23	Birth Place	ST	250	O
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Location of the patient's birth.

24	Multiple Birth Indicator	ID	1	O
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Indicates whether the patient was part of a multiple birth Valid values:

- Y the patient was part of a multiple birth
- N the patient was a single birth

25	Birth Order	NM	2	O
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When a patient was part of a multiple birth, a value (number) indicating the patient's birth order is entered in this field.

26	Citizenship	CWE	705	O
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Person's country citizenship

27	Veterans Military Status	CWE	705	O
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Military status assigned to a veteran.

28	Nationality	CWE	705	B
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From V2.4 onward, this field has been retained for backward compatibility only. It is recommended to refer to PID-10 - Race, PID-22 - Ethnic group and PID-26 - Citizenship. This field contains a code that identifies the nation or national grouping to which the person belongs.

29	Patient Death Date and Time	DTM	24	O
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Date and time at which the patient death occurred.

30	Patient Death Indicator	ID	1	O
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Indicates whether the patient is deceased. Valid values:

- Y the patient is deceased
- N the patient is not deceased

31	Identity Unknown Indicator	ID	1	O
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Indicates whether or not the patient's/person's identity is known. Valid values:

- Y the patient's/person's identity is unknown
- N the patient's/person's identity is known

32	Identity Reliability Code	IS	20	O
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Indicate that certain fields on a PID segment for a given patient/person are known to be false. Valid values:

US Unknown/Default Social Security Number
 UD Unknown/Default Date of Birth
 UA Unknown/Default Address
 AL Patient/Person Name is an Alias

33	Last Update Date/Time	DTM	24	O
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Last update date and time for the patient's/person's identifying and demographic data.

34	Last Update Facility	HD	241	O
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Last update to a patient's/person's identifying and demographic data.

35	Species Code	CWE	705	C
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Common or scientific name of living organism.

36	Breed Code	CWE	705	C
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Breed of animal.

37	Strain	ST	80	O
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Specific strain of living organism.

38	Production Class Code	CWE	705	O
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Contains the code and/or text indicating the primary use for which the living subject was bred or grown. Suggested values:

- BR Breeding/genetic stock
- DA Dairy
- DR Draft
- DU Dual Purpose
- LY Layer, Includes Multiplier flocks
- MT Meat
- OT Other
- PL Pleasure
- RA Racing
- SH Show
- NA Not Applicable
- U Unknown

39	Tribal Citizenship	CWE	705	O
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Person's tribal citizenship.

PV1 – Patient Visit Segment

The PV1 segment is used by Registration/ADT applications to communicate information on a visit-specific basis. This segment can be used to send multiple-visit statistic records to the same patient account or single-visit records to more than one account.

This segment is used by registration/patient administration applications to communicate information on an account or visit –specific basic. The default is to send account level data. The HL7 attribute table below explains in detail each field associated with PV1 segment. Read column ‘Sequence’ as PV1-1, PV1-2, PV1-3 so on. If PV1 segment is present in the document, the required data elements are elaborated with definitions in the same table.

Sequence	Element Name	Data Types	Length	Required
1	Set ID - PV1	SI	4	O
This field contains the number that identifies this transaction. For the first occurrence of the segment, the sequence number shall be one, for the second occurrence, the sequence number shall be two, etc.				
2	Patient Class	IS	1	O
This field is used by systems to categorize patients by site. It does not have a consistent industry-wide definition. It is subject to site specific variations. Suggested values: E Emergency I Inpatient O Outpatient P Preadmit R Recurring patient B Obstetrics C Commercial Account N Not Applicable U Unknown				
3	Assigned Patient Location	PL	80	O
Patient's initial assigned location or the location to which the patient is being moved.				
4	Admission Type	IS	2	O
Indicates the circumstances under which the patient was or will be admitted. Valid values: A Accident E Emergency L Labor and Delivery R Routine N Newborn (Birth in healthcare facility) U Urgent C Elective				
5	Preadmit Number	CX	250	O
Uniquely identifies the patient's pre-admit account				
6	Prior Patient Location	PL	80	O
Prior patient location if the patient is being transferred.				

7	Attending Doctor	XCN	250	O
Contains the attending physician information				
8	Referring Doctor	XCN	250	O
Contains the referring physician information				
9	Consulting Doctor	XCN	250	B
From V2.4 onward, this field has been retained for backward compatibility only. It is recommended to use the ROL - Role segment for consulting physicians instead. This field contains the consulting physician information. The field sequences are used to indicate multiple consulting doctors. Depending on local agreements, either the ID or the name may be absent from this field.				
10	Hospital Service	IS	3	O
Contains the treatment or type of surgery that the patient is scheduled to receive. Suggested values: MED Medical Service SUR Surgical Service URO Urology Service PUL Pulmonary Service CAR Cardiac Service				
11	Temporary Location	PL	80	O
Contains a location other than the assigned location required for a temporary period of time				
12	Preadmit Test Indicator	IS	2	O
Indicates whether the patient must have pre-admission testing done in order to be admitted				
13	Readmission Indicator	IS	2	O
Indicates that a patient is being re-admitted to the healthcare facility. Suggested values: "R" for readmission or else null				
14	Admit Source	IS	6	O
Indicates where the patient was admitted. Suggested values: 1 Physician referral 2 Clinic referral 3 HMO referral 4 Transfer from a hospital 5 Transfer from a skilled nursing facility 6 Transfer from another health care facility 7 Emergency room 8 Court/law enforcement 9 Information not available				
15	Ambulatory Status	IS	2	O
Indicates any permanent or transient handicapped conditions. Valid values: A0 No functional limitations A1 Ambulates with assistive device A2 Wheelchair/stretchers bound				

A3 Comatose; non-responsive

A4 Disoriented

A5 Vision impaired

A6 Hearing impaired

A7 Speech impaired

A8 Non-English speaking

A9 Functional level unknown

B1 Oxygen therapy

B2 Special equipment (tubes, IVs, catheters)

B3 Amputee

B4 Mastectomy

B5 Paraplegic

B6 Pregnant

16	VIP Indicator	IS	2	O
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Identifies the type of VIP.

17	Admitting Doctor	XCN	250	O
----	------------------	-----	-----	---

Contains the admitting physician information

18	Patient Type	IS	2	O
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19	Visit Number	CX	250	O
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Contains the unique number assigned to each patient visit.

20	Financial Class	FC	50	O
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Contains the financial class(es) assigned to the patient for the purpose of identifying sources of reimbursement.

21	Charge Price Indicator	IS	2	O
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Code used to determine which price schedule is to be used for room and bed charges.

22	Courtesy Code	IS	2	O
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Indicates whether the patient will be extended certain special courtesies

23	Credit Rating	IS	2	O
----	---------------	----	---	---

Contains the user-defined code to determine past credit experience.

24	Contract Code	IS	2	O
----	---------------	----	---	---

Type of contract entered into by the healthcare facility and the guarantor for the purpose of settling outstanding account balances

25	Contract Effective Date	DT	8	O
----	-------------------------	----	---	---

Contains the date that the contract is to start or started.

26	Contract Amount	NM	12	O
Contains the amount to be paid by the guarantor each period according to the contract.				
27	Contract Period	NM	3	O
Duration of the contract for user-defined periods.				
28	Interest Code	IS	2	O
Indicates the amount of interest that will be charged the guarantor on any outstanding amounts.				
29	Transfer to Bad Debt Code	IS	4	O
Indicates that the account was transferred to bad debts and gives the reason.				
30	Transfer to Bad Debt Date	DT	8	O
Contains the date that the account was transferred to a bad debt status.				
31	Bad Debt Agency Code	IS	10	O
Uniquely identifies the bad debt agency to which the account was transferred.				
32	Bad Debt Transfer Amount	NM	12	O
Contains the amount that was transferred to a bad debt status.				
33	Bad Debt Recovery Amount	NM	12	O
Contains the amount recovered from the guarantor on the account.				
34	Delete Account Indicator	IS	1	O
Indicates that the account was deleted from the file and gives the reason.				
35	Delete Account Date	DT	8	O
Contains the date that the account was deleted from the file.				
36	Discharge Disposition	IS	3	O
Contains the disposition of the patient at time of discharge. Suggested values:				
01 Discharged to home or self care (routine discharge)				
02 Discharged/transferred to another short term general hospital for inpatient care				
03 Discharged/transferred to skilled nursing facility (SNF)				
04 Discharged/transferred to an intermediate care facility (ICF)				
05 Discharged/transferred to another type of institution for inpatient care or referred for outpatient services to another institution				
06 Discharged/transferred to home under care of organized home health service organization				
07 Left against medical advice or discontinued care				
08 Discharged/transferred to home under care of Home IV provider				
09 Admitted as an inpatient to this hospital				
10 ... 19 Discharge to be defined at state level, if necessary				
20 Expired (i.e. dead)				

21 ... 29 Expired to be defined at state level, if necessary

30 Still patient or expected to return for outpatient services (i.e. still a patient)

31 ... 39 Still patient to be defined at state level, if necessary (i.e. still a patient)

40 Expired (i.e. died) at home

41 Expired (i.e. died) in a medical facility; e.g., hospital, SNF, ICF, or free standing hospice

42 Expired (i.e. died) - place unknown

37	Discharged to Location	DLD	47	O
----	------------------------	-----	----	---

Indicates the healthcare facility to which the patient was discharged and the date.

38	Diet Type	CWE	705	O
----	-----------	-----	-----	---

Indicates a special diet type for a patient.

39	Servicing Facility	IS	2	O
----	--------------------	----	---	---

Used in a multiple facility environment to indicate the healthcare facility with which this visit is associated.

40	Bed Status	IS	1	B
----	------------	----	---	---

This field has been retained for backward compatibility only. The information is now held in the fifth component of the PL datatype in PV1-3. This field contains the status of the bed. Suggested values:

C Closed

H Housekeeping

O Occupied

U Unoccupied

K Contaminated

I Isolated

41	Account Status	IS	2	O
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42	Pending Location	PL	80	O
----	------------------	----	----	---

Indicates the point of care, room, bed, healthcare facility ID, and bed status to which the patient may be moved.

