

# **CONSOLIDATED MAIL OUTPATIENT PHARMACY (CMOP)**

## **Electronic Data Interface (EDI) Guidelines**

Version 2



March 2009

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## CMOP HL7 Interface Specification

### GENERAL HL7 INFORMATION

#### 1. Introduction

This document defines the standard electronic data interface (EDI) used by DVA Consolidated Mail Outpatient Pharmacy (CMOP) system. This specification is based upon the Health Level 7 Standard (HL7) Version Batch: 2.3.1, MLLP: 2.5. The term “Level 7” refers to the highest level of the Open System Interconnection (OSI) model of the International Standards Organization (ISO). The OSI model is divided into seven levels or layers. The HL7 Standard is primarily focused on what happens within the seventh or application layer. The definitions of the data to be exchanged, the timing of the exchanges, and the communication of certain application specific errors occur at this layer. In simple terms HL7 is a health industry standard communications protocol used to exchange data between disparate systems. The CMOP uses this standard to exchange data in the following situations:

- a. VA Medical Center and the CMOP VistA system
- b. Other Federal Agency Medical Center systems and the CMOP VistA or CMOP Central Database (CDB) system
- c. Contract Vendors and the CMOP CDB system
- d. CMOP VistA system and CMOP CDB system
- e. CMOP CDB and CMOP production database systems
- f. CMOP production database and dispensing systems

#### 2 Key Terms

*Outside Agency:* Outside agencies are defined as any non-VA entity.

*Originating Agency (OA):* The agency that ‘owns’ the prescription (Rx). The originating agency may be an entity sending data to a VA CMOP facility. The originating agency may also be a VA CMOP facility sending the Rx data to an outside agency to fill under the ‘home delivery’ contract.

*Dispensing Agency (DA):* The agency that fulfills the prescription order.

*Prescription Order Data:* This is the data needed by the filling agency to dispense and mail the Rx to the patient.

*Prescription Fulfillment Data:* This is the data that is returned by the dispensing agency to the originating agency to show that the Rx was either dispensed and mailed or returned as not-dispensed.

*Station Number:* A unique number assigned to the originating facility. This number is from three to five numbers in length. VA Medical Centers will use the Station ID numbers. DoD MTFs will use the DMIS ID numbers. The data type is integer.

*Batch Number:* Batch number and Transmission number are synonymous. This is a unique number assigned to each batch of dispensing data to be transferred. There are two different methods of creating batch numbers, based on the agency. Transmissions sent from Department of Defense pharmacies will have batch numbers composed of two data elements. The first element is the unique Station Number of the originating agency. The second element is a unique number generated by the originating agency for the batch. This number is formatted as a two digit year, the Julian Date, two digit hour, two digit minute (YYDDHMM). If two batches are created simultaneously at the originating site this number must be

incremented to make the batches unique. These two data elements are joined together with the underscore character.

Example: the originating agency Station Number is 766, batch number is 013240530. The unique Batch Number would be 766\_013240530.

Transmissions sent from VA pharmacies also are made up of two data elements separated by a hyphen. The first data element is the three digit station number for the medical center. The second number is a unique number created by the file system at the medical center. The numbering sequence is sequential with each new transmission increment the number by one.

*Rx Index:* This is a number that uniquely identifies the prescription from all other prescriptions. The Rx Index is made up of the Station Number dash Rx Number dash Fill Number. Fill numbers start at 1 for the original and increment sequentially for each new fill of the same prescription. Examples: Station Number = 10101, Rx Number = 123456T, Fill Number = 1 for the original. The Rx Index would be 10101-123456T-1. Station Number 10101, Rx Number = 12222A, Fill Number = 2 for the first refill of this prescription, the Rx Index would be 10101-12222A-2.

*Duplicate Rx:* Duplicate Rx's are defined as a request to fill the same prescription and fill more than one time. Duplicates are detected by comparing the Rx Index as received against an index, table or other storage location. If the same Rx Index is received a second (or more) time, it will be rejected as a duplicate unless the original Rx Index has a status of Cancelled or Not Dispensed. If the original Rx Index has a status of Dispensed and mailed to the patient or is still awaiting processing by the dispensing system, all new occurrences will be filed in the production database system and will be immediately and automatically rejected back to the originating medical center with a cancel reason of 'Duplicate Rx Index'. These rejected Rx's will be returned in the next release data file or query file.

## 2.1 File Extensions:

The following file extensions will be used for the transaction specified.

- .TRN - transmission of dispense request from OA to DA.  
766\_013240530.trn
- .TAC - acknowledgement of dispense requests DA to OA.  
766\_013240530.tac
- .QRY – prescription fulfillment data from DA to OA.  
0111141230.qry
- .QAC – acknowledgement of receipt of fulfillment data from OA to DA.  
0111141230.qac
- .SIT - activation/deactivation request from OA to DA.  
Filename Format - OA station number\_DateTime stamp (yymmddhhmm).sit  
766\_0111151300.sit
- .SAC – acknowledgement of activation/deactivation  
766\_0111151300.sac
- .SCH – auto transmission schedule/unschedule message  
766\_0111151300.sch
- .HAC – acknowledgement of auto transmission schedule/unschedule message.  
766\_0111151300.hac

.NDF – National Drug File data update

ndf update pxxx.ndf where xxx is the NDF patch number.

.NAC – National Drug File data update acknowledgement

ndf update pxxx.nac

NOTE: The '.TAC', '.QAC', '.SAC', and 'HAC' acknowledgement files content will indicate the acceptance or rejection (nak) of the corresponding message. The message body will indicate which response is accurate.

### 3 Message Rules

The HL7 Standard describes the basic rules for the exchange of information between two computer systems. The unit of data transferred is referred to as the message. It is comprised of a group of segments in a defined sequence. Each message has a three-character code called a message type that defines its purpose. The real-world event that initiates an exchange of messages is called a trigger event. There is a one-to-many relationship between message types and trigger event codes. The same trigger event code may not be associated with more than one message type; however a message type may be associated with more than one trigger event. All message type and trigger event codes beginning with Z are reserved for locally defined messages. No such codes will be defined within the HL7 Standard.

Some special characters are used to construct messages. They are the segment terminator, field separator, component separator, sub-component separator, repetition separator, and escape character. The segment terminator is always a carriage return (CR in ASCII or hex OD). The other characters recommended by HL7 are used in this application (See HL7 Standard V. 2.3.1/2.5, Chapter 2 for details).

### 4 Segment Rules

A segment is a logical grouping of data fields. Segments of a message may be required or optional. They may occur only once in a message or they may be allowed to repeat. Each segment is given a name and is identified by a unique three-character code. All segments beginning with Z are reserved for locally defined messages. No such code will be defined within the HL7 Standard. Segment length will not exceed 245 characters.

### 5 Field Rules

A field is a string of characters. HL7 does not care how systems actually store data within an application. Except where noted, HL7 data fields may take on the null value. Sending the null value, which is transmitted as two double quotation marks (""), is different from omitting an optional data field. The difference appears when the contents of a message will be used to update a record in a database rather than create a new one. If no value is sent (i.e., it is omitted) the old value should remain unchanged. If the null value is sent, the old value should be changed to null. In defining a segment, the following information is specified about each field:

- a) Position - position of the data field within the segment.
- b) Name - unique descriptive name for the field.
- c) ID number - integer that uniquely identifies the data field throughout the Standard.
- d) Maximum length - maximum number of characters that one occurrence of the data field may occupy.
- e) Optional - whether the data field is required ®, optional (O), or conditional © in a segment.



- f) Repetition - whether the field may repeat (N=no; Y=yes; (integer)= no. of repeats).
- g) Table - a table of values for a field (See HL7 Standard V. 2.3.1, Section 2.4.3.7 for source of tables).
- h) Data type - restrictions on the contents of the data field (See HL7 Standard V. 2.3.1, Section 2.4.5).

## 6 Message Construction Rules

Note: These message construction rules define the standard HL7 encoding rules, creating variable length delimited messages. Although only one set of encoding rules is defined as a standard in HL7 Version 2.3, other encoding rules are possible (but since they are non-standard, they may only be used by a site-specific agreement).

Step 1. Construct the segments in the order defined for the message. Each message is constructed as follows:

- a) The first three characters are the segment ID code.
- b) Each data field in sequence is inserted in the segment in the following manner:
  - 1) A field separator is placed in the segment.
  - 2) If the value is not present, no further characters are required.
  - 3) If the value is present, but null, the characters “” (two consecutive double quotation marks) are placed in the field.
  - 4) Otherwise, the characters of the value are placed in the segment. The maximum number of characters that can be included is defined for each data field. It is not necessary and is undesirable to pad fields to fixed lengths. Padding to fixed lengths is permitted. The individual data fields are encoded as shown in HL7 Standard V. 2.3.1, Chapter 2, Section 2.8, “DATA TYPES.”
  - 5) If the field definition calls for a field to be broken into components, the following rules are used:
    - i. If more than one component is included they are separated by the component separator.
    - ii. Components that are present but null are represented by the characters “”.
    - iii. Components that are not present are treated by including no characters in the component.
    - iv. Components that are not present at the end of a field need not be represented by component separators. For example, the two data fields are equivalent:  
`[ABC^DEF^^]` and `[ABC^DEF]`.
  - 6) If the component definition calls for a component to be broken into subcomponents, the following rules are used:
    - i. If more than one subcomponent is included they are separated by the subcomponent separator.
    - ii. Subcomponents that are present but null are represented by the characters “”.
    - iii. Subcomponents that are not present are treated by including no characters in the subcomponent.
    - iv. Subcomponents that are not present at the end of a component need not be represented by sub-component separators. For example, the two data components are equivalent:  
`^XXX&YYY&&^` and `^XXX&YYY^`.
  - 7) If the field definition permits repetition of a field, the following rules are used, the repetition separator is used only if more than one occurrence is transmitted and is placed between

occurrences. (If three occurrences are transmitted, two repetition separators are used.) In the example below, two occurrences of telephone number are being sent:

[234-7120~599-1288B1234]

- c) Repeat step 1) b) while there are any fields present to be sent. If all the data fields remaining in the segment definition are not present there is no requirement to include any more delimiters.
- d) End each segment with a vertical bar and an ASCII carriage return character

Step 2. Repeat Step 1 until all segments have been generated.

## **6.1 The following rules apply to receiving HL7 messages and converting their contents to data values:**

- a) Ignore segments, fields, components, subcomponents, and extra repetitions of a field that are present but were not expected.
- b) Treat segments that were expected but are not present as consisting entirely of fields that are not present.
- c) Treat fields and components that are expected but were not included in a segment as not present.
- d) Fields containing string

## **7 Communication Protocol**

Connectivity will be established using methods compatible with both the current VHA standards and the capabilities of the systems involved. The method the CMOP program is using to communicate with outside agencies at the time of printing follows. Due to the variability of network communication techniques and policy, the actual hardware currently in use has not been included in this document.

The CMOP system uses a batch data transfer. This method of transferring data between the CMOP central database and all other entities has proved to be the most effective and efficient method of data transfer. It has several advantages that increase the efficiency the overall CMOP production systems.

## **8 Concept of Operation**

### **8.1 Overview**

The method of data transfer described herein is commonly referred to as the “fetch” method. A storage device such as a hard drive located on a network server is shared between the OA and the DA. All data and administrative communications consist of either HL7 formatted flat ASCII files or Socket to Socket message transmissions (Microsoft MLLP). Flat ASCII files are transferred to and from subdirectories or folders named INBOX and OUTBOX located on the shared drive. The OA will put all files it creates in the INBOX. The DA will put all files it creates in the OUTBOX. The OA will ‘batch’ together all data required to fill the prescriptions into one file.

The data is gathered and batched based on an agreed upon time interval and frequency between the DA and the OA. There can be from one to many patients in the batch. Each patient can have from one to many prescriptions. Data is organized by patient order in the file.

## 8.2 Activation/Inactivation

- a. To request approval to send the DA prescription data, Flat Files: the OA places an activation request in the INBOX. File extension “.sit”. MLLP: An activation message will be transmitted using the socket to socket connections.
- b. Flat Files: The DA fetches the data from the INBOX and places an approval/disapproval in the OUTBOX. File extension “.sac”. MLLP: An approval/disapproval message will be transmitted using the socket to socket connections.

## 8.3 Transmission Schedule

- a. If approved for activation, Flat Files: the OA places a transmission schedule in the INBOX. This transmission schedule would have previously been coordinated with the DA. File extension “.sch”. MLLP: OA transmits a schedule message via the socket to socket connection.
- b. Flat Files: The DA fetches the transmission schedule and places a message acknowledgement file in the OUTBOX. File extension “.hac”. MLLP: The DA transmits a message acknowledge via the socket to socket connection.

## 8.4 Prescription Order Transmissions

- a. Flat Files: The OA batches the prescriptions and places the prescription order batch file in the INBOX. File extension “.trn”. MLLP: The prescriptions are sent individually via the socket to socket connection.
- b. Flat Files: The DA fetches the prescription order batch file and begins processing. The DA places an acknowledgement file in the OUTBOX. File extension “.tac”. If the file contains errors the DA places a negative acknowledgement in the OUTBOX. Where possible, as many of the problems detected will be identified. The entire batch will be rejected if ANY bad data within that batch is detected. MLLP: The prescription is validated for required field types and data existence. If the prescription is valid, an acknowledgement is returned. If not, a negative acknowledgement is returned. Only the prescription is rejected. All communications is via the socket to socket connection.
- c. Flat Files: After fulfilling the prescription orders, DA places the prescription fulfillment data in a folder in the OUTBOX. File extension “.qry”. MLLP: The prescription fulfillment message is sent via the socket to socket connection.
- d. Flat Files: The OA fetches the fulfillment data from the OUTBOX and places an acknowledgement that it has received the data in the INBOX. File extension “.qac”. MLLP: The OA receives the fulfillment message and returns an acknowledgement of data received via the socket to socket connection.
- e. Flat Files: The DA places a final acknowledgement in the OUTBOX upon receipt of the fulfillment acknowledgement from the OA in the inbox. File extension “.qac”. MLLP: The DA receives the fulfillment acknowledgement via the socket to socket connection. This completes the cycle for a prescription order.

## 9 HL7 Segments Used in CMOP Transactions

This section contains the definitions of the segments used in CMOP transactions. It is divided into parts according to functionality, i.e., activation/inactivation, etc. Following each section heading is a list of the segments used for that transaction. Segment notation follows standard HL7 encoding rules.

- Each message is defined in special notation that lists the segment IDs in the order they would appear in the message. Message segments without the braces or brackets indicate the segment is required within the message.
- Braces, { . . . }, indicate one or more repetitions of the enclosed group of segments. (Of course, the group may contain only a single segment.)
- Brackets, [ . . . ], show that the enclosed group of segments is optional. If a group of segments is optional and may repeat it should be enclosed in brackets and braces, { [ . . . ] }.

**Note:** [{...}] and {[...]} are equivalent.

### 9.1 Activate/Inactivate (Flat Files: .SIT)

The Activate and Inactivate messages are used by the medical center to request permission from the CMOP to subscribe to the CMOP services. By acknowledging the request, the CMOP grants permission to the medical center to begin using the CMOP services.

