

Department of Veterans Affairs
OUTPATIENT PHARMACY (PSO)

TECHNICAL MANUAL/SECURITY GUIDE



Version 7.0

December 1997

(Revised August 2016)

Department of Veterans Affairs
Office of Information and Technology (OI&T)

Date	Revised Pages	Patch Number	Description
08/2016	14 , 16	PSO*7*451	Routines added: PSOASAP, PSOSPMA3, PSOSPMB3, PSOSPMKY, PSOSPMU0, PSOSPMU2, PSOSPMU3 Added PSO SPMP ADMIN Security Key entry Update the Outpatient Pharmacy Menu Diagrams (I. Kogan, PM; W. Porter, Tech Writer)
06/2016	5, 13-14, 22, 35, 38	PSO*7*448	Updated Title Page to current OI&T standards Updated routine list; added the menu option Pharmacy Productivity/Revenue Report; added Electronic Claims Management Engine (ECME) to the External Relations table. (T. Tarleton, PM; T. Rollins, Tech Writer)
04/2016	i, 13	PSO*7*411	Updated Routine List with routines PSOCROC, PSODGAL3, PSONEWOA, PSONEWOC, and PSOCKV1. (H. Cross, PM, Regina Lule, Tech Writer)
08/2014	iii-vi, ix, 9 , 11 , 13-14 , 35 , 49-50 , 95-109 , 111 , 112	PSO*7*408	Updated [PSO AUTOQUEUE JOBS] option Files added to OP: (#58.4) SPMP ASAP RECORD DEFINITION, (#58.41) SPMP STATE PARAMETERS, (#58.42) SPMP EXPORT BATCH Routines added: PSO408PI, PSOASAP0, PSORTSUT, PSOSPML0, PSOSPML1, PSOSPML2, PSOSPML3, PSOSPML4, PSOSPML5, PSOSPML6, PSOSPMSP, PSOSPMU1, PSOSPMUT Added new Supervisor Functions menu option: State Prescription Monitoring Program Menu with option names Updated the Glossary Added Appendix E: Outpatient Pharmacy ASAP Standard for Prescription Monitoring Programs (PMP) Updated Index (Y. Olinger, PM; J. Owczarzak, Tech Writer)
08/2014	i, 13	PSO*7*313	Added new routine PSOOTMRX (Y. Olinger, PM; J. Owczarzak, Tech Writer)
05/2014	60, 66, 67, 68	PSO*7*423	Updated PID-11 documentation, updated RDX segment example, updated Expense Notes & Dispensing Provider, updated RXD-9 documentation. (G. Werner, Developer; A. Scott, PM; R. Sutton, Tech Writer)
03/14	All i-vi, vii-xi 3 93-94	PSO*7*372, PSO*7*416	Renumber all pages Updated Revision History and Table of Contents. Added to the Related Manuals Update Index (C. Powell, PM; S. Heiress, Tech Writer)

Date	Revised Pages	Patch Number	Description
01/14	53-54, 58, 58a, 59, 60, 61- 61a, 62, 63, 64, 65, 66, 68, 70, 71, 88, 101-103	PSO*7*434	Two documentation updates: 1. The <u>active</u> Veteran's Health Identity Card (VHIC) number was added to the PID segment (PID-4) on the VistA side. <ul style="list-style-type: none"> Format: [VIC Card #]~~~USVHA&&0363~PI~VA FACILITY ID&742V1&L 2. The Outpatient Pharmacy Automation Interface (OPAI) has been changed to delimit the text on the pharmacy warning labels, correcting the problem in which text from one warning label runs into the text of another warning label. (Ed Zeigler, Lead Developer; Susan Strack, Technical Writer)
11/13	Cover, Cover back, i-iii, v, 5, 13-14, 16, 30	PSO*7*421	Changed graphic from VA Seal to VistA logo; changed layout for cover page. Update other front matter including TOC, revision history, etc. Update routine count. Add new routines: PSO7P421, PSOBPSSL Add PSO EPHARMACY SITE MANAGER to security keys (added twice to document). (S. Spence/S. Taubenfeld, PM; K. McGarghan, Tech Writer)
05/13	i- iii, 13-14, 16	PSO*7*391	Added new routine PSOPKIV2 to the list of routines. PSDRPH key added to Security key section. (N. Goyal, PM; J. Owczarzak, Tech Writer)
01/13	i-ii 9 13-14 33-34 & 38-39 53-54	PSO*7*390	Update Revision History Added option Automate Internet Refill that was missed in the manual for PSO*7*264 Add new routines: PSODGAL2, PSODDPR7, PSODDPR8 Add menu option; Check Drug Interaction Added BSA & CrCL to the Glossary (G. Tucker, PM; S. Heiress, Tech Writer)
09/12	i, 15, 30	PSO*7*386	Added description of patch's new security key PSO TECH ADV and modifications to the HOLD/UNHOLD functionality. (N. Goyal, PM; J. Owczarzak, Tech Writer)
03/12	i, 13-14, 60, 60a-60b, 63	PSO*7*367	Added routine PSOFDAUT. Updated NTE Segment listing. (N. Goyal, PM; B. Thomas, Tech Writer)
03/12	i, 9, 11, 31, 34, 69, 70, 71	PSO*7*354	Added new menu option Enter/Edit Automated Dispensing Devices Updated list of files with file 52.53 Added file 52.53 to file security section Added new menu option Enter/Edit Automated Dispensing Devices Added RXD-13 Dispense-To location (N. Goyal, PM; J. Owczarzak, Tech Writer)

Date	Revised Pages	Patch Number	Description
02/12	i-vi, 11 16, 30-31 36, 38-39 58, 60, 63-64	PSO*7*385	Removed "TRICARE" from file 52.87 name Changed name of PSO TRICARE and PSO TRICARE MGR security keys to PSO TRICARE/CHAMPVA and PSO TRICARE/CHAMPVA MGR respectively. Updated ePharmacy Menu with correct menu items Added Advanced Beneficiary Notice Code for ePharmacy Rx in Appendix A references (S. Spence, PM; B. Tomlin, Tech Writer)
02/12	i, ii, 9, 11, 31, 34, 69, 70, 71	PSO*7*354	Updated list of files with file 52.53 (N. Goyal, PM; J. Owczarzak, Tech Writer)
09/11	i, ii, 5, 13-14	PSO*7*382	Added routine PSOMPHRC. (N. Goyal, PM; J. Owczarzak, Tech Writer)
04/11	i-ii, 13-14	PSO*7*343	Added routine PSOFDAMG. (T. Leggett, PM; B. Thomas, Tech Writer)
04/11	i, 13-14	PSO*7*316	Removed routine PSOQUAP. Documentation released with PSO*7*343. (G. Pickwood, DM; D. Dertien, Tech Writer)
04/11	i-iv 11 13-14 19 23 31 36 & 38 40	PSO*7*251	Updated the Table of Contents. Change the number of files from 24 to 26. Added the following routines per Bill Tatum, developer for PRE: PSO251PO, PSOCPPRE, PSODDPR1, PSODDPR2, PSODDPR3, PSODDPR4, PSODDPR5, PSODDPRE, PSODGAL1, PSODGDGP, PSODOSCL, PSODOSUN, PSODOSUT, PSOORROC, PSODOSU2, PSOVRPT. Added information under Callable Routines section. And Removed links and added references under the External Interfaces. Updated the External Relations table Change the number of files from 24 to 26. Changed menu item Process Drug/Drug Interactions to Process Order Checks. Removed heading and information under Routine Mapping. (B. Tatum, Developer, M. Colyvas & S. Heiress, Tech Writer)
11/10	i, ii, 5-6, 11-14, 16, 30-31, 36	PSO*7*358	Update routine list, security keys, file list, and options for the Bypass/Override functionality and added in the TRICARE Active Duty Release. (S. Spence, PM; Jon Bolas, Tech Writer)
06/10	i, 14, 27, 35, 36	PSO*7*348	Added routines PSORLST & PSORLST2; added options Prescription List for Drug Warnings and List of Patients/Prescriptions for Recall Notice in Output Reports menu; (N. Goyal, PM; E. Phelps, Tech Writer)

Date	Revised Pages	Patch Number	Description
10/09	13-14	PSO*7*326	Added routine PSOPATLK. (E. Wright, PM; S. B. Scudder, Tech Writer)
08/09	14	PSO*7*320	Added routines PSORMRX, PSORMRXD, and PSORMRXP. (G. Tucker, PM; S. B. Scudder, Tech Writer)
08/09	9, 34	PSO*7*311	Deleted Pharmacy Patient Non-VA Meds Report/Clean-up menu. (A. Scott, PM; T. Dawson, Tech Writer)
07/09	11, 13-16, 30, 36	PSO*7*289	Added files, routines, and the NDC Validation and ePharmacy Site Parameter options to the list. (M. Anthony, PM; G. O'Connor, S. B. Scudder, Tech Writers)
01/09	13-15, 63	PSO*7*305	Added routine PSOATRFC. Extended the PSOAUTRF security key description. Added the Privacy Notification element to the NTE segment. (G. Tucker, PM; S. B. Scudder, Tech Writer)
08/08	13, 14, 56a-b	PSO*7*225	The following changes are included in this patch. New routines have been added: PSOCAN3N, PSOHLSN3, PSOORFI5, PSOORFI6, PSOORFL, PSOORRL3, PSOORRLN, and PSOORRLO. Special Escaping Characters information has been added. (S. Templeton, PM; S. B. Scudder, Tech Writer)
07/08	15	PSO*7*279	Update for the addition of the PSOAUTRF key. (A. Scott, PM; T. Dawson, Tech Writer)
06/08	9, 34	PSO*7*288	Update for the new menu option [Pharmacy Patient Non-VA Meds Report/Clean-up]. (A. Scott, PM, T. Dawson, Tech Writer)
05/08	13-14	PSO*7*294	Update Routine List with routines PSOQ0076, PSOQ0186, PSOQ0236, PSOQ0496, PSOQ0595, PSOQCF04, PSOQMCAL, PSOQRART, PSOQTIU4, PSOQUAP, PSOQUAP2, and PSOQUTIL. (S. Templeton, PM; S. B. Scudder, Tech Writer)
10/07	i-iv, 13-14, 38-43	PSO*7*260	Updated Routine List with routines PSO260PI, PSOBPSR1, PSOBPSRP, PSOBPSU1, PSOBPSU2, PSONVAVW, PSOPMP0, PSOPMP1, PSOPMPPF, and PSOREJP3. Updated menu listing with new ePharmacy menu options. (S. Spence, PM; S. Krakosky, Tech Writer)
10/07	All	PSO*7*264	Re-numbered pages; removed section heading numbering. Updated Routine List with routines PSOATRD, PSOATRF, PSOATRF1, PSOATRP, PSOATRPP, PSOATTR, and PSORESUS. Updated menu listing with new option. (E. Williamson, PM; S. Krakosky, Tech Writer)

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Introduction

This document briefly describes the technical and security aspects of Outpatient Pharmacy V. 7.0. It is intended for members of the Automated Data Processing (ADP)/Information Resources Management Service (IRMS) staff who has had experience with other Veterans Health Information Systems and Technology Architecture (VistA) software and has worked or will work with a package coordinator who is familiar with the functions of the Outpatient Pharmacy V. 7.0 in a VA Medical Center. Readers without this background are referred to the documentation for the Kernel, the VA FileMan and the User's Manual for this release.

The Outpatient Pharmacy V. 7.0 package provides a method for managing the medications given to veterans who have visited a clinic or who have received prescriptions upon discharge from the hospital. Prescription labels are automatically generated and refill request forms are printed. Medication histories are kept online to permit checks for potential interactions. Profiles can be generated to assist the clinician in managing the patient's medication regimen. Management reports aid the pharmacy in controlling inventory and costs.

A number of site parameters allow the individual Department of Veterans Affairs Medical Center (VAMC) to customize the package to meet local needs. The User's Manual describes these site parameters and the ways they influence the operation of the package.

See External Relations Section of this manual for a listing of software not included in this package that must be installed before this version of Outpatient Pharmacy is fully functional.

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Orientation

Online Documentation

Throughout the entire Outpatient Pharmacy V. 7.0 package, enter a question mark (?) to obtain online information to assist in choosing actions at any prompt. Where examples of screen dialogs are given, user responses are shown as bolded text.

Additional information about this package is contained in help prompts and comments which are available online. Detailed information can also be obtained by using the Kernel routine XINDEX to produce detailed listings of the routines and by using the VA FileMan to generate listings of data dictionaries for the files.

The Data Dictionaries (DDs) are considered part of the online documentation for this software application. Use VA FileMan *List File Attributes* [DILIST] option, under the *Data Dictionary Utilities* [DI DDU] option, to print the DDs.

Related Manuals

Outpatient Pharmacy V. 7.0 Release Notes

Outpatient Pharmacy V. 7.0 User Manual

Computerized Patient Record System V. 1.0 Installation Guide

Computerized Patient Record System V. 1.0 Set-up Guide

Pharmacy Ordering Enhancements (POE) Phase 2 Release Notes

Outpatient Medication Copay Release Notes

Laser Printed Prescription Labels with PMI Sheets Phase I Release Notes

ScripTalk® Talking Prescription Labels Installation Guide

Herbal/OTC/Non-VA Meds Documentation Release Notes

VistA Data Extraction Framework (VDEF) Installation & User Configuration Guide

Pharmacy Re-Engineering (PRE) Application Program Interface (API) Manual

Dosing Order Check User Manual

VistA to MOCHA Interface Document

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Implementation and Maintenance

Resource Requirements

Outpatient Pharmacy V. 7.0 contains approximately 850 routines including all PSO* routines and compiled templates, PSOX* and APSPT* that take up approximately 3.76MB disk space.

Response Time monitor hooks have been placed in the following routines:

Routine	Purpose
PSO52	File New Prescriptions in File (#52)
PSORN52	File Renewed Prescriptions in File (#52)
PSOR52	File Refill Prescriptions in File (#52)

This package requires 27 files (see “Files” section in this manual). A typical site may require the following disk space:

1 Mbyte	DRUG file (#50) (4000 entries)
3 Mbytes per month	DRUG COST file (#50.9) (800 items dispensed by 200 dispensing physicians)
150 Mbytes	PRESCRIPTION file (#52) (500,000 prescriptions)
50 Mbytes	PHARMACY PATIENT file (#55) (500,000 prescriptions)
About 1 to 2 Mbytes	Routines and the other files (except for RX VERIFY file (#52.4), RX SUSPENSE file (#52.5), and PHARMACY ARCHIVE file (#52.8))
3 to 5 Mbytes of “swing space”	RX VERIFY file (#52.4), RX SUSPENSE file (#52.5), and PHARMACY ARCHIVE file (#52.8)

Outpatient Pharmacy V. 7.0 may be expected to require about 350 Mbytes of disk space. The actual disk utilization will, of course, depend primarily on the size of the three large files — PRESCRIPTION file (#52), PHARMACY PATIENT file (#55) and DRUG COST file (#50.9).

The requirements for Video Display Terminals (VDTs) and printers also depend on the number of transactions Outpatient Pharmacy V. 7.0 performs. Approximately three VDTs and one printer are needed for each 500 prescriptions (or fraction of 500) issued each day. If mail-out refills are handled separately, at least one VDT and one printer for each 500 refills are required. An additional VDT and a printer may be desired in the supervisor’s office, and 1 VDT in the office of people who are assigned to consult with patients about their medication regimens.

There are no special device requirements for dot matrix labels except to print barcodes on labels. In this case, the label printer must be able to print barcodes and must be able to be set to a form length of either 4 inches or 24 lines. The section in this document on barcodes provides additional information about this function.

Laser printed labels require one or more specially configured printers. The printer must be able to print to a legal length form and must print barcodes. In addition, the printer must support Hewlett Packard's Printer Control Language (PCL) version 5 or greater.

Options to be Deleted during Installation



Note: The options listed below are deleted on the initial installation of Outpatient Pharmacy V. 7.0. No options are deleted after the initial installation, up to patch PSO*7*46.

Option Name	Menu Text
PSO DRUG	Drug Enter/Edit
PSO DRUGMENU	Drug/Drug Interaction Functions
PSO HOLDRX	Hold Rx
PSO INTERACTION	Drug Interactions Menu
PSO INTERACTION LOCAL ADD	Enter/Edit Local Drug Interaction
PSO INTERACTION SEVERITY	Edit Drug Interaction Severity
PSO LAB MONITOR	Mark/Unmark Lab Monitor Drugs
PSO NEW	New Prescription Entry
PSO REF	Refill Prescriptions
PSO RXEDIT	Edit Prescriptions
PSO RXHOLD	Hold Features
PSO RXPAR	Partial Prescription
PSO SIGED	Medication Instruction File Add/Edit
PSO UNHOLDRX	Unhold Rx
PSO FACILITY SETUP	Enter Facility Data for Clozapine
PSO MARK DRUG	Mark Clozapine Drug
PSOL UNMARK DRUG	Unmark Clozapine Drug
PSOARCCO	Find
PSOARCHLIST	List One Patient's Archived Rxs
PSOARCIN	Tape Retrieval
PSOARCPURGE	Purge
PSOARCSV	Save

Templates to be Deleted during Installation



Note: The templates listed below are deleted on the initial installation of Outpatient Pharmacy V. 7.0. No options are deleted after the initial installation up to patch PSO*7*46.

Input	File
PSO DRUG	#50
PSO SIGNED	#51
PSO BATCH PARTIAL	#52
Print	File
PSO ACTION PROFILE #3	#44
PSO BJP	#52
Sort:	File
PSO BJP	#52

Routines to be Deleted during Installation



Note: The routines listed below are deleted on the initial installation of Outpatient Pharmacy V. 7.0. No options are deleted after the initial installation up to patch PSO*7*46.

PSOCLDRG	PSOCLUS1	PSOCLUS2	PSOCLUS3	PSOCSRL1
PSOCSTAR	PSODRUG	PSOGMINS	PSOGMP12	PSOGMP25
PSOLIST	PSONODIB	PSONUM	PSOPOST3	PSOPRE
PSORX	PSORXPAR			

Prior to the initial installation of Outpatient Pharmacy V. 7.0, it is recommended that all PSO* routines be deleted using the system utility to delete routines. Back up local modifications to any PSO* routines.

After installation of Outpatient Pharmacy V. 7.0, compare routines to note the changes between locally modified routines and the V. 7.0 routines. Take care when installing local modifications as Outpatient Pharmacy V. 7.0 has been modified greatly with patch PSO*7*46.

M Audiofax (Telephone Refill Requests)

If telephone refill requests are processed using M Audiofax, a new VEXRX routine must be installed to interface with Outpatient Pharmacy V. 7.0. To install this routine, go to SHOP ALL on FORUM and in the TELEPHONE REFILL REQUESTS Basket, retrieve the message "VEXRX for Outpatient V. 7." This message will contain the new VEXRX routine. This routine must be forwarded and installed on the production account.



*****Important*****

Telephone refill requests (M Audiofax) cannot be processed without the new VEXRX routine.

Setting up the Bingo Board Device

A dedicated device must be set up for use with the bingo board. The device setup is similar to that used to set up a printer, except the sub-type will be C-VT. Only devices with the sub-type C-

VT will be allowed for entry at the “DISPLAY DEVICE” prompt in the *Enter/Edit Display* [PSO BINGO ENTER/EDIT DISPLAY] option found on the *Bingo Board Manager* [PSO BINGO MANAGER] menu. For further information, see the site’s systems guide for information on setting up the device. Once a dedicated device is set up, the bingo board can be scheduled to automatically start and/or stop at user-defined times.