43	Prior Temporary Location	PL	80	O
----	--------------------------	----	----	---

Used to reflect the patient's temporary location (such as the operating room/theatre or x-ray) prior to a transfer from a temporary location to an actual location, or from a temporary location to another temporary location.

44	Admit Date/Time	DTM	24	O
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45	Discharge Date/Time	DTM	24	O
----	---------------------	-----	----	---

46	Current Patient Balance	NM	12	O
----	-------------------------	----	----	---

Visit balance due.

47	Total Charges	NM	12	O
----	---------------	----	----	---

Total visit charges.

48	Total Adjustments	NM	12	O
----	-------------------	----	----	---

Total adjustments for visit.

49	Total Payments	NM	12	O
----	----------------	----	----	---

Total payments for visit.

50	Alternate Visit ID	CX	250	O
----	--------------------	----	-----	---

Contains the alternative, temporary, or pending optional visit ID number to be used if needed.

51	Visit Indicator	IS	1	O
----	-----------------	----	---	---

Indicator used to send data at two levels, visit and account. Suggested values:

A Account level (default)

V Visit level

52	Other Healthcare Provider	XCN	250	B
----	---------------------------	-----	-----	---

From V2.4 onward, this field has been retained for backward compatibility only. Use the ROL-Role Segment to communicate providers not specified elsewhere.

PV2 – Patient Visit - Additional Information Segment

Sequence	Element Name	Data Types	Length	Required
1	Prior Pending Location	PL	80	C
Required for cancel pending transfer (A26) messages.				
2	Accommodation Code	CWE	705	O
The specific patient accommodations for this visit				
3	Admit Reason	CWE	705	O
Short description of the reason for patient admission				
4	Transfer Reason	CWE	705	O
Description of the reason for location change (patient).				
5	Patient Valuables	ST	25	O
Description of patient valuables checked in during admission.				
6	Patient Valuables Location	ST	25	O
Description of Patient Valuables Location.				
7	Visit User Code	IS	2	O
Suggested values: TE Teaching HO Home MO Mobile Unit PH Phone				
8	Expected Admit Date/Time	DTM	24	O
Expected Patient Admission Date/Time.				
9	Expected Discharge Date/Time	DTM	24	O
Expected Patient Discharge Date/Time.				
10	Estimated Length of Inpatient Stay	NM	3	O
11	Actual Length of Inpatient Stay	NM	3	O
12	Visit Description	ST	50	O

13	Referral Source Code	XCN	250	O
Name and the identification numbers of the person or organization that made the referral.				
14	Previous Service Date	DT	8	O
The date of previous service for the same persistent condition				
15	Employment Illness Related Indicator	ID	1	O
Indicates whether a patient's illness was job-related. Valid values: Y the patient's illness was job-related N the patient's illness was not job-related				
16	Purge Status Code	IS	1	O
Purge status code for the account. Suggested value: P Marked for purge. User is no longer able to update the visit. D The visit is marked for deletion and the user cannot enter new data against it. I The visit is marked inactive and the user cannot enter new data against it.				
17	Purge Status Date	DT	8	O
Date when data would be purged.				
18	Special Program Code	IS	2	O
Specific health insurance program for a visit required for healthcare reimbursement. Suggested values: CH Child Health Assistance ES Elective Surgery Program FP Family Planning O Other U Unknown				
19	Retention Indicator	ID	1	O
Allows preserving demographic and financial data on specific, high priority visits. Valid values: Y retain data N normal purge processing				
20	Expected Number of Insurance Plans	NM	1	O
Number of insurance plans that may provide coverage for this visit.				
21	Visit Publicity Code	IS	1	O
Level of publicity allowed for a specific visit. Suggested values: F Family only N No Publicity O Other U Unknown				
22	Visit Protection Indicator	ID	1	B
Suggested values: Y protect access to patient information N normal access				

23	Clinic Organization Name	XON	250	O
organization name				
24	Patient Status Code	IS	2	O
Status of patient. Suggested values: AI Active Inpatient DI Discharged Inpatient				
25	Visit Priority Code	IS	1	O
Priority of visit. Suggested values: 1 Emergency 2 Urgent 3 Elective				
26	Previous Treatment Date	DT	8	O
The date that the patient last had treatment.				
27	Expected Discharge Disposition	IS	2	O
Patient's disposition is expected to be at the end of the visit				
28	Signature on File Date	DT	8	O
Signature date.				
29	First Similar Illness Date	DT	8	O
30	Patient Charge Adjustment Code	CWE	705	O
31	Recurring Service Code	IS	2	O
Indicates whether the treatment is continuous.				
32	Billing Media Code	ID	1	O
Indicates if the account is to be rejected from tape billing. Valid values: Y reject account from tape billing N normal processing				
33	Expected Surgery Date and Time	DTM	24	O
Date and time on which the surgery is expected to occur.				
34	Military Partnership Code	ID	1	O
Indicates that a military healthcare facility has contracted with a non-military healthcare facility for the use of its services. Suggested values: Y contract(s) exist N no contract(s) exist				

35	Military Non-Availability Code	ID	1	O
Patient has permission to use a non-military healthcare facility for treatment. Valid values: Y the patient has permission to use a non-military healthcare facility N the patient does not have permissions to use a non-military healthcare facility				
36	Newborn Baby Indicator	ID	1	O
Valid values: Y the patient is a baby N the patient is not a baby				
37	Baby Detained Indicator	ID	1	O
Indicates if the baby is detained after the mother's discharge. Valid values: Y the baby was detained N normal discharge of mother and baby				
38	Mode of Arrival Code	CWE	705	O
Patient was brought to the healthcare facility. Suggested values: A Ambulance C Car F On foot H Helicopter P Public Transport O Other U Unknown				
39	Recreational Drug Use Code	CWE	705	O
Indicates what recreational drugs the patient uses. Suggested values: A Alcohol K Kava M Marijuana T Tobacco - smoked C Tobacco - chewed O Other U Unknown				
40	Admission Level of Care Code	CWE	705	O
Indicates the acuity level assigned to the patient at the time of admission. Suggested values: AC Acute CH Chronic CO Comatose CR Critical IM Improved MO Moribund				
41	Precaution Code	CWE	705	O
Precautions that need to be taken while dealing with the patient. Suggested values: A Aggressive B Blind				

- C Confused
- D Deaf
- I On IV
- N "No-code" (i.e. Do not resuscitate)
- P Paraplegic
- O Other
- U Unknown

42	Patient Condition Code	CWE	705	O
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Patient's current medical condition. Suggested values:

- A Satisfactory
- C Critical
- P Poor
- S Stable
- O Other
- U Unknown

43	Living Will Code	IS	2	O
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Suggested values:

- Y Yes, patient has a living will
- F Yes, patient has a living will but it is not on file
- N No, patient does not have a living will and no information was provided
- I No, patient does not have a living will but information was provided
- U Unknown

44	Organ Donor Code	IS	2	O
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Suggested values:

- Y Yes, patient is a documented donor and documentation is on file
- F Yes, patient is a documented donor, but documentation is not on file
- N No, patient has not agreed to be a donor
- I No, patient is not a documented donor, but information was provided
- R Patient leaves organ donation decision to relatives
- P Patient leaves organ donation decision to a specific person
- U Unknown

45	Advance Directive Code	CWE	705	C
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Patient's instructions to the healthcare facility. Suggested values:

- DNR Do not resuscitate
- N No directive

46	Patient Status Effective Date	DT	8	O
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47	Expected LOA Return Date/Time	DTM	24	O
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Date/time that the patient is expected to return from LOA.

48	Expected Pre-admission Testing Date/Time	DTM	24	O
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49	Notify Clergy Code	IS	20	O
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Indicate whether the clergy should be notified. Suggested values:

Y Yes

N No

L Last Rites only

O Other

U Unknown

50	Advance Directive Last Verified Date	DT	8	O
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ORC – Common Order Segment

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

Sequence	Element Name	Data Types	Length	Required
1	Order Control	ID	2	R
Determines the function of the order segment				
2	Placer Order Number	EI	427	C
placer application's order number				
3	Filler Order Number	EI	427	O
order number associated with the filling application				
4	Placer Group Number	EI	22	O
This field allows an order placing application to group sets of orders together and subsequently identify them.				
5	Order Status	ID	2	O
Suggested values:				
A	Some, but not all, results available			
CA	Order was canceled			
CM	Order is completed			
DC	Order was discontinued			
ER	Error, order not found			
HD	Order is on hold			
IP	In process, unspecified			
RP	Order has been replaced			
SC	In process, scheduled			
6	Response Flag	ID	1	O
This field allows the placer (sending) application to determine the amount of information to be returned from the filler.				
Suggested values:				
E	Report exceptions only			
R	Same as E, also Replacement and Parent-Child			
D	Same as R, also other associated segments			
F	Same as D, plus confirmations explicitly			
N	Only the MSA segment is returned			
7	Quantity/Timing	TQ	705	B
8	Parent	EIP	200	O
9	Date/Time of Transaction	DTM	24	O

Date and time of the event that initiated the current transaction as reflected in ORC-1 Order Control Code

10	Entered By	XCN	3220	O
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Identity of the person who actually keyed the request into the application

11	Verified By	XCN	250	O
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Identity of the person who verified the accuracy of the entered request

12	Ordering Provider	XCN	3220	O
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The identity of the person who is responsible for creating the request (i.e., ordering physician).

13	Enterer's Location	PL	80	O
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Specifies the location (e.g., nurse station, ancillary service location, clinic, floor) where the person who entered the request was physically located when the order was entered.

14	Call Back Phone Number	XTN	250	O
----	------------------------	-----	-----	---

Telephone number to call for clarification of a request or other information regarding the order

15	Order Effective Date/Time	DTM	24	O
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Date/time that the changes to the request took effect or are supposed to take effect.

16	Order Control Code Reason	CWE	250	O
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17	Entering Organization	CWE	250	O
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Organization that the enterer belonged to at the time he/she enters/maintains the order, such as medical group or department

18	Entering Device	CWE	250	O
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Physical device (terminal, PC) used to enter the order.

19	Action By	XCN	250	O
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The identity of the person who initiated the event represented by the corresponding order control code

20	Advanced Beneficiary Notice Code	CWE	250	O
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Status of the patient's or the patient's representative's consent for responsibility to pay for potentially uninsured services.