MSH  
MFE  
ZLF

#### 9.1.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be MFN^M01.
Message Control ID	10	20	ST	R	N			This is a number that uniquely identifies this message from all other messages. The format of the message number is station number-transmission date/time.
Processing ID	11	1	ID	R	N		0103	This will always be a P.
Version ID	12	8	ID	R	N		0104	This will always be Batch: 2.3.1, MLLP: 2.5
Accept Ack Type	15	2	ID	O	N		0155	Batch: This will always be AL for this MSH segment. MLLP: No Entry
Application Ack Type	16	2	ID	O	N		0155	Batch: This will always be AL for this MSH segment. MLLP: No Entry

**EXAMPLE:**

Batch: MSH|^~\&|CHCS||VistA||20020412163500||MFN^M01|0617-021021635|P|2.3.1||AL|AL

MLLP: MSH|^~\&|CHCS||VistA||20020412163500||MFN^M01|0617-021021635|P|2.5

**9.1.2 MFE – Master File Entry Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Record-Level Event Code	1	3	ID	R			0180	Record-Level Event Code. This will always be MUP.
MFN Control ID	2	20	ST	C				This field will be the station number and the transmission date/time.
Effective Date/Time	3	26	TS	O				Date/Time of Request
Primary Key Value – MFE	4	200	NM	R	Y			Medical Center Station Number
Primary Key Value Type	5	3	ID	R	Y		0355	The field will be CE for all segments

**EXAMPLE:**

MFE|MUP|766-011214|200110021345|766|CE

**9.1.3 ZLF – Master File Update Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Request Type	1	3	NM	R				See Request Type table below.
Requesting/Approving Official	2	45	ST	R				Name of person requesting or approving the action. Format^LAST NAME^FIRST NAME^MI^SUFFIX
Agency	3	4	ST	R				Agency Type. See Agency Table below. This table can be added to as necessary.
Reject Reason	4	80	ST					This is a free text rejection reason. This will only be present if the request was denied or rejected.

**EXAMPLE:**

ZLF|1|Armstead, Percy|2|

**ZLF Request Type**

1	Request to Activate Non Controlled Substance Transmissions
2	Request to Activate Controlled Substance Transmissions
3	Activation Approval
4	Activation Disapproval
5	Inactivation for Non Control Substances Transmissions
6	Inactivation for Control Substances Transmissions

**ZLF Agency Table**

## General HL7 Information

1	VA Medical Center
2	US Army
3	US Air Force
4	US Navy
5	US Marine Corp
6	US Coast Guard
7	Indian Health Service
8	Public Health Service
9	CHAMPVA
10	CHAMPUS
11	OTHER/Not Applicable

## 9.2 Activation Acknowledgement Message (Flat Files: .SAC)

MSH

MFE

ZLF

### 9.2.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be MFR^M02.
Message Control ID	10	20	ST	R	N			This is a number that uniquely identifies this message from all other messages. The format of the message number is station number-transmission date/time.
Processing ID	11	1	ID	R	N		0103	This will always be a P.
Version ID	12	8	ID	R	N		0104	This will always be Batch: 2.3.1, MLLP: 2.5
Accept Ack Type	15	2	ID	O	N		0155	Batch: This will always be NE for this MSH segment. MLLP: No Entry.
Application Ack Type	16	2	ID	O	N		0155	Batch: This will always be NE for this MSH segment. MLLP: No Entry.

#### EXAMPLE:

Batch: MSH|^~\&amp;|VistA||CHCS||20010925202704||MFR^M02|766-011214|P|2.3.1||NE|NE

MLLP: MSH|^~\&amp;|VistA||CHCS||20010925202704||MFR^M02|766-011214|P|2.5

### 9.2.2 MFE – Master File Entry Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Record-Level Event Code	1	3	ID	R			0180	Record-Level Event Code. This will always be MUP.
MFN Control ID	2	20	ST	C				This field will be the station number and the transmission date/time.
Effective Date/Time	3	26	TS	O				Date/Time of Request
Primary Key Value – MFE	4	200	NM	R	Y			Medical Center Station Number
Primary Key Value Type	5	3	ID	R	Y		0355	The field will be CE for all segments

#### EXAMPLE:

MFE|MUP|766-011214|200110021345|766|CE

### 9.2.3 ZLF – Master File Update Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
------------	------	-----	----	-----	-----	-----	-----	------

## General HL7 Information

Request Type	1	3	NM	R				See Request Type table below.
Requesting/Approving Official	2	45	ST	R				Name of person requesting or approving the action. Format^LAST NAME^FIRST NAME^MI^SUFFIX
Reject Reason	4	80	ST					This is a free text rejection reason. This will only be present if the request was denied or rejected.

### EXAMPLE:

ZLF|2|Armstead, Percy

### ZLF Request Type

1	Request to Activate Non Controlled Substance Transmissions
2	Request to Activate Controlled Substance Transmissions
3	Activation Approval
4	Activation Disapproval
5	Inactivation for Non Control Substances Transmissions
6	Inactivation for Control Substances Transmissions



### 9.3 Inactivation Acknowledgement Message (Flat Files: .SAC)

MSH

MSA

#### 9.3.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be MFR^M02.
Message Control ID	10	20	ST	R	N			This is a number that uniquely identifies this message from all other messages. The format of the message number is station number-transmission date/time.
Processing ID	11	1	ID	R	N		0103	This will always be a P.
Version ID	12	8	ID	R	N		0104	This will always be Batch: 2.3.1, MLLP: 2.5
Accept Ack Type	15	2	ID	O	N		0155	Batch: This will always be NE for this MSH segment. MLLP: No Entry.
Application Ack Type	16	2	ID	O	N		0155	Batch: This will always be NE for this MSH segment. MLLP: No Entry.

#### EXAMPLE:

**Batch:** MSH|^~\&|VistA||CHCS||20010925202704||MFR^M02|0111-011214|P|2.3.1||NE|NE

**MLLP:** MSH|^~\&|VistA||CHCS||20010925202704||MFR^M02|0111-011214|P|2.5

#### 9.3.2 MSA – Message Acknowledgment Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Item#	Desc
Acknowledgement Code	1	2	ID	R			0008	00018	Acknowledgement Code This will be CA.
Message Control ID	2	20	ST	R					Message Control ID. This will be same as on the preceding MSH segment.
Text Message	3	80	ST	O					This will be null.

#### EXAMPLE:

MSA|CA|0111-011214|

## 9.4 Transmission Scheduling(Flat Files: .SCH)

The transmission scheduling message is used by the medical center to notify the CMOP of their schedule for transmitting batches of prescription data.

MSH

ARQ

### 9.4.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. In the VA this will always be VistA. For DoD- “DOD”.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station’s system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be ‘SIU^SO7’. Cancel SIU^S20
Message Control ID	10	20	ST	R	N			This is a number that uniquely identifies this message from all other messages. The format of the message number is station number-transmission date/time.
Processing ID	11	1	ID	R	N		0103	This will always be a P.
Version ID	12	8	ID	R	N		0104	This will always be Batch: 2.3.1, MLLP: 2.5
Accept Ack Type	15	2	ID	O	N		0155	Batch: This will always be NE for this MSH segment. MLLP: No Entry.
Application Ack Type	16	2	ID	O	N		0155	Batch: This will always be NE for this MSH segment. MLLP: No Entry.

#### EXAMPLE:

Batch: MSH|^~\&|CHCS||VistA||2001121401000||SIU^SO7|0111-011214|P|2.3.1||AL|AL

MLLP: MSH|^~\&|CHCS||VistA||2001121401000||SIU^SO7|0111-011214|P|2.5

**9.4.2 ARQ – Appointment Request Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Placer Appointment ID	1	75	EI	R				This is the Station ID.
Request Event Reason	6	200	CE	O				This is the code for the type of scheduling event. See table below.
Requested Start Date/Time Range	11	53	DR	O	Y			This is the Date/Time the transmission schedule will begin. MLLP: Time to process Rx's received.
Repeating Interval	13	100	RI	O				Repeating Interval. See Chapter 4, Section 4.4.2
Placer Contact Person	15	48	XCN	R	Y			Name of the Point of Contact from the Medical Center. Format ^LAST NAME^FIRST NAME^MI^SUFFIX
Placer Contact Phone Number	16	40	XTN	O	Y			Phone Number of the point of contact in sequence 15.
Entered By Person	19	48	XCN	R	Y			The person who initiated the request. Format ^LAST NAME^FIRST NAME^MI^SUFFIX
Entered By Phone Number	20	40	XTN	O	Y			The phone number of the person initiating the request.

**Request Event Reason**

- 1 Non Controlled Substance Transmission Auto Schedule
- 2 Controlled Substance Transmission Auto Schedule
- 3 Non Controlled Substance Transmission Cancel Auto Schedule
- 4 Controlled Substance Transmission Cancel Auto Schedule

**EXAMPLE:**

ARQ|10111||||1||||200112141000||Q24H||^JONES^DEBRA^J|(555) 555-1212|||^JONES^DEBRA^J|(555) 555-1212

## 9.5 Schedule Acknowledgement (Flat Files: .HAC)

MSH

MSA

### 9.5.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. In the VA this will always be VistA. For DoD- “DOD”.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be ‘SRR^SO7’ for the schedule, SRR^S20 for a schedule cancellation.
Message Control ID	10	20	ST	R	N			This is a number that uniquely identifies this message from all other messages. The format of the message number is station number-transmission date/time.
Processing ID	11	1	ID	R	N		0103	This will always be a P.
Version ID	12	8	ID	R	N		0104	This will always be Batch: 2.3.1, MLLP: 2.5
Accept Ack Type	15	2	ID	O	N		0155	Batch: This will always be NE for this MSH segment MLLP: No Entry.
Application Ack Type	16	2	ID	O	N		0155	Batch: This will always be NE for this MSH segment MLLP: No Entry.

EXAMPLE:

Batch: MSH|^~\&amp;|VistA||CHCS||2001121401100||SRR^SO7|0111-011214|P|2.3.1||NE|NE

MLLP: MSH|^~\&amp;|VistA||CHCS||2001121401100||SRR^SO7|0111-011214|P|2.5

### 9.5.2 MSA – Message Acknowledgment Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Item#	Desc
Acknowledgement Code	1	2	ID	R			0008	00018	Acknowledgement Code This will be CA.
Message Control ID	2	20	ST	R					Message Control ID. This will be same as on the preceding MSH segment.
Text Message	3	80	ST	O					This will be null.

EXAMPLE:

MSA|CA|10111-011214|

## 9.6 Batch Transmission Segments (.TRN)

At the sending medical center, prescription orders are held in a queue until the scheduled transmission time. Typically a medical center will transmit prescriptions once a day to the CMOP. At the scheduled time, all prescriptions waiting transmission to the CMOP are grouped first by pharmacy division and then by patient and then grouped together into one batch of data to send to the CMOP using the batch file transmission protocol. Each batch contains up to 9,999 individual patient orders for the sending pharmacy division. (A VA medical center can have multiple pharmacy divisions.) Each patient order within the batch contains from one to many prescriptions to be dispensed for the patient. Each batch is a separate transmission of data.

At the medical center, a unique number is assigned to the batch to distinguish it from all other batches. See the definition of a batch number in the definitions section for how the batch numbers are created. This batch number is used to identify and track all patient orders and prescriptions sent to the CMOP. This number is combined with the message number of the order within the transmission to uniquely identify the patient order within all CMOP database systems.

Data sent in the Batch Transmission file are part of the permanent prescription dispensing record. The data elements will not be modified, edited or deleted by the receiving station. The data may be supplemented with new data as necessary by the processing system. Only data that has been archived to permanent storage may be deleted by the processing system.

Data is sent from the CMOP VistA system to the CMOP CDB and then on to the CMOP production systems are sent in batches just as they are received from the pharmacy. The same batch transmission protocols are used for these data transmissions. Batch integrity maintained as the data is received and then forwarded by the CMOP VistA and CMOP CDB systems.

Braces, { . . . }, indicate one or more repetitions of the enclosed group of segments. (Of course, the group may contain only a single segment.)

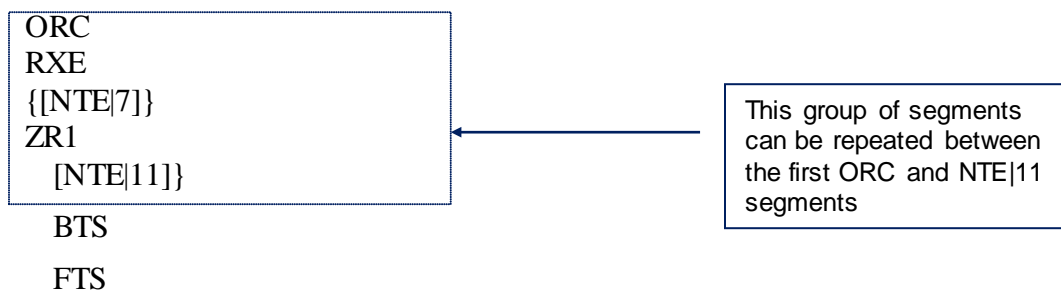
Brackets, [ . . . ], show that the enclosed group of segments is optional. If a group of segments is optional and may repeat it should be enclosed in brackets and braces, { [ . . . ] }.

**Note:** [{...}] and {[...]} are equivalent.

FHS  
BHS  
ORC  
{NTE|2}  
{NTE|3}  
{NTE|4}

{MSH  
PID  
[NTE|8]  
{{ZML}}  
{{ZSL}}

← This group of segments  
can be repeated between  
the first ORC and BTS  
segments



### 9.6.1 FHS – File Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
File Field Separator	1	1	ST	R	N		HL7 recommended field separator.
File Encoding Characters	2	4	ST	R	N		HL7 recommended encoding characters.
File Sending Application	3	15	ST	R	N		The name of the application creating the batch.
File Sending Facility	4	20	ST	R	N		The name of the sending medical center.
File Receiving Facility	6	20	ST	R	N		The name of the receiving station.
File Creation Date/Time	7	26	TS	R	N		The date and time the batch was created on the sending station system.
File Control ID	11	20	ST	R	N		This field will be the file name. The file name is the batch number concatenated with the file extension.

#### EXAMPLE:

FHS|^~\&|CHCS|MEDICAL CENTER NAME||CMOP CHARLESTON|20010928120135|||573-013240530.TRN

### 9.6.2 BHS – Batch Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Batch Field Separator	1	1	ST	R	N		HL7 recommended field separator.
Batch Encoding Characters	2	3	ST	R	N		HL7 recommended encoding characters.
Batch Sending Application	3	15	ST	R	N		The name of the application creating the batch.
Batch Receiving Application	5	15	ST	R	N		The name of the sending medical center.
Batch Creation Date/Time	7	26	TS	R	N		The date and time the batch was created on the sending station system.
Batch Name/ID/Type	9	20	ST	O	N		RAR^RAR
Batch Comment	10	80	ST	O	N		Controlled Substance Flag. This field will be set to CS for a Controlled substance transmission. It will be null if not a Controlled substance transmission.
Batch Control ID	11	20	ST	R	N		This is the transmission number.

#### EXAMPLE:

Non Controlled Substance Transmission

BHS|^~\&|Outside Agency Application Name||VistA||20011109144013||RAR^RAR||573-013240530

Controlled Substance Transmission

BHS|^~\&|Outside Agency Application Name||VistA||20011109144013||RAR^RAR|CS|573-013240530

**9.6.3 ORC – Common Order Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Order Control	1	2	ID	R	N		0119	This will always be a new order, NW
Order Facility Name	21	60	XON	O	Y			This field will contain the pharmacy division name and unique pharmacy division number.
Ordering Facility Address	22	106	XAD	O	Y			This field contains the return mailing address for the sending pharmacy division.
Ordering Facility Phone Number	23	48	XTN	O	Y			This is the phone number for the sending pharmacy division.

**EXAMPLE:**

ORC|NW||||||||||||||^573GG&INVERNESS CBOC&573|PO BOX  
 147038^^GAINESVILLE^FL^32614-7038|(800) 349-9457

**9.6.4 NTE|2 – Refill Instructions Text – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Set ID = 2	1	1	ST	R	N		Set id for the segment
Refill Instructions Text	2	100	FT	R			This is the standard free text refill instructions that will print for all refillable prescriptions in the batch. For backwards compatibility, this segment will always be present. If no data for the segment, the segment will be formatted with at least three spaces.