Mail Group Setup for the HL7 External Interface

A mail group and device **must** be set up in order to run the HL7 external interface. The recommended name of the mail group is PSO HLGROUP1. The recommended device name is PSO HLDEVICE1.

Using the Maintenance Menu

The *Maintenance (Outpatient Pharmacy)* [PSO MAINTENANCE] menu is used for implementation as well as maintenance of the Outpatient Pharmacy V. 7.0 package. The first five options, *Site Parameter Enter/Edit* [PSO SITE PARAMETERS] (example follows), *Edit Provider* [PSO PROVIDER EDIT], *Add New Providers* [PSO PROVIDER ADD], *Queue Background Jobs* [PSO AUTOQUEUE JOBS], and *Autocancel Rx’s on Admission* [PSO AUTOCANCEL1] are used for implementation. The remaining options on this menu may be used for maintenance. (An example is given below for the *Queue Background Jobs* [PSO AUTOQUEUE JOBS] option. See the Outpatient Pharmacy V. 7.0 User Manual for an explanation of the other options on this menu.)

Maintenance (Outpatient Pharmacy) [PSO MAINTENANCE] menu

- Site Parameter Enter/Edit*
- Edit Provider*
- Add New Providers*
- Queue Background Jobs*
- Autocancel Rx’s on Admission*
- Bingo Board Manager ...*
- Edit Data for a Patient in the Clozapine Program*
- Enter/Edit Clinic Sort Groups*
- Initialize Rx Cost Statistics*
- Edit Pharmacy Intervention*
- Delete Intervention*
- Auto-delete from Suspense*
- Automate Internet Refill*
- Delete a Prescription*
- Enter/Edit Automated Dispensing Devices*
- Expire Prescriptions*
- Manual Auto Expire Rxs*
- Prescription Cost Update*
- Purge Drug Cost Data*
- Purge External Batches*
- Recompile AMIS Data*

Queue Background Jobs [PSO AUTOQUEUE JOBS]

This option is used to queue all background jobs. Once the *Queue Background Jobs* [PSO AUTOQUEUE JOBS] option is selected, the option automatically pre-selects the jobs. Entering “E” for exit will not exit the option. An up arrow (^) must be entered to exit a specific job and go on to the next one. The background jobs are as follows:

- Autocancel Rx’s on Admission
- Nightly Rx Cost Compile
- Nightly Management Data Compile
- Compile AMIS Data (NIGHT JOB)
- Expire Prescriptions
- Auto-delete from Suspense
- Scheduled SPMP Data Export

A date and time at least 2 minutes in the future must be entered. The jobs should be set to run at a time convenient for the site.



Note: The options listed above must be scheduled to run through the *Queue Background Jobs* [PSO AUTOQUEUE JOBS] option. Attempting to run them from any other option will cause problems.

Only the following prompts require responses. All others will be left blank.

QUEUED TO RUN AT WHAT TIME:

This is the date/time desired for TaskMan to start this option.

RESCHEDULING FREQUENCY:

If this field is blank then the job will run only once.

The *Scheduled SPMP Data Export* [PSO SPMP SCHEDULED EXPORT] nightly background job option can also be scheduled via the *Schedule/Unschedule* [XUTM SCHEDULE] option.

Note: When the background job fails to transmit the data to the state, a MailMan message is generated and sent to the subscribers of the PSO SPMP NOTIFICATIONS mail group.

Example: View of Queue Background Jobs Screen

```
Select Maintenance (Outpatient Pharmacy) Option: QUEue Background Jobs

If time to run option is current do not edit.
Autocancel System Parameter must be set to 'YES'
before prescriptions are discontinued.
```

Edit Option Schedule
Option Name: PSO AUTOCANCEL
Menu Text: **Autocancel on Admission** TASK ID: **2617405**

QUEUED TO RUN AT WHAT TIME: **JUN 13,2000@01:00**

DEVICE FOR QUEUED JOB OUTPUT: **PP6;P-OTHER;132;64**

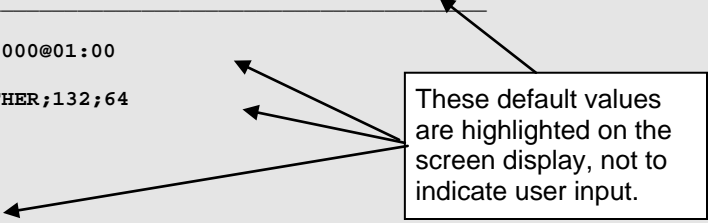
QUEUED TO RUN ON VOLUME SET:

RESCHEDULING FREQUENCY: **1D**

TASK PARAMETERS:

SPECIAL QUEUEING:

COMMAND: Press <PF1>H for help Insert



These default values are highlighted on the screen display, not to indicate user input.

Files

This package requires the 26 files listed below. Information about the files can be obtained by using the VA FileMan to generate a list of file attributes.

The Data Dictionaries (DDs) are considered part of the online documentation for this software application. Use the VA FileMan *List File Attributes* [DILIST] option, under the *Data Dictionary Utilities* [DI DDU] option, to print the DDs. The following are the files for which DDs should be printed:

Outpatient Pharmacy Files

FILE #	NAME	UP DATE DD	SEND SEC. CODE	DATA COMES W/FILE	SITE DATA	RSLV PTS	USER OVER RIDE
50.073	DUE QUESTIONNAIRE	YES	YES	NO			
50.0731	DUE ANSWER SHEET	YES	YES	NO			
50.0732	DUE QUESTION	YES	YES	NO			
50.0733	DUE SECTION	YES	YES	NO			
50.9	DRUG COST	YES	YES	NO			
52	PRESCRIPTION	YES	YES	NO			
52.11	PATIENT NOTIFICATION (Rx READY)	YES	YES	NO			
52.4	RX VERIFY	YES	YES	NO			
52.41	PENDING OUTPATIENT ORDERS	YES	YES	NO			
52.43	PRESCRIPTION REFILL REQUEST	YES	YES	NO			
52.5	RX SUSPENSE	YES	YES	NO			
52.51	PHARMACY EXTERNAL INTERFACE	YES	NO	NO			
52.52	CLOZAPINE PRESCRIPTION OVERRIDES	YES	YES	NO			
52.53	PHARMACY AUTOMATED DISPENSING DEVICES	YES	YES	NO			
52.8	PHARMACY ARCHIVE	YES	YES	NO			
52.86	EPHARMACY SITE PARAMETERS	YES	YES	NO			
52.87	PSO AUDIT LOG	YES	YES	NO			
52.9	PHARMACY PRINTED QUEUE	YES	YES	NO			
52.91	TPB ELIGIBILITY	YES	NO	NO			
52.92	TPB INSTITUTION LETTERS	YES	YES	NO			
53	RX PATIENT STATUS	YES	YES	NO			
58.4	SPMP ASAP RECORD DEFINITION						
58.41	SPMP STATE PARAMETERS						
58.42	SPMP EXPORT BATCH						
59	OUTPATIENT SITE	YES	YES	NO			

FILE #	NAME	UP DATE DD	SEND SEC. CODE	DATA COMES W/FILE	SITE DATA	RSLV PTS	USER OVER RIDE
59.1	OUTPATIENT AMIS DATA	YES	YES	NO			
59.12	OUTPATIENT PHARMACY MANAGEMENT DATA	YES	YES	NO			
59.2	WAITING TIME	YES	YES	NO			
59.3	GROUP DISPLAY	YES	NO	NO			
59.8	OUTPATIENT CLINIC SORT GROUP	YES	YES	NO			

The namespace for the Outpatient Pharmacy V. 7.0 package is PSO.

Routine List

The following routine list for Outpatient Pharmacy appears when the new routine set is loaded. Each routine's first line contains a brief description of the routine's function. Use the First Line Routine Print [XU FIRST LINE PRINT] option to print a list of just the first line of each PSO* routine.

PSO126EN	PSO126IX	PSO145PS	PSO146PS	PSO153PS	PSO160DR	PSO160EN	PSO160P1
PSO160P2	PSO227PO	PSO251PO	PSO254EN	PSO254P1	PSO254PI	PSO283EN	PSO283P1
PSO283PI	PSO293EN	PSO293P1	PSO293PI	PSO327PI	PSO386P	PSO408PI	PSO427PS
PSO5241	PSO5252	PSO525AP	PSO5291	PSO52AP1	PSO52API	PSO52B	PSO52CLR
PSO52EX	PSO53	PSO55FX2	PSO55FX3	PSO59	PSO7P274	PSO7P289	PSO7P302
PSO7P341	PSO7P359	PSO7P370	PSO7P385	PSO7P421	PSO7P448	PSOADDR	PSOAMIS
PSOAMIS0	PSOAMIS1	PSOARC	PSOARCCO	PSOARCCV	PSOARCCDE	PSOARCF1	PSOARCF2
PSOARCF3	PSOARCF4	PSOARCF5	PSOARCF6	PSOARCCIN	PSOARCLT	PSOARCF1	PSOARCR2
PSOARCR2	PSOARCS2	PSOARCSV	PSOARCTG	PSOARCTP	PSOARX	PSOARX1	PSOASAP0
PSOATRD	PSOATRF	PSOATRF1	PSOATRFC	PSOATRP	PSOATRPP	PSOATRR	PSOAUTOC
PSOB	PSOBAI	PSOBAIR2	PSOBAIRP	PSOBARV	PSOBBC	PSOBGMG1	PSOBGMG2
PSOBGMG3	PSOBGMGR	PSOBING1	PSOBINGO	PSOBKDE1	PSOBKDED	PSOBMST	PSOBORP0
PSOBORP1	PSOBORP2	PSOBORP3	PSOBPSR1	PSOBPSRP	PSOBPSSL	PSOBPSSP	PSOBPSU1
PSOBPSU2	PSOBPSU3	PSOBPSUT	PSOBRPRT	PSOBSET	PSOBSET1	PSOBUILD	PSOCAN
PSOCAN1	PSOCAN2	PSOCAN3	PSOCAN3N	PSOCAN4	PSOCIDC1	PSOCIDC2	PSOCIDC3
PSOCIDC4	PSOCIDC7	PSOCIDC8	PSOCIDC9	PSOCLERK	PSOCL01	PSOCLOLS	PSOCLPRE
PSOCLUTL	PSOCMOP	PSOCMOPA	PSOCMOPB	PSOCMOPC	PSOCMOPR	PSOCMOPR	PSOCOPAY
PSOCOST	PSOCOSTP	PSOCP	PSOCP1	PSOCPA	PSOCPB	PSOCPBA2	PSOCPBAK
PSOCPBK1	PSOCPBK2	PSOCPBK3	PSOCPBK4	PSOCPBK5	PSOCPC	PSOCPD	PSOCPDUP
PSOCPE	PSOCPIB	PSOCPIB3	PSOCPIB4	PSOCPIB5	PSOCPIBC	PSOCPIBF	PSOCPPRE
PSOCPTRH	PSOCPTRI	PSOCPVW	PSOCSRL	PSOCST	PSOCST10	PSOCST11	PSOCST12
PSOCST2	PSOCST3	PSOCST4	PSOCST5	PSOCST6	PSOCST7	PSOCST8	PSOCST9
PSOCSTD	PSOCSTM	PSOCSTX	PSODACT	PSODAWUT	PSODDPR1	PSODDPR2	PSODDPR3
PSODDPR4	PSODDPR5	PSODDPR7	PSODDPR8	PSODDPRE	PSODEA	PSODEDT	PSODELI
PSODEM	PSODGAL	PSODGAL1	PSODGAL2	PSODGDG1	PSODGDG2	PSODGDGI	PSODGDGP
PSODI	PSODIAG	PSODIR	PSODIR1	PSODIR2	PSODIR3	PSODISP	PSODISP1
PSODISP2	PSODISP3	PSODISPS	PSODIV	PSODLKP	PSODOSCL	PSODOSU2	PSODOSUN
PSODOSUT	PSODP	PSODPT	PSODRDU1	PSODRDU2	PSODRDUP	PSODRG	PSODRGN
PSODSPL	PSODSRC	PSODUE	PSOELPS2	PSOELPST	PSOEN145	PSOEXBCH	PSOEXDT
PSOEXREF	PSOEXRST	PSOFDAMG	PSOFDAUT	PSOFSIG	PSOFTDR	PSOFUNC	PSOHCPRS
PSOHCSUM	PSOHRD	PSOHELP	PSOHELP1	PSOHELP2	PSOHELP3	PSOHELP4	PSOHL
PSOHLDA	PSOHLDC	PSOHLDI1	PSOHLDIS	PSOHLDS	PSOHLDS1	PSOHLDS2	PSOHLDS3
PSOHLDS4	PSOHLXC	PSOHLXP	PSOHLINC	PSOHLINL	PSOHLNE1	PSOHLNE2	PSOHLNE3
PSOHLNE4	PSOHLNEW	PSOHLPII	PSOHLPI3	PSOHLSG	PSOHLSG1	PSOHLSG2	PSOHLSG3
PSOHLSG4	PSOHLSG5	PSOHLSIG	PSOHLSIH	PSOHLSN	PSOHLSN1	PSOHLSN2	PSOHLSN3
PSOHLNSC	PSOHLUP	PSOHLUP1	PSOLAB	PSOLBL	PSOLBL1	PSOLBL2	PSOLBL3
PSOLBL4	PSOLBLD	PSOLBLD1	PSOLBLN	PSOLBLN1	PSOLBLN2	PSOLBLS	PSOLBLT
PSOLLL1	PSOLLL2	PSOLLL3	PSOLLL4	PSOLLL5	PSOLLL6	PSOLLL7	PSOLLL8
PSOLLL9	PSOLLLH	PSOLLLHN	PSOLLLI	PSOLLLW	PSOLLU1	PSOLLU2	PSOLLU3
PSOLLU4	PSOLMAL	PSOLMAO	PSOLMDA	PSOLMLST	PSOLMPAT	PSOLMPF	PSOLMPI
PSOLMPO	PSOLMPO1	PSOLMPO2	PSOLMRN	PSOLMUTL	PSOLSET	PSOMAUEX	PSOMGCM1
PSOMGCOM	PSOMGM31	PSOMGMN1	PSOMGMN2	PSOMGMN3	PSOMGMN4	PSOMGMRP	PSOMGR31
PSOMGREP	PSOMGRP1	PSOMGRP2	PSOMGRP3	PSOMGRP4	PSOMHV1	PSOMLLD2	PSOMLLDT
PSOMPHRC	PSON52	PSONCPDP	PSONDCUT	PSONDCV	PSONEW	PSONEW1	PSONEW2
PSONEW3	PSONEWF	PSONEWG	PSONFI	PSONGR	PSONRXN	PSONTEG	PSONTEG0
PSONVAR1	PSONVARP	PSONVAVW	PSONVNEW	PSOORAL	PSOORAL1	PSOORAL2	PSOORAPI
PSOORCPY	PSOORDA	PSOORDER	PSOORDRG	PSOORED1	PSOORED2	PSOORED3	PSOORED4
PSOORED5	PSOORED6	PSOORED7	PSOOREDT	PSOORED8	PSOORFI1	PSOORFI2	PSOORFI3
PSOORFI4	PSOORFI5	PSOORFI6	PSOORFIN	PSOORFL	PSOORNE1	PSOORNE2	PSOORNE3
PSOORNE4	PSOORNE5	PSOORNE6	PSOORNEW	PSOORNW1	PSOORNW2	PSOORRD2	PSOORRDI
PSOORRL	PSOORRL1	PSOORRL3	PSOORRLN	PSOORRLO	PSOORRNW	PSOORROC	PSOORUT1
PSOORUT2	PSOORUT3	PSOORUTL	PSOOTMRX	PSOP	PSOP1	PSOP2	PSOP288F

PSOP288R	PSOPAT	PSOPATLK	PSOPFSU0	PSOPFSU1	PSOPI136	PSOPKIV1	PSOPKIV2
PSOPMP0	PSOPMP1	PSOPMPPF	PSOPOLY	PSOPOS10	PSOPOS12	PSOPOS13	PSOPOST
PSOPOST1	PSOPOST2	PSOPOST3	PSOPOST4	PSOPOST5	PSOPOST6	PSOPOST7	PSOPOST8
PSOPOST9	PSOPRA	PSOPRF	PSOPRFSS	PSOPRI	PSOPROD1	PSOPROD2	PSOPRVW
PSOPST68	PSOPTPST	PSOPXRM1	PSOPXRMI	PSOPXRMU	PSOQ0076	PSOQ0186	PSOQ0236
PSOQ0496	PSOQ0595	PSOQCF04	PSOQMCAL	PSOQRART	PSOQTIU4	PSOQUAP2	PSOQUTIL
PSOR52	PSORDS	PSOREF	PSOREF0	PSOREF1	PSOREF2	PSOREJP0	PSOREJP1
PSOREJP2	PSOREJP3	PSOREJP4	PSOREJP5	PSOREJU1	PSOREJU2	PSOREJU3	PSOREJU4
PSOREJUT	PSORELD1	PSORELDT	PSORENW	PSORENW0	PSORENW1	PSORENW2	PSORENW3
PSORENW4	PSORESK	PSORESK1	PSORESUS	PSORFL	PSORLST	PSORLST2	PSORMRX
PSORMRXD	PSORMRXP	PSORN52	PSORN52A	PSORN52C	PSORN52D	PSORPTS	PSORPTS1
PSORTSUT	PSORX1	PSORXCLE	PSORXDL	PSORXED	PSORXED1	PSORXEDT	PSORXI
PSORXL	PSORXL1	PSORXLAB	PSORXPA1	PSORXPR	PSORXPR1	PSORXRP1	PSORXRP2
PSORXRPT	PSORXVW	PSORXVW1	PSORXVW2	PSOSD	PSOSD0	PSOSD1	PSOSD2
PSOSD3	PSOSDP	PSOSDRAP	PSOSIG	PSOSIGCX	PSOSIGDS	PSOSIGMX	PSOSIGNO
PSOSIGTX	PSOSITED	PSOSPML0	PSOSPML1	PSOSPML2	PSOSPML3	PSOSPML4	PSOSPML5
PSOSPML6	PSOSPMSP	PSOSPMU1	PSOSPMUT	PSOSPSIG	PSOSUBCH	PSOSUCH1	PSOSUCHG
PSOSUCLE	PSOSUDCN	PSOSUDEL	PSOSUDP1	PSOSUDP2	PSOSUDPR	PSOSUINV	PSOSULB1
PSOSULBL	PSOSULOG	PSOSUP	PSOSUPAT	PSOSUPOE	PSOSUPRX	PSOSURST	PSOSUSRP
PSOSUTL	PSOSUTL1	PSOTALK	PSOTALK1	PSOTALK2	PSOTALK3	PSOTEXP1	PSOTPCAN
PSOTPCEE	PSOTPCL	PSOTPCLP	PSOTPCLR	PSOTPCLW	PSOTPCRP	PSOTPCRX	PSOTPCUL
PSOTPENV	PSOTPHL1	PSOTPHL2	PSOTPINA	PSOTPPOS	PSOTPPRE	PSOTPPRV	PSOTPRP1
PSOTPRX1	PSOTRI	PSOTRLBL	PSOUTIL	PSOUTL	PSOUTLA	PSOUTLA1	PSOUTLA2
PSOVCNT	PSOVDF1	PSOVDF2	PSOVDF3	PSOVDFK	PSOVER	PSOVER1	PSOVER2
PSOVERC	PSOVRPT	PSOVWI	PSOXWRH	PSOXWRN	PSOXX	PSOXZA	PSOXZA1
PSOXZA10	PSOXZA11	PSOXZA12	PSOXZA13	PSOXZA14	PSOXZA15	PSOXZA16	PSOXZA17
PSOXZA18	PSOXZA2	PSOXZA3	PSOXZA4	PSOXZA5	PSOXZA6	PSOXZA7	PSOXZA8
PSOXZA9	PSOZ50LD	PSOZ55LD	PSOZLSET	PSOZNEW3	PSOZPRV1	PSOZPRV2	PSOZPRV3
PSOZRXL	PSOASAP	PSOSPMA3	PSOSPMB3	PSOSPMKY	PSOSPMU0	PSOSPMU2	PSOSPMU3
PSOCROC	PSODGAL3	PSONEWOA	PSONEWOC	PSOOCKV1			

Exported Options

Menu Assignments

Unless menus have already been assigned, the *Outpatient Pharmacy Manager* [PSO MANAGER] menu should be assigned to the Package Coordinator for Outpatient Pharmacy. It should also be added to the menu of the Site Manager and any ADP/IRMS staff that the Package Coordinator selects to help in the operation of Outpatient Pharmacy. The *Pharmacist Menu* [PSO USER1] option should be assigned to all pharmacists and the *Pharmacy Technician's Menu* [PSO USER2] option should be assigned to all pharmacy technicians and other pharmacy personnel who may view prescriptions and/or inquire into other Outpatient Pharmacy V. 7.0 files.