21	Ordering Facility Name	XON	250	O
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Name of the facility placing the order.

22	Ordering Facility Address	XAD	250	O
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Address of the facility placing the order.

23	Ordering Facility Phone Number	XTN	250	O
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24	Ordering Provider Address	XAD	250	O
Address of the care provider requesting the order.				
25	Order Status Modifier	CWE	250	O
Modifier or refiner of the ORC-5-Order status field.				
26	Advanced Beneficiary Notice Override Reason	CWE	60	O
Contains the reason why the patient did not sign an Advanced Beneficiary Notice.				
27	Filler's Expected Availability Date/Time	DTM	24	O
Date/time the filler expects the services to be available				
28	Confidentiality Code	CWE	250	O
The level of security and/or sensitivity surrounding the order				
29	Order Type	CWE	250	O
: This field indicates whether the order is to be executed in an inpatient setting or an outpatient setting. Suggested values:				
I	Inpatient Order			
O	Outpatient Order			
30	Enterer Authorization Mode	CNE	250	O
Form of authorization a recorder had from the responsible practitioner to create or change an order. Suggested values:				
EL	Electronic			
EM	E-mail			
FX	Fax			
IP	In Person			
MA	Mail			
PA	Paper			
PH	Phone			
RE	Reflexive (Automated system)			
VC	Video-conference			
VO	Voice			
31	Parent Universal Service Identifier	CWE	250	O
Identifier code for the parent order which caused this reflex observation/test/battery to be performed.				

NK1 - Next of Kin Segment

The NK1 segment contains information about the patient’s spouse, parents or other relatives.

Sequence	Element Name	Data Types	Length	Required
1	Set ID – NK1	SI	4	R
Transaction Identifier number				
2	Name	XPN	250	O
Name of the next of kin or associated party				
3	Relationship	CWE	705	O
Relation between NOK and Patient. Suggested values:				
SEL Self				
SPO Spouse				
DOM Life partner				
CHD Child				
GCH Grandchild				
NCH Natural child				
SCH Stepchild				
FCH Foster child				
DEP Handicapped dependent				
WRD Ward of court				
PAR Parent				
MTH Mother				
FTH Father				
CGV Care giver				
GRD Guardian				
GRP Grandparent				
EXF Extended family				
SIB Sibling				
BRO Brother				
SIS Sister				
FND Friend				
OAD Other adult				
EME Employee				
EMR Employer				
ASC Associate				
EMC Emergency contact				
OWN Owner				
TRA Trainer				
MGR Manager				
NON None				
UNK Unknown				
OTH Other				
4	Address	XAD	250	O

5	Phone Number	XTN	250	O
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6	Business Phone Number	XTN	250	O
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7	Contact Role	CWE	705	O
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Specific contact role. Suggested values:

- E Employer
- C Emergency Contact
- F Federal Agency
- I Insurance Company
- N Next-of-Kin
- S State Agency
- O Other
- U Unknown

8	Start Date	DT	8	O
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9	End Date	DT	8	O
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10	Next of Kin / Associated Parties Job Title	ST	60	O
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11	Next of Kin / Associated Parties Job Code/Class	JCC	20	O
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12	Next of Kin / Associated Parties Employee Number	CX	250	O
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Number that the employer assigns to the employee that is acting as next of kin/associated parties.

13	Organization Name – NK1	XON	250	O
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Name of the organization that serves as a next of kin/associated party or as the next of kin of the patient.

14	Marital Status	CWE	705	O
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15	Administrative Sex	IS	1	O
----	--------------------	----	---	---

16	Date/Time of Birth	DTM	24	O
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17	Living Dependency	IS	2	O
Specific living conditions that are relevant to an evaluation of the patient's healthcare needs				
18	Ambulatory Status	IS	2	O
The transient rate of mobility for the NOK.				
19	Citizenship	CWE	705	O
20	Primary Language	CWE	705	O
21	Living Arrangement	IS	2	O
Situation that the associated party lives. Suggested values: A Alone F Family I Institution R Relative U Unknown S Spouse Only				
22	Publicity Code	CWE	705	O
Level of publicity allowed				
23	Protection Indicator	ID	1	O
Suggested values: Y protect access to next-of-kin information N normal access				
24	Student Indicator	IS	2	O
Identifies whether the NOK is currently a student or not				
25	Religion	CWE	705	O
Type of religion practiced by the NOK.				
26	Mother's Maiden Name	XPN	250	O
27	Nationality	CWE	705	O
28	Ethnic Group	CWE	705	O

29	Contact Reason	CWE	705	O
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Identifies how the contact should be used.

30	Contact Person's Name	XPN	250	O
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31	Contact Person's Telephone Number	XTN	250	O
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32	Contact Person's Address	XAD	250	O
----	--------------------------	-----	-----	---

33	Next of Kin/Associated Party's Identifiers	CX	250	O
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The identifiers for NOK.

34	Job Status	IS	2	O
----	------------	----	---	---

Suggested values:

P Permanent

T Temporary

O Other

U Unknown

35	Race	CWE	705	O
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36	Handicap	IS	2	O
----	----------	----	---	---

37	Contact Person Social Security Number	ST	16	O
----	---------------------------------------	----	----	---

38	Next of Kin Birth Place	ST	250	O
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39	VIP Indicator	IS	2	O
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NTE – Notes and Comments Segment

Sequence	Element Name	Data Types	Length	Required
1	Set Id – Notes and Comments	SI	4	O
This field may be used where multiple NTE segments are included in a message. Their numbering must be described in the application message definition.				
2	Source of Comment	ID	8	O
This field is used when source of comment must be identified. This table may be extended locally during implementation.				
3	Comment	FT	65536	O
This field contains the comment contained in the segment.				
4	Comment Type	CWE	250	O
This field contains a value to identify the type of comment text being sent in the specific comment record.				
5	Entered By	XCN	3220	O
This field contains the identity of the person who actually keyed the comment into the application. It provides an audit trail in case the comment is entered incorrectly and the ancillary department needs to clarify the comment. By local agreement, either the ID number or name component may be omitted.				
6	Entered Date/Time	DTM	24	O
This field contains the actual date the comment was keyed into the application				
7	Effective Start Date	DTM	24	O
This field contains the date the comment becomes or became effective.				
8	Expiration Date	DTM	24	O
This field contains the date the comment becomes or became non-effective.				

DSC – Continuation Pointer Segment

Sequence	Element Name	Data Types	Length	Required
1	Continuation Pointer	ST	180	

OBR – Observation Request Segment

This segment is used in the message when a set of observations is ordered. However observations can be collected and reported without an antecedent order. There can be more observations reported which is notified by including more OBR segments in the message. So, one can say that OBR segment is like a turn-around. Some fields in the OBR segment apply only to ordering message and some to reporting message. It contains many of the attributes that apply to all of the included observations.

Read column 'Sequence' as OBR-1, OBR-2, OBR-3 so on. If OBR segment is present in the document, the required data elements are elaborated with definitions in the same table.

Sequence	Element Name	Data Types	Length	Required
1	Set ID – OBR	SI	4	O
For the first order transmitted, the sequence number shall be 1; for the second order, it shall be 2; and so on				
2	Placer Order Number	EI	427	C
3	Filler Order Number	EI	427	C
Order number associated with the filling application				
4	Universal Service Identifier	CWE	705	R
This field contains the identifier code for the requested observation/test/battery. This can be based on local and/or "universal" codes.				
5	Priority	ID	2	B
This field has been retained for backward compatibility only. It is not used. Previously priority (e.g., STAT, ASAP), but that information is carried as the sixth component of OBR-27-quantity/timing.				
6	Requested Date/Time	DTM	24	C
This field has been retained for backward compatibility only. It is not used. Previously requested date/time. That information is carried as the fourth component of OBR-27-quantity/timing.				
7	Observation Date/Time	DTM	24	O
This field is the clinically relevant date/time of the observation. In the case of observations taken directly from a subject, it is the actual date and time the observation was obtained.				
8	Observation End Date/Time	DTM	24	O
The end date and time of a study or timed specimen collection				
9	Collection Volume	CQ	722	O
The collection volume is the volume of a specimen				
10	Collector Identifier	XCN	3220	O
When a specimen is required for the study, this field will identify the person, department, or facility that collected the specimen. Either name or ID code, or both, may be present.				
11	Specimen Action Code	ID	1	O

Action to be taken with respect to the specimens that accompany or precede this order

12	Danger Code	CWE	705	O
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Code and/or text indicating any known or suspected patient or specimen hazards

13	Relevant Clinical Information	ST	300	O
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Additional clinical information about the patient or specimen

14	Specimen Received Date/Time	DTM	24	B
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For observations requiring a specimen, the specimen received date/time is the actual login time at the diagnostic service.

15	Specimen Source	SPS	300	B
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This field identifies the site where the specimen should be obtained or where the service should be performed.

16	Ordering Provider	XCN	3220	O
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The provider who ordered the test

17	Order Callback Phone Number	XTN	2743	O
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Telephone number for reporting a status or a result using the standard format with extension and/or beeper number when applicable.

18	Placer Field 1	ST	199	O
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19	Placer Field 2	ST	199	O
----	----------------	----	-----	---

20	Filler Field 1	ST	199	O
----	----------------	----	-----	---

21	Filler Field 2	ST	199	O
----	----------------	----	-----	---

22	Results Rpt/Status Change - Date/Time	DTM	24	C
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This field specifies the date/time results reported or status changed. This field is used to indicate the date and time that the results are composed into a report and released

23	Charge to Practice	MOC	504	O
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Charge to the ordering entity for the studies performed when applicable

24	Diagnostic Service Sect ID	ID	10	O
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Diagnostic service where the observation was performed.

25	Result Status	ID	1	C
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This field is the status of results for this order. This conditional field is required whenever the OBR is contained in a report message. It is not required as part of an initial order.

26	Parent Result	PRL	977	O
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27	Quantity/Timing	TQ	705	B
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This field contains 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	Result Copies To	XCN	3220	O
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Individuals who are to receive copies of the results

29	Parent	EIP	855	O
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30	Transportation Mode	ID	20	O
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This field identifies how (or whether) to transport a patient, when applicable

31	Reason for Study	CWE	705	O
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32	Principal Result Interpreter	NDL	831	B
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This field identifies the physician or other clinician who interpreted the observation and is responsible for the report content.