[NTE] The Set ID field will identify the NTE segment (2=Refill Instructions; 3=Non-refill Instructions Narrative; 4=Copayment Narrative). The Comment field will contain the respective information.

**EXAMPLE:**

NTE|2|Prescriptions (Rx's) are NOT automatically  
 NTE|2|refilled. To request refills:  
 NTE|2|  
 NTE|2|(1) Call our TOLL FREE # -> 1-888-820-0230.  
 NTE|2| Have your Social Security & Rx #'s ready  
 NTE|2| OR  
 NTE|2|(2) Sign and mail your refill request(s).  
 NTE|2| Use the return address label provided.  
 NTE|2|  
 NTE|2|Order your refills as soon as possible, AT  
 NTE|2|LEAST 14 DAYS before you run out.  
 NTE|2|  
 NTE|2|ALL refills are MAILED. Please do NOT come  
 NTE|2|to the clinic for Rx refills.

**9.6.5 NTE|3 – Non Refill Instructions Text Segment– Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Set ID = 3	1	1	ST	R	N		Set id for the segment
Refill Instructions Text	2	100	FT	R			This is the standard free text non-refillable instructions that will print for all non-refillable prescriptions in the batch. For backwards compatibility, this segment will always be present. If no data for the segment, the segment will be formatted with at least three spaces.

**EXAMPLE:**

NTE|3| \*\* If NO REFILLS remain OR your Rx has  
 NTE|3| EXPIRED (too old) \*\* discuss this with  
 NTE|3| your VA PROVIDER at your next appt.  
 NTE|3|  
 NTE|3| If you will run out of medicine BEFORE  
 NTE|3| your next appt, call (941) 939-3939 to  
 NTE|3| make or change an appt.



**9.6.6 NTE|4 – Copay Instructions Text Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Set ID = 4	1	1	ST	R	N			Set id for the segment
Refill Instructions Text	2	100	FT	R				This is the standard free text copay instructions that will print for all prescriptions in the batch that have a copay charge. For backwards compatibility, this segment will always be present. If no data for the segment, the segment will be formatted with at least three spaces.

**EXAMPLE:**

NTE|4| Questions about your bill? Please call

NTE|4| 1-888-820-0230 Ext. 4004 (TOLL FREE)

**9.6.7 MSH – Message Header Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Field Separator	1	1	ST	R	N		HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N		HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N		The name of the application creating the batch. In the VA this will always be 'VistA'.
Receiving Application	5	30	ST	R	N		This is the application receiving the data. Where VA is the Dispensing Agency it will be 'VistA'.
Message Creation Date/Time	7	26	TS	R	N		Date and time the message was created on the sending Station system.
Message Type	9	7	C	R	N	0076	The type of message being sent. This will always be 'ORM^O01'.
Message Control ID	10	20	ST	R	N		This is a number that uniquely identifies this message from all other messages. The format of the message number is station number-transmission number-order number.
Processing ID	11	1	ID	R	N	0103	This will always be a P.
Version ID	12	8	ID	R	N	0104	This will always be 2.3.1
Accept Ack Type	15	2	ID	R	N	0155	This will always be NE
Application Ack Type	16	2	ID	R	N	0155	This will always be NE

[MSH-5] Receiving Application is the name of the dispensing application.

[MSH-10] Message Control ID is the number that uniquely identifies the message. It is returned in MSA-2.

**EXAMPLE:**

MSH|^~&|SENDING AGENCY NAME||VistA||20010925202704||ORM^O01|573-013240530-1794|P|2.3.1||AL|AL

### 9.6.8 PID – Patient Identification Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Desc
Patient ID	3	20	C	R	N		Patient SSN^Check Digit^Check Digit Scheme. Check digit scheme will be M11. HL7 P 2-15
Patient Name	5	48	PN	R	N		The name of the patient. Format will be ^LAST NAME^FIRST NAME^MIDDLE INITIAL^SUFFIX.
Patient Address	11	106	AD	R	Y	3	The patient's mailing address. See HL7 specification, 3.3.2.11 for format.
Patient Phone Number	13	40	TN	O	N		The patient's contact phone number.
Primary Language	15	60	CE	O	N		Patient's primary language field is used to determine the language used to print the patient PMIS. ISO Table 639 defines the language codes. (Appendix C)
Patient Account Number	18	250	CX	O	N		This field contains the unique VA Internal Control Number (ICN) and checksum value. Format will be ICN^checksum. The Checksum is provided by the VistA system. Receiving station is not required to compute the checksum for validating the data.

[PID-3] This is the patient's SSN, check digit and check digit scheme. Refer to HL7 Version 2.3.1 page 2-15.

[PID-15] Patient's primary language field is used to determine the language used to print the patient PMI data, medication information, etc.

[PID-18] Patient Account Number field is used to uniquely identify the patient. The number is guaranteed to be unique across the VA system. A checksum value is provided with the field, the receiving station is not required to compute checksums on this data element. Nor will the checksum be stored with in the receiving stations database.

#### EXAMPLE:

PID||111111111111^1^M11||^MOUSE^MICKEY^^^100 MOUSE LANE^APT  
#3^CHARLESTON^SC^29405||(843) 745-4124||ENG||1234567^345

### 9.6.9 NTE|8 – Additional Patient Street Address Information Segment – Optional segment

This segment is multi-functional. It is used to carry additional street lines for the patient address if there are more than two street lines in the address. It is also used to indicate that the patient address is a temporary address. When used as a temporary address indicator, the expiration date will indicate when the address is due to expire. If the patient's mailing label is scheduled to print after the expiration date, the entire patient order will be automatically cancelled back to the medical center with a cancel reason of 'Temp Address Expired'. ***The check for address expiration is to be made before the patient order is released to the system for processing. If the patient address will expire prior to the package being mailed, the entire patient order will be automatically cancelled back to the medical center. The cancel reason will be 'ADD – Expired address correct & resubmit'***

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Thl	Desc
Set Id = 8	1	4	ST	R	N			
Temporary Address	2	1	NM	R	N			1 means this is a temporary address

Temporary Until	3	8	DT	R	N		Expiration Date. Format: YYYYMMDD
Additional Street Address	4	35	ST	R	2		Additional Street Address. This field may Repeat twice.

**Example of Patient Data with Temporary Address Information:**

PID|||999999999^1^M11||STEELE^JAMES E.||||107 OAK RD.^APT#3^LIMA^OH^48132 (or 48132-9999)

NTE|8|1\F\20041015\F\Street Address line 3\R\Street Address line 4\R\Street Address line 5

**Example of Patient Data with NO Temporary Address Information:**

PID|||999999999^1^M11||STEELE^JAMES E.||||107 OAK RD.^APT#3^LIMA^OH^48132

NTE|8||F\F\Street Address line 3\R\Street Address line 4\R\Street Address line 5

**9.6.10 ZML – Multi-Rx Label Segment – Optional segment**

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Drug Name	1	40	ST	R	N		The free text drug name. (VA PRINT NAME)
Number of Refills	2	3	NM	R	N		Total number of remaining refills
Expiration Date	3	26	TS	R	N		Prescription expiration date.
Rx Number	4	20	ST	R	N		This is the prescription number as assigned by the originating pharmacy.
Barcode	5	20	ST	R	N		This field is used by the VA pharmacy system to produce a barcode value that is recognized on the medical system. This barcode is used to enter the next refill.

[ZML] This segment is repetitive. It repeats for all the drugs for the patient

**EXAMPLE:**

ZML|FELODIPINE 10MG SA TAB|1|20011209|200002833|573-7291313

ZML|LEVOTHYROXINE NA (SYNTHROID) 0.1MG TAB|1|20011209|200012872|573-8048381

**9.6.11 ZSL – Suspense Label Segment – Optional segment**

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Drug Name	1	40	ST	R	N		The free text drug name. (VA PRINT NAME)
Suspense Date	2	26	TS	R	N		The date the fill is suspended for processing.
Rx Number	3	20	ST	R	N		This is the prescription number as assigned by the originating pharmacy.

[ZSL] This segment is repetitive. It repeats for all suspended Rx's for the patient.

**EXAMPLE:**

ZSL|FELODIPINE 10MG SA TAB|20011209|200002833

**9.6.12 ORC – Common Order Segment – Required segment (HL7 2.3.1)**

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Order Control	1	2	ID	R	N	0119	This will always be a new order. NW
Placer Order Number	2	75	CM	R	N		This is the Rx Index. See Key Terms for the definition of the Rx Index.
Placer Group Number	4	22	EI	R	N		This field is two parts. The first part is the number of Rx's in the patient order, the second number is the

							Sequence number of this Rx in the patient order. Example: this patient order has five Rx's in it, this Rx is the second Rx in the order so this field will be 5^2.
Quantity Timing	7	200	TQ	R	N		This field contains duration of the fill. Start date of the fill End date of the fill = Start date + days supply
Entered By	10	80	XCN	R	N		The entering clerks id number.
Ordering Provider	12	80	XCN	R	N		The name of the ordering provider.
Order Effective Date	15	26	TS	R	N		The effective date of the order.

**EXAMPLE:**

ORC|NW|573-200002833F-4||5^2|||^^^20010925^20011224||10111|^STEPHENS^  
REBECCA^S||20001227

**9.6.13 RXE – Pharmacy/Treatment Encoded Order Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Th	Desc
Quantity/Timing	1	200	TQ	R	N		Quantity Requested
Give Code	2	100	CE	R	N	0292	This is a composite field that contains the unique VA product ID^VA Print Name^L
Give Amount – Minimum	3	20	NM	R	N		Quantity Requested
Give Units	5	60	CE	R	N		This field contains the units for the Give Amount as encoded by the pharmacy or treatment application. Example: TAB, CAP, GM, OZ etc.
Provider's Administration Instructions	7	200	CE	R	N		This field will contain the first 80 characters of the provider's instructions (SIG)
Number of Refills	12	60	NM	R	N		This field contains the total original number of refills.
Pharmacist Verifier ID	14	20	ST	R	N		This is the pharmacist's id number on the sending station system. For the VA it will be the pharmacist's Local ID (DUZ) number.
Prescription Number	15	20	ST	R	N		This is the Rx Index number as assigned by the originating pharmacy. This number has to match the Placer Order Number field on the preceding ORC Segment.
Number of Refills Remaining	16	20	NM	R	N		Number of refills remaining for this prescription.
D/T of Most Recent Refill	18	26	TS	R	N		Date of the most recent fill dispensed.

**EXAMPLE:**

RXE|45|L0139^LEVOTHYROXINE NA (SYNTHROID) 0.1MG TAB^L|45||TAB|^TAKE 1  
TABLET(S) BY MOUTH EVERY MORNING ||||0|10111|200012872|0|20010925

**9.6.13.1 ADDITIONAL FIELD NOTES:**

[RXE-1] Quantity Requested

[RXE-2] Give Code identifies the substance ordered as encoded by the Pharmacy. The components, in order, are the VA Product ID, VA Product Name.

[RXE-3] Give Amount - Minimum is a required field but it will not be used in OP Version 2.0. It will always be a null value ("").

[RXE-5] Give Units identifies the units for the give amount as encoded by the VA National Drug File.

[RXE-7] Providers Administration Instructions (SIG). This field is limited to 80 characters. Only the second component of this field is used.

*Components:* <identifier (ST)> ^ <text (ST)> ^ <name of coding system (ST)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (ST)>

*Definition:* This field contains the ordering provider's instructions to the patient or the provider administering the drug or treatment. If coded, a user-defined table must be used; if free text (describing a custom V, mixture, or salve, for example), place the text in the second component, e.g., |^this is a free text administration instruction|.

[RXE-12] Number of Refills - Definition: This field contains the total original number of refills. Outpatient only.

[RXE-14] Pharmacist Verifier ID identifies the pharmacist who verified the order. The first component is the DFN pointer in the NEW PERSON file (#200) of VISTA and the second component is the name.

[RXE-15] Prescription Number is the external Outpatient prescription number.

[RXE-16] Number of Refills Remaining - Definition: Number of refills remaining. This field is conditional because it is required when a prescription is dispensed to an outpatient. It is not relevant to inpatient treatment orders.

[RXE-18] D/T of Last Refill identifies the last date the patient received this particular drug (i.e., Last Dispense Date).

#### 9.6.14 NTE|7 – Additional Medication Instructions Segment – Optional segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Set ID = 7	1	4	ST	R	N			
Rx Number	2	20	FT	R	N			This is the Rx Number of the prescription for this NTE 7 segment. This field is used to match the correct NTE 7 segment to the correct prescription.
Language Flag	3	2	ST	R	N			This flag indicates the primary language of the patient. All printed documentation sent to the patient will be printed in this language. All SIG text will be displayed to the verifying Pharmacist in English on the Pharmacy Verification screens. ISO Table 639 will be used for the language code/flag. (Appendix C contains ISO Table 639)
Segment Sequence Number	4	2	NT	R	N			This is the segment sequence number. It is used to insure the text is printed in the correct sequence.
Patient Medication Instructions	5	100	FT	R	N			This is field is limited to 100 characters.

##### 9.6.14.1 ADDITIONAL FIELD NOTES:

The NTE|7 segment carries SIG information when the RXE-7 field exceeds 80 characters. The NTE|7 segment may repeat as many times as necessary to complete the SIG. If the patient's primary language flag is not English, both the primary language and the English version of the SIG will be transmitted with the patient data. The SIG will be sent in English first and then in the primary language.

The segment sequence number is used to determine the sequence of the NTE|7 segments and not the SIG continuations. The first NTE|7 segment will always be number 1 for each language. If the patient has a

primary language other than English, the NTE/7 segments will always be ordered so that the English version is sent first then the primary language.

The patient's primary language code will be used to print the SIG and warning labels on the patient documentation. These data elements will display in English on the pharmacy verification screens at the time of verification or review of these data elements in other electronic processes.

In the example the RXE segment is added for continuity purposes.

**EXAMPLE:**

RXE|0-400797-1|||||||30||^L||||11|20040413|11||20050414|20040413|400797|||TAKE 2 TABLET(S)  
BY MOUTH EVERY DAY FOR 7 DAYS, THEN TAKE 3 TABLET(S) EVERY DAY

NTE|7|400797|ENG|1|THEN TAKE 1 TABLET TWICE A DAY FOR 3 DAYS, THEN TAKE 2  
TABLET(S) FOR PAIN

NTE|7|400797|SPA|1|TOMAR DOS TABLETA(S) POR BOCA DIARIAMENTE POR 7 DIAS,  
LUEGO TOMAR TRE

NTE|7|400797|SPA|2|TABLETA(S) DIARIAMENTE LUEGO TOMAR UNO TABLETA TWICE A  
DAY POR 3 DIAS, LUEGO

NTE|7|400797|SPA|3|TOMAR QD PARA DOLOR

**9.6.15 ZR1 – Rx Order Additional Information Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Rx Number	1	20	ST	R	N			This is the Rx Index number as assigned by the originating pharmacy. This number has to match the Prescription Number field on the preceding RXE segment.
Rx Patient Status	2	20	CE	R	N			The patient's status.
Renewable	3	1	ST	O	N			A flag indicating whether this prescription is renewable. A 1 in this field indicates that the prescription is renewable. Null means the prescription is not renewable.
Copayment	4	1	ST	O	N			A flag indicating whether this patient will be charged a copay for this prescription. A 1 means a copay charge is due. Null means no copay charge is due.
Safety Cap	5	1	ST	O	N			A flag to indicate the patient's preference for a safety cap. A 1 will indicate safety cap, null will be no safety cap.
Refill Text	6	8	ST	R	N			This is the free text. It will be formatted as refill number of maximum refills. Example: (1of10)
Clinic	7	40	ST	R	N			The free text name of the clinic where the prescription originated. (DoD Group Pharmacy)
Days Supply	8	3	NM	R	N			The days supply for the prescription.
Rx Barcode Value	9	20	ST	R	N			This field is used by the VA pharmacy system to produce a barcode value that is recognized on the medical system. This barcode is used to enter the next refill. Barcode Data—Institution ID—Internal entry number from prescription file. (DoD – Letters RX then number “RX12345”).