Security Keys

PROVIDER	Holders of this key will be prompted for ICD-9 Diagnosis code entry.
PSORPH	This key is required to use all of the Outpatient Pharmacy V. 7.0 options. It should be assigned to all pharmacists, the package coordinator, and all appropriate members of the ADP/IRMS staff.
PSO TECH ADV	This security key is used by pharmacy technicians to HOLD and UNHOLD prescriptions using a subset of the HOLD reasons available to PSORPH key holders.
PSO COPAY	This key is used to identify users to notify when a copay exemption cannot be determined at the time a prescription fill is released. Holders of this key are also notified any time the <i>Exempt Rx Patient Status from Copayment</i> [PSOCP EXEMPTION] option is used to change the copay exemption for an Rx Patient Status.
PSO REJECTS BACKGROUND MESSAGE	When prescriptions remain on the Third Party Payer Reject - Worklist over the specified number of days, the system will send a Mailman Message to holders of this key.
PSOA PURGE	NOTE: <i>Disabled until further notice.</i> This key should be assigned to the package coordinator and/or any person who will be responsible for archiving prescriptions.
PSOLOCKCLOZ	This key is used to override the lockouts in the Clozapine options. All members of the Clozapine treatment team must be entered as users on the system and must be given this key. All pharmacists who have the ability to override the lockouts in this option must also hold this key. The Pharmacy Service representative of the Clozapine treatment team should identify these pharmacists.
PSOINTERFACE	This key is used to access the <i>External Interface Menu</i> [PSO EXTERNAL INTERFACE] option.

PSOAUTRF	This key allows the use of the Automate Internet Refill functionality and the Automate CPRS Refill functionality.
PSO TRICARE/CHAMPVA	This key is required to be able to do an override on TRICARE or CHAMPVA prescription.
PSO TRICARE/CHAMPVA MGR	This key is required to access the <i>TRICARE CHAMPVA Bypass/Override Report</i> [PSO TRI CVA OVERRIDE REPORT] option
PSDRPH	Introduced by the Controlled Substances patch PSD*3*76. This key authorizes pharmacists to finish/verify a digitally signed Schedule II-V CS orders placed via CPRS.
PSO ePHARMACY SITE MANAGER	This key is required to access the <i>PSO ePharmacy Site Parameters</i> [PSO ePHARM SITE PARAMETERS] option.
PSO SPMP ADMIN	This key is used by the Outpatient Pharmacy (OP) package to grant certain users administration privileges to perform configuration updates in the State Prescription Monitoring Program (SPMP) module.

Package Security

Electronic signatures may be established by using the *Electronic Signature code Edit* [XUSESIG] option.

In Kernel V. 8.0 the *Electronic Signature code Edit* [XUSESIG] option has been tied to the Common Options, under the *User's Toolbox* [XUSERTOOLS] submenu, for easy access by all users.

Archiving and Purging

Detailed information is kept for each prescription, including all information about the original prescription, all refills and all editing. An average prescription requires about 300 bytes (0.3 Kbytes) of disk storage. The archiving options under the manager's menu allow the package coordinator and IRMS/ADP staff to manage this file. Old prescriptions, typically those that have been expired or canceled for more than a year, can be saved to tape and then purged from online storage. NOTE: The purge options under the *Archive Menu* [PRCAK AR SUPERVISOR] option are out of order until further notice. The User's Manual describes the operation of these options. Because not all prescriptions require the same amount of space and because of the way the operating system utilizes the disk, do not expect to regain 300 bytes of disk storage for every prescription purged. As prescriptions are purged, all references to these prescriptions from other files are also deleted.

The RX SUSPENSE file (#52.5) holds information about all prescriptions that have been suspended for later printing. There is an automatic purge for this file for prescriptions printed from 7 to 90 days ago. The package coordinator can run the *Auto-delete from Suspense* [PSO PNDEL] option at regular intervals to purge this file of suspended prescriptions which have been printed 7 to 90 days ago. The purging is tasked to run every 7 days.

Specific entries can be deleted using the *Change Suspense Date* [PSO PNDCHG] or *Pull Early From Suspense* [PSO PNDRX] options.

Drug cost data can now be purged using the *Purge Drug Cost Data* [PSO PURGE DRUG COST] option.

Setting up the Archive Device

The following examples display archive device setups for file and tape.

These examples may differ from site to site. If a device differs, check with IRMS for information on device set up.

```
HOST FILE SERVER (HFS) DEVICE SETUP:

NAME: HFS  $I: ARC0797.TMP
ASK DEVICE: YES    ASK PARAMETERS: NO
VOLUME SET(CPU): VAA    QUEUING: ALLOWED
LOCATION OF TERMINAL: COMPUTER AREA    ASK HOST FILE: YES
ASK HFS I/O OPERATION: YES *MARGIN WIDTH: 132
*FORM FEED: #    *PAGE LENGTH: 64
*BACK SPACE: $C(8)  SUBTYPE: P-OTHER
TYPE: HOST FILE SERVER
BAUD RATE (c): UNKNOWN
MAGNETIC TAPE DEVICE SETUP:

NAME: TAPE (T7867) $I: $3$MKA600:
ASK DEVICE: YES    ASK PARAMETERS: YES
SIGN-ON/SYSTEM DEVICE: NO
LOCATION OF TERMINAL: COMPUTER ROOM
*MARGIN WIDTH: 255 *FORM FEED: #
```

```
*PAGE LENGTH: 256 *BACK SPACE: $C(8)
OPEN PARAMETERS: (FORMAT="VAL4":BLOCKSIZE=2048)
SUBTYPE: MAGTAPE TYPE: MAGTAPE
PERFORM DEVICE CHECKING: NO
BAUD RATE (c): UNKNOWN
```

Callable Routines

Entry points provided by the Outpatient Pharmacy V. 7.0 package to other packages can be found in the External Relations section of this manual. No other routines are designated as callable from outside of this package. For additional information of other external calls and their entry points go to VA Software Document Library (VDL), see under the Clinical Section on the “Pharm: Outpatient Pharmacy” page. Choose the “API Manual: Pharmacy Reengineering (PRE).”

External Interfaces

For information on HL7 External Interface, go to VA Software Document Library (VDL), select the Infrastructure Section, then choose “HL7 (VistA Messaging).”



Note: The HL Logical Link Entry/Node set up for Outpatient Pharmacy V. 7.0 is PSO DISP. This is a new Logical Link installed with Patch PSO*7*156.

Steps for Startup/Shutdown of the External Interface

The following screens depict the steps necessary to startup and shutdown the external interface for Version 1.6 of the VistA Health Level Seven (HL7) application package. See Appendix A of this manual for more information on the Outpatient Pharmacy V. 7.0 HL7 Specification.

The following examples are options from the HL7 package. The top-level menu option being used is the HL MAIN MENU [*HL7 Main Menu*] option.

Example: Starting Up the Interface

```
Select OPTION NAME: HL MAIN MENU          HL7 Main Menu

      Event monitoring menu ...
      Systems Link Monitor
      Filer and Link Management Options ...
      Message Management Options ...
      Interface Developer Options ...
      Site Parameter Edit

Select HL7 Main Menu Option: Filer and Link Management Options

SM      Systems Link Monitor
FM      Monitor, Start, Stop Filers
LM      TCP Link Manager Start/Stop
SA      Stop All Messaging Background Processes
RA      Restart/Start All Links and Filers
DF      Default Filers Startup
SL      Start/Stop Links
PI      Ping (TCP Only)
ED      Link Edit
ER      Link Errors ...

Select Filer and Link Management Options Option: SL Start/Stop Links
```

This option is used to launch the lower level protocol for the appropriate device. Please select the node with which you want to communicate

Select HL LOGICAL LINK NODE: **PSO DISP**
The LLP was last shutdown on MAY 11, 2004 07:29:53.
This LLP has been enabled!

Example: Shutting Down the Interface

```
Select OPTION NAME: HL MAIN MENU           HL7 Main Menu

      Event monitoring menu ...
      Systems Link Monitor
      Filer and Link Management Options ...
      Message Management Options ...
      Interface Developer Options ...
      Site Parameter Edit

Select HL7 Main Menu Option: Filer and Link Management Options

SM      Systems Link Monitor
FM      Monitor, Start, Stop Filers
LM      TCP Link Manager Start/Stop
SA      Stop All Messaging Background Processes
RA      Restart/Start All Links and Filers
DF      Default Filers Startup
SL      Start/Stop Links
PI      Ping (TCP Only)
ED      Link Edit
ER      Link Errors ...

Select Filer and Link Management Options Option: SL  Start/Stop Links

This option is used to launch the lower level protocol for the
appropriate device. Please select the node with which you want
to communicate

Select HL LOGICAL LINK NODE: PSO DISP
The LLP was last started on JUN 02, 2004 09:52:02.

Okay to shut down this job? YES
The job for the PSO DISP Lower Level Protocol will be shut down.
```

External Relations

The following software is not included in this package and must be installed before this version of Outpatient Pharmacy is completely functional.

Package	Minimum Version Needed
Accounts Receivable (AR)	4.5
Adverse Reaction Tracking (ART)	4.0
Clinical Information Resources Network (CIRN)	1.0
Consolidated Mail Outpatient Pharmacy (CMOP)	2.0
Computerized Patient Record System (CPRS)	3.0
Decision Support System (DSS)	3.0
Electronic Claims Management Engine (ECME)	1.0
Fee Basis	3.5
VA FileMan	22.0
HealtheVet Web Services Client (HWSC)	1.0
Integrated Funds Control, Accounting, and Procurement (IFCAP)	5.0
Inpatient Medications (IP)	5.0
Integrated Billing (IB)	2.0
Kernel	8.0
Laboratory	5.2
MailMan	7.1
Master Patient Index/Patient Demographics (MPI/PD)	1.0
National Drug File (NDF)	4.0
Order Entry/Results Reporting (OERR)	3.0
Patient Information Management System (PIMS)	5.3
Pharmacy Data Management (PDM)	1.0
Remote Procedure Call (RPC) Broker	1.1
VistALink	1.5



Note: For Outpatient Medication Copay options to be fully functional, the Pharmacy Ordering Enhancement (POE) project software must be installed, which includes patches to Outpatient Pharmacy (PSO*7*46), Order Entry/Results Reporting (OR*3*94), Pharmacy Data Management (PSS*1*38), and Inpatient Medications (PSJ*5*50).



Note: For Clinical Indicator Data Capture (CIDC) to be fully functional, the Outpatient Pharmacy CIDC software (PSO*7*143) must be installed along with CPRS Version 25.

Data Base Integration Agreements (IAs)

Outpatient Pharmacy V. 7.0 has Data Base Integration Agreements (IAs) with the packages listed above, in addition to the following: Consolidated Mail Outpatient Pharmacy (CMOP), Drug Accountability (DA), and Controlled Substances (CS). For complete information regarding

the IAs for Outpatient Pharmacy V. 7.0, please refer to the *Integration Agreement Menu* [DBA IA ISC] option under the *DBA* [DBA] option on FORUM.

Internal Relations

Very few of the options in this package can be invoked independently. Those that can be so invoked independently are

PSO MANAGER	Outpatient Pharmacy Manager
PSO P	Medication Profile
PSO USER1	Pharmacist Menu
PSO USER2	Pharmacy Technician's Menu
Any other option may not run independently.	

Any locally created menu which includes options from this package *must* have the ENTRY ACTION field read: D:\$D(PSOPAR) ^PSOLSET and should have the MENU EXIT ACTION field read: D FINAL^PSOLSET

Package-Wide Variables

The variables PSODIV, PSOINST, PSOIOS, PSOPAR, PSOPAR7, PSOSYS, PSOLAP, PSOPROP, PSOCLC, PSOCNT, PSODTCUT, PSOSITE, PSOPRPAS, PSOBAR0, PSOBAR1 and PSOBARS are used extensively throughout the package. They are set by the routine PSOLSET and are not killed until exiting from the package.

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Templates

Sort	File
PSO COST STAT	50.9
PSO BBWAIT SORT	52.11
PSO DRUG LIST	50
PSO DRUG WARNINGS	52
PSO HOLD LIST	52
PSO INTERVENTIONS	9009032.4
PSO NARC LIST	52
PSOUPAT	52
Input	File
PSO CLOZDRUG	50
PSO DISPLAY EDIT	59.3
PSO INTERACT	56
PSO INTERVENTION EDIT	9009032.4
PSO INTERVENTION NEW	9009032.4
PSO OUTPT	2
PSO OUTPTA	2
PSO PARTIAL	52
PSO SITE	59
PSOD DUE BUILD QUESTIONNAIRE	50.073
PSOD DUE EDIT	50.0731
Print	File
PSO ACTION PROFILE	44
PSO ACTION PROFILE #2	44
PSO ALPHA DRUG LIST	50
PSO BBWAIT PRINT	52.11
PSO COST STAT	50.9
PSO DRUG LIST	50
PSO DRUG WARNINGS	52
PSO DRUG WARNINGS HEADER	52
PSO HOLD	52
PSO INACTIVE DRUG LIST	50
PSO INTERVENTIONS	9009032.4
PSO N/F LIST	50
PSO NARC LIST	52
PSO PHARMACY STATS	50.9
PSO REQUEST STATISTICS	50.9
PSO SUSPENSE LIST	52.5
PSO SYNONYM LIST	50
PSOD PRINT ANSWER SHEET	50.0731

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Software Product Security

Mail Group Setup for the HL7 External Interface

A mail group and device should be set up in order to run the HL7 external interface. The recommended name of the mail group is PSO HLGROUP1. The recommended device name is PSO HLDEVICE1.

Archiving/Purging

For archiving and purging information, see the section titled “Archiving and Purging” in this manual.

Interfacing

For interface information, see the section titled “External Interfaces” in this manual.

Electronic Signatures

Electronic signatures may be established by using the *Electronic Signature code Edit* [XUSESIG] option. In Kernel V. 8.0 the *Electronic Signature code Edit* [XUSESIG] option has been tied to the Common Options, under the *User’s Toolbox* [XUSERTOOLS] submenu, for easy access by all users.

Menu Assignments

The *Outpatient Pharmacy Manager* [PSO MANAGER] menu should be assigned to the Package Coordinator for Outpatient Pharmacy and also added to the menu of the Site Manager and any ADP/IRMS staff that s/he selects to help in the operation of Outpatient Pharmacy. The *Pharmacist Menu* [PSO USER1] option should be assigned to all pharmacists and the *Pharmacy Technician’s Menu* [PSO USER2] option should be assigned to all pharmacy technicians and other pharmacy personnel who may view prescriptions and/or inquire into other Outpatient Pharmacy files.

Security Keys

PSORPH	This key is required to use all of the Outpatient Pharmacy V. 7.0 options. It should be assigned to all pharmacists, the package coordinator, and all appropriate members of the ADP/IRMS staff.
PSO TECH ADV	This security key is used by pharmacy technicians to HOLD and UNHOLD prescriptions using a subset of the HOLD reasons available to PSORPH key holders.
PSO COPAY	This key should be assigned to any users who need to be notified when a copay exemption cannot be determined at the time a prescription fill is released. Holders of this key are also notified any time the <i>Exempt Rx Patient Status from Copayment</i> [PSOCP EXEMPTION] option is used to

change the copay exemption for an Rx Patient Status.

**PSO REJECTS
BACKGROUND MESSAGE**

When prescriptions remain on the Third Party Payer Reject - Worklist over the specified number of days, the system will send a Mailman Message to holders of this key.

PSOA PURGE

NOTE: Disabled until further notice. This key should be assigned to the package coordinator and/or any person who will be responsible for archiving prescriptions.

PSOLOCKCLOZ

This key is used to override the lockouts in the Clozapine option. All members of the Clozapine treatment team must be entered as users on the system and must be given this key. All pharmacists who have the ability to override the lockouts in this option must also hold this key. The Pharmacy Service representative of the Clozapine treatment team should identify these pharmacists.

PSOINTERFACE

This key is used to access the *External Interface Menu* [PSO EXTERNAL INTERFACE] option.

PSO TRICARE/CHAMPVA

This key should be assigned to a pharmacist in order to perform an Override and electronically sign a prescription for a TRICARE or CHAMPVA patient.

**PSO TRICARE/CHAMPVA
MGR**

This key is required to access the *TRICARE CHAMPVA Bypass/Override Report* [PSO TRI CVA OVERRIDE REPORT] option.

**PSO EPHARMACY SITE
MANAGER**

This key is required to access the *PSO ePharmacy Site Parameters* [PSO ePHARM SITE PARAMETERS] option.

PSO SPMP ADMIN

This key is used by the Outpatient Pharmacy (OP) package to grant certain users administration privileges to perform configuration updates in the State Prescription Monitoring Program (SPMP) module.

File Security

This package requires 26 files in addition to those of the Kernel and other files to which it points, for example the PATIENT file (#2). Information about all files, including these can be obtained by using the VA FileMan to generate a list of file attributes.