33	Assistant Result Interpreter	NDL	831	B
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This field identifies the clinical observer who assisted with the interpretation of this study.

34	Technician	NDL	831	B
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This field identifies the performing technician.

35	Transcriptionist	NDL	831	B
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This field identifies the report transcriber.

36	Scheduled Date/Time	DTM	24	O
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The date/time the filler scheduled an observation, when applicable.

37	Number of Sample Containers	NM	16	O
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Number of containers for a given sample

38	Transport Logistics of Collected Sample	CWE	705	O
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Means by which a sample reaches the diagnostic service provider

39	Collector's Comment	CWE	705	O
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Additional comments related to the sample

40	Transport Arrangement Responsibility	CWE	705	O
An indicator of who is responsible for arranging transport to the planned diagnostic service.				
41	Transport Arranged	ID	30	O
Indicator of whether transport arrangements are known to have been made				
42	Escort Required	ID	1	O
An indicator that the patient needs to be escorted to the diagnostic service department.				
43	Planned Patient Transport Comment	CWE	705	O
Code or free text comments on special requirements for the transport of the patient to the diagnostic service department				
44	Procedure Code	CNE	705	O
Unique identifier assigned to the procedure, if any, associated with the charge				
45	Procedure Code Modifier	CNE	705	O
Procedure code modifier to the procedure code reported in OBR-44-procedure code, when applicable.				
46	Placer Supplemental Service Information	CWE	705	O
Supplemental service information sent from the placer system to the filler system for the universal procedure code reported in OBR-4 Universal Service ID.				
47	Filler Supplemental Service Information	CWE	705	O
Supplemental service information sent from the filler system to the placer system for the procedure code reported in OBR-4 Universal Service ID.				
48	Medically Necessary Duplicate Procedure Reason	CWE	705	C
This field is used to document why the procedure found in OBR-44 - Procedure Code is a duplicate of one ordered/charged previously for the same patient within the same date of service and has been determined to be medically necessary. The reason may be coded or it may be a free text entry.				
49	Result Handling	IS	2	O
Transmits information regarding the handling of the result				
50	Parent Universal Service Identifier	CWE	705	O

OBX – Observation/Result Segment

The OBX segment is used to transmit a single observation or observation fragment.

Sequence	Element Name	Data Types	Length	Required
1	Set ID – OBX	SI	4	O

Sequence Number

2	Value Type	ID	3	C
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Format of the observation value in OBX. Suggested values:

- AD Address
- CWE Coded Entry
- CF Coded Element With Formatted Values
- CK Composite ID With Check Digit
- CN Composite ID And Name
- CP Composite Price
- CX Extended Composite ID With Check Digit
- DT Date
- ED Encapsulated Data
- FT Formatted Text (Display)
- MO Money
- NM Numeric
- PN Person Name
- RP Reference Pointer
- SN Structured Numeric
- ST String Data.
- TM Time
- TN Telephone Number
- DTM Time Stamp (Date & Time)
- TX Text Data (Display)
- XAD Extended Address
- XCN Extended Composite Name And Number For Persons
- XON Extended Composite Name And Number For Organizations
- XPN Extended Person Name
- XTN Extended Telecommunications Number

3	Observation Identifier	CWE	705	R
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Unique identifier for the observation

4	Observation Sub-ID	ST	20	C
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Used to distinguish between multiple OBX segments with the same observation ID organized under one OBR

5	Observation Value	Varies	99999	C
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Value observed by the observation producer

6	Units	CWE	705	O
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7	References Range	ST	60	O
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When the observation quantifies the amount of a toxic substance, then the upper limit of the range identifies the toxic limit.

8	Abnormal Flags	IS	5	O
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Table lookup indicating the normalcy status of the result. Suggested values:

- L Below low normal
- H Above high normal
- LL Below lower panic limits
- HH Above upper panic limits
- < Below absolute low-off instrument scale
- > Above absolute high-off instrument scale
- N Normal (applies to non-numeric results)
- A Abnormal (applies to non-numeric results)
- AA Very abnormal (applies to non-numeric units, analogous to panic limits for numeric units)
- null No range defined, or normal ranges don't apply
- U Significant change up
- D Significant change down
- B Better--use when direction not relevant
- W Worse--use when direction not relevant
- S Susceptible. Indicates for microbiology susceptibilities only.
- R Resistant. Indicates for microbiology susceptibilities only.
- I Intermediate. Indicates for microbiology susceptibilities only.
- MS Moderately susceptible. Indicates for microbiology susceptibilities only.
- VS Very susceptible. Indicates for microbiology susceptibilities only.

9	Probability	NM	5	O
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Probability of a result being true for results with categorical values

10	Nature of Abnormal Test	ID	2	O
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Nature of the abnormal test. Suggested values:

- A An age-based population
- N None - generic normal range
- R A race-based population
- S A sex-based population
- SP Species
- B Breed
- ST Strain

11	Observation Result Status	ID	1	R
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Suggested values:

- C Record coming over is a correction and thus replaces a final result
- D Deletes the OBX record
- F Final results; Can only be changed with a corrected result.
- I Specimen in lab; results pending
- N Not asked; used to affirmatively document that the observation identified in the OBX was not sought when the universal service ID in OBR-4 implies that it would be sought.
- O Order detail description only (no result)

- P Preliminary results
- R Results entered -- not verified
- S Partial results. Deprecated. Retained only for backward compatibility as of V2.6.
- X Results cannot be obtained for this observation
- U Results status change to final without retransmitting results already sent as 'preliminary.' E.g., radiology changes status from preliminary to final
- W Post original as wrong, e.g., transmitted for wrong patient

12	Effective Date of Reference Range	DTM	24	O
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Date and time on which the values in OBX-7-reference range went into effect.

13	User Defined Access Checks	ST	20	O
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The producer to record results-dependent codes for classifying the observation at the receiving system

14	Date/Time of the Observation	DTM	24	O
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15	Producer's ID	CWE	705	O
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Unique identifier of the responsible producing service

16	Responsible Observer	XCN	3220	O
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17	Observation Method	CWE	705	O
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18	Equipment Instance Identifier	EI	427	O
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The Equipment Instance responsible for the production of the observation

19	Date/Time of the Analysis	DTM	24	O
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Time stamp associated with generation of the analytical result by the instrument specified in Equipment Instance Identifier

20	Observation Site	CWE	705	O
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Body site(s) where the measurement being reported was obtained

21	Observation Instance Identifier	EI	427	O
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Unique identifier for this observation

22	Mood Code	CNE	705	C
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23	Performing Organization Name	XON	570	O
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Name of the organization/service responsible for performing the service

24	Performing Organization Address	XAD	2915	O
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Address of the organization/service responsible for performing the service.

25	Performing Organization Medical Director	XCN	3220	O
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Medical director of the organization/service responsible for performing the service.

QRD – Query Definition Segment

The QRD segment is used to define a query.

Sequence	Element Name	Data Types	Length	Required
1	Query Date/Time	DTM	24	R
Date the query was generated by the application program				
2	Query Format Code	ID	1	R
Suggested values: D Response is in display format R Response is in record-oriented format T Response is in tabular format				
3	Query Priority	ID	1	R
Time frame in which the response is expected. Suggested values: D Deferred I Immediate				
4	Query ID	ST	10	R
Unique identifier for the query				
5	Deferred Response Type	ID	1	O
Valid values: B Before the Date/Time specified L Later than the Date/Time specified				
6	Deferred Response Date/Time	DTM	24	O
Date/time before or after which to send a deferred response.				
7	Quantity Limited Request	CQ	10	R
Maximum length of the response that can be accepted by the requesting system. Suggested values: CH Characters LI Lines PG Pages RD Records ZO Locally defined				
8	Who Subject Filter	XCN	250	R
Identifies the subject, or who the inquiry is about.				
9	What Subject Filter	CWE	250	R
What kind of information that is required to satisfy the request. Suggested values: ADV Advice/diagnosis ANU Nursing unit lookup (returns patients in beds, excluding empty beds) APN Patient name lookup APP Physician lookup				

ARN	Nursing unit lookup (returns patients in beds, including empty beds)
APM	Medical record number query, returns visits for a medical record number
APA	Account number query, return matching visit
CAN	Cancel. Used to cancel a query
DEM	Demographics
FIN	Financial
GID	Generate new identifier
GOL	Goals
MRI	Most recent inpatient
MRO	Most recent outpatient
NCK	Network clock
NSC	Network status change
NST	Network statistic
ORD	Order
OTH	Other
PRB	Problems
PRO	Procedure
RES	Result
RAR	Pharmacy administration information
RER	Pharmacy encoded order information
RDR	Pharmacy dispense information
RGR	Pharmacy give information
ROR	Pharmacy prescription information
SAL	All schedule related information, including open slots, booked slots, blocked slots
SBK	Booked slots on the identified schedule
SBL	Blocked slots on the identified schedule
SOF	First open slot on the identified schedule after the start date/tiem
SOP	Open slots on the identified schedule between the begin and end of the start date/time range
SSA	Time slots available for a single appointment
SSR	Time slots available for a recurring appointment
STA	Status
VXI	Vaccine Information
XID	Get cross-referenced identifiers

10	What Department Data Code	CWE	250	R
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The contents of this field are determined by the contents of the previous field.

11	What Data Code Value Qualifier	VR	20	O
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Start and stop values separated by a component separator

12	Query Results Level	ID	1	O
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Control level of detail in results. Suggested values:

O	Order plus order status
R	Results without bulk text
S	Status only
T	Full results

QRF – Query Filter Segment

The QRF segment is used with the QRD segment to further refine the content of an original style query.