Drug Warning	10	35	ST	O	R	5	APP B	This field contains the record number of the corresponding drug warning from the VADrug Warning table. See Appendix B for a list of these warnings.
Mail Flag	11	2	ST	O	N			0 = Regular Mail, 1 = Registered mail. Other codes may be added at a future date.
Rx Expiration Date	12	26	TS	R	N			The date the prescription expires.
PMIS Data	13	10	ST	O	N			This is the record number for the PMI sheet that will print with the prescription. This data element is used to reference the correct PMI data record from the First Data Bank tables.
PMI Print Flag	14	1	NM	O	N			This flag is used to determine if the PMI sheet should be printed. If the flag is set to 1, the PMI will print.
Print Refill Slip	15	1	NM	O	N			This flag is used to determine if a refill slip is printed and mailed. If the flag is set to 1, the refill slip is not printed. If the flag is null or zero, the refill slip will be printed and mailed.
Contract Product Price	16	9	NM	O	N			This is the VA contract price per dispense unit for the product requested. This field is only used by the VA CMOP when sending data to an external Direct to Patient Vendor. This value will not be used when sending data from the CMOP CDB to the CMOP Production systems.
Contract Number	17	20	ST	O	N			This is the VA contract number for the item from the VA NAC or VA PBM database. This field is only used by the VA CMOP when sending data to an external Direct to Patient Vendor. This value will not be used when sending data from the CMOP CDB to the CMOP Production systems.
Contract Item Number	18	20	ST	O	N			This is the Item number from the Contract. This field is required when sending orders to a VA CMOP Direct to Patient Vendor for filling and processing. This field is only used by the VA CMOP when sending data to an external Direct to Patient Vendor. This value will not be used when sending data from the CMOP CDB to the CMOP Production systems.
Vendor SKU	19	10	ST	O	N			This is the DTP SKU for the item. This field is only used by the VA CMOP when sending data to an external Direct to Patient Vendor. This value will not be used when sending data from the CMOP CDB to the CMOP Production systems.
Billing CMOP	20	5	ST	O	N			This is the CMOP Station Number. This field is used for billing back to the appropriate CMOP. This field is only used by the VA CMOP when sending data to an external Direct to Patient Vendor. This value will not be used when sending data from the CMOP CDB to the CMOP Production systems.

**EXAMPLE:**

ZR1|200012872|ONSC|1|1|0|(1of1)|INVERNESS/PC,LAB|45|573-8048381|1~2~3|20020101|15.02|1234512|N123P45|X12345X123

The drug warning data element on the ZR1 segment is being phased out by the VA. The VA is moving to using industry standard drug warning labels. During the phase out period, drug warnings will be received in this data element or on the NTE|11 segment described below. Software that utilizes the drug warnings must be capable of pulling the data from either field. If the NTE|11 segment is received and there is data on the ZR1 segment in the drug warning field, the data from the NTE|11 segment will be used.

**9.6.16 NTE|11– Special Medication Instructions Segment – Optional segment**

The NTE|11 segment carries special medication information as entered by the medical center. If the language flag is set to a language other than English, the NTE|11 segments will transmit in both languages. The primary language will be used for printing on the documentation that is sent to the patient. If the primary language is not English, the English version of the warning labels will be displayed on the pharmacist's verification screens during the verification process. The English version of the warnings will always be transmitted first. A maximum of five warnings will be transmitted for a prescription. The sequence the warnings are received is based on the warning labels priority.

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Th	Desc
Set ID = 11	1	4	ST	R	N			
Rx Number	2	20	FT	R	N			This is the prescription number. This number must Match the data in the ZR1 segment, sequence number 1 Field.
Language Flag	3	2	ST	R	N			This field indicates the language for printing the warnings ISO Table 639 is used for the language codes. (Appendix C)
Record Number	4	10	ST	R	N			This is the record number from the tables. When using First Data Bank, this number is the record number for the warning in their tables.
Patient Medication Instructions	5	160	FT	R	N			This is field is limited to 165 characters.

EXAMPLE: (this example is for a patient whose primary language is Spanish.)

NTE|11|300551A|ENG|11N|Avoid prolonged or excessive exposure to direct and/or artificial sunlight while taking this medication.

NTE|11|300551A|ENG|13N|It is very important that you take or use this exactly as directed. Do not skip doses or discontinue unless directed by your doctor.

NTE|11|300551A|ENG|7|It may be advisable to drink a full glass of orange juice or eat a banana daily while on this medication

NTE|11|300551A|ENG|9N|Some non-prescription drugs may aggravate your condition. Read all labels carefully. If a warning appears, check with your doctor.

NTE|11|300551A|ENG|94N|Herbal/dietary supplement products may interact with this medication. Discuss any such product with your doctor or pharmacist before taking.

NTE|11|300551A|SPA|11N|Evite exponerse excesivamente o por periodos prolongados a los rayos solares directos y/o artificiales mientras tome este medicamento.



NTE|11|300551A|SPA|13N|Es muy importante que lo tome o lo use exactamente según las indicaciones. No omita ninguna dosis ni lo deje de usar a menos que lo mande el mdico.

NTE|11|300551A|SPA|9N|Algunos medicamentos sin receta mdica pueden agravar su afección. Lea todas las etiquetas con cuidado. Consulte a su mdico si se incluye alguna advertencia.

NTE|11|300551A|SPA|94N|Los productos o suplementos herbarios/dietéticos pueden interactuar con este medicamento. Antes de tomar tales productos, consúltelo a su mdico o farmacutico.

### 9.6.17 BTS – Batch Trailer Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Batch Message Count	1	10	ST	R	N			This is the number of patient order messages in the batch.
Batch Comment	2	80	ST	O	N			This field is not used now.
Batch Totals	3	20	ST	R	N			This field will contain the number of Rx's in the batch.

#### EXAMPLE:

BTS|50||77

### 9.6.18 FTS – File Trailer Segment – Required segment

Field Name	Seq #	Len	DT	R/O	Rep	Qty	Tbl	Desc
File Batch Count	1	10	NM	R	N			This is the number of batches in the file. A file can contain from one to many batches.
File Trailer Comments	2	80	ST	O	N			This field will contain the free text reason the file was rejected by the receiving station. The sending station will not use this field.

#### EXAMPLE:

FTS|1

## 9.7 Batch Transmission Acknowledgement/Non-Acknowledgement (.TAC)

MSH

MSA

### 9.7.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. Within the VA this will always be VistA. Outside Agencies will use the medical center name of origin.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be ORR^O02.
Message Control ID	10	20	ST	R	N			This is a number that uniquely identifies this message from all other messages. The format of the message number is station number-transmission date/time. Same value as [BHS-11].
Processing ID	11	1	ID	R	N		0103	This will always be P.
Version ID	12	8	ID	R	N		0104	This will be 2.3.1
Accept Ack Type	15	2	ID	R	N		0155	This will always be NE for this MSH segment.
Application Ack Type	16	2	ID	R	N		0155	This will always be NE for this MSH segment.

EXAMPLE:

```
MSH|^~\&|VistA||CHCS||20010925202704||ORR^O02|573-013240530|P|2.3.1||NE|NE
```

### 9.7.2 MSA – Message Acknowledgement Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Qty	Tbl	Item#	Desc
Acknowledgement Code	1	2	ID	R		0008	00018	Acknowledgement Code
Message Control ID	2	20	ST	R				This is the Station Number and transmission date/time.
Text Message	3	80	ST	O				This field will contain the reject reason code, the order sequence number, and Rx sequence number for any errors detected. Format will be Reason Code~Order Sequence Number~Rx Sequence Number. Field may repeat.

Batch Reject Reason Code Table		
REASON CODE	REASON TEXT	SEGMENT-SEQUENCE
1	File Field Separator	FHS-1
2	File Encoding Characters	FHS-2
3	File Sending Application	FHS-3
4	File Sending Facility	FHS-4

Batch Reject Reason Code Table		
REASON CODE	REASON TEXT	SEGMENT-SEQUENCE
5	File Receiving Facility	FHS-6
6	File Creation Date/Time	FHS-7
7	File Control ID	FHS-11
8	Batch Field Separator	BHS-1
9	Batch Encoding Characters	BHS-2
10	Batch Sending Application	BHS-3
11	Batch Receiving Application	BHS-5
12	Batch Creation Date/Time	BHS-7
13	Batch Name/ID/Type	BHS-9
14	Batch Control ID	BHS-11
15	Order Control	ORC-2
16	Order Facility Name	ORC-21
17	Ordering Facility Address	ORC-22
18	Ordering Facility Phone Number	ORC-23
19	REFILL INSTRUCTIONS	NTE 2
20	NON REFILL INSTRUCTIONS	NTE 3
21	COPAY INSTRUCTIONS	NTE 4
22	Message Control ID MSH for each order	MSH-10
23	Patient ID	PID-3
24	Patient Name	PID-5
25	Patient Address	PID-11
26	Patient Phone Number	PID-13
27	Order Control	ORC-1
28	Placer Order Number	ORC-2
29	Placer Group Number	ORC-4
30	Quantity Timing	ORC-7
31	Entered By	ORC-10
32	Ordering Provider	ORC-12
33	Order Effective Date	ORC-15
34	Quantity/Timing	RXE-1
35	Give Code	RXE-2
36	Give Amount – Minimum	RXE-3
37	Give Units	RXE-5
38	Provider's Administration Instructions	RXE-7
39	Number of Refills	RXE-12
40	Pharmacist Verifier ID	RXE-14
41	Prescription Number	RXE-15
42	Number of Refills Remaining	RXE-16
43	D/T of Most Recent Refill	RXE-18
44	Rx Number	ZR1-1
45	Rx Patient Status	ZR1-2
46	Renewable	ZR1-3
47	Copayment	ZR1-4
48	Safety Cap	ZR1-5

Batch Reject Reason Code Table		
REASON CODE	REASON TEXT	SEGMENT-SEQUENCE
49	Refill Text	ZR1-6
50	Clinic	ZR1-7
51	Days Supply	ZR1-8
52	Rx Barcode Value	ZR1-9
53	Drug Warning	ZR1-10
54	Mail Flag	ZR1-11
55	Rx Expiration Date	ZR1-12
56	Batch Message Count	BTS-1
57	Batch Comment	BTS-2
58	Batch Totals	BTS-3
59	File Batch Count	FTS-1
60	File Trailer Comments	FTS-2
61	Control Substance Flag	ZR1-21

**EXAMPLES:**

**Transmission Acceptance:**

MSA|CA|573-013240530

**Transmission Reject:**

MSA|CR|573-013240530|51~1~3^54~3~1

## 9.8 CMOP Production Transmission Acknowledgment/Non Acknowledgement (.TAC)

MSH

MSA

After the Central Database system receives the TAC file from the local production systems, the Central Database will be update according to the status in the TAC file and will send a second acknowledgment/non acknowledgment sequence to the VA VistA system.

### 9.8.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. Within the VA this will always be VistA. Outside Agencies will use the medical center name of origin.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be ORR^O01.
Message Control ID	10	20	ST	R	N			This is a number that uniquely identifies this message from all other messages. The format of the message number is station number-transmission date/time. Same value as [BHS-11].
Processing ID	11	1	ID	R	N		0103	This will always be P.
Version ID	12	8	ID	R	N		0104	This will be 2.3.1
Accept Ack Type	15	2	ID	R	N		0155	This will always be NE for this MSH segment.
Application Ack Type	16	2	ID	R	N		0155	This will always be NE for this MSH segment.

#### EXAMPLE:

MSH|^~\&|VistA||CHCS||20010925202704||ORR^O02|573-013240530|P|2.3.1||NE|NE

### 9.8.1 MSA – Message Acknowledgement Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Qty	Tbl	Item#	Desc
Acknowledgement Code	1	2	ID	R		0008	00018	Acknowledgement Code
Message Control ID	2	20	ST	R				This is the Station Number and transmission date/time.
Text Message	3	80	ST	O				This field will contain the reject reason code, the order sequence number, and Rx sequence number for any errors detected. Format will be Reason Code~Order Sequence Number~Rx Sequence Number. Field may repeat. (see Batch Reject Reason Code Table in section 9.7)

**EXAMPLES:**

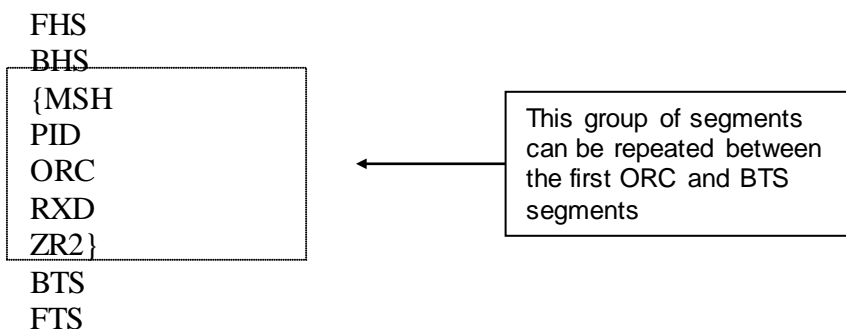
**Transmission Acceptance:**

MSA|CA|573-013240530

**Transmission Reject:**

MSA|CR|573-013240530|51~1~3^54~3~1

## 9.9 Batch Prescription Fulfillment (.QRY)



### 9.9.1 FHS – File Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
File Field Separator	1	1	ST	R	N		HL7 recommended field separator.
File Encoding Characters	2	4	ST	R	N		HL7 recommended encoding characters.
File Sending Application	3	15	ST	R	N		The name of the application creating the batch. Within the VA this will always be VistA. Outside Agencies will use the medical center name of origin.
File Sending Facility	4	20	ST	R	N		The name of the sending agency.
File Receiving Facility	6	20	ST	R	N		The name of the receiving agency.
File Creation Date/Time	7	26	TS	R	N		The date and time the batch was created on the sending station system.
File Control ID	11	20	ST	R	N		This field will be the file name. The file name is the batch number concatenated with the file extension.

#### EXAMPLE:

FHS|^~\&|CHCS|DoD||VISTA |20010928120135|||573\_013240530.QRY

### 9.9.2 BHS – Batch Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Batch Field Separator	1	1	ST	R	N		HL7 recommended field separator.
Batch Encoding Characters	2	3	ST	R	N		HL7 recommended encoding characters.
Batch Sending Application	3	15	ST	R	N		The name of the application creating the batch. In the VA this will always be VistA.
Batch Receiving Application	5	15	ST	R	N		The name of the receiving agency.
Batch Creation Date/Time	7	26	TS	R	N		The date and time the batch was created on the sending station system.
Batch Control ID	11	20	ST	R	N		This is a unique number that identifies this batch of fulfillment data.

#### EXAMPLE:

BHS|^~\&|Sending Agency||Receiving Agency||20011109144013|||013240530

### 9.9.3 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. In the VA this will always be VistA.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be 'RDS^R06'.
Message Control ID	10	20	ST	R	N			This is a two part data element, the first part is the Rx Index, the second part is the order number. The Two data elements are separated by a “^” character.
Processing ID	11	1	ID	R	N		0103	This will always be a P.
Version ID	12	8	ID	R	N		0104	This will always be 2.3.1.
Accept Ack Type	15	2	ID	R	N		0155	This will always be AL for this MSH segment.
Application Ack Type	16	2	ID	R	N		0155	This will always be AL for this MSH segment.