File Numbers	File Names	DD	RD	WR	DEL	LAYGO
50.073	DUE QUESTIONNAIRE					
50.0731	DUE ANSWER SHEET					
50.0732	DUE QUESTION					
50.0733	DUE SECTION					
50.9	DRUG COST					
52	PRESCRIPTION					
52.11	PATIENT NOTIFICATION (Rx READY)					
52.4	RX VERIFY	@	@	@	@	@
52.41	PENDING OUTPATIENT ORDERS			@		

File Numbers	File Names	DD	RD	WR	DEL	LAYGO
52.43	PRESCRIPTION REFILL REQUEST	@	Pp	@	@	@
52.5	RX SUSPENSE				#	
52.51	PHARMACY EXTERNAL INTERFACE	@	@	@	@	@
52.52	CLOZAPINE PRESCRIPTION OVERRIDES	@	@	@	@	@
52.53	PHARMACY AUTOMATED DISPENSING DEVICES					
52.8	PHARMACY ARCHIVE					
52.86	EPHARMACY SITE PARAMETERS	@	Pp	@	@	@
52.87	PSO AUDIT LOG	@	Pp	@	@	@
52.9	PHARMACY PRINTED QUEUE					
52.91	TPB ELIGIBILITY	@				
52.92	TPB INSTITUTION LETTERS	@				
53	RX PATIENT STATUS					
58.4	SPMP ASAP RECORD DEFINITION					
58.41	SPMP STATE PARAMETERS	@	@	@	@	@
58.42	SPMP EXPORT BATCH					
59	OUTPATIENT SITE					
59.1	OUTPATIENT AMIS DATA	@		@	@	@
59.12	OUTPATIENT PHARMACY MANAGEMENT DATA	@		@	@	@
59.2	WAITING TIME	@	@	@	@	@
59.3	GROUP DISPLAY	@	@	@	@	@
59.8	OUTPATIENT CLINIC SORT GROUP					



Please refer to Chapter 28 of Kernel V. 8.0 Systems Manual concerning installation of security codes sections entitled “Sending Security Codes.”

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Outpatient Pharmacy V. 7.0 Menu Diagrams

Three main menus are exported with the package. The *Outpatient Pharmacy Manager* [PSO MANAGER] menu should be assigned to supervisors, package coordinators, and members of the ADP/IRMS staff. Pharmacists should have the *Pharmacist Menu* [PSO USER1] option and clerks and technicians should have the *Pharmacy Technician's Menu* [PSO USER2] option.

Outpatient Pharmacy Manager

Archiving ...

- Find
- Save to Tape
- Tape Retrieval
- Archive to File
- File Retrieval
- Purge
- **> Out of order: Unavailable - Under Construction
- List One Patient's Archived Rx's
- Print Archived Prescriptions

Autocancel Rx's on Admission

Bingo Board ...

- BM Bingo Board Manager ...
 - Enter/Edit Display
 - Auto-Start Enter/Edit
 - Print Bingo Board Statistics
 - Print Bingo Board Wait Time
 - Purge Bingo Board Data
 - Start Bingo Board Display
 - Stop Bingo Board Display
- BU Bingo Board User ...
 - Enter New Patient
 - Display Patient's Name on Monitor
 - Remove Patient's Name from Monitor
 - Status of Patient's Order

Change Label Printer

Check Drug Interaction

Clozapine Pharmacy Manager

- Display Lab Tests and Results
- Edit Data for a Patient in the Clozapine Program
- List of Override Prescriptions
- Register Clozapine Patient

Copay Menu ...

- CHAMPUS Billing Exemption
- Exempt Rx Patient Status from Copayment
- Reset Copay Status/Cancel Charges

DUE Supervisor ...

- 1 Enter a New Answer Sheet

- 2 Edit an Existing Answer Sheet
- 3 Create/Edit a Questionnaire
- 4 Batch Print Questionnaires
- 5 DUE Report

Enter/Edit Clinic Sort Groups

External Interface Menu ...

- Purge External Batches
- Reprint External Batches
- View External Batches

Label/Profile Monitor Reprint

Maintenance (Outpatient Pharmacy) ...

- Site Parameter Enter/Edit
- Edit Provider
- Add New Providers
- Queue Background Jobs
- Autocancel Rx's on Admission
- Bingo Board Manager ...
 - Enter/Edit Display
 - Auto-Start Enter/Edit
 - Print Bingo Board Statistics
 - Print Bingo Board Wait Time
 - Purge Bingo Board Data
 - Start Bingo Board Display
 - Stop Bingo Board Display
- Edit Data for a Patient in the Clozapine Program
- Enter/Edit Clinic Sort Groups
- Initialize Rx Cost Statistics
- Edit Pharmacy Intervention
- Delete Intervention
- Auto-delete from Suspense
- Automate Internet Refill
- Delete a Prescription
- Enter/Edit Automated Dispensing Devices
- Expire Prescriptions
- Manual Auto Expire Rxs
- Prescription Cost Update
- Purge Drug Cost Data
- Purge External Batches
- Recompile AMIS Data

Medication Profile

Output Reports ...

- Action Profile (132 COLUMN PRINTOUT)
- Alpha Drug List and Synonyms
- AMIS Report
- Bad Address Reporting Main Menu ...
 - Bad Address Suspended List
 - List Prescriptions Not Mailed
- CMOP Controlled Substance Rxs Dispense Report
- Commonly Dispensed Drugs
- Cost Analysis Reports ...
 - Clinic Costs
 - Division Costs by Drug
 - Drug Costs
 - Drug Costs by Division
 - Drug Costs by Division by Provider
 - Drug Costs by Provider
 - High Cost Rx Report
 - Patient Status Costs
 - Pharmacy Cost Statistics Menu ...
 - Pharmacy Statistics
 - Sort Statistics By Division
 - Provider by Drug Costs
 - Provider Costs
 - Request Statistics
- Daily AMIS Report
- Drug List By Synonym
- Free Text Dosage Report
- Inactive Drug List
- Internet Refill Report
- List of Patients/Prescriptions for Recall Notice
- List Prescriptions on Hold
- Management Reports Menu ...
 - Daily Management Report Menu ...
 - All Reports
 - Cost of Prescriptions
 - Count of Prescriptions
 - Intravenous Admixture
 - Type of Prescriptions Filled
 - Date Range Recompile Data
 - Initialize Daily Compile
 - Monthly Management Report Menu ...
 - All Reports
 - Cost of Prescriptions
 - Count of Prescriptions
 - Intravenous Admixture
 - Type of Prescriptions Filled
 - One Day Recompile Data
 - Purge Data

- Medication Profile
- Monthly Drug Cost
- Narcotic Prescription List
- Non-Formulary List
- Non-VA Meds Usage Report
- Poly Pharmacy Report
- Prescription List for Drug Warnings
- Released and Unreleased Prescription Report

Pharmacy Intervention Menu ...

- Enter Pharmacy Intervention
- Edit Pharmacy Intervention
- Print Pharmacy Intervention
- Delete Intervention
- View Intervention

Process Order Checks

Release Medication

Return Medication to Stock

Rx (Prescriptions) ...

- Patient Prescription Processing
- Barcode Rx Menu ...
 - Barcode Batch Prescription Entry
 - Check Quality of Barcode
 - Process Internet Refills
- Complete Orders from OERR
- Discontinue Prescription(s)
- Edit Prescriptions
- ePharmacy Menu ...
 - Ignored Rejects Report
 - ePharmacy Medication Profile (View Only)
 - NDC Validation
 - ePharmacy Medication Profile Division Preferences
 - ePharmacy Site Parameters
 - Third Party Payer Rejects - View/Process
 - Third Party Payer Rejects – Worklist
 - TRICARE CHAMPVA Bypass/Override Report
 - Pharmacy Productivity/Revenue Report
 - View ePharmacy Rx
- List One Patient's Archived Rx's
- Manual Print of Multi-Rx Forms
- Reprint an Outpatient Rx Label
- Signature Log Reprint
- View Prescriptions

ScripTalk Main Menu ...

- PT ScripTalk Patient Enter/Edit
- QBAR Queue ScripTalk Label by Barcode
- QRX Queue ScripTalk Label by Rx#
- RPT ScripTalk Reports ...
 - AUD ScripTalk Audit History Report
 - WHO Report of ScripTalk Enrollees
 - Reprint a non-voided Outpatient Rx Label
- PARM Set Up and Test ScripTalk Device ...
 - ScripTalk Device Definition Enter/Edit
 - Print Sample ScripTalk Label
 - Test ScripTalk Device
 - Reinitialize ScripTalk Printer

Supervisor Functions ...

- Add New Providers
- Daily Rx Cost
- Delete a Prescription
- Edit Provider
- Initialize Rx Cost Statistics
- Inter-Divisional Processing
- Inventory
- Lookup Clerk by Code
- Monthly Rx Cost Compilation
- Patient Address Changes Report
- Pharmacist Enter/Edit
- Purge Drug Cost Data
- Recompile AMIS Data
- Site Parameter Enter/Edit
- State Prescription Monitoring Program Menu
 - View/Edit ASAP Definitions
 - View/Edit SPMP State Parameters
 - View/Export Single Prescription
 - View/Export Batch
 - Export Batch Processing
 - Accounting Of Disclosures Report
 - Manage Secure SHell (SSH) Keys
 - Unmark Rx Fill as Administered In Clinic
- View Provider

Suspense Functions ...

- Auto-delete from Suspense
- Change Suspense Date
- Count of Suspended Rx's by Day
- Delete Printed Rx's from Suspense
- Log of Suspended Rx's by Day (this Division)
- Print from Suspense File
- Pull Early from Suspense
- Queue CMOP Prescription
- Reprint Batches from Suspense

Update Patient Record

Verification ...

- List Non-Verified Scripts
- Non-Verified Counts
- Rx Verification by Clerk

Pharmacist Menu

Bingo Board User ...

- Enter New Patient
- Display Patient's Name on Monitor
- Remove Patient's Name from Monitor
- Status of Patient's Order

Change Label Printer

Change Suspense Date

Check Drug Interaction

DUE Supervisor ...

- 1 Enter a New Answer Sheet
- 2 Edit an Existing Answer Sheet
- 3 Create/Edit a Questionnaire
- 4 Batch Print Questionnaires
- 5 DUE Report

Enter/Edit Clinic Sort Groups

External Interface Menu ...

- Purge External Batches
- Reprint External Batches
- View External Batches

Medication Profile

Pharmacy Intervention Menu ...

- Enter Pharmacy Intervention
- Edit Pharmacy Intervention
- Print Pharmacy Intervention
- Delete Intervention
- View Intervention

Print from Suspense File

Process Order Checks

Pull Early from Suspense

Queue CMOP Prescription

Release Medication

Return Medication to Stock

Rx (Prescriptions) ...

- Patient Prescription Processing
- Barcode Rx Menu ...
 - Barcode Batch Prescription Entry
 - Check Quality of Barcode
 - Process Internet Refills
- Complete Orders from OERR
- Discontinue Prescription(s)

- Edit Prescriptions
- ePharmacy Menu ...
 - Ignored Rejects Report
 - ePharmacy Medication Profile (View Only)
 - NDC Validation
 - ePharmacy Medication Profile Division Preferences
 - ePharmacy Site Parameters
 - Third Party Payer Rejects - View/Process
 - Third Party Payer Rejects - Worklist
 - TRICARE CHAMPVA Bypass/Override Report
 - Pharmacy Productivity/Revenue Report
 - View ePharmacy Rx
- List One Patient's Archived Rx's
- Manual Print of Multi-Rx Forms
- Reprint an Outpatient Rx Label
- Signature Log Reprint
- View Prescriptions
- Update Patient Record**
- Verification ...**
 - List Non-Verified Scripts
 - Non-Verified Counts
 - Rx Verification by Clerk

Pharmacy Technician's Menu

- Bingo Board User ...**
 - Enter New Patient
 - Display Patient's Name on Monitor
 - Remove Patient's Name from Monitor
 - Status of Patient's Order
- Change Label Printer**
- DUE User ...**
 - 1 Enter a New Answer Sheet
 - 2 Edit an Existing Answer Sheet
 - 3 Batch Print Questionnaires
- Medication Profile**
- Patient Prescription Processing**
- Pull Early from Suspense**
- Queue CMOP Prescription**
- Release Medication**
- Update Patient Record**

Standalone Options

The Transitional Pharmacy Benefit (TPB) options were available in previous releases of Outpatient Pharmacy V. 7.0, but are currently placed "Out of Order" by PSO*7*227.

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Journaling Globals

The primary global the Outpatient Pharmacy V. 7.0 package uses is ^PSRX. This global is recommended if journaling is used. The majority of the other files used by the Outpatient Pharmacy package are stored in the ^PS global. This global is also recommended for journaling, if used.

Barcodes and Label Printer Support

This version of Outpatient Pharmacy includes the ability to print barcodes on the patient copy, the pharmacist's copy, and the patient narrative documents for new label stock and laser labels. Two options utilize the barcodes.

Check Quality of Barcode [PSO BARCODE CHECK] option is used to monitor the quality and readability of the barcode before it is mailed.

Barcode Batch Prescription Entry [PSO BATCH BARCODE] option is used to actually refill the prescriptions utilizing barcodes in a batch entry.

If barcodes are not used, enter an "OUT OF ORDER MESSAGE" for these two options.

Barcodes on Dot Matrix Printers

Three parameters are used.

X is the barcode height. Values can be "S", "M" or "L". If X is undefined or not equal to one of these, the default value of "S" is used. "S" is 2/10 inch for the DS-220 and 1/6 inch for the MT-290. "M" is 4/10 inch for the DS-200 and 1/3 inch for the MT-290. "L" is one inch for both.

X1 is the value of \$X at the left edge of the barcode. If X1 is undefined, the default value of 0 is used.

X2 is the data to be bar coded. Remember the code 39 character set that the VA uses is a limited subset of the ASCII character set containing only the numbers, uppercase letters, and eight punctuation characters. In most cases, any other characters are not printed. For example, the barcode for the string 123abc will be the same as the string 123.

On most printers, printing a barcode is a graphics operation that causes the value of \$Y to be something other than the line count from the top of the page. Forms with barcodes must use a form feed to go to the top of the next form rather than a counted number of line feeds. This is why printers used to print barcodes on outpatient pharmacy labels *must be set for a form length of 24 lines or four inches*.

The following section, New Label Stock, contains barcode on and off sequences for various printers.

New Label Stock (Version 6.0 and Later Versions) – Dot Matrix Labels



*****Important*****

Please test new label stock on all printers that will be used before going into production with new label stock.

Printers used to print the new label stock must be set to print at 12 characters per inch. The form length must be set to 5 inches.

Previously, old label stock printed barcodes in one column at 10 characters per inch. New label stock prints barcodes at 12 characters per inch in 2 columns, (columns 54 and 102). The following barcode entries in the TERMINAL TYPE file (#3.2) have worked at either the Birmingham Office of Information Field Office (OIFO) or at a site.



Note: If you cannot find barcodes that work, please contact the nearest OIFO.

Check to see that a line feed is performed after the barcode off sequence is executed. Due to limited space, information must be printed after certain barcodes print, without relying on a line feed in the Outpatient Pharmacy code. To test this, print a test label for an Rx with no refills. On the center copy of the label, on the next line after the “station number-Rx no.” which prints directly under the barcode, one of the two following lines should print clearly:

* NO REFILLS REMAINING ** PHYSICIAN USE ONLY *

or

*** This prescription CANNOT be renewed ***

If there is a problem, insert a line feed at the end of the Barcode Off sequence.
(Add a ,! to the end of the sequence.)

Remember to set the New Label Stock site parameter to Yes.

Three site parameters provide patient instructions that will print after each patient's prescriptions. They are “NARRATIVE NON-REFILLABLE RX”, “NARRATIVE REFILLABLE RX”, and “NARRATIVE FOR COPAY DOCUMENT”. The “NARRATIVE FOR COPAY DOCUMENT” will only print if at least one of the patient's prescriptions is subject to a Copay charge.

For the Data South 220

BAR CODE ON=

*27,"[1w",*27,"\$70s",*94,"H",\$\$("\$D(X):"04",X="M":"04",X="S":"02",X="L":"10",1:"04"),*94,"BDB"

BAR CODE OFF=*94,"G",*27,"\$70c",*27,"[2w",!

For the MT-661

BAR CODE ON=

*27,"[<4h",*94,\$S(\$X<60:"T450",1:"T850"),*94,"W9;5;1",*94,"B1;35;1;3",*13

BAR CODE OFF=*13,*10,*27,"[<4l",*27,"[5w"

The character after the [<4 in the BAR CODE OFF above is a lower case L.

For the Genicom 4440:

BAR CODE ON=*27,"[;3;1;;4;;4;;1;}",*27,"[3t"

BAR CODE OFF=*27,"[0t",!

For the MT290:

BAR CODE ON=*26,"F0",\$\$('\$D(X):2,X="M":2,X="S":1,X="L":6,1:2),";000",*25,*20,"**"

BAR CODE OFF="**",*20,!,\$\$(\$D(X1):X1,1:0),\$\$(\$D(X2):X2,1:"")

or

BAR CODE ON=*26,*34,"F3;000",*25,*20,"**"

BAR CODE OFF="**",*20

For the OTC 560:

BAR CODE ON=*27,"[;,\$\$('\$D(X):3,X="M":6,X="L":12,1:3),"}",*27,"[3t"

BAR CODE OFF=*27,"[0t"

For the Genicom 4490:

BAR CODE ON=*27,"[3t",*14

BAR CODE OFF=*15,*27,"[0t",*13



**The setup of the MT290 will not allow for a form length of 5 inches. It skips from 4 to 5.5. Following is the terminal type information that will allow the MT290 to print the labels at a form length of 5 inches.

```
NAME: P-MANNESMANN MT290/132 (PHAR)      RIGHT MARGIN: 132
FORM FEED: #                             PAGE LENGTH: 30
BACK SPACE: $(8)
OPEN EXECUTE: W *27,"[4w",*27,"[0Y",*27,"[30t"
10 PITCH: $(27)_"[4w"                    12 PITCH: $(27)_"[5w"
DESCRIPTION: MANNESMANN TALLY 290/132 COLUMNS
16 PITCH: $(27)_"[6w"                    DEFAULT PITCH: $(27)_"[4w"
BAR CODE OFF: "**",*20,!,$$($D(X1):X1,1:0),$$($D(X2):X2,1:"")
BAR CODE ON: *26,"F0",$$('$D(X):2,X="M":2,X="S":1,X="L":6,1:2),";000",*25,*20,"**"
```

The *27,"[30t" was added to the Open Execute.

Laser Label Printers

The Outpatient Pharmacy package, with the release of PSO*7*120, supports the use of laser printers to print prescription labels and all associated documents.

Hardware Setup

The printer must be physically connected to the network and then defined in the DEVICE (#3.5) and TERMINAL TYPE (#3.2) files just as any other laser printer on your network is defined.

In addition, the CONTROL CODES field (#55) of the TERMINAL TYPE file (#3.2) must be defined correctly. To facilitate this, a new routine assists with the setup. At the programmer prompt enter: D ^PSOLLU2. You will be prompted for the device. Enter the device you want to use for printing laser labels. Then, you will be prompted for HP or LexMark. Enter the appropriate selection.

Phase I of Laser Labels introduced the routine PSOLLU2. A pre-release to Phase II introduced the PSOLLU3 routine and Phase II introduced the PSOLLU4 routine. (Instructions for running the PSOLLU3 and PSOLLU4 routines are the same as running the PSOLLU2 routine above.) If you are setting up a laser printer for the first time, run all three routines in order – PSOLLU2, PSOLLU3, and PSOLLU4. If you are already running laser labels, you will only need to run the PSOLLU4 routine to update the control codes.



Note: If you are not using either an HP or a LexMark printer, select one. Then, you may need to modify the control codes to work correctly with your printer.