Sequence	Element Name	Data Types	Length	Required
1	Where Subject Filter	ST	20	R
Department, system, or subsystem to which the query pertains				
2	When Data Start Date/Time	DTM	24	B
Dates and times equal to or after which this value should be included				
3	When Data End Date/Time	DTM	24	B
Dates and times equal to or before which this date should be included.				
4	What User Qualifier	ST	60	O
An identifier to further define characteristics of the data of interest				
5	Other QRY Subject Filter	ST	60	O
A filter defined locally for use between two systems				
6	Which Date/Time Qualifier	ID	12	O
The type of date referred to in QRF-2-When data start date/time and QRF-3-When data end date/time. Suggested values:				
ANY Any date/time within a range				
COL Collection date/time, equivalent to film or sample collection date/time				
ORD Order date/time				
RCT Specimen receipt date/time, receipt of specimen in filling ancillary (Lab)				
REP Report date/time, report date/time at filing ancillary (i.e., Lab)				
SCHED Schedule date/time				
7	Which Date/Time Status Qualifier	ID	12	O
Status type of objects selected in date range defined by QRF-2-When data start date/time and QRF-3-When data end date/time. Suggested values:				
ANY Any status				
CFN Current final value, whether final or corrected				
COR Corrected only (no final with corrections)				
FIN Final only (no corrections)				
PRE Preliminary				
REP Report completion date/time				
8	Date/Time Selection Qualifier	ID	12	O
Specification of certain types of values within the date/time range. Suggested values:				
1ST First value within range				
ALL All values within the range				
LST Last value within the range				
REV All values within the range returned in reverse chronological order (This is the default if not otherwise specified.)				

9	When Quantity/Timing Qualifier	TQ	60	B
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Allows an interval definition to be used for specifying multiple responses to a query

10	Search Confidence Threshold	NM	10	O
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Numeric value used to establish the minimum threshold match. The value instructs the responding system to return no records for patients whose "match weight" on the look-up was lower than this user-defined value.

QAK – Query Acknowledgement Segment

The QAK segment contains information sent with responses to a query.

Sequence	Element Name	Data Types	Length	Required
1	Query Tag	ST	32	C
To identify the query, and may be used to match response messages to the originating query				
2	Query Response Status	ID	2	O
Allows the responding system to return a precise response status. Suggested values:				
OK	Data found, no errors (this is the default)			
NF	No data found, no errors			
AE	Application error			
AR	Application reject			
3	Message Query Name	CWE	250	O
Contains the name of the query				
4	Hit Count Total	NM	10	O
The total number of records found by the Server that matched the query				
5	This payload	NM	10	O
The total number of matching records that the Server sent in the current response				
6	Hits remaining	NM	10	O
Number of matching records found by the Server that have yet to be sent				

GT1 Procedures Segment

The GT1 segment contains information relative to various types of procedures that can be performed on a patient.

Sequence	Element Name	Data Types	Length	Required
1	Set ID - GT1	SI	4	R
Transaction Identifier.				
2	Guarantor Number	CX	250	O
The primary identifier assigned to the guarantor				
3	Guarantor Name	XPN	250	R
Name of the guarantor				
4	Guarantor Spouse Name	XPN	250	O
Name of the guarantor's spouse				
5	Guarantor Address	XAD	250	O
6	Guarantor Phone Number - Home	XTN	250	O
7	Guarantor Phone Number - Business	XTN	250	O
8	Guarantor Date/Time Of Birth	DTM	24	O
9	Guarantor Administrative Sex	IS	1	O
Guarantor's gender				
10	Guarantor Type	IS	2	O
Type of guarantor, e.g., individual, institution				
11	Guarantor Relationship	CWE	250	O
Relationship of the guarantor with the patient				
12	Guarantor SSN	ST	11	O
13	Guarantor Date - Begin	DT	8	O

Date that the guarantor becomes responsible for the patient's account

14	Guarantor Date - End	DT	8	O
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Date that the guarantor stops being responsible for the patient's account

15	Guarantor Priority	NM	2	O
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Determine the order in which the guarantors are responsible for the patient's account. Suggested values:

1 primary guarantor

2 secondary guarantor

16	Guarantor Employer Name	XPN	250	O
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17	Guarantor Employer Address	XAD	250	O
----	----------------------------	-----	-----	---

18	Guarantor Employer Phone Number	XTN	250	O
----	---------------------------------	-----	-----	---

19	Guarantor Employee ID Number	CX	250	O
----	------------------------------	----	-----	---

20	Guarantor Employment Status	IS	2	O
----	-----------------------------	----	---	---

Suggested values:

- 1 Full time employed
- 2 Part time employed
- 4 Self-employed,
- C Contract, per diem
- L Leave of absence (e.g., family leave, sabbatical, etc.)
- T Temporarily unemployed
- 3 Unemployed
- 5 Retired
- 6 On active military duty
- O Other
- 9 Unknown

21	Guarantor Organization Name	XON	250	O
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The name of the guarantor when the guarantor is an organization.

22	Guarantor Billing Hold Flag	ID	1	O
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Indicates whether or not a system should suppress printing of the guarantor's bills. Suggested values:

Y a system should suppress printing of guarantor's bills

N a system should not suppress printing of guarantor's bills

23	Guarantor Credit Rating Code	CWE	250	O
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Guarantor's credit rating

24	Guarantor Death Date And Time	DTM	24	O
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Date and time at which the guarantor's death occurred

25	Guarantor Death Flag	IS	1	O
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Indicates whether or not the guarantor is deceased. Valid values:

Y the guarantor is deceased

N the guarantor is living

26	Guarantor Charge Adjustment Code	CWE	250	O
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Indicate which adjustments should be made to this guarantor's charges.

27	Guarantor Household Annual Income	CP	10	O
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Combined annual income of all members of the guarantor's household

28	Guarantor Household Size	NM	3	O
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Number of people living at the guarantor's primary residence

29	Guarantor Employer ID Number	CX	250	O
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Uniquely identifies the guarantor's employer when the employer is a person

30	Guarantor Marital Status Code	CWE	250	O
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Marital status of the guarantor

31	Guarantor Hire Effective Date	DT	8	O
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Date that the guarantor's employment began

32	Employment Stop Date	DT	8	O
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Date on which the guarantor's employment with a particular employer ended.

33	Living Dependency	IS	2	O
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Specific living conditions of the guarantor

34	Ambulatory Status	IS	2	O
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The transient state of mobility for the guarantor

35	Citizenship	CWE	705	O
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36	Primary Language	CWE	705	O
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37	Living Arrangement	IS	2	O
----	--------------------	----	---	---

Situation in which the person lives at his residential address

38	Publicity Code	CWE	705	O
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Level of publicity allowed for a guarantor.

39	Protection Indicator	ID	1	O
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Whether or not access to information about this enrollee should be restricted from users who do not have adequate authority. Valid values:

- Y restrict access
- N do not restrict access

40	Student Indicator	IS	2	O
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Suggested values:

- F Full-time student
- P Part-time student
- N Not a student

41	Religion	CWE	705	O
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42	Mother's Maiden Name	XPB	250	O
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43	Nationality	CWE	705	O
----	-------------	-----	-----	---

44	Ethnic Group	CWE	705	O
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45	Contact Person's Name	XPB	250	O
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46	Contact Person's Telephone Number	XTN	250	O
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47	Contact Reason	CWE	705	O
----	----------------	-----	-----	---

The reason for contacting the guarantor

48	Contact Relationship	IS	3	O
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Guarantor relationship to the contact person

49	Job Title	ST	20	O
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50	Job Code/Class	JCC	20	O
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51	Guarantor Employer's Organization Name	XON	250	O
Name of the guarantor's employer when the guarantor's employer is an organization				
52	Handicap	IS	2	O
Code to describe the guarantor's disability				
53	Job Status	IS	2	O
Code to describe the guarantor's job status				
54	Guarantor Financial Class	FC	50	O
55	Guarantor Race	CWE	250	O
56	Guarantor Birth Place	ST	250	O
57	VIP Indicator	IS	2	O

IN1 Procedures Segment

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

Sequence	Element Name	Data Types	Length	Required
1	Set ID - IN1	SI	4	R
Transaction Identifier				
2	Insurance Plan ID	CWE	250	R
Unique Id for Insurance plan				
3	Insurance Company ID	CX	250	R
Unique identifiers for the insurance company				
4	Insurance Company Name	XON	250	O
5	Insurance Company Address	XAD	250	O
6	Insurance Co Contact Person	XPN	250	O
Name of the contact person from the insurance company				
7	Insurance Co Phone Number	XTN	250	O
8	Group Number	ST	12	O
Group number of the insured's insurance				
9	Group Name	XON	250	O
Group name of the insured's insurance				
10	Insured's Group Employee ID	CX	250	O
Group employer ID for the insured's insurance				
11	Insured's Group Employee Name	XON	250	O
Name of the employer that provides the employee's insurance				
12	Plan Effective Date	DT	8	O
13	Plan Expiration Date	ST	8	O

14	Authorization Information	AUI	239	O
Date and source of authorization for some coverage plans that require an authorization number or code.				
15	Plan Type	IS	3	O
16	Name Of Insured	XPN	250	O
Name of the insured person				
17	Insured's Relationship To Patient	CWE	250	O
Insured's relationship to the patient				
18	Insured's Date Of Birth	DTM	24	O
Date of birth of the insured				
19	Insured's Address	XAD	250	O
Address of the insured person				
20	Assignment Of Benefits	IS	2	O
Indicates whether the insured agreed to assign the insurance benefits to the healthcare provider. Suggested values: Y Yes N No M Modified assignment				
21	Coordination Of Benefits	IS	2	O
Indicates whether this insurance works in conjunction with other insurance plans or is it provides independent coverage. Suggested values: CO Coordination IN Independent				
22	Coordination Of Benefit Priority	ST	2	O
If the insurance works in conjunction with other insurance plans, this field contains priority sequence				
23	Notice Of Admission Flag	IS	1	O
Indicates whether the insurance company requires a written notice of admission from the healthcare provider. Suggested values: Y written notice of admission required N no notice required				
24	Notice Of Admission Date	ST	8	O
Notice sent date				
25	Report Of Eligibility Flag	ID	1	O

Indicates whether this insurance carrier sends a report that indicates that the patient is eligible for benefits and whether it identifies those benefits. Suggested values:

- Y eligibility report is sent
- N no eligibility report is sent

26	Report Of Eligibility Date	DT	8	O
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Indicates whether a report of eligibility (ROE) was received, and also indicates the date that it was received.