#### EXAMPLE:

MSH|^~\&|VistA||CHCS||20010925202704||RDS^R06|573-200009492-2|P|2.3.1||AL|AL

### 9.9.4 PID – Patient Identification Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Patient ID	3	20	C	R	N			Patient SSN^Check Digit^Check Digit Scheme. Check digit scheme will be M11. HL7 P 2-15
Patient Name	5	48	PN	R	N			The name of the patient. Format will be ^LAST NAME^FIRST NAME^MIDDLE INITIAL^SUFFIX.
Patient Address	11	106	AD	R	Y	3		The patient's mailing address. See HL7 specification, 3.3.2.11 for format.
Patient Phone Number	13	40	TN	O	N			The patient's phone number.

#### EXAMPLE:

PID|||11111111116^6^M11||^WATER^UNDER^^|DEEP 6  
STREET^^CHARLESTON^SC^29405|(843) 745-4124

### 9.9.5 ORC – Common Order Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Order Control	1	2	ID	R	N		0119	This will always be OK for order complete or CA for Canceled.
Placer Order Number	2	75	CM	C	N			This is the Rx Index. See definitions.

#### EXAMPLE:

ORC|OK|573-200009492-2



### 9.9.6 RXD – Pharmacy/Treatment Dispense Segment – Required segment

The RXD segment is a multi-purpose segment. The RXD segment will transmit data for both released/filled prescriptions and cancelled prescriptions. Data elements are marked as conditional depending on the type of fulfillment data being sent. Data fields on this segment are marked as either conditional or required. A required data field is present for both cancelled and filled prescriptions. Conditional fields are required based on whether the prescription is cancelled or filled.

If the prescription was not filled and mailed to the patient, the prescription is considered to be cancelled. When a prescription is cancelled, the following fields are required:

Field Name	Seq#
Dispense Sub-ID Counter	1
Dispense/Give Code	2
Date/Time Dispensed	3
Actual Dispense Amount	4
Prescription Number	5
Dispense Notes	9
Dispensing Provider	10

If the prescription is filled and mailed to the patient, the prescription is considered to be dispensed. When a prescription is dispensed, the following fields are required:

Field Name	Seq#
Dispense Sub-ID Counter	1
Dispense/Give Code	2
Date/Time Dispensed	3
Actual Dispense Amount	4
Prescription Number	5
Dispensing Provider	10
Substance Lot Number	18
Substance Expiration Date	19
Supplementary Code	25

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Dispense Sub-ID Counter	1	4	NM	R	N			Fill Number. Number between 1 and 12.
Dispense/Give Code	2	100	CE	R	N	292		This is a composite field that contains the unique VA product ID and VA PRINT NAME
Date/Time Dispensed	3	26	TS	R	N			This is the date and time the prescription was packed.
Actual Dispense Amount	4	20	NM	R	N			This is the true dispense quantity.
Prescription Number	7	20	ST	R	N			The unique Rx number generated by the sending station.
Dispense Notes	9	200	ST	C	N			This field will contain the reason the prescription could not be dispensed by the CMOP. If the prescription was dispensed this field will be null. This field is only used when the CMOP production system is returning the data

							to the CMOP VISTA system. While the field allows 200 characters, this will contain a maximum of 40 characters.
Dispensing Provider	10	200	XCN	R	N		This field contains the id number of the dispensing pharmacist. This data is only returned from the CMOP Production system to the CMOP VISTA system. The data is not forwarded back to the medical center.
Substance Lot Number	18	20	ST	C	Y	5	This is the lot number of the medication dispensed, it can be repeated up to five times
Substance Expiration Date	19	26	TS	C	Y	5	This is the expiration date for the lot number's dispensed.
Supplementary Code	25	250	CE	C	N	1	This is the 11 digit NDC. The NDC must come from the First Data Bank tables where ever possible. NDC will be in the format of 5 dash 4 dash 2, example 12345-1234-12.

**EXAMPLE:****Rx that is filled and sent to the patient:**

RXD|1|S0022^SIMVASTATIN 40MG  
 TAB^L|20010822081001|45||10014891||||||0108064|20020801||||12345-1234-12

**Rx that is not filled:**

RXD|1|S0022^SIMVASTATIN 40MG TAB^L|20010822081001|0||10014891||INCORRECT QTY –  
 CORRECT AND RESEND|||||||

**9.9.7 ZR2 – Release Data Additional Information Segment – Required segment**

The ZR2 segment is a multi-purpose segment. The ZR2 segment will transmit data for both released/filled prescriptions and cancelled prescriptions. Data elements are marked as conditional depending on the type of fulfillment data being sent. Data fields on this segment are marked as either conditional or required. A required data field is present for both cancelled and filled prescriptions. Conditional fields are required based on whether the prescription is cancelled or filled.

If the prescription was not filled and mailed to the patient, the prescription is considered to be cancelled. When a prescription is cancelled, the following fields are required:

Field Name	Seq#
Prescription Number	3

If the prescription is filled and mailed to the patient, the prescription is considered to be dispensed. When a prescription is dispensed, the following fields are required:

Field Name	Seq#
Carrier	1
Package Tracking Number	2
Prescription Number	3
Rx Drug Cost	4

Dispensing Fee	5
Mailing Cost	6
Cost Per Dispense Unit	7

Field Name	Seq #	Len	DT	R/O	Rep	Qty	Tbl	Desc
Carrier	1	12	ST	C	N			This is the free text name of the mail carrier. If the Rx was cancelled, this field is set to CA
Package Tracking Number	2	256	ST	C	N			This is the tracking number used to track the package with the mail carrier. If the Rx is canceled this field is null. This field can be used to send multiple tracking numbers for the same Rx. When multiple tracking numbers are used, they will be separated by the carat character.
Prescription number	3	20	ST	C	N			This unique Rx number generated by the sending station. This number has to match the prescription number field on the preceding RXD segment. If the Rx is canceled this field is null.
Rx Drug Cost	4	20	MO	C	N			This is the drug cost at dispense time. Currently this field is not in used to return cost to the medical center. It is used to return drug costs to the VA CMOP by 'Outsourcing' vendors. If the Rx is canceled this field is null.
Dispensing Fee	5	20	MO	C	Y			This field contains any extra dispensing fee associated with filling the prescription. If the Rx is canceled this field is null.
Mailing Cost	6	20	MO	C	N			This field contains mailing cost. This field is not in use but is defined for future use. If the Rx is canceled this field is null.
Cost Per Dispense Unit	7	20	MO	C	Y			This is the cost per dispense unit.

**EXAMPLE:****Rx that is filled and sent to the patient:**

ZR2|CTC-USPS|5161145008952133980|10014891|

**Rx that is not filled:**

ZR2|CA

**9.9.8 BTS – Batch Trailer Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Batch Message Count	1	10	ST	R	N			This is the number of patient order messages in the batch.
Batch Comment	2	80	ST	O	N			This field is not used now.
Batch Totals	3	20	ST	R	N			This field will contain the number of Rx's in the batch.

**EXAMPLE:**

BTS|50||77

**9.9.9 FTS – File Trailer Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
File Batch Count	1	10	NM	R	N			This is the number of batches in the file. A file can contain from one to many batches.
File Trailer Comments	2	80	ST	O	N			This field will contain the free text reason the file was rejected by the receiving station. The sending station will not use this field.

**EXAMPLE:**

FTS|1

## 9.10 Batch Prescription Fulfillment Acknowledgement (.QAC)

There are two batch prescription fulfillment acknowledgement processes. One is the acknowledgement that is returned by the CMOP VistA or the CMOP Central Database System in response to receiving fulfillment data from the production database system. The second is the acknowledgement that is returned by the VA Medical Center VistA system to the CMOP VistA or CMOP Central Database System in response to the fulfillment data being sent back to the Medical Center.

The data segments are the same, the difference is with the reason a prescription would be rejected. A Medical Center VistA system will reject for different reasons than the CMOP VistA or Central Database System. Review the MSA segment below and the reject tables that follow the segment format and examples for the different reject reasons.

FHS  
BHS  
{MSH  
MSA}  
BTS  
FTS

### 9.10.1 FHS – File Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
File Field Separator	1	1	ST	R	N		HL7 recommended field separator.
File Encoding Characters	2	4	ST	R	N		HL7 recommended encoding characters.
File Sending Application	3	15	ST	R	N		The name of the application creating the batch. In the VA this will always be VistA.
File Sending Facility	4	20	ST	R	N		The name of the sending medical center.
File Receiving Facility	6	20	ST	R	N		The name of the receiving station.
File Creation Date/Time	7	26	TS	R	N		The date and time the batch was created on the sending station system.
File Control ID	11	20	ST	R	N		This field will be the file name.

#### EXAMPLE:

FHS|^~\&|MEDICAL CENTER NAME||CMOP CHARLESTON||20010928120135|||573-013240530.QAC

### 9.10.2 BHS – Batch Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Batch Field Separator	1	1	ST	R	N		HL7 recommended field separator.
Batch Encoding Characters	2	3	ST	R	N		HL7 recommended encoding characters.
Batch Sending Application	3	15	ST	R	N		The name of the application creating the batch. In the VA this will always be VistA.
Batch Receiving Application	5	15	ST	R	N		The name of the receiving medical center.

Batch Creation Date/Time	7	26	TS	R	N		The date and time the batch was created on the sending station system.
Batch Control ID	11	20	ST	R	N		This is a unique number that identifies this batch of fulfillment data acknowledgements. It will be the same number as the batch it is acknowledging.

**EXAMPLE:**

BHS|^~\&|Outside Agency||VistA||20011109144013|||013240530

**9.10.3 MSH – Message Header Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. In the VA this will always be VistA.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be RRD^R04'.
Message Control ID	10	20	ST	R	N			This is a two part data element, the first part is the Rx Index, the second part is the order number. The Two data elements are separated by a “^” character.
Processing ID	11	1	ID	R	N		0103	Represented as P
Version ID	12	8	ID	R	N		0104	Always 2.3.1
Accept Ack Type	15	2	ID	R	N		0155	This will always be NE for this MSH segment.
Application Ack Type	16	2	ID	R	N		0155	This will always be NE for this MSH segment.

**EXAMPLE:**

MSH|^~\&|CHCS||VistA||20010925202704||RRD^R04|573-013240530|P|2.3.1||NE|NE

**9.10.4 MSA – Message Acknowledgement Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Item#	Desc
Acknowledgement Code	1	2	ID	R			0008	00018	Acknowledgement Code
Message Control ID	2	20	ST	R					This is the Rx Index. See definition section.
Text Message	3	80	ST	O					Text Message - This field will contain the reject reason code and the free text rejection reason. If the message was accepted this field will be null.

**EXAMPLE:**

**Rx that is successfully filed at the medical center:**

MSA|CA|516-11450-8954

**Rx that can't be filed at the medical center:**

MSA|CR|516-11450-8954|2-RX ENTRY MISSING

**REMOTE ERROR CONDITION**

1. Release date already exists
2. Rx entry missing
3. Fill mismatch
4. Transmission number mismatch
5. No CMOP event multiple
6. Fill does not exist
7. Other
8. MisMatch of RxIndex between segments
9. MisMatch of Rx Number to Order Number

**EXAMPLE:**

**Rx that can't be filed by the CMOP VistA or Central Database System:**

MSA|CR|516-1145612-1|1- MISSING RX#

**Reject reasons returned by the CMOP VistA or Central Database System:**

- ERR = 1 : Orders received don't equal Orders sent on the BTS segment
- ERR = 2 : Rx's received don't equal Rx's sent on the BTS segment
- ERR = 3 : Rx Number on the ORC and RXD segments don't match
- ERR = 4 : Rx Number on the ORC and ZR2 segments don't match
- ERR = 5 : Rx is cancelled but no cancel reason
- ERR = 6 : Rx Number is missing on ORC segment
- ERR = 7 : Rx Number is missing on RXD segment
- ERR = 8 : Rx Number is missing of ZR2 segment
- ERR = 9 : Missing Status
- ERR = 10 : Missing completion date
- ERR = 11 : Missing pharmacist ID
- ERR = 12 : Missing Package ID
- ERR = 13 : Release date in the future
- ERR = 14 : Missing Lot Number
- ERR = 15 : Missing Lot Expiration Date
- ERR = 16 : Segments out of sequence
- ERR = 17 : Missing NDC
- ERR = 18 : Not a Billable NDC
- ERR = 19 : VA Order Number/VA Rx Number mismatch

Table 0008 - Acknowledgment code

Value	Description
AA	Original mode: Application Accept - Enhanced mode: Application acknowledgment: Accept
AE	Original mode: Application Error - Enhanced mode: Application acknowledgment: Error
AR	Original mode: Application Reject - Enhanced mode: Application acknowledgment: Reject
CA	Enhanced mode: Accept acknowledgment: Commit Accept
CE	Enhanced mode: Accept acknowledgment: Commit Error
CR	Enhanced mode: Accept acknowledgment: Commit Reject

**9.10.5 BTS – Batch Trailer Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Batch Message Count	1	10	ST	R	N			This is the number of patient order messages in the batch.
Batch Comment	2	80	ST	O	N			This field is not used now.
Batch Totals	3	20	ST	R	N			This field will contain the number of Rx's in the batch.

**EXAMPLE:**

BTS|50||77

**9.10.6 FTS – File Trailer Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
File Batch Count	1	10	NM	R	N			This is the number of batches in the file. A file can contain from one to many batches.
File Trailer Comments	2	80	ST	O	N			This field will contain the free text reason the file was rejected by the receiving station. The sending station will not use this field.

**EXAMPLE:**

FTS|1



## 9.11 Socket-to-Socket TCP/IP Message Processing.

The medical center or pharmacy clinic has the option to send prescription workload to the VA CMOP using an approved HL7 socket-to-socket TCP/IP connection. This option allows the medical center to transmit Rx's as they are entered and queued to transmit to the VA CMOP.

The VA CMOP will accept messages from each sending facility during the day. At an agreed upon time each day, the individual messages will be grouped or batched into a batch and released to the processing CMOP.

The VA CMOP system requires each patient Rx to have a unique processing id assigned. This is defined as the transmission order number and is composed of the unique medical center station number or ID number, a dash, a processing Julian date (YYDDDDHHMM), a dash, and an incrementing sequence number for each Rx Number. This sequence number will be reset with each new Control ID.

The VA CMOP system will use the time provided via the transmission scheduling process described in section 9.4.

### 9.11.1 Daily Common Segment Messages

Data that applies to all Rx's will be sent as Master File Update segments, known as "Daily Comment Segment Messages". All prescriptions received will have the last Daily Common Segment Message information applied to them. This Daily Common Segment Message must sent at least once a day or whenever the common information changes. The message will include the transmission number for the current transmission. (See Key Terms for how to format and create the transmission number.)

The master file updates will follow the sequence below.

MSH  
MFI  
ZP1  
ZR3

This group of segments can be repeated up to seven times per segment type indicator.

### 9.11.2 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Desc
Field Separator	1	1	ST	R	HL7 recommended field separator.
Encoding Characters	2	4	ST	R	HL7 recommended encoding characters.
Sending Application	3	15	ST	R	The name of the application creating the Message. For the DOD- "DOD", VA- "Vista"

Receiving Application	5	30	ST	R	This is the application receiving the data. Should be "CMOP PRODUCTION"
Message Creation Date/Time	7	26	TS	R	Date and time the message was created on the sending Station system.
Message Type	9	7	CM	R	The type of message being sent. This will always be 'MFN^M01'.
Message Control ID	10	20	ST	R	This is a number that uniquely identifies this message from all other messages. VA- The format of the message number is station number-transmission number. DOD- This is formatted as the unique station number, a dash, then a two digit year, the Julian Date, two digit hour, two digit minute (YYDDHMM)
Processing ID	11	1	ID	R	This will always be a P.
Version ID	12	8	ID	R	This will always be 2.5
Accept Ack Type	15	2	ID	O	No Entry
Application Ack Type	16	2	ID	O	No Entry

[MSH-5] Receiving Application is the name of the dispensing application.