Note: Since there are many options for the barcode chip your printer supports, you may have to modify the codes that control the barcode. The names of the codes are: BLBC, EBLBC, SBT and EBT. If you were already using this printer to print barcodes, you can use the information in the fields BAR CODE ON (#60) and BAR CODE OFF (#61) from the TERMINAL TYPE file (#3.2) as a guide. If you weren't, the barcode chip should have come with documentation showing the sequences necessary. If the documentation is not available, many printers have the ability to print the font set, with escape sequences, from the control panel of the printer.

Example Session:

```
>D ^PSOLLU2
DEVICE: HOME// FIDO  PRINTERS CORNER - LINE 000    Right Margin: 132//
HP or LexMark: L
You will be copying the CONTROL CODES to device: _LTA9053: are you sure? Y Copying...
```

Sample Control Code Entries

The following are sample control code entries from one TERMINAL TYPE. Actual entries may vary depending on make and model of printer or barcode chip.


```

NUMBER: 29                                CTRL CODE ABBREVIATION: PFDQ
FULL NAME: PHARMACY FILL DOCUMENT QUANTITY
CONTROL CODE: S PSOX=0,PSOCX=200,PSOY=970,PSOYI=50,PSOQFONT="F8",PSOFONT="F10"
NUMBER: 31                                CTRL CODE ABBREVIATION: AWI
FULL NAME: ALLERGY WARNING INITIALIZATION
CONTROL CODE: S PSOX=0,PSOY=1400,PSOYI=50,PSOFONT="F10"
NUMBER: 32                                CTRL CODE ABBREVIATION: F6
FULL NAME: SIX POINT FONT - NO BOLD
CONTROL CODE: W *27,"(10U",*27,"(slp6v0s0b16602X"
NUMBER: 33                                CTRL CODE ABBREVIATION: EBT
FULL NAME: END OF BARCODE TEXT
CONTROL CODE: W *27,"(8U",*27,"(slp8v0s0b16602T",!
NUMBER: 34                                CTRL CODE ABBREVIATION: BLBC
FULL NAME: BOTTLE LABEL BARCODE
CONTROL CODE: W *27,"(slp10.4v4,12b4,12s24670T",*27,"&a90P",*27,"*p3650x1000Y"
NUMBER: 35                                CTRL CODE ABBREVIATION: PFDT
FULL NAME: PHARMACY FILL DOCUMENT TRAILER
CONTROL CODE: S PSOY=1015,PSOYI=45,PSOX=0,PSOFONT="F10",PSOBYI=50,PSOTFONT="F9",PSOBY=1280
NUMBER: 36                                CTRL CODE ABBREVIATION: EBLBC
FULL NAME: END OF BOTTLE LABEL BARCODE
CONTROL CODE: W *27,"(10U",*27,"(slp10v0s0b16602T",*27,"&a0P",!
NUMBER: 37                                CTRL CODE ABBREVIATION: SBT
FULL NAME: START OF BARCODE TEXT
CONTROL CODE: S PSOY=PSOY+PSOYI W *27,"*p",PSOX,"x",PSOY,"Y",*27,"(slp14.4v6,18b6,18s24670T"
NUMBER: 43                                ABBREVIATION: F6B
FULL NAME: SIX POINT FONT, BOLDED
CONTROL CODE: W *27,"(10U",*27,"(slp6v0s3b16602T"
NUMBER: 44                                ABBREVIATION: F8B
FULL NAME: EIGHT POINT FONT, BOLDED
CONTROL CODE: W *27,"(10U",*27,"(slp8v0s3b16602T"
NUMBER: 45                                ABBREVIATION: F9B
FULL NAME: NINE POINT FONT, BOLDED
CONTROL CODE: W *27,"(10U",*27,"(slp9v0s3b16602T"
NUMBER: 46                                ABBREVIATION: F10B
FULL NAME: TEN POINT FONT, BOLDED
CONTROL CODE: W *27,"(10U",*27,"(slp10v0s3b16602T"
NUMBER: 47                                ABBREVIATION: F12B
FULL NAME: 12 POINT FONT BOLDED
CONTROL CODE: W *27,"(10U",*27,"(slp12v0s3b16602T"
NUMBER: 72                                ABBREVIATION: PFI
FULL NAME: PATIENT FILL INITIALIZATION
CONTROL CODE: S PSOFONT="F10",PSOX=1210,PSOY=710,PSOYI=45,PSOHFONT="F12",PSOBYI=100
NUMBER: 73                                ABBREVIATION: PFDW
FULL NAME: PHARMACY FILL DOCUMENT WARNING
CONTROL CODE: S PSOY=1258,PSOX=660,PSOYI=30,PSOFONT="F8",PSOYM=1329
NUMBER: 74                                ABBREVIATION: MLI
FULL NAME: MAILING LABEL INITIALIZATION
CONTROL CODE: S PSOFONT="F10",PSOX=1680,PSOY=175,PSOYI=50
NUMBER: 75                                ABBREVIATION: RMI
FULL NAME: RETURN MAIL INITIALIZATION
CONTROL CODE: S PSOHFONT="F8",PSOFONT="F10",PSOX=1680,PSOY=35,PSORYI=40,PSOYHI=40,PSOTFONT="F8",PSOTY=550
NUMBER: 12172                              CTRL CODE ABBREVIATION: LL
FULL NAME: LASER LABEL                     CONTROL CODE: Q

```

VMS Print Queue Setup

If you use VMS print queues, an additional setup may be necessary. The form for laser labels must have specific characteristics. If you need help defining the form, please contact the National Help Desk.



Note: The form must have a length of 255 and a width of 512.

The following is an example form:

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Form name	Number	Description
-----	-----	-----
LABELFORM	2	LASER LABEL
/LENGTH=255 /MARGIN=(BOTTOM=6) /STOCK=LABELFORM /TRUNCATE /WIDTH=512		

Control Codes

To modify the control codes to work appropriately with your device, use the following information.

Control Codes in use by Laser Labels:

ACI = ADDRESS CHANGE INITIALIZATION
 ALI = ALLERGY SECTION INITIALIZATION
 AWI = ALLERGY WARNING INITIALIZATION
 BLB = BOTTLE LABEL BODY INITIALIZATION
 BLBC = BOTTLE LABEL BARCODE
 BLF = BOTTLE LABEL FOOTER INITIALIZATION
 BLH = BOTTLE LABEL HEADER INITIALIZATION
 CDII = CRITICAL DRUG INTERACTION INITIALIZATION
 CNI = COPAY NARRATIVE INITIALIZATION
 EBLBC = END OF BOTTLE LABEL BARCODE
 EBT = END OF BARCODE TEXT
 F10 = TEN POINT FONT - NO BOLD
 F10B = TEN POINT FONT, BOLDED
 F12 = TWELVE POINT FONT - NO BOLD
 F12B = 12 POINT FONT BOLDED
 F6 = SIX POINT FONT - NO BOLD
 F6B = SIX POINT FONT BOLDED
 F8 = EIGHT POINT FONT - NO BOLD
 F8B = EIGHT POINT FONT BOLDED
 F9 = NINE POINT FONT - NO BOLD
 F9B = NINE POINT FONT BOLDED
 FDU = FONT DISABLE UNDERLINE
 FWU = FONT WITH UNDERLINE
 LL = LASER LABEL
 LLI = LASER LABEL INIT
 MLI = MAILING LABEL INITIALIZATION
 NR = NORMAL ROTATION
 PFDI = PHARMACY FILL DOCUMENT INITIALIZATION
 PFDQ = PHARMACY FILL DOCUMENT QUANTITY
 PFDT = PHARMACY FILL DOCUMENT TRAILER
 PFDW = PHARMACY FILL DOCUMENT WARNING
 PFI = PATIENT FILL INITIALIZATION
 PII = PATIENT INSTRUCTION INITIALIZATION
 PMII = PMI SECTION INITIALIZATION
 RMI = RETURN MAIL INITIALIZATION
 RNI = REFILL NARRATIVE INITIALIZATION

RPI = REFILL PRINT INITIALIZATION
 RT = ROTATE TEXT
 SBT = START OF BARCODE TEXT
 SPI = SUSPENSE PRINT INITIALIZATION
 ST = START OF TEXT
 WLI = WARNING LABEL INITIALIZATION

In addition to escape sequences to control printer output, variables are defined in the control codes that allow the routine to correctly position text and use the appropriate font.

The following is the description of the variables and their usage:

PSOX – X coordinate
 PSOY – Y coordinate
 PSOYI – Y increment, used to determine spacing between lines
 PSOFONT – font size to be used. The font used is Arial.
 PSOYM – bottom margin for this section

Some sections contain variables specific only to that section. They are as follows:

<u>Control Code</u>	<u>Variable</u>
MLI	PSOHPFONT – font for header lines
ACI	PSOHPFONT – font for header lines
RMI	PSORYI – Y coordinate for return mail name PSOHYI – Y coordinate for header line PSOTFONT – font for trailer line PSOTY – Y coordinate for trailer line
SPI	PSOCX – X coordinate for date
RPI	PSOBYI – Y increment for barcode PSOTYI – Y increment for trailer information PSOLX – X coordinate for left side of page PSORX – X coordinate for right side of page PSOSYI – Y increment for signature line PSOXI – X increment
BLB	PSOBX – X coordinate for barcode
BLF	PSODY – Y coordinate for discard line PSOCX – X coordinate for continued line PSOQY – Y coordinate for quantity information PSOTY – Y coordinate for trailer information PSOQFONT – font for quantity PSODFONT – font for discard line PSOTFONT – font for trailer information
PFDQ	PSOCX – X coordinate for continued line PSOQFONT – font for quantity
PFDT	PSOBYI – Y increment for barcode

<u>Control Code</u>	<u>Variable</u>
	PSOTFONT – font for trailer information
	PSOBY – Y coordinate for barcode
PFI	PSOHFONT – font for header
	PSOBYI – Y increment for barcode

ScripTalk® Printers

ScripTalk® is a registered trademark of En-Vision America.

The Outpatient Pharmacy V. 7.0 package, with the release of PSO*7*135, supports the use of ScripTalk® printers that print to microchip-embedded label stock. The label will have printed text on it, along with the microchip containing the contents of the label. Pharmacy or other designated staff will enroll patients to receive these labels and issue those patients a special reader. When the patient holds a ScripTalk® label near the reader and presses a button, the content of the label is read aloud.

The TCP/IP-enabled printer must be physically connected to the network and then defined in the DEVICE (#3.5) and TERMINAL TYPE (#3.2) files. To connect the printer to the network, a micro print server is necessary for communication to VistA. En-Vision America can assist in identifying the micro print server necessary for the site.

The following are examples of the file set-ups. These examples are provided to guide the user in this set up. Please note that these are only examples and there will be some differences in the settings.

Example: DEVICE File (#3.5) Set Up for VMS Sites

```
NAME: WP706                                $I: USER$:[DSM_SPOOL]WP706.TXT
LOCATION OF TERMINAL: ScripTalk              ASK HOST FILE: NO
ASK HFS I/O OPERATION: NO                  BARCODE AVAIL: YES
OPEN PARAMETERS: (NEWVERSION,PROTECTION=(S:RWED,O:RWED,W:RWED))
SUBTYPE: P-ZEBRA-PHARM
```

Example: DEVICE File (#3.5) Set Up for Cache Sites

```
NAME: WP706                                $I: PQ$:WP706$PRT.TXT
ASK DEVICE: YES                            ASK PARAMETERS: NO
TASKMAN PRINT A HEADER PAGE: NO            SIGN-ON/SYSTEM DEVICE: NO
QUEUING: FORCED                            LOCATION OF TERMINAL:
1B-111/ScripTalk
ASK HOST FILE: NO                          ASK HFS I/O OPERATION: NO
SUPPRESS FORM FEED AT CLOSE: YES           BARCODE AVAIL: YES
OPEN PARAMETERS: "NWS"                     SUBTYPE: P-ZEBRA-PHARM
TYPE: HOST FILE SERVER
PRINT SERVER NAME OR ADDRESS: wp706.west-palm.med.va.gov
REMOTE PRINTER NAME: wp706
```

Example: TERMINAL TYPE File (#3.2) Set Up for VMS Sites

```
NAME: P-ZEBRA-PHARM                        SELECTABLE AT SIGN-ON: NO
RIGHT MARGIN: 132                          FORM FEED: #
PAGE LENGTH: 64                            BACK SPACE: $(8)
CLOSE EXECUTE: U IO K IO(1,IO) S IO=$ZIO C IO S
QUE="/QUEUE="_$(ION,1,6)"/DELETE",QUE=$ZC(%PRINT,IO,QUE)
NUMBER: 1                                  CTRL CODE ABBREVIATION: FI
FULL NAME: FORMAT INITIALIZATION           CONTROL CODE: W "^XA",!,"^LH30,60^FS",!
NUMBER: 2                                  CTRL CODE ABBREVIATION: SB
```

FULL NAME: START OF BARCODE	
CONTROL CODE: W "^BY2,3.0^FO70,25^B3N,N,80,Y,N"	
NUMBER: 3	CTRL CODE ABBREVIATION: ST
FULL NAME: START OF TEXT	
CONTROL CODE: W "^FO",PSJBARX,"",PSJBARY,"^A0N,30,20" S PSJBARY=PSJBARY+40	
NUMBER: 6	CTRL CODE ABBREVIATION: EB
FULL NAME: END OF BARCODE	CONTROL CODE: S LINE=LINE+1,PSJBARY=130
NUMBER: 7	CTRL CODE ABBREVIATION: STF
FULL NAME: START OF TEXT FIELD	CONTROL CODE: W "^FD"
NUMBER: 8	CTRL CODE ABBREVIATION: SBF
FULL NAME: START OF BARCODE FIELD	CONTROL CODE: W "^FD"
NUMBER: 9	CTRL CODE ABBREVIATION: ETF
FULL NAME: END OF TEXT FIELD	CONTROL CODE: W "^FS",!
NUMBER: 10	CTRL CODE ABBREVIATION: SL
FULL NAME: START OF LABEL	
CONTROL CODE: W "^XA",! S PSJBARY=50,PSJBARX=60	
NUMBER: 11	CTRL CODE ABBREVIATION: EL
FULL NAME: END OF LABEL	CONTROL CODE: W "^XZ",!
NUMBER: 12	CTRL CODE ABBREVIATION: EBF
FULL NAME: END OF BARCODE FIELD	CONTROL CODE: W "^FS",!

Example: TERMINAL TYPE File (#3.2) Set Up for Cache Sites

NAME: P-ZEBRA-PHARM	SELECTABLE AT SIGN-ON: NO
RIGHT MARGIN: 140	FORM FEED: #
PAGE LENGTH: 64	BACK SPACE: \$C(8)
CLOSE EXECUTE: D CLOSE^NVSPRTU	
NUMBER: 1	CTRL CODE ABBREVIATION: FI
FULL NAME: FORMAT INITIALIZATION	CONTROL CODE: W
"^XA",!,"^LH30,60^FS",!	
NUMBER: 2	CTRL CODE ABBREVIATION: SB
FULL NAME: START OF BARCODE	
CONTROL CODE: W "^BY2,3.0^FO70,25^B3N,N,80,Y,N"	
NUMBER: 3	CTRL CODE ABBREVIATION: ST
FULL NAME: START OF TEXT	
CONTROL CODE: W "^FO",PSJBARX,"",PSJBARY,"^A0N,30,20" S	
PSJBARY=PSJBARY+40	
NUMBER: 6	CTRL CODE ABBREVIATION: EB
FULL NAME: END OF BARCODE	CONTROL CODE: S
LINE=LINE+1,PSJBARY=130	
NUMBER: 7	CTRL CODE ABBREVIATION: STF
FULL NAME: START OF TEXT FIELD	CONTROL CODE: W "^FD"

Example: TERMINAL TYPE File (#3.2) Set Up for Cache Sites (continued)

NUMBER: 8	CTRL CODE ABBREVIATION: SBF
FULL NAME: START OF BARCODE FIELD	CONTROL CODE: W "^FD"
NUMBER: 9	CTRL CODE ABBREVIATION: ETF
FULL NAME: END OF TEXT FIELD	CONTROL CODE: W "^FS",!
NUMBER: 10	CTRL CODE ABBREVIATION: SL
FULL NAME: START OF LABEL	
CONTROL CODE: W "^XA",! S PSJBARY=50,PSJBARX=60	
NUMBER: 11	CTRL CODE ABBREVIATION: EL
FULL NAME: END OF LABEL	CONTROL CODE: W "^XZ",!
NUMBER: 12	CTRL CODE ABBREVIATION: EBF
FULL NAME: END OF BARCODE FIELD	CONTROL CODE: W "^FS",!

Glossary

ADP	Automated Data Processing
Archive	Prescriptions, typically those that have been expired or canceled for more than a year, can be saved to tape, and then purged from online storage.
ASAP	American Society for Automation in Pharmacy
BSA	<p>Body Surface Area. The Dubois formula is used to calculate the Body Surface Area using the following formula:</p> $BSA \text{ (m}^2\text{)} = 0.20247 \times \text{Height (m)}^{0.725} \times \text{Weight (kg)}^{0.425}$ <p>The equation is performed using the most recent patient height and weight values that are entered into the vitals package.</p> <p>The calculation is not intended to be a replacement for independent clinical judgment.</p>
CPRS	Computerized Patient Record System. CPRS is a Graphical User Interface (GUI) in VistA that provides order entry and results reporting for multiple packages.
CrCL	<p>Creatinine Clearance. The CrCL value which displays in the pharmacy header is identical to the CrCL value calculated in CPRS. The formula approved by the CPRS Clinical Workgroup is the following:</p> <p>Modified Cockcroft-Gault equation using Adjusted Body Weight in kg (if ht > 60in)</p> <p>This calculation is not intended to be a replacement for independent clinical judgment.</p>
DHCP	See VistA.
IRMS	Information Resources Management Service
Non-VA Meds	Term that encompasses any Over-the-Counter (OTC) medications, Herbal supplements, Veterans Health Administration (VHA) prescribed medications but purchased by the patient at an outside pharmacy, and medications prescribed by providers outside VHA. All Non-VA Meds must be documented in patients' medical records.
OPAI	Outpatient Pharmacy Automated Interface
PDMP	Prescription Drug Monitoring Programs
POE	Pharmacy Ordering Enhancements project. POE is a series of enhancements to improve the ordering processes between Inpatient Medications and Outpatient Pharmacy. For Outpatient

Pharmacy, POE changes occur in patch PSO*7*46.

Prescription

This term is now referred to throughout the software as medication orders.

Purge

Prescriptions, typically those that have been expired or canceled for more than a year, are saved to tape. Purging removes them from online storage.

Reprinted Label

Unlike a partial prescription, a reprint does not count as workload.

SPMP

State Prescription Monitoring Program

VDEF

VistA Data Extraction Framework

VHA

Veterans Health Administration

VHIC

Veterans Health Identification Card

VistA

Acronym for **V**eterans Health **I**nformation **S**ystems and **T**echnology **A**rchitecture, the new name for Decentralized Hospital Computer Program (DHCP).

VUID

VHA Unique Identifier. A unique integer assigned to reference terms VHA wide.

Appendix A:

Outpatient Pharmacy HL7 Interface Specifications

A. General Information

Introduction

This document specifies an interface between the VistA Outpatient Pharmacy V. 7.0 application and any automatic dispensing system. It is based upon the Health Level 7 Standard (HL7) V. 2.4.