27	Release Information Code	IS	2	O
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Indicates whether a report of eligibility (ROE) was received, and also indicates the date that it was received. Suggested values:

- Y Yes
- N No

28	Pre-Admit Cert (PAC)	ST	15	O
----	----------------------	----	----	---

pre admission certification code

29	Verification Date/Time	DTM	24	O
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Date/time that the healthcare provider verified that the patient has the indicated benefits.

30	Verification By	XCN	250	O
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Person who verified the benefits

31	Type Of Agreement Code	IS	2	O
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Identification of an insurance plan. Suggested values:

- S Standard
- U Unified
- M Maternity

32	Billing Status	IS	2	O
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Indicates whether the particular insurance has been billed

33	Lifetime Reserve Days	NM	4	O
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Number of days left for a certain service to be provided or covered under an insurance policy.

34	Delay Before Lifetime Reserve Day	NM	4	O
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Delay before lifetime reserve days

35	Company Plan Code	IS	20	O
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36	Policy Number	ST	15	O
----	---------------	----	----	---

Individual policy number of the insured to uniquely identify this patient's plan

37	Policy Deductible	CP	12	O
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Amount specified by the insurance plan that is the responsibility of the guarantor.

38	Policy Limit - Amount			W
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39	Policy Limit - Days	NM	4	O
----	---------------------	----	---	---

Maximum number of days that the insurance policy will cover

40	Room Rate - Semi-Private			W
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41	Room Rate - Private			W
----	---------------------	--	--	---

42	Insured's Employment Status	CWE	250	O
----	-----------------------------	-----	-----	---

Employment status of the insured.

43	Insured's Administrative Sex	IS	1	O
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Gender of the insured

44	Insured's Employer's Address	XAD	250	O
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Address of the insured employee's employer

45	Verification Status	ST	2	O
----	---------------------	----	---	---

Status of this patient's relationship with this insurance carrier

46	Prior Insurance Plan ID	IS	8	O
----	-------------------------	----	---	---

Identifies the prior insurance plan when the plan ID changes

47	Coverage Type	IS	3	O
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Coding structure that identifies the type of insurance coverage. Suggested values:

- H Hospital/institutional
- P Physician/professional
- B Both hospital and physician
- RX Pharmacy

48	Handicap	IS	2	O
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Code to describe the insured's disability

49	Insured's ID Number	CX	250	O
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Healthcare institution's identifiers for the insured

50	Signature Code	IS	1	O
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Indicate how the patient/subscriber authorization signature was obtained and how it is being retained by the provider.
Suggested values:

C Signed CMS-1500 claim form on file, e.g., authorization for release of any medical or other information necessary to process this claim and assignment of benefits.

S Signed authorization for release of any medical or other information necessary to process this claim on file.

M Signed authorization for assignment of benefits on file.

P Signature generated by provider because the patient was not physically present for services.

51	Signature Code Date	DT	8	O
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Date on which patient/subscriber authorization signature was obtained

52	Insured's Birth Place	ST	250	O
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53	VIP Indicator	IS	2	O
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IN2 Procedures Segment

The IN2 segment contains additional insurance policy coverage and benefit information necessary for proper billing and reimbursement.

Sequence	Element Name	Data Types	Length	Required
1	Insured's Employee ID	CX	250	O
Employee ID of the insured				
2	Insured's Social Security Number	ST	11	O
3	Insured's Employer's Name and ID	XCN	250	O
4	Employer Information Data	IS	1	O
5	Mail Claim Party	IS	1	O
Party to which the claim should be mailed. Suggested values:				
E Employer				
G Guarantor				
I Insurance company				
O Other				
P Patient				
6	Medicare Health Ins Card Number	ST	15	O
Medicare Health Insurance Number (HIN), defined by CMS or other regulatory agencies.				
7	Medicaid Case Name	XPN	250	O
Medicaid case name, defined by CMS or other regulatory agencies				
8	Medicaid Case Number	ST	15	O
Medicaid case number, defined by CMS or other regulatory agencies				
9	Military Sponsor Name	SPN	250	O
Multiple names for the same person may be sent in this field				
10	Military ID Number	ST	20	O
military ID number, defined by CMS or other regulatory agencies				
11	Dependent Of Military Recipient	CWE	250	O
12	Military Organization	ST	25	O

13	Military Station	ST	25	O
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14	Military Service	IS	14	O
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15	Military Rank/Grade	IS	2	O
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16	Military Status	IS	3	O
----	-----------------	----	---	---

17	Military Retire Date	DT	8	O
----	----------------------	----	---	---

18	Military Non-Avail Cert On File	ID	1	O
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Suggested values:

- Y Certification on file
- N Certification not on file

19	Baby Coverage	ID	1	O
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Suggested values:

- Y Baby coverage
- N No baby coverage

20	Combine Baby Bill	ID	1	O
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Valid values:

- Y Combine bill
- N Normal billing

21	Blood Deductible	ST	1	O
----	------------------	----	---	---

Blood deductible can be associated with the specific insurance plan via this field.

22	Special Coverage Approval Name	XP	250	O
----	--------------------------------	----	-----	---

name of the individual who approves any special coverage

23	Special Coverage Approval Title	ST	30	O
----	---------------------------------	----	----	---

the title of the person who approves special coverage

24	Non-Covered Insurance Code	IS	8	O
----	----------------------------	----	---	---

code that describes why a service is not covered

25	Payor ID	CX	250	O
----	----------	----	-----	---

26	Payor Subscriber ID	CX	250	O
----	---------------------	----	-----	---

27	Eligibility Source	IS	1	O
----	--------------------	----	---	---

Source of information about the insured's eligibility for benefits . Suggested values:

- 1 Insurance company
- 2 Employer
- 3 Insured presented policy
- 4 Insured presented card
- 5 Signed statement on file
- 6 Verbal information
- 7 None

28	Room Coverage Type/Amount	RMC	82	O
----	---------------------------	-----	----	---

Room type, amount type and amount covered by the insurance

29	Policy Type/Amount	PTA	56	O
----	--------------------	-----	----	---

Policy type and amount covered by the insurance

30	Daily Deductible	DDI	25	O
----	------------------	-----	----	---

The number of days after which the daily deductible begins, the amount of the deductible, and the number of days to apply the deductible.

31	Living Dependency	IS	2	O
----	-------------------	----	---	---

Specific living conditions for the insured

32	Ambulatory Status	IS	2	O
----	-------------------	----	---	---

Insured's state of mobility

33	Citizenship	CWE	705	O
----	-------------	-----	-----	---

34	Primary Language	CWE	705	O
----	------------------	-----	-----	---

35	Living Arrangement	IS	2	O
----	--------------------	----	---	---

Situation in which the insured person lives at his primary residence.

36	Publicity Code	CWE	705	O
----	----------------	-----	-----	---

37	Protection Indicator	ID	1	O
----	----------------------	----	---	---

Suggested values:

- Y Restrict access
- N Do not restrict access

38	Student Indicator	IS	2	O
----	-------------------	----	---	---

Identifies whether the insured is currently a student or not, and whether the insured is a full-time or a part-time student.

39	Religion	CWE	705	O
----	----------	-----	-----	---

The type of religion practiced by the insured

40	Mother's Maiden Name	XPN	250	O
----	----------------------	-----	-----	---

41	Nationality	CWE	705	O
----	-------------	-----	-----	---

42	Ethnic Group	CWE	705	O
----	--------------	-----	-----	---

43	Marital Status	CWE	705	O
----	----------------	-----	-----	---

44	Insured's Employment Start Date	DT	8	O
----	---------------------------------	----	---	---

45	Employment Stop Date	DT	8	O
----	----------------------	----	---	---

46	Job Title	ST	20	O
----	-----------	----	----	---

47	Job Code/Class	JCC	20	O
----	----------------	-----	----	---

Code that identifies the insured's job code

48	Job Status	IS	2	O
----	------------	----	---	---

Code that identifies the insured's current job status

49	Employer Contact Person Name	XPN	250	O
----	------------------------------	-----	-----	---

50	Employer Contact Person Phone Number	XTN	250	O
----	--------------------------------------	-----	-----	---

51	Employer Contact Reason	IS	2	O
----	-------------------------	----	---	---

52	Insured's Contact Person's Name	XPN	250	O
----	---------------------------------	-----	-----	---

53	Insured's Contact Person Phone Number	XTN	250	O
----	---------------------------------------	-----	-----	---

54	Insured's Contact Person Reason	IS	2	O
----	---------------------------------	----	---	---

The reason(s) the person should be contacted regarding the insured.

55	Relationship to the Patient Start Date	DT	8	O
----	--	----	---	---

56	Relationship to the Patient Stop Date	DT	8	O
----	---------------------------------------	----	---	---

57	Insurance Co Contact Reason	IS	2	O
----	-----------------------------	----	---	---

User-defined code that specifies how the contact should be used. Suggested values:

01 Medicare claim status

02 Medicaid claim status

03 Name/address change

58	Insurance Co Contact Phone Number	XTN	250	O
----	-----------------------------------	-----	-----	---

59	Policy Scope	IS	2	O
----	--------------	----	---	---

User-defined code designating the extent of the coverage for a participating member.

60	Policy Source	IS	2	O
----	---------------	----	---	---

Identifies how the policy information got established.

61	Patient Member Number	CX	250	O
----	-----------------------	----	-----	---

Identifying number assigned by the payor for each individual covered by the insurance policy issued to the insured.

62	Guarantor's Relationship to Insured	CWE	250	O
----	-------------------------------------	-----	-----	---

The guarantor to the insurance subscriber.

63	Insured's Phone Number - Home	XTN	250	O
----	-------------------------------	-----	-----	---

64	Insured's Employer Phone Number	XTN	250	O
----	---------------------------------	-----	-----	---

65	Military Handicapped Program	CWE	250	O
----	------------------------------	-----	-----	---

Military program for the handicapped in which the patient is enrolled.