[MSH-10] Message Control ID is the number that uniquely identifies the message. It is returned in MSA-2.

#### EXAMPLE VA:

**MSH|^~\&|VistA||CMOP PRODUCTION||20010925202704||MFN^M01|573-013240530|P|2.5**

#### EXAMPLE DOD:

**MSH|^~\&|DOD||CMOP PRODUCTION||20010925202704||MFN^M01|10029-092300501|P|2.5**

### 9.11.3 MFI – Master File Identification - Required segment

Field Name	Seq#	Len	DT	R/O	Th	Desc
MasterFile Identifier Code	1	3	ID	R	0175	Will always be ZBM for "Batch Master" table.
MasterFile Application Identifier	2	180	HD	O		This field contains an optional code of up to 180 characters which (if applicable) uniquely identifies the application responsible for maintaining this file at a particular site.
File-level Event Code	3	3	ID	R	178	Always "UPD" - Change file records as defined in the record-level event codes for each record that follows
Entered Date/Time	4	26	TS	O		This field contains the time stamp for file-level event on originating system.
Effective Date/Time	5	26	TS	O		This optional field contains the effective date/time, which can be included for file-level action specified.
Response Level Code	6	2	ID	O	179	No Entry

#### EXAMPLE:

**MFI|ZBM||UPD|20010925202704|20010925202704**

**9.11.4 MFE – Master File Entry – Required segment**

Field Name	Seq#	Len	DT	R/O	Tbl	Desc
Record-Level Event Code	1	3	ID	R	0180	Always “MAD” - Add record to master file.
MFN Control ID	2	20	ST	C		Reference the Message Control ID Field in the MSH Segment.
Effective Date/Time	3	26	TS	O		An optional effective date/time can be included for the record-level action specified.
Primary Key – MFE	4	200	ST	R		Reference the Message Control ID Field in the MSH Segment.
Primary Key - Type	5	3	ID	R	355	Always “CE” - Coded element

**EXAMPLE:**

**MFE|MAD|ControlID|20010925202704|ControlID|CE**

**9.11.5 ZP1 – Sending Pharmacy Information – Required segment**

Field Name	Seq#	Len	DT	R/O	Tbl	Desc
MFN Control ID	1	20	ST	R		Reference the Message Control ID Field in the MSH Segment.
Division ID	2	12	ST	R		This field will contain the pharmacy division number.
Division Name	3	60	ST	R		This field will contain the pharmacy division name.
Station Number	4	12	ST	R		This field will contain the pharmacy unique station number.
Ordering Facility Address	5	106	XAD	O		This field contains the return mailing address for the sending pharmacy division.
Ordering Facility Phone Number	6	48	XTN	O		This is the phone number for the sending pharmacy division.

**EXAMPLE:**

**ZP1|ControlID| 672GA|VA MEDICAL CENTER|672|10 CALLE CASIA^^SAN JUAN^PR^00921-3201|(787) 641-4554**

**9.11.6 ZR3 – Order Instructions Text – Optional segment**

Field Name	Seq #	Len	D T	R/O	Tbl	Desc
MFN Control ID	1	20	ST	R		Reference the Message Control ID Field in the MSH Segment.
Type Indicator	2	2	ST	R		Must be “2” for refill instructions, “3” for non-refill Instructions, “4” Copayment Narrative
Sequence Number	3	2	SI	R		Sequence number in multiple continuation messages. Can be repeated a maximum of seven times per Type Indicator.
Refill Instructions Text	4	100	FT	R		This is the standard free text refill/non-refill instructions that will print for all refillable prescriptions in the patch. For backwards compatibility, this segment will always be present. If no data for the segment, the segment will be formatted with at least three spaces.

[ZR3] The Type Indicator field will identify the ZR3 segment (2=Refill Instructions; 3=Non-refill Instructions Narrative; 4=Copayment Narrative). The Sequence Number Field will contain the sequence

within the group the comment will be printed. The Comment field will contain the respective information.

**EXAMPLE OF REFILL:**

ZR3|ControlID|2|00|Prescriptions (Rx's) are NOT automatically  
ZR3|ControlID|2|01|refilled. To request refills:  
ZR3|ControlID|2| 02|  
ZR3|ControlID|2| 03| (1) Call our TOLL FREE # -> 1-888-820-0230.  
ZR3|ControlID|2|04| Have your Social Security & Rx #'s ready  
ZR3|ControlID|2|05| OR  
ZR3|ControlID|2|06| (2) Sign and mail your refill request(s).  
ZR3|ControlID|2|07| Use the return address label provided.  
ZR3|ControlID|2|08|  
ZR3|ControlID|2|09|Order your refills as soon as possible, AT  
ZR3|ControlID|2|10|LEAST 14 DAYS before you run out.  
ZR3|ControlID|2|11|  
ZR3|ControlID|2|12|ALL refills are MAILED. Please do NOT come  
ZR3|ControlID|2|13|to the clinic for Rx refills.

**EXAMPLE OF NON-REFILL:**

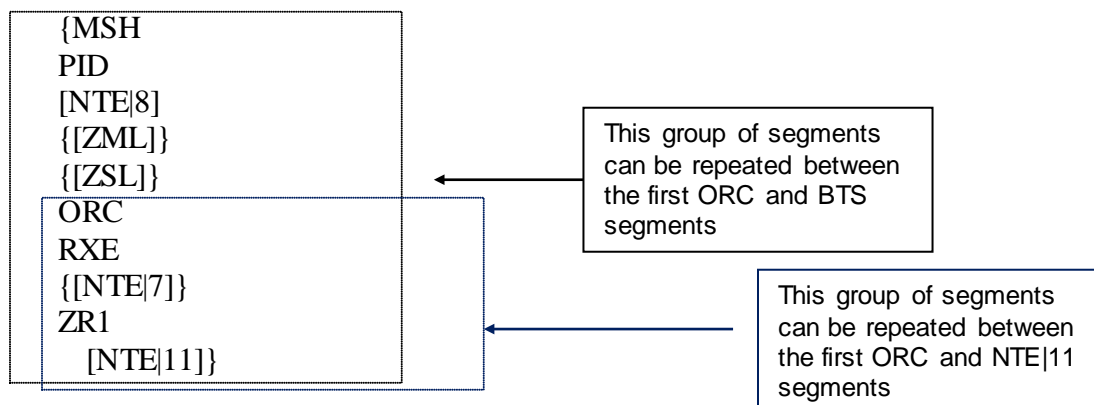
ZR3|ControlID|3|00| \*\* If NO REFILLS remain OR your Rx has  
ZR3|ControlID|3|01| EXPIRED (too old) \*\* discuss this with  
ZR3|ControlID|3|02| your VA PROVIDER at your next appt.  
ZR3|ControlID|3|03|  
ZR3|ControlID|3|04| If you will run out of medicine BEFORE  
ZR3|ControlID|3|05| your next appt, call (941) 939-3939 to  
ZR3|ControlID|3|06| make or change an appt.

**EXAMPLE CO PAY NARRATIVE:**

ZR3|ControlID|4|00| Questions about your bill? Please call  
ZR3|ControlID|4|01| 1-888-820-0230 Ext. 4004 (TOLL FREE)

## 9.12 Patient Prescription Messages

Patient prescription information will be transmitted using the standard message formats found in the batch transmission protocol. The sequence and format of the segments will not change. Nor will the data transmitted on the segments. The data segments will follow the sequence below:



### 9.12.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Field Separator	1	1	ST	R	N		HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N		HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N		The name of the application creating the batch. In the VA this will always be 'VistA'. For DOD this will always be "DOD".
Receiving Application	5	30	ST	R	N		This is the application receiving the data. This will always be "AUTO PHARMACY".
Message Creation Date/Time	7	26	TS	R	N		Date and time the message was created on the sending Station system.
Message Type	9	7	C	R	N	0076	The type of message being sent. This will always be 'ORM^O01'.
Message Control ID	10	20	ST	R	N		This is a number that uniquely identifies this message from all other messages. The format of the message number is station number-transmission number-VA- Rx Number. DOD- Incrementing Sequence Number.
Processing ID	11	1	ID	R	N	0103	This will always be a P.
Version ID	12	8	ID	R	N	0104	This will always be 2.5
Accept Ack Type	15	2	ID	O	N	0155	No Entry
Application Ack Type	16	2	ID	O	N	0155	No Entry

[MSH-5] Receiving Application is the name of the dispensing application.

[MSH-10] Message Control ID is the number that uniquely identifies the message. It is returned in MSA-2. For DOD it will contain an incrementing sequence number that will be reset to zero with each new transmission number sent. This message Control ID will be used throughout the system to identify this RX.

**EXAMPLE:**

**EXAMPLE VA:**

MSH|^~\&| VistA|| AUTO PHARMACY ||20010925202704|| ORM^O01|573-013240530- 672-18575705-1  
|P|2.5

**EXAMPLE DOD:**

MSH|^~\&|DOD|| AUTO PHARMACY ||20010925202704|| ORM^O01|10029-18575705-1 |P|2.5

### 9.12.2 PID – Patient Identification Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Desc
Patient ID	3	20	C	R	N		Patient SSN^Check Digit^Check Digit Scheme. Check digit scheme will be M11. HL7 P 2-15
Patient Name	5	48	PN	R	N		The name of the patient. Format will be LAST NAME^FIRST NAME^MIDDLE INITIAL^SUFFIX.
Patient Address	11	106	AD	R	Y	3	The patient's mailing address. See HL7 specification, 3.3.2.11 for format.
Patient Phone Number	13	40	TN	O	N		The patient's contact phone number.
Primary Language	15	60	CE	O	N		Patient's primary language field is used to determine the language used to print the patient PMIS. ISO Table 639 defines the language codes. (Appendix C)
Patient Account Number	18	250	CX	O	N		This field contains the unique VA Internal Control Number (ICN) and checksum value. Format will be ICN^checksum. The Checksum is provided by the VistA system. Receiving station is not required to compute the checksum for validating the data.

[PID-3] This is the patient's SSN, check digit and check digit scheme. Refer to HL7 Version 2.5, Section 2.A.14.3.

[PID-15] Patient's primary language field is used to determine the language used to print the patient PMI data, medication information, etc.

[PID-18] Patient Account Number field is used to uniquely identify the patient. The number is guaranteed to be unique across the VA system. A checksum value is provided with the field, the receiving station is not required to compute checksums on this data element. Nor will the checksum be stored within the receiving stations database.

#### EXAMPLE:

```
PID|||111111111111^1^M11||MOUSE^MICKEY^^|||100 MOUSE LANE^APT
#3^CHARLESTON^SC^29405||(843) 745-4124||ENG||1234567^345
```

### 9.12.3 NTE|8 – Additional Patient Street Address Information Segment – Optional

This segment is multi-functional. It is used to carry additional street lines for the patient address if there are more than two street lines in the address. It is also used to indicate that the patient address is a temporary address. When used as a temporary address indicator, the expiration date will indicate when the address is due to expire. If the patient's mailing label is scheduled to print after the expiration date, the entire patient order will be automatically cancelled back to the medical center with a cancel reason of 'Temp Address Expired'. ***The check for address expiration is to be made before the patient order is released to the system for processing. If the patient address will expire prior to the package being mailed, the entire patient order will be automatically cancelled back to the medical center. The cancel reason will be 'ADD – Expired address correct & resubmit'***

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Set Id = 8	1	4	ST	R	N			
Temporary Address	2	1	NM	O	N			1 means this is a temporary address

Additional Street Address and Effective Date	3	35	FT	R	2		Additional Street Address. This field may Repeat twice.
--	---	----	----	---	---	--	---

**Comment:** Additional Street Address and Effective Date will be formatted as \F\Effective Date (CCYYMMDD)\F\Street Address Line 3\R\Street Address Line 4\R\Street Address Line 5

\F\ - Field Separator

\R\ - Repetition Separator

#### Example of Patient Data with Temporary Address Information:

PID|||999999999^1^M11||STEELE^JAMES E.||||107 OAK RD.^APT#3^LIMA^OH^48132 (or 48132-9999)

NTE|8|1|\F\20041015\F\Street Address line 3\R\Street Address line 4\R\Street Address line 5

#### Example of Patient Data with NO Temporary Address Information:

PID|||999999999^1^M11||STEELE^JAMES E.||||107 OAK RD.^APT#3^LIMA^OH^48132

NTE|8||\F\F\Street Address line 3\R\Street Address line 4\R\Street Address line 5

### 9.12.4 ZML – Multi-Rx Label Segment – Optional segment

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Drug Name	1	40	ST	R	N		The free text drug name. (VA PRINT NAME)
Number of Refills	2	3	NM	R	N		Total number of remaining refills
Expiration Date	3	26	TS	R	N		Prescription expiration date.
Rx Number	4	20	ST	R	N		This is the prescription number as assigned by the originating pharmacy.
Barcode	5	20	ST	R	N		This field is used by the VA pharmacy system to produce a barcode value that is recognized on the medical system. This barcode is used to enter the next refill.

[ZML] This segment is repetitive. It repeats for all the drugs for the patient

#### EXAMPLE:

ZML|FELODIPINE 10MG SA TAB|1|20011209|200002833|573-7291313

ZML|LEVOTHYROXINE NA (SYNTHROID) 0.1MG TAB|1|20011209|200012872|573-8048381

### 9.12.5 ZSL – Suspense Label Segment – Optional segment

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Drug Name	1	40	ST	R	N		The free text drug name. (VA PRINT NAME)
Suspense Date	2	26	TS	R	N		The date the fill is suspended for processing.
Rx Number	3	20	ST	R	N		This is the prescription number as assigned by the originating pharmacy.

[ZSL] This segment is repetitive. It repeats for all suspended Rx's for the patient.

#### EXAMPLE:

ZSL|FELODIPINE 10MG SA TAB|20011209|200002833



**9.12.6 ORC – Common Order Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Order Control	1	2	ID	R	N	0119	This will always be a new order. NW
Placer Order Number	2	75	CM	R	N		This is the Rx Index. See Key Terms for the definition of the Rx Index.
Placer Group Number	4	22	EI	R	N		This field is two parts. The first part is the number of Rx's in the patient order, the second number is the Sequence number of this Rx in the patient order. Example: this patient order has five Rx's in it, this Rx is the second Rx in the order so this field will be 5^2.
Quantity Timing	7	200	TQ	R	N		This field contains duration of the fill. Start date of the fill End date of the fill = Start date + days supply
Entered By	10	80	XCN	R	N		The entering clerks id number.
Ordering Provider	12	80	XCN	R	N		The name of the ordering provider.
Order Effective Date	15	26	TS	R	N		The effective date of the order.