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. At this layer, the definitions of the data to be exchanged, the timing of the exchanges, and the communication of certain application specific errors occurs. The lower levels support the actual movement of data between systems.

The high-level communication requirements for this interface include TCP/IP, HL7 Logical link and bi-directional communications for the BusinessWare server at the VAMC. BusinessWare will support MLLP connection.

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. A message type may be associated with more than one trigger event, but the same trigger event code may not be associated with more than one message type. 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. 2.4, Chapter 2 for details).

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.

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 quote 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) optionality - whether the data field is required (R), optional (O), or conditional (C) 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. 2.4, Section 2.7.6 for source of tables).
- h) data type - restrictions on the contents of the data field (See HL7 Standard V. 2.4, Section 2.9).

Special Escaping Characters

Standard HL7 field delimiters represented by the “~ , & , | ” (tilde, ampersand, pipe) characters, as well as the commonly used VistA “^” (caret), are sometimes needed by users of Outpatient Pharmacy in various fields to provide complete information about a patient or order. The use of these characters can cause sending and receiving software to format HL7 messages incorrectly, and/or construct/deconstruct the information incorrectly. Data loss can also occur if data is truncated at one of the special delimiter characters.

The following fields require special escaping characters.

- Dosage Ordered field – RXE segment / piece 1 / subpiece 1
- Schedule field – RXE segment / piece 1 / subpiece 2
- VA Product Name field – RXE segment / piece 2 / subpiece 2
- Generic drug name field – RXE segment / piece 2 / subpiece 6
- Units name field – RXE segment / piece 5 / subpiece 5
- Dose Form name field – RXE segment / piece 6 / subpiece 5
- Provider Comments field – NTE 6 segment / piece 3
- Expanded Patient Sig field – NTE 7 segment / piece 3
- Front Door Sig field – NTE 21 segment / piece 3
- Back Door Sig field – NTE 21 segment / piece 3

B. Transaction Specifications

Communication Protocol

The lower level communication protocol used by Outpatient Pharmacy V. 7.0 to transmit data between systems is either X3.28 or HLLP over an RS-232 connection.

A site parameter in the Outpatient Pharmacy V. 7.0 application called External Interface controls transmission of data to the dispensing machine. If the parameter is set to **0**, no transmission will occur.

There is also a new parameter that is used for sites running HL7 V.2.4. It is in the OUTPATIENT SITE file (#59), and is called AUTOMATED DISPENSE. This must be set to determine which version of HL7 the site is running.

Processing Rules

A Pharmacy Encoded Order Message (event type=O01) is transmitted whenever an order is placed in Outpatient Pharmacy V. 7.0 and the criteria are met for the dispensing machine. Upon successful receipt and storage of the message, the dispensing machine will generate and transmit a Pharmacy Encoded Order Acknowledgement Message (event type=O02).

The following HL7 messages will be used to support the exchange of Outpatient Pharmacy data with any automatic dispensing system:

RDS	Pharmacy Encoded Order Message
RRD	Pharmacy Encoded Order Ack. Message
ACK	General Ack. Message

The messages for the dispense request will consist of the following HL7 segments:

IAM	Patient Adverse Reaction Information
MSH	Message Header
NTE	Notes and Comments
PID	Patient Identification
PV1	Patient Visit
PV2	Patient Visit – additional information
ORC	Common Order
RXE	Pharmacy/Treatment Encoded Order
RXD	Pharmacy/Treatment Dispense
RXR	Pharmacy/Treatment Route

Specific Transaction – Dispense Request

The Pharmacy/Treatment Encoded Order Message (Dispense Request) is as follows:

<u>RDS</u>	<u>Pharmacy/Treatment Encoded Order Message</u>
MSH	Message Header
[PID]	Patient Identification
[PV1]	Patient Visit

<u>RDS</u>	<u>Pharmacy/Treatment Encoded Order Message</u>
[PV2]	Patient Visit – additional information
{IAM}	Patient Adverse Reaction Information
{ORC}	Common Order
{NTE}	Notes and Comments
RXE	Pharmacy/Treatment Encoded Order
RXD	Pharmacy/Treatment Dispense
{NTE}	Notes and Comments (contains PMI)
{RXR}	Pharmacy/Treatment Route
}	

Example:

```
MSH|^~\&|PSO VISTA|521^OUTPATIENT|PSO
DISPENSE|521|20030620125043||RDS^O13^RDS_O13|10001|P|2.4||AL|AL
PID|||5000002199V009321~~~USVHA&&0363~NI~VA FACILITY
ID&500&L~~20140212^234234987~~~USSSA&&0363~SS~VA FACILITY ID&500&L^""""~~~USDOD&&0363~TIN~VA
FACILITY ID&500&L^""""~~~USDOD&&0363~FIN~VA FACILITY ID&500&L^7172676~~~USVHA&&0363~PI~VA
FACILITY ID&500&L|333888478~~~USVHA&&0363~PI~VA FACILITY
ID&742V1&L^492994922~~~USVHA&&0363~PI~VA FACILITY
ID&742V1&L|PSOPATIENT~MULTIPLE~RX~~~L||19111111|M||123 MAIN ST~""~ANY TOWN
ONE~CA~94114~USA~P~""~075^~~ ANY TOWN TWO~CA~~~N|(555)555-5555~PRN~PH|||
PV1||O
PV2|||SCL50~NO COPAY
IAM|D^Drug^LGMR120.8|128^ASPIRIN^LGMR120.8|SV|ALLERGY|||19961205|||C
ORC|NW|116211~OP7.0|||20131204|2438~ OP~PROVIDER~TWO
|2438~OP~PROVIDER~TWO|NULL|20131204|REPRINT|0~UNKNOWN~99PSC||VA5|ALBANY ISC~~500|5400
LEGACY DR~~1000~TX~75024|(555)555-5555
NTE|1|ONE TAKE MOUTH TAKE|Medication Instructions
NTE|3|May cause drowsiness. Alcohol may intensify this effect. Use care when operating a car
or dangerous machines.\.sp\May cause dizziness\.sp\It is very important that you take or use
this exactly as directed. Do not skip doses or discontinue unless directed by your
doctor.|Drug Warning Narrative
RXE|""""|R0009~RESERPINE 0.1MG TAB~99PSNDF~57.586.222~RESERPINE
0.1MG S.T.~99PSD||20~MG~99PSU|1~AEROSOL~99PSF|""""|3|~3|~|104822|3|0||~RESERPINE 0.1MG
S.T.~RESERPINE 0.1MG TAB|||N^0^N
RXD|3|D0082^DIGOXIN 0.25MG TAB^99PSNDF^372.3^DIGOXIN 0.25MG
TAB~99PSD|20030610|||100001351|3|~6P~6505-00-584-0398|157^OP~PROVIDER^TWO|30|CERTIFIED
MAIL||^NON~SAFETY|||20040615
NTE|PMI||CORTICOSTEROIDS - ORAL|Patient Medication Instructions
RXR|6^Oral^99PSR
```

The Pharmacy Encoded Order Acknowledgment Message is as follows:

<u>RRD</u>	<u>Pharmacy Encoded Order Ack. Message</u>
MSH	Message Header
MSA	Message Acknowledgement

Example:

```
MSH|^~\&|PSO DISPENSE|BP-CHEYENNE|PSO VISTA|BP-CHEYENNE|20040227222454-
0500||ACK|4425981296|T|2.4||
MSA|AA|10001
```

Active Veteran's Health Information Card (VHIC) Numbers Added to PID-4 Segment:

Sites that use the Outpatient Pharmacy Automated Interface (OPAI) interface and COTS products, such as ScriptPro and OptiFill, rely on patient identifying information contained in the PID segment of HL7 messages. The new Veteran's Health Information Card (VHIC) no longer contains the patient's Social Security Number (SSN). Patch PSO*7*434 utilized Patch

DG*5.3*874 to include the current *active* VHIC card numbers in the HL7 PID-4 component, providing a interoperability between the barcode on the VHIC card and data in the HL7 PID segment. As of Patch PSO*7*434, the active VHIC number(s) were added to the list of identifiers in the PID Segment in sequence PID-4.



Note: The changes in HL7 message generated by OPAI are tested with ScripPro and Optifill, only. Sites using other vendors are requested to inform them of the changes, so that they can make necessary changes to ensure smooth running of interface at their sites.

Example:

```
[VHIC Card #]~~~USVHA&&0363~PI~VA FACILITY ID&742V1&L
```

The following example shows an *active* VHIC number repeated twice in PID-4 for interoperability between DoD and VA because this patient has two active VHIC numbers.

Example:

```
PID|||5000002199V009321~~~USVHA&&0363~NI~VA FACILITY
ID&500&L~~~20140212^234234987~~~USSSA&&0363~SS~VA FACILITY ID&500&L^" " " "~~~USDOD&&0363~TIN~VA
FACILITY ID&500&L^" " " "~~~USDOD&&0363~FIN~VA FACILITY ID&500&L^7172676~~~USVHA&&0363~PI~VA
FACILITY ID&500&L|333888478~~~USVHA&&0363~PI~VA FACILITY
ID&742V1&L^492994922~~~USVHA&&0363~PI~VA FACILITY
ID&742V1&L|PSOPATIENT~MULTIPLE~~RX~~~L||19111111|M||123 MAIN ST~" " ~ANY TOWN
ONE~CA~94114~USA~P~" " ~075^~~ ANY TOWN TWO~CA~~~N|| (555)555-5555~PRN~PH| | | | | | | | | | | | | | | | | |
```

Segments used in the Outpatient Pharmacy HL7 interface Dispense Request:

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
MSH	1	1	ST	R			Field Separator	
	2	4	ST	R			Encoding Characters	~^ &
	3	180	HD	R		0361	Sending Application	PSO VISTA
	4	180	HD	R		0362	Sending Facility – station ID and station DNS name	521~FO-BIRM.MED.VA.GOV~DNS
	5	180	HD	R		0361	Receiving Application	PSO DISPENSE
	6	180	HD	R		0362	Receiving Facility – DNS name and port of dispensing machine	~DISPENSE.VH A.MED.VA.GOV :9300~DNS
	7	26	TS				Date/Time of Message	20040405152416
	9	15	CM	R	0076		Message Type	RDS~013
	10	20	ST	R			Message Control ID	10001
	11	3	PT	R	0103		Processing ID	P
	12	3	VID	R	0104		Version ID	2.4
	15	2	ID			0155	Accept Ack. Type	AL
	16	2	ID			0155	Application Ack Type	AL
PID	3	250	CX	R	Y		Patient ID (will contain IEN, SSN, ICN, Claim #, etc., if exists)	218~~~USVHA&&0363~PI~VA FACILITY ID&500&L
PID	4	250	CX				Active Veteran's Health Identification Card (VHIC) number(s)	
	5	250	XP	R			Patient Name	OPPATIENT~ON

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
								E
	7	26	TS	R			Date/Time of Birth	19280622
	8	1	IS			0001	Administrative Sex	M
	11	250	XAD	R	Y/3		Patient Address	164 Friendship DR~""~TROY~N Y~12180~P~""
	13	250	XTN	R	Y/3		Phone Number-Home	(555)555-5555
PV1	2	1	IS	R		0004	Patient Class	O for Outpatient
PV2	24	15	IS	R	Y		Patient Status Code	SC~NO COPAY
IAM	2	250	CE	O	Y	0127	Allergen Type Code	D~DRUG~LGM R120.8
	3	250	CE	R	Y		Allergen Code/Mnemonic/Descripti on	128~ASPIRIN~L GMR120.8
	4	250	CE	O	Y	0128	Allergy Severity Code	SV
	5	15	ST	O	Y		Allergy Reaction Code	ALLERGY
	13	26	TS	O	Y		Reported Date/Time	19961205
	17	250	CE	O	Y	0438	Allergy Clinical Status Code	C
ORC	1	2	ID	R		0119	Order Control	NW
	2	80	EI	C			Placer Order Number	402331~OP7.0
	9	26	TS	O			Date/Time of Transaction	20040405
	10	250	XCN	R			Entered By	10~OPPROVIDE R~TWO
	12	250	XCN	O			Ordering Provider	987~OPPROVID ER~ONE
	13	80	PL	O			Enterer's Location	_TNA1225:
	15	26	TS	O			Order Effective Date	20030616
	16	10	ST	R			Order Control Code Reason	NEW
	17	250	CE	O			Entering Organization	57~7 TH FLOOR~99PSC
	19	250	XCN	O			Action By	65421~OPPROVI DER5~THREE
	20	250	CE	O		0339	Advanced Beneficiary Notice Code	VA5
	21	250	XON	O			Ordering Facility Name	AL BANY~~500
	22	250	XAD	O			Ordering Facility Address	101 CHURCH AVE~~ALBANY ~NY~12208
	23	250	XTN	O			Ordering Facility Phone #r	(518)555-5554
NTE	1	1	SI	O			Set ID	1
	3	6553 6	FT	O			Comment	USE 50 FOR TESTING BY MOUTH TWICE A DAY FOR 30 DAYS

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	4	250	RE	O			Comment Type – 1 = Medication Instructions 2 = Patient Instructions Narrative 3 = Drug Warning Narrative 4 = Profile Information 5 = Drug Interactions 6 = Drug Allergy Indications 7 = PMI Sheet 8 = Medication Instructions 9 = Privacy Notification	Medication Instructions NOTE: The separator value “\sp\” has been added to NTE-3, 3 = Drug Warning Narrative, to separate the different warning labels.
RXE	1	200	TQ	R			Quantity/Timing	Null
	2	250	CE	R			Give Code	XH001~HEMAT EST TAB (NOT FOR ORAL USE)~99PSNDF~ 3207.12039.4321 ~HEMATEST REAGENT TAB. 100/BTL~99PSD
	3	20	NM	R			Give Amount-Minimum	Null
	5	250	CE	R			Give Units	20~MG~99PSU
	6	250	CE	O			Give Dosage Form	165~TAB,TEST~ 99PSF
	8	200	CM	O			Deliver-To Location	WINDOW
	9	25	ST	O			Substitution Status	(Trade name)
	10	20	NM	O			Dispense Amount	30
	11	250	CE	O			Dispense Units	~TAB
	12	3	NM	O			Number of Refills	3
	13	250	XCN	O			Ordering Provider’s DEA Number	EZ9278277
	14	250	XCN	C			Pharmacist/Treatment Supplier’s Verifier ID	188~OPPROVID ER3~ONE
	15	20	ST	R			Prescription Number	100002202
	16	20	NM	O			Number of Refills Remaining	3
	17	20	NM	O			Number of Refills/Doses Dispensed	0
	18	26	TS	O			D/T of Most Recent Refill	200404050830
	21	250	CE	R			Pharmacy/treatment dispense instructions	^IBUPROFEN 400MG TAB
	31	1	ID	R			Supplementary Code = spec hdlg, ScripTalk, PMI language preference	N^0^N
RXD	1	10	NM	R			Dispense Sub-ID Counter	0
	2	250	CE	R			Dispense/Give Code	XH001~HEMAT EST TAB (NOT FOR ORAL USE)~99PSNDF~ 3207.12039.4321

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
								~HEMATEST REAGENT TAB. 100/BTL~99PSD
	3	26	TS	R			Date/Time Dispensed	20040405
	7	20	ST	R			Prescription Number	100002202
	8	20	NM	O			Number of Refills Remaining	3
	9	25	ST	O			Dispense Notes – DEA spec hdlg. NDC code	S^193-2426-21
	10	200	XCN	O			Dispensing Provider	157~OPPROVID ER~TWO
	12	10	CQ	O			Total Daily Dose	30
	13	200	CM	O			Dispense-To Location	CERTIFIED MAIL
	15	10	CE	O			Pharmacy/Treatment Supplier's Special Dispensing Instructions	~NON-SAFETY
	19	26	TS	O			Substance Expiration Date	20040615
	25	250	CE	O			Supplementary Code	8~NO ALCOHOL
NTE	1	4	SI	O			Set ID-Notes and Comments	7
	3	6000	FT	O	Y		Comment	PMI free text
	4	250	CE	O			Comment Type – P MI	Patient Medication Instructions NOTE: The separator value “\sp\” has been added to NTE-3, 3 = Drug Warning Narrative, to separate the different warning labels.
RXR	1	250	CE			0162	Route	1~ORAL (BY MOUTH)~99PSR

Notes pertaining to some of the data elements:

[MSH-3] Sending Application is the station ID along with the DNS name of the sending facility.

[MSH-5] Receiving Application is the DNS name and DNS port number of the dispensing application.

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

[PID-3] Patient ID will contain the following possibilities to identify a patient:

- NI = ICN #

- SS = Social Security #
- PN = Claim #
- PI = DFN #

[PID-4] Alternate Patient ID will contain the active Veteran's Health Identification Card (VHIC) number(s) to identify a patient.

[PID-11] Patient Address

The PID-11 segment contains the following data:

- Patient Permanent Address 1st up-arrow piece
- Patient Place of Birth (City & State) 2nd up-arrow piece
- Patient Temporary Address 3rd up-arrow piece

PID||||Permanent Address^Place of Birth^Temporary Address|||

[PID-11] Patient Permanent Address

When the permanent address is active, it is the only address in PID-11

Example: 321 Dakota Ave.~""~WASHINGTON~DC~20032~USA~P~""~001

[PID-11] Patient Temporary Address

When the temporary address is active, both the temporary and permanent addresses are located in PID-11.

Example: 321 Dakota Ave.~""~WASHINGTON~DC~20032~USA~P~""~001^^1234 Lake Park Ave.
~""~Crofton~MD~21114~USA

[PID-11] If the BAD ADDRESS INDICATOR (BAI) field (#.121) of the PATIENT file (#2) is set, the text "VAB" concatenated with the BAI code is sent in the Address field of the PID segment of the HL7 message to the filling equipment.

Example: Permanent address – active:

PADD-1~PADD-2~SPRING~TX~77379~~P~PADD-3~201^~~""~""~""~N|""|

Example: Temporary address – active:

PADD-1~PADD-2~SPRING~TX~77379~~P~PADD-3~201^~~""~""~""~N^TADD-1~TADD-2
TADD-3~PLANO~TX~12345~~C~""~""~""

Example: Address flagged as BAI:

PADD-1~PADD-2~SPRING~TX~77379~~VAB1~PADD-3~201^~~""~""~""~N|""|

"VAB1" - indicates Bad Address Indicator and 1 is for UNDELIVERABLE (2 for HOMELESS, 3 for OTHER)

[PV1-2] Patient Class is hard-coded to an O for outpatient.

[PV2-24] Patient Status Code contains the patient status from the prescriptions file followed by a tilde and then whether or not the patient is COPAY.

[IAM-2] Allergen Type Code is the allergy type of F=Food, DF=Drug/Food, D=Drug, DP=Drug/Other, O=Other, DFO=Drug/Food/Other.

[IAM-5] Allergy Reaction Code will contain the possible reactions ALLERGY, PHARMACOLOGIC or UNKNOWN.

[IAM-17] Allergy Clinical Status Code is VERIFIED or NON-VERIFIED.

[ORC-2] Placer Order Number is a composite field. The first component is the IEN from the PRESCRIPTION file (#52). The second component is hard-coded to a value of OP7.0.

[ORC-10] Entered By is the person's pointer to the NEW PERSON file (#200) and name in VistA who keyed in the order.