66	Suspend Flag	ID	1	O
----	--------------	----	---	---

Indicates whether charges should be suspended for a patient. Suggested values:

- Y charges should be suspended
- N charges should NOT be suspended

67	Copay Limit Flag	ID	1	O
----	------------------	----	---	---

Indicates if the patient has reached the co-pay limit so that no more co-pay charges should be calculated for the patient. Suggested values:

- Y the patient is at or exceeds the co-pay limit
- N the patient is under the co-pay limit

68	Stoploss Limit Flag	ID	1	O
----	---------------------	----	---	---

Indicates if the patient has reached the stoploss limit established in the Contract Master. Suggested values:

- Y the patient has reached the stoploss limit
- N the patient has not reached the stoploss limit

69	Insured Organization Name and ID	XON	250	O
----	----------------------------------	-----	-----	---

Name of the insured if the insured is an organization

70	Insured Employer Organization Name and ID	XON	250	O
----	---	-----	-----	---

Name of the insured's employer, or the organization that purchased the insurance for the insured, if the employer is an organization

71	Race	CWE	705	O
----	------	-----	-----	---

72	Patient's Relationship to Insured	CWE	705	O
----	-----------------------------------	-----	-----	---

Relationship of the patient to the insured. Suggested values:

- 01 Patient is insured
- 02 Spouse
- 03 Natural child/insured financial responsibility
- 04 Natural child/Insured does not have financial responsibility
- 05 Step child
- 06 Foster child
- 07 Ward of the court
- 08 Employee
- 09 Unknown
- 10 Handicapped dependent
- 11 Organ donor
- 12 Cadaver donor
- 13 Grandchild
- 14 Niece/nephew
- 15 Injured plaintiff
- 16 Sponsored dependent

- 17 Minor dependent of a minor dependent
 - 18 Parent
 - 19 Grandparent
-

IN3 Procedures Segment

The IN3 segment contains additional insurance information for certifying the need for patient care.

Sequence	Element Name	Data Types	Length	Required
1	Set ID - IN3	SI	4	R
Transaction Identifier				
2	Certification Number	CX	250	O
number assigned by the certification agency				
3	Certified By	XCN	250	O
Party that approved the certification				
4	Certification Required	ID	1	O
Indicates whether certification is required. Suggested value: Y certification required N certification not required				
5	Penalty	MOP	23	O
Penalty, in dollars or a percentage that will be assessed if the pre-certification is not performed.				
6	Certification Date/Time	DTM	24	O
Date and time stamp that indicates when insurance was certified to exist for the patient.				
7	Certification Modify Date/Time	DTM	24	O
Date/time that the certification was modified				
8	Operator	XCN	250	O
Name party who is responsible for sending this certification information				
9	Certification Begin Date	DT	8	O
10	Certification End Date	DT	8	O
11	Days	DTN	6	O
Number of days for which this certification is valid				
12	Non-Concur Code/Description	CWE	250	O
The non-concur code and description for a denied request				

13	Non-Concur Effective Date/Time	DTM	24	O
Effective date of the non-concurrence classification				
14	Physician Reviewer	XCN	250	O
Physician who works with and reviews cases that are pending physician review for the certification agency.				
15	Certification Contact	ST	48	O
Name of the party contacted at the certification agency who granted the certification and communicated the certification number.				
16	Certification Contact Phone Number	XTN	250	O
Phone number of the certification contact				
17	Appeal Reason	CWE	250	O
Reason that an appeal was made on a non-concur for certification				
18	Certification Agency	CWE	250	O
19	Certification Agency Phone Number	XTN	250	O
20	Pre-Certification Requirement	ICD	40	O
Indicates whether pre-certification is required for particular patient types, and the time window for obtaining the certification. Suggested values: Y pre-certification required N no pre-certification required				
21	Case Manager	ST	48	O
Name of the entity, which is handling this particular patient's case				
22	Second Opinion Date	DT	8	O
23	Second Opinion Status	IS	1	O
24	Second Opinion Documentation Received	IS	1	O
Use this field if accompanying documentation has been received by the provider.				
25	Second Opinion Physician	XCN	250	O
Identifier and name of the physician who provided the second opinion				

PD1 – Patient Additional Demographic Segment

The PD1 segment consists of demographic information that is likely to change about the patient.

Sequence	Element Name	Data Types	Length	Required
1	Living Dependency	IS	2	O
Specific living conditions for evaluation of the patient's healthcare needs. Suggested values: S Spouse Dependent M Medical Supervision Required C Small Children Dependent O Other U Unknown				
2	Living Arrangement	IS	2	O
Situation in which the patient lives				
3	Patient Primary Facility	XON	250	O
Name and identifier for the "primary care" healthcare facility				
4	Patient Primary Care Provider Name & ID No.	XCN	250	B
5	Student Indicator	IS	2	O
Patient is a student or not.				
6	Handicap	IS	2	O
7	Living Will Code	IS	2	O
Indicates whether or not the patient has a living will and the copy should be there with healthcare.				
8	Organ Donor Code	IS	2	O
Indicates whether the patient wants to donate his/her organs and the documentation should be with healthcare.				
9	Separate Bill	ID	1	O
Charges for this patient are to be billed separately from other patient bills with the same guarantor. Valid values: Y Bill separately N normal processing				
10	Duplicate Patient	CX	250	O
Patient is the same or a duplicate of another patient found on the sending system				
11	Publicity Code	CWE	705	O
Level of publicity				

12	Protection Indicator	ID	1	B
----	----------------------	----	---	---

Suggested values:

Y protect access to information

N normal access

13	Protection Indicator Effective Date	DT	8	B
----	-------------------------------------	----	---	---

14	Place of Worship	XON	250	O
----	------------------	-----	-----	---

15	Advance Directive Code	CWE	705	C
----	------------------------	-----	-----	---

16	Immunization Registry Status	IS	1	O
----	------------------------------	----	---	---

Immunization registry status of the patient. Suggested values:

A Active

I Inactive

L Inactive - Lost to follow-up (cancel contract)

M Inactive - Moved or gone elsewhere (cancel contract)

P Inactive - Permanently inactive (Do not reactivate or add new entries to the record)

O Other

U Unknown

17	Immunization Registry Status Effective Date	DT	8	O
----	---	----	---	---

18	Publicity Code Effective Date	DT	8	O
----	-------------------------------	----	---	---

19	Military Branch	IS	5	O
----	-----------------	----	---	---

Field defined by CMS or other regulatory services. Suggested values:

USA US Army

USN US Navy

USAF US Air Force

USMC US Marine Corps

USCG US Coast Guard

USPHS US Public Health Service

NOAA National Oceanic and Atmospheric Administration

NATO North Atlantic Treaty Organization

AUSA Australian Army

AUSN Australian Navy

AUSAF Australian Air Force

20	Military Rank/Grade	IS	2	O
----	---------------------	----	---	---

Suggested values:

E1... E9 Enlisted
O1 ... O9 Officers
W1 ... W4 Warrant Officers

21	Military Status	IS	3	O
----	-----------------	----	---	---

Suggested values:
ACT Active duty
RET Retired
DEC Deceased

22	Advance Directive Last Verified Date	DT	8	O
----	--------------------------------------	----	---	---

RXR - Pharmacy/Treatment Route Segment

This segment contains the alternative combination of route, site, administration device, and administration method that are prescribed as they apply to a particular order.

Sequence	Element Name	Data Types	Length	Required
1	Route	CWE	250	R

Route of administration. Suggested values:

AP	Apply Externally
B	Buccal
DT	Dental
EP	Epidural
ET	Endotracheal Tube*
GTT	Gastrostomy Tube
GU	GU Irrigant
IMR	Immerse (Soak) Body Part
IA	Intra-arterial
IB	Intrabursal
IC	Intracardiac
ICV	Intracervical (uterus)
ID	Intradermal
IH	Inhalation
IHA	Intrahepatic Artery
IM	Intramuscular
IN	Intranasal
IO	Intraocular
IP	Intraperitoneal
IS	Intrasynovial
IT	Intrathecal
IU	Intrauterine
IV	Intravenous
MTH	Mouth/Throat
MM	Mucous Membrane
NS	Nasal
NG	Nasogastric
NP	Nasal Prongs*
NT	Nasotracheal Tube
OP	Ophthalmic
OT	Otic
OTH	Other/Miscellaneous
PF	Perfusion
PO	Oral
PR	Rectal
RM	Rebreather Mask*
SD	Soaked Dressing
SC	Subcutaneous
SL	Sublingual
TP	Topical
TRA	Tracheostomy

- TD Transdermal
- TL Translingual
- UR Urethral
- VG Vaginal
- VM Ventimask
- WND Wound

2	Administration Site	CWE	250	O
---	---------------------	-----	-----	---

Site of the administration route

3	Administration Device	CWE	250	O
---	-----------------------	-----	-----	---

Mechanical device used to aid in the administration of the drug or other treatment. Suggested values:

- AP Applicator
- BT Buretrol
- HL Heparin Lock
- IPPB IPPB
- IVP IV Pump
- IVS IV Soluset
- MI Metered Inhaler
- NEB Nebulizer
- PCA PCA Pump

4	Administration Method	CWE	250	O
---	-----------------------	-----	-----	---

Specific method requested for the administration of the drug or treatment to the patient. Suggested values:

- CH Chew
- DI Dissolve
- DU Dust
- IF Infiltrate
- IS Insert
- IR Irrigate
- IVPB IV Piggyback
- IVP IV Push
- NB Nebulized
- PT Paint
- PF Perfuse
- SH Shampoo
- SO Soak
- WA Wash
- WI Wipe

5	Routing Instruction	CWE	250	O
---	---------------------	-----	-----	---

Instruction on administration routing, especially in cases where more than one route of administration is possible

6	Administration Site Modifier	CWE	250	O
---	------------------------------	-----	-----	---

Modifier which modifies the meaning of RXR-2 Administration Site

RXA - Pharmacy/Treatment Administration Segment

This segment contains the administration data.