**EXAMPLE:**

ORC|NW|573-200002833F-4||5^2||^20010925^20011224||10111|^STEPHENS^  
REBECCA^S||20001227

**9.12.7 RXE – Pharmacy/Treatment Encoded Order Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Tbl	Desc
Quantity/Timing	1	200	TQ	R	N		Quantity Requested
Give Code	2	100	CE	R	N	0292	This is a composite field that contains the unique VA product ID^VA Print Name^L
Give Amount – Minimum	3	20	NM	R	N		Quantity Requested
Give Units	5	60	CE	R	N		This field contains the units for the Give Amount as encoded by the pharmacy or treatment application. Example: TAB, CAP, GM, OZ etc.
Provider's Administration Instructions	7	200	CE	R	N		This field will contain the first 80 characters of the provider's instructions (SIG)
Number of Refills	12	60	NM	R	N		This field contains the total original number of refills.
Pharmacist Verifier ID	14	20	ST	R	N		This is the pharmacist's id number on the sending station system. For the VA it will be the pharmacist's Local ID (DUZ) number.
Prescription Number	15	20	ST	R	N		This is the Rx Index number as assigned by the originating pharmacy. This number has to match the Placer Order Number field on the preceding ORC Segment.
Number of Refills Remaining	16	20	NM	R	N		Number of refills remaining for this prescription.
D/T of Most Recent Refill	18	26	TS	R	N		Date of the most recent fill dispensed.

**EXAMPLE:**

RXE|45|L0139^LEVOTHYROXINE NA (SYNTHROID) 0.1MG TAB^L|45||TAB||^TAKE 1  
TABLET(S) BY MOUTH EVERY MORNING ||||0||10111|573-200002833F-4|0||20010925

**9.12.7.1 ADDITIONAL FIELD NOTES:**

[RXE-1] Quantity Requested

[RXE-2] Give Code identifies the substance ordered as encoded by the Pharmacy. The components, in order, are the VA Product ID, VA Product Name.

[RXE-3] Give Amount - Minimum is a required field but it will not be used in OP Version 2.0. It will always be a null value (“”).

[RXE-5] Give Units identifies the units for the give amount as encoded by the VA National Drug File.

[RXE-7] Providers Administration Instructions (SIG). This field is limited to 80 characters. Only the second component of this field is used.

*Components:* <identifier (ST)> ^ <text (ST)> ^ <name of coding system (ST)> ^ <alternate identifier (ST)> ^ <alternate text (ST)> ^ <name of alternate coding system (ST)>

*Definition:* This field contains the ordering provider's instructions to the patient or the provider administering the drug or treatment. If coded, a user-defined table must be used; if free text (describing a custom V, mixture, or salve, for example), place the text in the second component, e.g., |^this is a free text administration instruction|.

[RXE-12] Number of Refills - Definition: This field contains the total original number of refills. Outpatient only.

[RXE-14] Pharmacist Verifier ID identifies the pharmacist who verified the order. The first component is the DFN pointer in the NEW PERSON file (#200) of VISTA and the second component is the name.

[RXE-15] Prescription Number is the external Outpatient prescription number.

[RXE-16] Number of Refills Remaining - Definition: Number of refills remaining. This field is conditional because it is required when a prescription is dispensed to an outpatient. It is not relevant to inpatient treatment orders.

[RXE-18] D/T of Last Refill identifies the last date the patient received this particular drug (i.e., Last Dispense Date).

### 9.12.8 NTE|7 – Additional Medication Instructions Segment – Optional segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Set Id	1	4	ST	R	N			7
Additional Medical Instructions	3	64K	FT	R				\FRx Number(20)\FLanguage Flag(2)\FSequence Number(2)\FPatient Medication Instructions(100).

#### 9.12.8.1 ADDITIONAL FIELD NOTES:

The NTE|7 segment carries SIG information when the RXE-7 field exceeds 80 characters. The NTE|7 segment may repeat as many times as necessary to complete the SIG. If the patient's primary language flag is not English, both the primary language and the English version of the SIG will be transmitted with the patient data. The SIG will be sent in English first and then in the primary language.

The segment sequence number is used to determine the sequence of the NTE|7 segments and not the SIG continuations. The first NTE|7 segment will always be number 1 for each language. If the patient has a primary language other than English, the NTE|7 segments will always be ordered so that the English version is sent first then the primary language.

The patient's primary language code will be used to print the SIG and warning labels on the patient documentation. These data elements will display in English on the pharmacy verification screens at the time of verification or review of these data elements in other electronic processes.

In the example the RXE segment is added for continuity purposes.

**EXAMPLE:**

RXE|0-400797-1|||||||30||^L||||11|20040413|11||20050414|20040413|400797|||TAKE 2 TABLET(S)  
BY MOUTH EVERY DAY FOR 7 DAYS, THEN TAKE 3 TABLET(S) EVERY DAY

NTE|7||F\400797\F\ENG\F\1\F\THEN TAKE 1 TABLET TWICE A DAY FOR 3 DAYS, THEN  
TAKE 2 TABLET(S) FOR PAIN

NTE|7||F\400797\F\SPA\F\1\F\TOMAR DOS TABLETA(S) POR BOCA DIARIAMENTE POR 7  
DIAS, LUEGO TOMAR TRE

NTE|7||F\400797\F\SPA\F\2\F\TABLETA(S) DIARIAMENTE LUEGO TOMAR UNO  
TABLETA TWICE A DAY POR 3 DIAS, LUEGO

NTE|7||F\400797\F\SPA\F\3\F\TOMAR QD PARA DOLOR

**9.12.9 ZR1 – Rx Order Additional Information Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Rx Number	1	20	ST	R	N			This is the Rx Index number as assigned by the originating pharmacy. This number has to match the Prescription Number field on the preceding RXE segment.
Rx Patient Status	2	20	CE	R	N			The patient's status.
Renewable	3	1	ST	O	N			A flag indicating whether this prescription is renewable. A 1 in this field indicates that the prescription is renewable. Null means the prescription is not renewable.
Copayment	4	1	ST	O	N			A flag indicating whether this patient will be charged a copay for this prescription. A 1 means a copay charge is due. Null means no copay charge is due.
Safety Cap	5	1	ST	O	N			A flag to indicate the patient's preference for a safety cap. A 1 will indicate safety cap, null will be no safety cap.
Refill Text	6	8	ST	R	N			This is the free text. It will be formatted as refill number of maximum refills. Example: (1of10)
Clinic	7	40	ST	R	N			The free text name of the clinic where the prescription originated. (DoD Group Pharmacy)
Days Supply	8	3	NM	R	N			The days supply for the prescription.
Rx Barcode Value	9	20	ST	R	N			This field is used by the VA pharmacy system to produce a barcode value that is recognized on the medical system. This barcode is used to enter the next refill. Barcode Data—Institution ID—Internal entry number from prescription file. (DoD – Letters RX then number “RX12345”).
Drug Warning	10	35	ST	O	R	5	APP B	This field contains the record number of the corresponding drug warning from the VADrug Warning table. See Appendix A for

							a list of these warnings.
Mail Flag	11	2	ST	O	N		0 = Regular Mail, 1 = Registered mail. Other codes may be added at a future date.
Rx Expiration Date	12	26	TS	R	N		The date the prescription expires.
PMIS Data	13	10	ST	O	N		This is the record number for the PMI sheet that will print with the prescription. This data element is used to reference the correct PMI data record from the First Data Bank tables.
PMI Print Flag	14	1	NM	O	N		This flag is used to determine if the PMI sheet should be printed. If the flag is set to 1, the PMI will print.
Print Refill Slip	15	1	NM	O	N		This flag is used to determine if a refill slip is printed and mailed. If the flag is set to 1, the refill slip is not printed. If the flag is null or zero, the refill slip will be printed and mailed.
Contract Product Price	16	9	NM	O	N		This is the VA contract price per dispense unit for the product requested. This field is only used by the VA CMOP when sending data to an external Direct to Patient Vendor. This value will not be used when sending data from the CMOP CDB to the CMOP Production systems.
Contract Number	17	20	ST	O	N		This is the VA contract number for the item from the VA NAC or VA PBM database. This field is only used by the VA CMOP when sending data to an external Direct to Patient Vendor. This value will not be used when sending data from the CMOP CDB to the CMOP Production systems.
Contract Item Number	18	20	ST	O	N		This is the Item number from the Contract. This field is required when sending orders to a VA CMOP Direct to Patient Vendor for filling and processing. This field is only used by the VA CMOP when sending data to an external Direct to Patient Vendor. This value will not be used when sending data from the CMOP CDB to the CMOP Production systems.
Vendor SKU	19	10	ST	O	N		This is the DTP SKU for the item. This field is only used by the VA CMOP when sending data to an external Direct to Patient Vendor. This value will not be used when sending data from the CMOP CDB to the CMOP Production systems.
Billing CMOP	20	5	ST	O	N		This is the CMOP Station Number. This field is used for billing back to the appropriate CMOP. This field is only used by the VA CMOP when sending data to an external Direct to Patient Vendor. This value will not be used when sending data from the CMOP CDB to the CMOP Production systems.
Controlled Substance Flag	21	2	ST	R	N		Controlled Substance Flag. This field will be set to "0" for a Controlled substance RX, "1" if not a Controlled substance RX.

**EXAMPLE:**

ZR1|573-200002833F-4|ONSC|1|1|0|(1of1)|INVERNESS/PC,LAB|45|573-8048381|1~2~3||20020101|15.02|1234512|N123P45|X12345X123|1

The drug warning data element on the ZR1 segment is being phased out by the VA. The VA is moving to using industry standard drug warning labels. During the phase out period, drug warnings will be received in this data element or on the NTE|11 segment described below. Software that utilizes the drug warnings must be capable of pulling the data from either field. If the NTE|11 segment is received and there is data on the ZR1 segment in the drug warning field, the data from the NTE|11 segment will be used.

**9.12.10 NTE|11– Special Medication Instructions Segment – Optional segment**

The NTE|11 segment carries special medication information as entered by the medical center. If the language flag is set to a language other than English, the NTE|11 segments will transmit in both languages. The primary language will be used for printing on the documentation that is sent to the patient. If the primary language is not English, the English version of the warning labels will be displayed on the pharmacist's verification screens during the verification process. The English version of the warnings will always be transmitted first. A maximum of five warnings will be transmitted for a prescription. The sequence the warnings are received is based on the warning labels priority.

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Set Id	1	4	ST	R	N			11
Additional Medical Instructions	3	64K	FT	R				\F\Rx Number(20)\F\Language Flag(2)\F\Record(10) \F\Patient Medication Instructions (220).

**Comments:**

- The record number from the tables. When using First Data Bank, this number is the record number for the warning in their tables.
- The Language Flag indicates the language for printing the warnings ISO Table 639 is used for the language codes. (Appendix C)

EXAMPLE: (this example is for a patient whose primary language is Spanish.)

NTE|11||F\300551A\F\ENG\F\11N\F\Avoid prolonged or excessive exposure to direct and/or artificial sunlight while taking this medication.

NTE|11||F\300551A\F\ENG\F\13N\F\It is very important that you take or use this exactly as directed. Do not skip doses or discontinue unless directed by your doctor.

NTE|11||F\300551A\F\ENG\F\7\F\It may be advisable to drink a full glass of orange juice or eat a banana daily while on this medication

NTE|11||F\300551A\F\ENG\F\9N\F\Some non-prescription drugs may aggravate your condition. Read all labels carefully. If a warning appears, check with your doctor.

NTE|11||F\300551A\F\ENG\F\94N\F\Herbal/dietary supplement products may interact with this medication. Discuss any such product with your doctor or pharmacist before taking.

NTE|11||F\300551A\F\SPA\F\11N\F\Evite exponerse excesivamente o por periodos prolongados a los rayos solares directos y/o artificiales mientras tome este medicamento.

NTE|11||F\300551A\F\SPA\F\13N\F\Es muy importante que lo tome o lo use exactamente segun las indicaciones. No omita ninguna dosis ni lo deje de usar a menos que lo mande el mdico.

NTE|11||F\300551A\F\SPA\F\9N\F\Algunos medicamentos sin receta mdica pueden agravar su afecci3n. Lea todas las etiquetas con cuidado. Consulte a su mdico si se incluye alguna advertencia.

NTE|11||F\300551A\F\SPA\F\94N\F\Los productos o suplementos herbarios/dieteticos pueden interaccionar con este medicamento. Antes de tomar tales productos, cons#ltelo a su mdico o farmacutico.

### 9.13 CMOP Message Acknowledgment/Non Acknowledgement

Once the complete patient message is received by the VA CMOP system, the order will be acknowledged using the acknowledgement sequence below.

MSH

MSA

#### 9.13.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. Within the VA this will always be VistA. For DOD this will always be "DOD". Outside Agencies will use the medical center name of origin.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be ORR^O01.
Message Control ID	10	20	ST	R	N			Same value as the MSH (10) in the corresponding Patient Prescription Message
Processing ID	11	1	ID	R	N		0103	This will always be P.
Version ID	12	8	ID	R	N		0104	This will be 2.5
Accept Ack Type	15	2	ID	O	N		0155	No Entry
Application Ack Type	16	2	ID	O	N		0155	No Entry

#### EXAMPLE:

MSH|^~\&|VistA||CHCS||20010925202704||ORR^O02|573-013240530|P|2.5

#### 9.13.2 MSA – Message Acknowledgement Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Qty	Tbl	Item#	Desc
Acknowledgement Code	1	2	ID	R		0008	00018	Acknowledgement Code
Message Control ID	2	20	ST	R				Same value as the MSH (10) in the corresponding Patient Prescription Message.
Text Message	3	80	ST	O				This field will contain the reject reason code and the Rx Index. Format will be Reason Code~Rx Index Field may repeat. (see Batch Reject Reason Code

								Table in section 9.7)
--	--	--	--	--	--	--	--	-----------------------

**EXAMPLES:**

**Transmission Acceptance:**

MSA|CA|573-013240530-01

**Transmission Reject:**

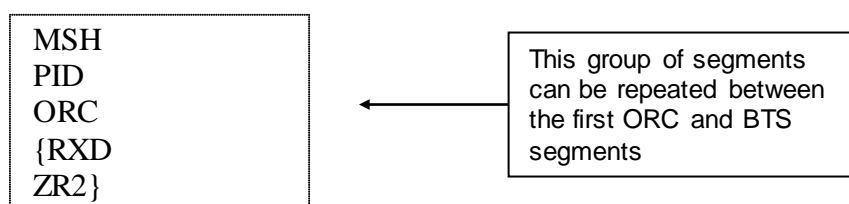
MSA|CR|573-013240530-01|51~573-013240530-01^54~573-013240530-01



## 9.14 Prescription Fulfillment Messages

Prescription fulfillment data will be returned to the medical center using the messaging format below. VA CMOP will return patient orders containing data needed up to update the medical center prescription dispensing records with the information necessary to show the filling and mailing of a prescription or the non fulfillment of a prescription. If the prescription could not be filled and mailed to the patient, the fulfillment data will contain a free text reason for not filling and mailing. The free text reason is limited to 40 characters.

As prescription fulfillment data becomes available it will be returned to the medical centers.



### 9.14.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. In the VA this will always be VistA. For DOD this will always be "DOD".
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be 'RDS^R06'.
Message Control ID	10	20	ST	R	N			Same value as the MSH (10) in the corresponding Patient Prescription Message
Processing ID	11	1	ID	R	N		0103	This will always be a P.
Version ID	12	8	ID	R	N		0104	This will always be 2.5.
Accept Ack Type	15	2	ID	O	N		0155	No Entry
Application Ack Type	16	2	ID	O	N		0155	No Entry

#### EXAMPLE:

MSH|^~\&|VistA||CHCS||20010925202704||RDS^R06|573-200009492-2|P|2.5

### 9.14.2 PID – Patient Identification Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Patient ID	3	20	C	R	N			Patient SSN^Check Digit^Check Digit Scheme. Check digit scheme will be M11. HL7 P 2-15
Patient Name	5	48	PN	R	N			The name of the patient. Format will be ^LAST NAME^FIRST NAME^MIDDLE INITIAL^SUFFIX.

Patient Address	11	106	AD	R	Y	3	The patient's mailing address. See HL7 specification, 3.3.2.11 for format.
Patient Phone Number	13	40	TN	O	N		The patient's phone number.