[ORC-12] Ordering Provider is a composite ID field. The first component is the Provider's pointer to the NEW PERSON file (#200) in VistA and the second component is his/her name.

[ORC-13] Enterer's Location is the printer where the dispensing machine should print the label.

[ORC-15] Order Effective Date is the date/time the order took effect.

[ORC-16] Order Control Code Reason is a coded element field. The fifth component reflects the status of the order (for example, New, Refill, Partial, Reprint, or Partial Reprint).

[ORC-17] Entering Organization is the Clinic number and name.

[ORC-19] Action By is the physician who cosigned, if any, and is a composite field. The first component is the physician's pointer to the NEW PERSON file (#200) in VistA and the second component is his/her name.

[ORC-20] Advanced Beneficiary Notice Code is used to send an indicator to an automated dispensing system that the RX being dispensed is for an electronically billed prescription and that a patient signature is needed. The value of "VA5" will be sent as the indicator in the RDS^O13 Dispense Request message for an ePharmacy patient prescription.

[ORC-21] Ordering Facility Name is the facility name and number found in the OUTPATIENT SITE file (#59).

[NTE] The Set ID field will identify the NTE segment (1=Med. Instructions; 2=Patient Instructions Narrative; 3=Drug Warning Narrative; 4=Profile Information; 5=Drug Interactions; 6=Drug Allergy Indications; 7=PMI Sheet; 8=Medication Instructions; 9=Privacy Notification.) The Comment field will contain the respective information.



Note: The separator value ".sp\" has been added to NTE-3, 3 = Drug Warning Narrative, to separate the different warning labels.

[RXE-1] Quantity Timing is a required field but it will not be used in Outpatient Pharmacy V. 7.0. It will always be a null value ("").

[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, National Drug File, local file pointer, local drug name, and the local file.

[RXE-3] Give Amount - Minimum is a required field but it will not be used in Outpatient Pharmacy V. 7.0. 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-6] Give Dosage Form is a coded element field. The fourth component is the pointer to the DOSAGE FORM file (#50.606). The fifth component is the form name, and the sixth component is the name of coding system (99PSF).

[RXE-8] Deliver-To-Location is the Method of Pickup (Window or Mail).

[RXE-9] Substitution Status is the value of the TRADE NAME field (#6.5) found in the PRESCRIPTION file (#52).

[RXE-10] Dispense Amount identifies the quantity.

[RXE-11] Dispense Units identifies the units for the dispense amount as encoded by the Pharmacy.

[RXE-13] Ordering Provider's DEA Number will contain the physician's DEA number if the drug is a controlled substance.

[RXE-14] Pharmacist/Treatment Supplier's 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-18] D/T of Most Recent Refill or Dose Dispensed contains the last date/time the patient received this particular drug. This is the PRIOR FILL DATE field (#102.1) from the PRESCRIPTION file (#52).

[RXE-21] Pharmacy/treatment dispense Instructions. (Label name & VA PRINT NAME).

[RXE-31] Supplementary Code contains three pieces of information:

- An indicator that the drug is a controlled substance or not (Y/N).
- An indicator if the patient is a ScripTalk patient (0 or 1).
- An indicator if the patient's PMI language preference is something other than English (Y/N).

[RXD-1] Dispense Sub-ID Counter identifies the prescription fill number.

[RXD-2] Dispense/Give code will contain the same give code as in RXE-2.

[RXD-9] Dispense Notes have two pieces of information:

- DEA, SPECIAL HDLG field (#3) from the DRUG file (#50).
- NDC field (#27) from the PRESCRIPTION file (#52).

[RXD-10] Dispensing Provider is the person who finished the order.

[RXD-12] Total Daily Dose is the days of supply for a partial fill.

[RXD-13] Dispense-To-Location will contain how the patient will receive the medication. Possible answers are WINDOW, REGULAR MAIL, CERTIFIED MAIL or DO NOT MAIL.

[RXD-15] Pharmacy/Treatment Supplier's Special Dispensing Instructions will indicate what sort of bottle cap should be employed. It is a safety cap or non-safety cap.

[RXD-25] Supplementary Code is the drug warning number and text.

[NTE] This segment following the RXD segment will contain the Patient Medication Instructions if any.



Note: The separator value “\.sp\” has been added to NTE-3, 3 = Drug Warning Narrative, to separate the different warning labels.

[RXR-1] Route is the medication route.

Specific Transaction – Dispense Release Date/Time

The messages for the Dispense Release Date/Time will consist of the following HL7 segments:

MSH	Message Header
PID	Patient Identification
PV1	Patient Visit
PV2	Patient Visit – additional information
RXE	Pharmacy/Treatment Encoded Order
RXD	Pharmacy/Treatment Dispense

Example:

```
MSH|^~\&|PSO VISTA|521^OUTPATIENT|PSO
DISPENSE|521|20030620125043||RDS^O13^RDS_O13|10001|P|2.4|||AL|AL
PID|||5000002199V009321~~~USVHA&&0363~NI~VA FACILITY
ID&500&L~~20140212^234234987~~~USSSA&&0363~SS~VA FACILITY ID&500&L^"~~~USDOD&&0363~TIN~VA
FACILITY ID&500&L^"~~~USDOD&&0363~FIN~VA FACILITY ID&500&L^7172676~~~USVHA&&0363~PI~VA
FACILITY ID&500&L|333888478~~~USVHA&&0363~PI~VA FACILITY
ID&742V1&L^492994922~~~USVHA&&0363~PI~VA FACILITY
ID&742V1&L|PSOPATIENT~MULTIPLE~RX~~~L||19111111|M|||123 MAIN ST~"~ANY TOWN
ONE~CA~94114~USA~P~"~075^~~ ANY TOWN TWO~CA~~~N|||(555)555-5555~PRN~PH|||
PV1||O
PV2|||SCL50~NO COPAY
RXE|""""|D0082^DIGOXIN 0.25MG TAB^99PSNDF^372.3^DIGOXIN 0.25MG
TAB^99PSD|""""|20^MG^99PSU|120^TAB, RAPID DISINTEGRATE^99PSF|||LAXOXIN 0.125MG|||123987
RXD|3|^ASPIRIN 325 MG TAB|20030610|||100001351||20031212~233~6505-00-584-
0398|||20040615
```

Segments used in the Outpatient Pharmacy HL7 interface Dispense Release Date/Time Request:

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
MSH	1	1	ST	R			Field Separator	
	2	4	ST	R			Encoding Characters	~^ &
	3	180	HD	R		0361	Sending Application	PSO VISTA
	4	180	HD	R		0362	Sending Facility – station ID and station DNS name	521~FO-BIRM.MED.VA.GOV~DNS
	5	180	HD	R		0361	Receiving Application	PSO DISPENSE
	6	180	HD	R		0362	Receiving Facility – DNS name and port of dispensing machine	~DISPENSE.VH A.MED.VA.GOV :9300~DNS

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	7	26	TS				Date/Time of Message	20040405152416
	9	15	CM	R	0076		Message Type	RDS~013
	10	20	ST	R			Message Control ID	10001
	11	3	PT	R	0103		Processing ID	P
	12	3	VID	R	0104		Version ID	2.4
	15	2	ID			0155	Accept Ack. Type	AL
	16	2	ID			0155	Application Ack Type	AL
PID	3	250	CX	R	Y		Patient ID (will contain IEN, SSN, ICN, Claim #, etc., if exists)	218~~~USVHA& &0363~PI~VA FACILITY ID&500&L
PID	4	250	CX				Active Veteran's Health Identification Card (VHIC) number(s)	
	5	250	XP	R			Patient Name	OPPATIENT~ON E
	7	26	TS	R			Date/Time of Birth	19280622
	8	1	IS			0001	Administrative Sex	M
	11	250	XAD	R	Y/3		Patient Address	164 Friendship DR~""~TROY~N Y~12180~~P~""
	13	250	XTN	R	Y/3		Phone Number-Home	(555)555-5555
PV1	2	1	IS	R		0004	Patient Class	O for Outpatient
PV2	24	15	IS	R	Y		Patient Status Code	SC~NO COPAY
RXE	1	200	TQ	R			Quantity/Timing	Null
	2	250	CE	R			Give Code	XH001~HEMAT EST TAB (NOT FOR ORAL USE)~99PSNDF~ 3207.12039.4321 ~HEMATEST REAGENT TAB. 100/BTL~99PSD
	3	20	NM	R			Give Amount-Minimum	Null
	5	250	CE	R			Give Units	20~MG~99PSU
	6	250	CE	O			Give Dosage Form	165~TAB,TEST~ 99PSF
	8	200	CM	O			Deliver-To Location	WINDOW
	9	25	ST	O			Substitution Status	(Trade name)
	15	20	ST	R			Prescription Number	100002202
RXD	1	10	NM	R			Dispense Sub-ID Counter	3
	2	250	CE	R			Dispense/Give Code	XH001~HEMAT EST TAB (NOT FOR ORAL USE)~99PSNDF~ 3207.12039.4321 ~HEMATEST REAGENT TAB. 100/BTL~99PSD
	3	26	TS	R			Date/Time Dispensed	20040405

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	7	20	ST	R			Prescription Number	100002202
	9	25	ST	O			Dispense Notes – Release Date/Time, Bingo Wait time, NDC Code	200312120830^35 ^6505-00-584- 0398

Notes pertaining to some of the data elements:

[MSH-3] Sending Application is the station ID along with the DNS name of the sending facility.

[MSH-5] Receiving Application is the DNS name and DNS port number of the dispensing application.

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

[PID-3] Patient ID will contain the following possibilities to identify a patient:

- NI = ICN #
- SS = Social Security #
- PN = Claim #
- PI = DFN #

[PID-4] Alternate Patient ID will contain the active Veteran's Health Identification Card (VHIC) number(s) to identify a patient.

[PV1-2] Patient Class is hard-coded to an O for outpatient.

[PV2-24] Patient Status Code contains the patient status from the prescriptions file followed by a tilde and then whether or not the patient is COPAY.

[RXE-1] Quantity Timing is a required field but it will not be used in Outpatient Pharmacy V. 7.0. It will always be a null value ("").

[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, National Drug File, local file pointer, local drug name, and the local file.

[RXE-3] Give Amount - Minimum is a required field but it will not be used in Outpatient Pharmacy V. 7.0. 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-6] Give Dosage Form is a coded element field. The fourth component is the pointer to the DOSAGE FORM file (#50.606). The fifth component is the form name, and the sixth component is the name of coding system (99PSF).

[RXD-1] Dispense Sub-ID Counter identifies which fill the prescription is.

[RXD-2] Dispense/Give code will contain the same give code as in RXE-2.

[RXD-9] Dispense Notes has three pieces of information:

- FILE RELEASE DATE/TIME field (#105.1) from the PRESCRIPTION file (#52).
- BINGO WAIT TIME field (#32) from the PRESCRIPTION file (#52).
- NDC field (#27) from the PRESCRIPTION file (#52).

Specific Transaction – Dispense Completion

The messages for the dispense completion will consist of the following HL7 segments:

MSA Message Acknowledgment
 MSH Message Header
 PID Patient Identification
 ORC Common Order
 RXD Pharmacy/Treatment Dispense

Example:

```
MSH|^~\&|PSO DISPENSE|521|PSO VISTA|521|20031215125043||RRD^O14^RRD_O14|10001|P|2.4|||AL|AL
MSA|AA~CA|10001
PID|||5000000022V981671^^^USVAMC^PN~1234^^^PN^PI~000456789^^^USSA^SS||OPPATIENT^ONE||1959011
6|M
ORC|OR|12345|||||^OPPROVIDER2^THREE|^OPPROVIDER^TWO
RXD|1|D0082^DIGOXIN 0.25MG TAB^99PSNDF^372.3^DIGOXIN 0.25MG
TAB^99PSD|20031215|||123987||06505-5840-
00^20031212^1|1234567^OPPROVIDER1^ONE|||123456789101112131415|||45201|20041201|BAXTER
```

Segments used in the Outpatient Pharmacy HL7 interface Dispense Completion:

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
MSH	1	1	ST	R			Field Separator	
	2	4	ST	R			Encoding Characters	^~\&
	3	180	HD	R		0361	Sending Application	PSO DISPENSE
	4	180	HD	R		0361	Sending Facility	~DISPENSE.VH A.MED.VA.GOV :9300~DNS
	5	180	HD	R		0361	Receiving Application	PSO VISTA
	6	180	HD	R		0362	Receiving Facility	
	7	26	TS	R			Date/Time of Message	200304050938
	9	15	CM_ MSG	R		0076	Message Type	RRD~014
	10	20	ST	R			Message Control ID	10001
	11	3	PT	R		0103	Processing ID	P
	12	60	VID	R		0104	Version ID	2.4
	15	2	ID	O		0155	Accept Acknowledgment	AL
	16	2	ID	O		0155	Application Acknowledgment Type	NE
MSA	1	2	ID	R		0008	Acknowledgment Code	AA
	2	20	ST	R			Message Control ID	10001
PID	3	250	CX	R	Y		Patient ID (will contain IEN, SSN, ICN, Claim #, etc., if exists)	218~~~USVHA& &0363~PI~VA FACILITY ID&500&L
PID	4	250	CX				Active Veteran's Health Identification Card (VHIC) number(s)	
	5	250	XP	R			Patient Name	OPPATIENT~ON

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
								E
	7	26	TS	R			Date/Time of Birth	19280622
	8	1	IS			0001	Administrative Sex	M
ORC	1	2	ID	R		0119	Order Control	OR
	2	22	EI	C			Placer Order Number	12345
	10	250	XCN	O			Entered By	114~OPPROVID ER2~THREE
	11	250	XCN	O			Verified By	115~OPPROVID ER~TWO
RXD	1	4	NM	R			Dispense Sub-ID Counter	1 (Fill Number)
	2	250	CE	R		0292	Dispense/Give Code	XH001~HEMAT EST TAB (NOT FOR ORAL USE)~99PSNDF~ 3207.12039.4321 ~HEMATEST REAGENT TAB. 100/BTL~99PSD
	3	26	TS	R			Date/Time Dispensed	20040405
	7	20	ST	R			Prescription Number	100002202
	9	25	ST	O			Dispense Notes NDC Code^Release Date time^Vendor dispense code	06505-5840- 00^200312120915 ^1
	10	200	XCN	O			Dispensing Provider (Verifying/Dispensing Pharmacist)	1234567~OPPRO VIDER1~ONE
	13	200	CM	O			Dispense-To Location	12345678910111 2131415
	18	20	ST	O			Substance Lot Number	45201
	19	26	TS	O			Substance Expiration Date	20050405
	20	250	CE	O		0227	Substance Manufacturer Name	BAXTER

Notes pertaining to some data elements:

[MSH-3] Receiving Application is the DNS name and DNS port number of the dispensing application.

[MSH-5] Sending Application is the station ID along with the DNS name of the facility.

[MSH-10] Message Control ID is the number that uniquely identifies the message.

[MSA-2] Message Control ID is the same number that was in MSH-2 in the dispense request message.

[PID-3] Patient ID will contain the following possibilities to identify a patient:

- NI = ICN #
- SS = Social Security #
- PN = Claim #
- PI = DFN #

[PID-4] Patient ID will contain the active Veteran's Health Identification Card (VHIC) number(s) to identify a patient.

[ORC-2] Placer Order Number is the RX internal entry number.

[ORC-10] Entered By is the name of the Filling Person for the prescription.

[ORC-11] Verified By is the name of the Checking Pharmacist for the prescription.

[RXD-1] Dispense Sub-ID Counter is the fill number for the prescription.

[RXD-3] Date/Time Dispensed is the fill date and time.

[RXD-9] Dispense Notes contains 3 components: 1) The NDC code. 2) The release date time. 3) The Vendor Dispense Code.

[RXD-10] Dispensing Provider is the name of the releasing pharmacist.

[RXD-13] Dispense-To-Location will contain the mail tracking number of the medication sent to the patient.

(This page included for two-sided copying.)

Appendix B:

HL7 Messaging with an External System

New Protocol

A new protocol, PSO RECEIVE ORDER, is exported for processing orders from an external system. To use this functionality, this protocol must be added as a SUBSCRIBER to the Event Driver protocol in the PROTOCOL file (#101), which sends the external order message.

New Application Parameter

A new HL7 application parameter, PSO RECEIVE, is exported as the Receiving Application of the PSO RECEIVE ORDER protocol from the HL7 APPLICATION PARAMETER file (#771).

New Logical Link

A new HL7 logical link, PSO LLPO from the HL LOGICAL LINK file (#870), is being exported as the Logical Link of the PSO RECEIVE ORDER protocol. This link information will need to be edited to match the communication method of the interface if this interface is activated.

For any orders received from an external source, two new fields are stored with the Outpatient Pending Order and with the prescription, once the Pending Order is finished. These fields are EXTERNAL PLACER ORDER NUMBER field (#114) and EXTERNAL APPLICATION field (#116) in the PENDING OUTPATIENT ORDERS file (#52.41). These fields are also within the PRESCRIPTION file (#52) and are the EXTERNAL PLACER ORDER NUMBER field (#123) and EXTERNAL APPLICATION field (#124).

Any external systems that send orders through this interface to VistA must comply with having **unique** external placer order numbers within the orders from this system. This number is used for various look-ups within the interface, in conjunction with the EXTERNAL APPLICATION field (#116) in the PENDING OUTPATIENT ORDERS file (#52.41) and the EXTERNAL APPLICATION field (#124) in the PRESCRIPTION file (#52).

Any message sent through this interface to VistA, whether it is a New Order message or a Discontinue message must contain only one order per message. The interface is not set up to receive multiple orders per message.

HL7 Order Message Segment Definition Table

When the PSO RECEIVE ORDER protocol is enabled to process orders from an external system, the following table defines the data elements required for each segment of the incoming order message. This is a unilateral interface. No order information will be returned to the external system.

Segment	Piece	Description/Field Name	Data	Data Type
MSH	1	Field Separator		String
	2	Encoding Characters	^~\&	String
	3	Sending Application	Sending Application Name	String
	4	Sending Facility		String
	5	Receiving Application	PSO RECEIVE	String
	6	Receiving Facility		String
	9	Message Type	ORM^O01	Coded Value
	10	Message Control ID		String
	11	Processing ID	P	Coded Value
	12	Version ID	2.3.1	Coded Value
	15	Accept Acknowledgement	NE	Coded Value
	16	Application Acknowledgement	AL	Coded Value
	17	Country Code	USA	Coded Value
PID	3	Patient (pointer to File #2)	VistA IEN of Patient from File #2	Composite ID
	5	Patient Name		Person Name
PVI	3	Clinic (pointer to File #44)	VistA IEN of Hospital Location from File #44	Composite
ORC	1	Order Control Code	'NW'	Coded Value
	2	Placer Order Number*	External Placer Order Number	Composite
	9	Date/Time of Transaction	Current Date/Time	Time Stamp
	10	Entered By	VistA IEN of Provider from File #200	Composite ID Number and Name
	12	Ordering Provider	VistA IEN of Provider from File #200	Composite ID Number and Name
	15	Order Effective Date	Current Date/Time	Time Stamp
RXO	10	Dispense Drug	VistA IEN of Drug from File #50	Coded Element
	11	Quantity	Quantity	Numeric
	13	Number of Refills	Number of Refills	Numeric
NTE	6	Provider's Instructions to Dispensing Pharmacy	Free Text Provider Comments	String
	7	Patient's Instructions	Expanded Sig	String
ZRN	1	Non-VA	N	Coded Element (N=Non VA med)

Segment	Piece	Description/Field Name	Data	Data Type
	2	Statement/Reason	Non-VA Medication not recommended by VA provider or Medication prescribed by non-VA provider	String
ZRX	4	Routing	'W' (for Window)	String

* Field must contain unique data

The PSO RECEIVE ORDER protocol can also receive discontinue order messages. The following table gives the details of the fields that need to be received in the incoming order message.