Sequence	Element Name	Data Types	Length	Required
1	Give Sub-ID Counter	NM	4	R
This field is used when this RXA segment is matched to its corresponding RXG segment. If the two applications are not matching RXG and RXA segments, this field's value is zero (0).				
2	Administration Sub-ID Counter	NM	4	R
This field starts with 1 the first time that medication/treatment is administered for this order. Increments by one with each additional administration of the medication/treatment.				
3	Date/Time Start of Administration	DTM	24	R
4	Date/Time End of Administration	DTM	24	R
If null, the date/time of RXA-3-Date/Time Start of Administration is assumed				
5	Administered Code	CWE	250	R
Identifier of the medical substance/treatment administered				
6	Administered Amount	NM	20	R
7	Administered Units	CWE	250	C
Unites of the actual quantity of the substance administered				
8	Administered Dosage Form	CWE	250	O
The dosage form indicates the manner in which the medication/treatment is aggregated for dispensing, e.g., tablets, capsules, suppositories.				
9	Administration Notes	CWE	250	O
Notes from the provider administering the medication/treatment.				
10	Administering Provider	XCN	250	O
The provider ID of the person administering the pharmaceutical/treatment				
11	Administered-at Location	LA2	200	B
The inpatient or outpatient location at which the drug or treatment was administered (if applicable).				
12	Administered Per (Time Unit)	ST	20	O
The rate at which this medication/treatment was administered as calculated by using RXA-6-administered amount and RXA-7-administered units				
13	Administered Strength	NM	20	O

Numeric part of the strength, used in combination with RXA-14-Administered Strength Units.

14	Administered Strength Units	CWE	250	O
----	-----------------------------	-----	-----	---

Unit of the strength, used in combination with RXA-13-Administered Strength.

15	Substance Lot Number	ST	20	O
----	----------------------	----	----	---

The lot number of the medical substance administered

16	Substance Expiration Date	DTM	24	O
----	---------------------------	-----	----	---

17	Substance Manufacturer Name	CWE	250	O
----	-----------------------------	-----	-----	---

18	Substance/Treatment Refusal Reason	CWE	250	O
----	------------------------------------	-----	-----	---

The reason the patient refused the medical substance/treatment

19	Indication	CWE	250	O
----	------------	-----	-----	---

Condition or problem for which the drug/treatment was prescribed. May repeat if multiple indications are relevant.

20	Completion Status	ID	2	O
----	-------------------	----	---	---

Suggested values:

CP Complete

RE Refused

NA Not Administered

PA Partially Administered

21	Action Code – RXA	ID	2	O
----	-------------------	----	---	---

22	System Entry Date/Time	DTM	24	O
----	------------------------	-----	----	---

23	Administered Drug Strength Volume	NM	5	O
----	-----------------------------------	----	---	---

Volume measurement in which the drug strength concentration is contained

24	Administered Drug Strength Volume Units	CWE	250	O
----	---	-----	-----	---

Volumetric unit associated with RXA-23 Administered Drug Strength Volume

25	Administered Barcode Identifier	CWE	60	O
----	---------------------------------	-----	----	---

Pharmacy system's assigned barcode number for the give occurrence

26	Pharmacy Order Type	ID	1	O
----	---------------------	----	---	---

General category of pharmacy order which may be used to determine the processing path the order will take.

27	Administer-at	PL	180	O
----	---------------	----	-----	---

Location where the drug or treatment was administered

28	Administered-at Address	XAD	106	O
----	-------------------------	-----	-----	---

Address of the location where the drug or treatment was administered

Message Definition - Segment Usage in Each transaction

ORU – Unsolicited Observation Message (Event R01)

The ORU message is for transmitting laboratory results to other systems. Following are the segments that are generally present in an Lab Result type of transmissions. The elements are explained in detail within this OneHealthport use case. First table identifies ORU^R01 and second identifies ACK^R01 message.

Segments	Description
MSH	Message Header
{	--- PATIENT_RESULT begin
[--- PATIENT begin
PID	Patient Identification
[[NTE]]	Notes and Comments
[PV1]	Patient Visit
]	--- PATIENT end
{	--- ORDER_OBSERVATION begin
[ORC]	Order common
OBR	Observations Request
[[NTE]]	Notes and Comments
[--- OBSERVATION begin
{	
OBX	
[[NTE]]	Notes and Comments
}	
]	--- OBSERVATION end
}	--- ORDER_OBSERVATION end
}	--- PATIENT_RESULT end
[DSC]	Continuation Pointer

A common use of these transaction sets will be to transmit observations and results of diagnostic studies from the producing system (e.g., clinical laboratory system, EKG system) (the filler), to the ordering system (e.g., HIS order entry, physician's office system) (the placer).

ACK – Acknowledgement (Event R01)

When the unsolicited update is sent from one system to another, the original acknowledgment mode specifies that it be acknowledged at the application level. The reasoning is that it is not sufficient to know that the underlying communications system guaranteed delivery of the message. It is also necessary to know that the receiving application processed the data successfully at a logical application level.

Segments	Description
MSH	Message Header
MSA	Message Acknowledgement
[ERR]	Error Segment

VXQ – Query for Vaccination Record (Event V01)

When an immunization registry does not already have the complete patient vaccination record, it will send a query (with a V01 event) for the definitive (last updated) record.

Segments	Description
MSH	Message Header
QRD	Query Definition Segment
[QRF]	Query Filter Segment

VXX – Response to Vaccination Query returning Multiple PID matches (Event V02)

In response to a query for the definitive patient vaccination record, the registry holding the record will return it to the registry originating the query. If the query results in multiple "matches," i.e., more than one patient record matches the identifiers in the query so that there is no unique identification, the response to the query (with a V02 event) will follow this format.

Segments	Description
MSH	Message Header
MSA	Message Acknowledgment
QRD	Query Definition Segment
[QRF]	Query Filter Segment
{	-- PATIENT BEGIN
PID	Patient Identification
[{ NK1 }]	Next of Kin/Associated Parties
}	-- PATIENT END

VXR – Vaccination Record Response (Event V03)

When the patient has been uniquely identified (there is only one "match" to the query), the response to the query (with a V03 event) will follow this format.

Segments	Description
MSH	Message Header
MSA	Message Acknowledgment
QRD	Query Definition Segment
[QRF]	Query Filter Segment
PID	Patient Identification
[PD1]	Additional Demographics
[{ NK1 }]	Next of Kin/Associated Parties
[-- PATIENT VISIT Begin
[PV1	Patient Visit
[PV2]	Patient Visit – Additional Info
]	-- PATIENT VISIT End
[{ GT1 }]	Guarantor
[{	-- INSURANCE Begin
IN1	Insurance
[IN2]	Insurance Additional Information
[IN3]	Insurance Additional Information
}]	-- INSURANCE End
[{	-- ORDER Begin
[ORC]	Common Order Segment
RXA	Pharmacy Administration
[RXR]	Pharmacy Route
[{	-- OBSERVATION Begin
OBX	Observation/Result
[{ NTE }]	Notes (Regarding Immunization)
}]	-- OBSERVATION End
}]	-- ORDER End

VXU – Unsolicited Vaccination Record Update (Event V04)

When a provider wishes to update the patient's vaccination record being held in a registry, he will transmit an unsolicited update of the record (a V04 trigger event).

Segments	Description
MSH	Message Header
PID	Patient Identification
[PD1]	Additional Demographics
[{ NK1 }]	Next of Kin/Associated Parties
[-- PATIENT VISIT Begin
[PV1	Patient Visit
[PV2]	Patient Visit – Additional Info
]	-- PATIENT VISIT End
[{ GT1 }]	Guarantor
[{	-- INSURANCE Begin
IN1	Insurance
[IN2]	Insurance Additional Information
[IN3]	Insurance Additional Information
}]	-- INSURANCE End
[{	-- ORDER Begin
[ORC]	Common Order Segment
RXA	Pharmacy Administration
[RXR]	Pharmacy Route
[{	-- OBSERVATION Begin
OBX	Observation/Result
[{ NTE }]	Notes (Regarding Immunization)
}]	-- OBSERVATION End
}]	-- ORDER End

QCK – Query General Acknowledgement (Event QCK)

The query general default acknowledgment message returns error conditions or explains why the requested data is not being returned

Segments	Description
MSH	Message Header
MSA	Message Acknowledgment
[ERR]	Error Segment
[QAK]	Query Acknowledgment Segment

4. SAMPLE TRANSACTION

VXX Transaction

Message Header Segment

MSH|^~\&||AZVACREC||GAVACREC|200605221606||VXX^V02^VXX_V02|...<cr>

Message Acknowledgement Segment

MSA|...<cr>

Query Definition Segment

QRD|200605221605|R||950522GA40||1000^RD|^NUCLEAR^NED|VXI|SIIS|...<cr>

Query Filter Segment

QRF|AZVACREC|||~~~~~NUCLEAR^NELDA|...<cr>

Patient Identification Segment

PID|1||123456789^^^AZ||^NUCLEAR^NED^ROBERT||20010607|M^MALE^HL70001|...<cr>

Next of Kin / Associated Parties

NK1|1|NUCLEAR^NELDA^SUE|MTH^MOTHER^HL70063||||||||||||||||||||||265909900^^^SS|...<cr>

Patient Identification Segment

PID|2||987654321^^^AZ||^NUCLEAR^NED^S||20000607|M^MALE^HL70001|...<cr>

Next of Kin / Associated Parties

NK1|1|NUCLEAR^NELDA|MTH^MOTHER^HL70063||||||||||||||||||||||444112345^^^SS|...<cr>

NK1|2|NUCLEAR^NEVILLE^H|FTH^FATHER^HL70063||||||||||||||||||||||44411234^^^SS|...<cr>

Patient Identification Segment

PID|3||231453675^^^AZ||^NUCLEAR^NED^CURTIS||20001225|M^MALE^HL70001|...<cr>

Next of Kin / Associated Parties

NK1|1|NUCLEAR^NELDA^ANN|MTH^MOTHER^HL70063||||||||||||||||||||||288763102^^^SS|...<cr>

Patient Identification Segment

PID|4||908786564^^^AZ||^NUCLEAR^NED^ALAN||19970205|M^MALE^HL70001|...<cr>

Next of Kin / Associated Parties

NK1|1|NUCLEAR^NELDA^SUE|MTH^MOTHER^HL70063||||||||||||||||||||||190966725^^^SS|...<cr>

NK1|2|NUCLEAR^CHRISTOPHER|FTH^FATHER^HL70063||||||||||||||||||||||786118768^^^SS|...<cr>

5. DOCUMENT CHANGE HISTORY

Document Name: HL7 Version 2.6 Immunizations Canonical Guide

Version	Issue Date	Modified By	Comments/Reason
1.0	04/27/2011	Ganesh Prabhu	Version Released for Comment
1.1	05/16/2011	Sue Merk	Naming convention change to Canonical Guide