**EXAMPLE:**

PID|||11111111116^6^M11||^WATER^UNDER^^|||DEEP 6  
STREET^^CHARLESTON^SC^29405||(843) 745-4124

**9.14.3 ORC – Common Order Segment – Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Order Control	1	2	ID	R	N		0119	This will always be OK for order complete or CA for Canceled.
Placer Order Number	2	75	CM	C	N			This is the Rx Index. See definitions.

**EXAMPLE:**

ORC|OK|573-200009492-2

**9.14.4 RXD – Pharmacy/Treatment Dispense Segment – Required segment**

The RXD segment is a multi-purpose segment. The RXD segment will transmit data for both released/filled prescriptions and cancelled prescriptions. Data elements are marked as conditional depending on the type of fulfillment data being sent. Data fields on this segment are marked as either conditional or required. A required data field is present for both cancelled and filled prescriptions. Conditional fields are required based on whether the prescription is cancelled or filled.

If the prescription was not filled and mailed to the patient, the prescription is considered to be cancelled. When a prescription is cancelled, the following fields are required:

Field Name	Seq#
Dispense Sub-ID Counter	1
Dispense/Give Code	2
Date/Time Dispensed	3
Actual Dispense Amount	4
Prescription Number	5
Dispense Notes	9
Dispensing Provider	10

If the prescription is filled and mailed to the patient, the prescription is considered to be dispensed. When a prescription is dispensed, the following fields are required:

Field Name	Seq#
Dispense Sub-ID Counter	1
Dispense/Give Code	2

Date/Time Dispensed	3
Actual Dispense Amount	4
Prescription Number	5
Dispensing Provider	10
Substance Lot Number	18
Substance Expiration Date	19
Supplementary Code	25

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Dispense Sub-ID Counter	1	4	NM	R	N			Fill Number. Number between 1 and 12.
Dispense/Give Code	2	100	CE	R	N	292		This is a composite field that contains the unique VA product ID and VA PRINT NAME
Date/Time Dispensed	3	26	TS	R	N			This is the date and time the prescription was packed.
Actual Dispense Amount	4	20	NM	R	N			This is the true dispense quantity.
Prescription Number	7	20	ST	R	N			The unique Rx number generated by the sending station.
Dispense Notes	9	200	ST	C	N			This field will contain the reason the prescription could not be dispensed by the CMOP. If the prescription was dispensed this field will be null. This field is only used when the CMOP production system is returning the data to the CMOP VISTA system. While the field allows 200 characters, this will contain a maximum of 40 characters.
Dispensing Provider	10	200	XCN	R	N			This field contains the id number of the dispensing pharmacist. This data is only returned from the CMOP Production system to the CMOP VISTA system. The data is not forwarded back to the medical center.
Substance Lot Number	18	20	ST	C	Y	5		This is the lot number of the medication dispensed, it can be repeated up to five times
Substance Expiration Date	19	26	TS	C	Y	5		This is the expiration date for the lot number's dispensed.
Supplementary Code	25	250	CE	C	N	1		This is the 11 digit NDC. The NDC must come from the First Data Bank tables where ever possible. NDC will be in the format of 5 dash 4 dash 2, example 12345-1234-12.

**EXAMPLE:****Rx that is filled and sent to the patient:**

RXD|1|S0022^SIMVASTATIN 40MG  
 TAB^L|20010822081001|45||10014891|||||||0108064|20020801||||12345-1234-12

**Rx that is not filled:**

RXD|1|S0022^SIMVASTATIN 40MG TAB^L|20010822081001|0||10014891||INCORRECT QTY –  
 CORRECT AND RESEND|||||||

**9.14.5 ZR2 – Release Data Additional Information Segment – Required segment**

The ZR2 segment is a multi-purpose segment. The ZR2 segment will transmit data for both released/filled prescriptions and cancelled prescriptions. Data elements are marked as conditional depending on the type of fulfillment data being sent. Data fields on this segment are marked as either conditional or required. A required data field is present for both cancelled and filled prescriptions. Conditional fields are required based on whether the prescription is cancelled or filled.

If the prescription was not filled and mailed to the patient, the prescription is considered to be cancelled. When a prescription is cancelled, the following fields are required:

Field Name	Seq#
Prescription Number	3

If the prescription is filled and mailed to the patient, the prescription is considered to be dispensed. When a prescription is dispensed, the following fields are required:

Field Name	Seq#
Carrier	1
Package Tracking Number	2
Prescription Number	3
Rx Drug Cost	4
Dispensing Fee	5
Mailing Cost	6
Cost Per Dispense Unit	7

Field Name	Seq #	Len	DT	R/O	Re p	Qty	Th	Desc
Carrier	1	12	ST	C	N			This is the free text name of the mail carrier. If the Rx was cancelled, this field is set to CA
Package Tracking Number	2	256	ST	C	N			This is the tracking number used to track the package with the mail carrier. If the Rx is canceled this field is null. This field can be used to send multiple tracking numbers for the same Rx. When multiple tracking numbers are used, they will be separated by the carat character.
Prescription number	3	20	ST	C	N			This unique Rx number generated by the sending station. This number has to match the prescription number field on the preceding RXD segment. If the Rx is canceled this field is null.
Rx Drug Cost	4	20	MO	C	N			This is the drug cost at dispense time. Currently this field is not in used to return cost to the medical center. It is used to return drug costs to the VA CMOP by 'Outsourcing' vendors. If the Rx is canceled this field is null.
Dispensing Fee	5	20	MO	C	Y			This field contains any extra dispensing fee associated with filling the prescription. If the Rx is canceled this field is null.
Mailing Cost	6	20	MO	C	N			This field contains mailing cost. This field is not in use but is defined for future use. If the Rx is canceled this field is null.
Cost Per Dispense Unit	7	20	MO	C	Y			This is the cost per dispense unit.

#### EXAMPLE:

##### Rx that is filled and sent to the patient:

ZR2|CTC-USPS|5161145008952133980|10014891|

**Rx that is not filled:**

ZR2|CA

## 9.15 Prescription Fulfillment Acknowledgement

Each prescription fulfillment message will be acknowledged by the receiving medical center using the segments below:

MSH

MSA

### 9.15.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. In the VA this will always be VistA. For DOD this will always be “DOD”.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be RRD^R04'.
Message Control ID	10	20	ST	R	N			Same value as the MSH (10) in the corresponding Patient Prescription Message
Processing ID	11	1	ID	R	N		0103	Represented as P
Version ID	12	8	ID	R	N		0104	Always 2.5
Accept Ack Type	15	2	ID	R	O		0155	No Entry
Application Ack Type	16	2	ID	R	O		0155	No Entry

#### EXAMPLE:

MSH|^~\&|CHCS||VistA||20010925202704||RRD^R04|573-013240530|P|2.5

### 9.15.2 MSA – Message Acknowledgement Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Item#	Desc
Acknowledgement Code	1	2	ID	R			0008	00018	Acknowledgement Code
Message Control ID	2	20	ST	R					Same value as the MSH (10) in the corresponding Patient Prescription Message
Text Message	3	80	ST	O					Text Message - This field will contain the reject reason code and the free text rejection reason. If the message was accepted this field will be null. See list of remote error conditions.

#### EXAMPLE:

**Rx that is successfully filed at the medical center:**

MSA|CA|516-11450-8954

**Rx that can't be filed at the medical center:**

MSA|CR|516-11450-8954|2-RX ENTRY MISSING

**REMOTE ERROR CONDITION**

1. Release date already exists
2. Rx entry missing
3. Fill mismatch
4. Transmission number mismatch
5. No CMOP event multiple
6. Fill does not exist
7. Other
8. MisMatch of RxIndex between segments
9. MisMatch of Rx Number to Order Number

## 9.16 National Drug file Update (.NDF)

MSH

MFE

ZND

### 9.16.1 MSH – Message Header Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. In the VA this will always be VistA. For DOD this will always be “DOD”.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be 'MFN^M08'.
Message Control ID	10	20	ST	R	N			This will be 'NDF-UPDATE-Pxxx' where xxx indicates the patch number.
Processing ID	11	1	ID	R	N		0103	This will always be a P.
Version ID	12	8	ID	R	N		0104	This will always be 2.3.1.
Accept Ack Type	15	2	ID	R	N		0155	This will be AL.
Application Ack Type	16	2	ID	R	N		0155	This will be AL.

#### EXAMPLE:

MSH|^~\&|VistA||CHCS||20010925202704||MFN^M08|20011215|P|2.3.1||AL|AL

### 9.16.2 MFE – Master File Entry Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Record-Level Event Code	1	3	ID	R			0180	Record-Level Event Code this will be MUP
MFN Control ID	2	20	ST	C				This is a set of codes that indicates which field has been edited. Multiple codes can be listed. Multiple codes will be separated by the ^ character. This field can be null. See table below for codes.
Primary Key Value - MFE	4	200	ST	R				This field will be the 12 Digit NDC from the VA National Drug file system.
Primary Key Value Type	5	3	ID	R			0355	The field will be CE for all segments

#### Codes for MFN Control ID Table

- A New Entry in the VA Product File
- C Transmit to CMOP Flag Change
- N New NDC entry in the VA NDC/UPN file
- V VA Print Name change
- P VA Product ID



**EXAMPLE:**

MFE|MUP|A^C^N^V||051672400503|CE

**9.16.3 ZND – NDF Data Segment - Required segment**

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
NDC	1	12	EI	R				This is the 12 digit NDC. Padded with a leading zero.
VA Trade Name	2	50	ST	O				This is the VA trade name for the drug.
OTX Flag	3	1	ST	O				Flag that indicates that this is an over-the-counter drug. O – Over the counter; R – Prescription.
Activation/Change Date	4	48	ST	O				This field can have multiple dates. The dates correspond to the codes in MFE-2. Dates will be separated by the ^ character. This field can be null. Date format YYYYMMDD.
VA Product Name	5	64	ST	O				VA Product Name for the drug.
VA Print Name	6	40	ST	C				VA Print Name. This field will be required if the drug can be dispensed by the CMOP facilities. This is the name that will print on the patient Rx label.
VA Product Identifier	7	5	ST	O				VA code to uniquely identify the drug for CMOP processing.
CMOP Flag	8	1	NM	R				Flag to indicate if this drug can be dispensed by a CMOP facility. 1 = Can be processed by CMOP facilities.
Control Substance Schedule Code	9	1	NM	O				Flag for the Federal Schedule for Controlled Substances. See Federal Schedule for Controlled Substances Table below.
Dosage Form	10	30	ST	O				VA Dosage Form
Dispense Unit	11	10	ST	O				VA Dispense Unit
VA Generic Name	12	30	ST	O				VA Generic Name for the drug.

**Federal Schedule for Controlled Substances Table**

CODE	TEXT
0	Unscheduled
1	Schedule I
2	Schedule II
3	Schedule III
4	Schedule IV
5	Schedule V

**EXAMPLE:**

ZND|051672400503|CARBAMAZEPINE 200MG

TAB|R|19990217^19990217^20011031^20011031|CARBAMAZEPINE 200MG

TAB|CARBAMAZEPINE 200MG TAB|C1010|1||TAB||CARBAMAZEPINE

## 10 NDF Update Acknowledgement (.NAC)

MSH

MSA

### 10.1.1 MSH – Message Header Segment - Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Desc
Field Separator	1	1	ST	R	N			HL7 recommended field separator.
Encoding Characters	2	4	ST	R	N			HL7 recommended encoding characters.
Sending Application	3	15	ST	R	N			The name of the application creating the batch. In the VA this will always be VistA. For DOD this will always be “DOD”.
Receiving Application	5	30	ST	R	N			This is the application receiving the data.
Message Creation Date/Time	7	26	TS	R	N			Date and time the message was created on the sending station's system.
Message Type	9	7	C	R	N		0076	The type of message being sent. This will always be 'MFR^M08'.
Message Control ID	10	20	ST	R	N			This will be 'NDF-UPDATE-Pxxx' where xxx indicates the patch number.
Processing ID	11	1	ID	R	N		0103	This will always be a P.
Version ID	12	8	ID	R	N		0104	This will always be 2.3.1.
Accept Ack Type	15	2	ID	R	N		0155	This will be NE.
Application Ack Type	16	2	ID	R	N		0155	This will be NE.

#### EXAMPLE:

MSH|^~\&|CHCS||VistA||20010925202704||MFR^M08|20011215|P|2.3.1|||NE|NE

### 10.1.2 MSA – Message Acknowledgement Segment – Required segment

Field Name	Seq#	Len	DT	R/O	Rep	Qty	Tbl	Item#	Desc
Acknowledgement Code	1	2	ID	R			0008	00018	Acknowledgement Code: CA – Commit Accept or CR – Commit Reject.
Message Control ID	2	20	ST	R					This is same as the MSH-10 field.
Text Message	3	80	ST	O					Text Message - This field will contain the reject reason code and the free text rejection reason. If the message was accepted this field will be null.

#### EXAMPLE:

MSA|CA|20011215

## Appendix A: VA Drug Warnings

This section lists the drug warning codes associated with the DRUG WARNING field (#10) on the RXE segment. No more than 5 warning codes may be included for each prescription.

1. DROWSINESS - MAY CAUSE DROWSINESS- Alcohol may intensify this effect. USE CARE when driving or when operating dangerous machinery.
2. FINISH IMPORTANT: Finish all this medication unless otherwise directed by prescriber.
3. EMPTY STOMACH Take medication on an EMPTY STOMACH 1 hour before or 2-3 hour after a meal unless otherwise directed by your doctor.
4. NO DAIRY PRODUCTS Do not take antacids or iron preparations or eat dairy products within 1 hour of taking this medication.
5. WATER Take with plenty of WATER.
6. DISCOLORATION May cause discolored urine or feces.
7. DIURETIC K It may be advisable to drink a full glass of orange juice or eat a banana daily while on this medication.
8. NO ALCOHOL DO NOT DRINK ALCOHOLIC BEVERAGES when taking this medication.
9. ADVICE DO NOT TAKE non-prescription drugs without MEDICAL advice.
10. WITH FOOD TAKE WITH FOOD OR MILK.
11. SUNLIGHT Avoid prolonged exposure to SUNLIGHT and finish all this medication unless otherwise directed by provider.
12. SHAKE WELL SHAKE WELL
13. EXTERNAL For external use ONLY.
14. STRENGTH NOTE DOSAGE STRENGTH
15. REFRIGERATE REFRIGERATE -DO NOT FREEZE
16. DUPLICATE This prescription CANNOT be refilled without a written duplicate from your physician.
17. EXPIRATION DATE Do not use after specified date.
18. NO REFILL THIS PRESCRIPTION CANNOT BE REFILLED.
19. SAME DRUG This is the same medication you have been getting. Color, size or shape may appear different.
20. NO TRANSFER CAUTION: Federal law prohibits the transfer of this drug to any person other than the patient for whom it was prescribed.

**Appendix B: CMOP Host Site Directory**

<b><u>LOCATION</u></b>	<b><u>DESIGNATION</u></b>	<b><u>NOTES</u></b>
Bedford, MA	CMOP-BED	AKA North East CMOP
Charleston, SC	CMOP-CHAR	
Dallas, TX	CMOP-DAL	
Chicago, IL	CMOP-HINE	AKA Great Lakes
Leavenworth, KS	CMOP-LEAV	
Murfreesboro, TN	CMOP-MURF	AKA Mid South CMOP
West Los Angeles, CA	CMOP-WLA	Relocated to Tucson, AZ – Jan 05

## Appendix C: ISO Table 639 Language Codes:

The complete ISO Table 639 is too large to add to this document. Current VHA software allows for two languages, English and Spanish. The following table is an extract of ISO Table 639 for these two languages.

Language	Language Code
English	ENG
Spanish	SPA