Segment	Piece	Description/Field Name	Data	Data Type
MSH	1	Field Separator		String
	2	Encoding Characters	^~\&	String
	3	Sending Application	Sending Application Name	String
	4	Sending Facility		String
	5	Receiving Application	PSO RECEIVE	String
	6	Receiving Facility		String
	9	Message Type	ORM^O01	Coded Value
	10	Message Control ID		String
	11	Processing ID	P	Coded Value
	12	Version ID	2.3.1	Coded Value
	15	Accept Acknowledgement	NE	Coded Value
	16	Application Acknowledgement	AL	Coded Value
	16	Country Code	USA	Coded Value
PID	3	Patient (pointer to File #2)	VistA IEN of Patient from File #2	Composite ID
	5	Patient Name		Person Name
PVI	3	Clinic (pointer to File #44)	VistA IEN of Hospital Location from File #44	Composite
ORC	1	Order Control Code	'CA'	Coded Value
	2	Placer Order Number*	External Placer Order Number	Composite
	9	Date/Time of Transaction	Current Date/Time	Time Stamp
	10	Entered By	VistA IEN of Provider from File #200	Composite ID Number and Name

Segment	Piece	Description/Field Name	Data	Data Type
	12	Ordering Provider	VistA IEN of Provider from File #200	Composite ID Number and Name
	15	Order Effective Date	Current Date/Time	Time Stamp
ZRN	1	Non-VA	N	Coded Element (N=Non VA med)
	2	Statement/Reason	Non-VA Medication not recommended by VA provider or Medication prescribed by non-VA provider	String

* Field must contain unique data

An Application Acknowledgement message is returned for new and discontinue messages received from the external system. Sequence 1 (Acknowledgement Code) of the MSA segment will always be Application Accept (AA), regardless of whether or not the incoming message passed all of the exception checks. Sequence 3 (Text Message) of the MSA segment will be null if the message was accepted and passed all of the exception checks. If the message is rejected by the receiving application, Sequence 3 (Text Message) will contain the reason for the rejection.

Segment	Piece	Description/Field Name	Data	Data Type
MSH	1	Field Separator		String
	2	Encoding Characters	^~\&	String
	3	Sending Application	PSO RECEIVE	String
	4	Sending Facility	(Sending Facility)	String
	5	Receiving Application	(Receiving Application Name)	String
	6	Receiving Facility	(Receiving Facility)	String
	7	Date/time of Message	Current Date/Time	Time Stamp
	9	Message Type	ORR^O01	Coded Value
	10	Message Control ID		String
	11	Processing ID	P	Coded Value
	12	Version ID	2.3.1	Coded Value
	15	Accept Acknowledgement	NE	Coded Value
	16	Application Acknowledgement	NE	Coded Value
	17	Country Code	US	Coded Value
MSA	1	Acknowledgement Code	AA	Coded Value
	2	Message Control ID		String
	3	Text Message	(Null, or Rejection Reason)	String

Order Messaging Exceptions

Exceptions will occur when VistA rejects a new or discontinue order message. For new order messages, the rejections are largely based on the drug, provider, or patient associated with the prescription order.

Drug exceptions

- Drug is inactive (less than today's date)
- Drug is not marked for outpatient use
- Drug is not associated with a Pharmacy Orderable Item
- Invalid drug entry

Provider exceptions

- Provider is not authorized to write med orders
- Provider has an inactive date (date of today or less)
- Provider has a termination date (date of today or less)
- Provider does not hold the PROVIDER key
- Invalid provider entry

Patient exceptions

- Patient is deceased
- Invalid patient entry

Other exceptions

- Invalid NTE segment, greater than 245 characters
- Invalid message structure
- Missing MSH segment
- Missing PID segment
- Missing PVI segment
- Missing ORC segment
- Missing RXO segment
- External order, unable to successfully transmit to CPRS
- Unable to derive Institution from Clinic
- Unable to add order to Pending file
- Missing sending application name
- Invalid Order Control Code
- No Patient Location
- Missing CHCS Placer Order Number
- Duplicate order number in Outpatient Pending file
- Duplicate order number in Outpatient Prescription file
- Missing number of refills
- Missing effective date
- Missing Entered by data

For discontinue order messages, these are the possible exceptions:

Provider exceptions

- Provider is not authorized to write med orders
- Provider has an inactive date (date of today or less)
- Provider has a termination date (date of today or less)
- Provider does not hold the PROVIDER key
- Invalid provider entry

Other exceptions

- Invalid message structure
- Missing MSH segment
- Missing PID segment
- Missing ORC segment
- Missing sending application name
- Missing CHCS Placer Order Number
- Unable to find order in Pharmacy
- Patient mismatch in Pending order
- Pending order is being edited by another user
- Unable to cancel Pending order, status is HOLD
- Unable to cancel Pending order, status is RENEW
- Unable to cancel Pending order, status is DISCONTINUE (EDIT)
- Unable to cancel Pending order, status is DISCONTINUE
- Unable to cancel Pending order, status is REFILL REQUEST
- Patient mismatch in prescription
- Prescription is being edited by another user
- Unable to cancel prescription, status is DISCONTINUED
- Unable to cancel prescription, status is DELETED
- Unable to cancel prescription, status is DISCONTINUED BY PROVIDER
- Unable to cancel prescription, status is DISCONTINUED (EDIT)

Appendix C:

The Transitional Pharmacy Benefit (TPB) functionality has been placed “Out of Order” with the PSO*7*227 patch.

(This page included for two-sided copying.)

Appendix D: HL7 Messaging for VistA Data Extraction Framework (VDEF)

Important



Patch PSO*7*190 should not be installed prior to the site's assigned HDR installation date. Each site will be contacted approximately two weeks prior to the assigned HDR installation date and provided instructions on when and in what order to install this patch and the VDEF V. 1.0 software. Additionally, sites should not configure or attempt to utilize the VDEF software associated with this patch prior to the assigned HDR installation date. Technical Support Office personnel will work with each site to activate that application and start the site's data transmissions to the HDR database. (Information on HDR installation dates can be found by going to the link http://vaww.teamshare.va.gov/hdr_implementation/ and selecting "Implementation Schedule" from the Quick Launch panel on the left side of the page.).

Please refer to the VistA Data Extraction Framework (VDEF) Installation & User Configuration Guide for all technical assistance.

New Protocols

Patch PSO*7*190 adds six new protocols to the PROTOCOL file (#101) to facilitate the VistA Data Extraction Framework (VDEF) Outpatient Pharmacy messaging.

PROTOCOL: (VS = Event Driver protocol, HR = Subscriber protocol)

PSO VDEF RDE O11 OP PHARM PRES VS
PSO VDEF RDE O11 OP PHARM PRES HR

PSO VDEF RDS O13 OP PHARM PPAR VS
PSO VDEF RDS O13 OP PHARM PPAR HR

PSO VDEF RDS O13 OP PHARM PREF VS
PSO VDEF RDS O13 OP PHARM PREF HR

New Application Parameters

Patch PSO*7*190 adds four new HL7 application parameters to the HL7 APPLICATION PARAMETER file (#771):

HDRPPAR is exported as the Sending Application for the PSO VDEF RDS O13 OP PHARM PPAR VS protocol.

HDRPREF is exported as the Sending Application for the PSO VDEF RDS O13 OP PHARM PREF VS protocol.

HDRPRES is exported as the Sending Application for the PSO VDEF RDE O11 OP PHARM PRES VS protocol.

PSO VDEF IE SIDE is exported as the Receiving application for the three Subscriber protocols:

PSO VDEF RDE O11 OP PHARM PRES HR
PSO VDEF RDS O13 OP PHARM PPAR HR
PSO VDEF RDS O13 OP PHARM PREF HR

New Logical Link

There are currently four HL7 logical links (VDEFVIE_n) exported with VDEF V. 1.0. The VDEFVIE_n links will transmit messages from the local site to the HDR Receiving host system at Austin. VDEFVIE3 is the logical link assigned to Outpatient Pharmacy and it has been added to the HL LOGICAL LINK file (#870).

HL7 Outpatient Pharmacy VDEF Message

When particular events (listed below) occur to a prescription within the Outpatient Pharmacy package, a VDEF request will be queued up at the VDEF Request Queue, with the MessageType, EventType, SubType, and the internal entry number to the PRESCRIPTION file (#52). VDEF will then go through the VDEF Request Queue to generate an HL7 message that contains all of the prescription information and send the message to the Receiving Facility through the VDEFVIE3 Logical Link.

Outpatient Pharmacy VDEF messages will be generated when:

- A new order is entered through the Outpatient Pharmacy options
- A Pending Order from Computerized Patient Record System (CPRS) is finished in the Outpatient Pharmacy options
- A refill is entered for a prescription
- A partial fill for a prescription is entered
- All prescription status changes
- A Prescription is edited and does not create a new order

Example of VDEF HL7 Message

```
MSH^~|\&^HDRPREF^613~TEST.MARTINSBURG.MED.VA.GOV~DNS^PSO VDEF IE  
SIDE^200HD~HDR.MED.VA.GOV~DNS^20041216192259-0500^RDS~O13^61332594923^T^2.4^^AL^NE^US  
PID^1^1234567890V123456^1234567890V123456~~~USVHA&&0363~NI~VA FACILITY  
ID&613&L|000654321~~~USSSA&&0363~SS~VA FACILITY ID&613&L|1234~~~USVHA&&0363~PI~VA FACILITY  
ID&613&L|000654321~~~USVBA&&0363~PN~VA FACILITY  
ID&613&L^LastName~FirstName~M~~~~L^MotherMaidenLastName~~~~~M^19150511^M^^""^HC 11, BOX  
22B~""~CAPON BRIDGE~WV~12345~~P~""|~~BARNESVILLE~MD~~~N^027^(123)555-  
1212^""^D^0^000654321^^^""^BARNESVILLE MD^^^^^20000301^^  
ORC^RE^^1685567~613_52_.001^^CM^^~~~19950109~19960110~~FILL/EXPIRATION|~~~~19950109~~ISSUED|~  
~~19950109~19950330~~DISPENSED/LAST DISPENSED|~~~~19950629~~CANCEL^^19950109123449-  
0500^63~OPPROVIDER40~TWO~~~~Vista200^^947~OPPROVIDER41~TWO~A~MD~~MD~RE^ CCS/HOME  
VISIT~2559^^^613~MARTINSBURG VAMC~613_52_20~5005423~MARTINSBURG VAMC~NCPDP^^^^MARTINSBURG,  
WV^^^^4500704~DISCONTINUED~99VA_52_100  
RXE^1&100MG~~~19950109~19950629~~FILL/CANCEL^4005192~AMANTADINE HCL 100MG CAP~99VA_52_6~0781-  
2048-  
01~~NDC^0^^20~MG~613_52_6^63~CAP~613_50_7_.02^^TAKE~613_52.0113_8|~CAPSULE~613_52.0113_3|~Q8H  
~613_52.0113_7|~QAMHS~613_52_114|~IN THE MORNING AND AT  
BEDTIME~613_52_115^~~~~~WINDOW^^90^^1^^2992~OPPROVIDER42~THREE~M~~~~PHARMACIST^5430744^^^1995  
0111170823-0500^^TAKE ONE CAPSULE BY MOUTH EVERY EIGHT HOURS IN THE MORNING AND AT  
BEDTIME~~613_52_10.2^D90^^^^^^11135~ AMANTADINE HCL 100MG CAP ~613_50_.01|C0255~~613_50_27  
RXR^1~ORAL (BY MOUTH)~613_52.0113_6
```

```

FT1^^^^19950109^^CG^620~AMANTADINE~~613_52_39.2^^^^0.009^^^^^ONSC^12345~FINISHING
PHARM~613_52_38
FT1^2^^19950109^^CO^1~PSO NSC RX COPAY NEW~500_52_105
OBX^1^CE^WAS THE PATIENT COUNSELED^^4500633~YES~99VA_52_41^^^^^F
OBX^2^CE^WAS COUNSELING UNDERSTOOD^^4500630~NO~99VA_52_42^^^^^F
NTE^1^RENEWED FROM RX # 123456^RE~REMARKS~613_52_12
ORC^RF^^1^^^^~19950330~~DISPENSED^~1685567^19950306^^947~OPPROVIDER41~TWO~A~MD~~MD~VistA2
00^^^^REFILL^613~MARTINSBURG
VAMC~613_52_1_8~5005423~MARTINSBURG VAMC~NCPDP^^^^MARTINSBURG, WV
RXE^~~~19950330~~~REFILL^4005192~AMANTADINE HCL 100MG CAP~99VA _52_6~0781-2048-01~~NDC
^0^^20~MG~613_52_6^^^^~~~~MAIL^^90^^^^2992~OPPROVIDER42~THREE~M~~~~PHARMACIST^^^^199503290934
-0500^^^^D90^^^^^^^^11135~ AMANTADINE HCL 100MG CAP ~613_50_.01|C0255~~613_50_27
FT1^^^^19950330^^CG^620~AMANTADINE~~613_52_39.2^^^^0.009
FT1^2^^19950330^^CG^1~PSO NSC RX COPAY NEW~500_52_105
ORC^RF^^1^^^^~1685567^199503061212-
0500^^947~OPPROVIDER41~TWO~A~MD~~MD~VistA200^^^^PARTIAL^613~MARTINSBURG
VAMC~613_52_1_8~5005423~MARTINSBURG VAMC~NCPDP^^^^MARTINSBURG, WV
RXE^~~~19950306~~~PARTIAL^4005192~AMANTADINE HCL 100MG CAP~99VA _52_6~0781-2048-01~~NDC
^0^^20~MG~613_52_6^^^^~~~~WINDOW^^30^^^^2992~OPPROVIDER42~THREE~M~~~~PHARMACIST^^^^1995030714
4822-0500^^^^D30^^^^^^^^11135~ AMANTADINE HCL 100MG CAP ~613_50_.01|C0255~~613_50_27
NTE^^PT OUT RX ON SUSP FOR 24 MORE DAYS^RE~REMARKS~613_50_27
FT1^^^^19950306^^CG^620~AMANTADINE~~613_52_39.2^^^^0.009
FT1^2^^19950306^^CG^1~PSO NSC RX COPAY NEW~500_52_105

```

HL7 Outpatient Pharmacy VDEF Message

Some data values in the following table represent VistA data fields that have been assigned VUIDs (VHA Unique Identifiers). In these instances, when a VUID is available, the data value will be the VUID, along with the appropriate coding scheme. If for some reason the VUID is not available, the data value will be the VistA data value, along with the appropriate coding scheme.

The exception to this format would be the data value for the coded element for Give Code in the segment RXE 2. If a VUID is available, the first three pieces would be:

```

VUID from the VA PRODUCT file (#50.68)
VA PRODUCT Name from the VA PRODUCT file (#50.68)
99VA_52_6

```

If a VUID is not available, for example if the local drug from the DRUG file (#50) is not matched to the National Drug File, the first three pieces would be:

```

Null
DRUG Name from the DRUG file (#50)
(Station Number)_52_6

```

Also in the following table, dosing information is sent in the RXE 1 segment. There are different formats for the dosing information, depending on the type of dosage. Here are examples, which include a possible dosage, a local possible dosage and a possible dosage with complex dosing instructions.

Example 1: This example is for a possible dosage, which is a numeric dosage, with a numeric dispense units per dose. These types of dosages are limited to single ingredient drugs, with a numeric strength, usually with a dosage form of tablets or capsules.

2&200MG~~10D~20050720~20060721~~FILL/EXPIRATION

The dosage in this case is 2&200MG~~10D, where 2 represents the dispense units per dose, 200MG represents the total dosage for the 2 tablets or capsules, and 10D represents the duration, which in this case is 10 days. (duration is optional)

Example 2: This example is for a local possible dosage, which is a text dosage, with no dispense units per dose. These types of dosages apply to items such as multi-ingredient drugs, creams, ointments, drops, etc.

&1 DROP~~~20050720~20060721~~FILL/EXPIRATION

The dosage in this case is &1 DROP~~~, where 1 DROP represents the dosage. Since it is a local possible dosage, there is no dispense units per dose, and in this case there is no duration, though a duration can be applied to any type of dosage.

Example 3: This example is for a possible dosage, with complex dosing instructions.

1&100MG~~10D~20050720~20060721~~FILL/EXPIRATION|2&200MG~~5D

The first set of dosing instructions is 1&100MG~~10D, where 1 represents the dispense units per dose, 100MG represents the total dosage, and 10D represents a duration of 10 Days. The next set of dosing instructions is 2&200MG~~5D, where 2 represents the dispense units per dose, 200MG represents the total dosage, and 5D represents a duration of 5 Days.



Note: The dosage will only appear in the RXE segment associated with the original fill, it will not appear in RXE segments associated with refills or partial fills.

Example of VDEF HL7 Message Details

Segment	Piece/Sequence	Description/ Field Name	Data Type	Data Value
MSH	1	Field Separator	ST	^
MSH	2	Encoding Characters	ST	~\ &
MSH	3	Sending Application	HD	HDRPREF
MSH	4	Sending Facility	HD	613~TEST.MARTINSBURG.MED.VA.GOV~DNS
MSH	5	Receiving Application	HD	PSO VDEF IE SIDE
MSH	6	Receiving Facility	HD	200HD~HDR.MED.VA.GOV~DNS
MSH	7	Date/Time Of Message	TS	20041216192259-0500
MSH	8	Security	ST	
MSH	9	Message Type	CM	RDS~O13
MSH	10	Message Control ID	ST	61332594923
MSH	11	Processing ID	PT	T
MSH	12	Version ID	VID	2.4

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
MSH	13	Sequence Number	NM	
MSH	14	Continuation Pointer	ST	
MSH	15	Accept Acknowledgment Type	ID	AL
MSH	16	Application Acknowledgment Type	ID	NE
MSH	17	Country Code	ID	US
MSH	18	Character Set	ID	
MSH	19	Principal Language Of Message	CE	
MSH	20	Alternate Character Set Handling Scheme	ID	
MSH	21	Conformance Statement ID	ID	
PID	1	Set ID - PID	SI	1
PID	2	Patient ID	CX	1234567890V123456
PID	3	Patient Identifier List	CX	1234567890V123456~~~USVHA&&0363 ~NI~VA FACILITY ID&613&L
PID	3	Patient Identifier List_rep		000654321~~~USSSA&&0363~SS~VA FACILITY ID&613&L
PID	3	Patient Identifier List_rep		1234~~~USVHA&&0363~PI~VA FACILITY ID&613&L
PID	3	Patient Identifier List_rep		000654321~~~USVBA&&0363~PN~VA FACILITY ID&613&L
PID	4	Alternate Patient ID - PID	CX	654~~~USVHA&&0363~PI~VA FACILITY ID&742V1&L
PID	5	Patient Name	XPN	LastName~FirstName~M~~~~L
PID	6	Mother's Maiden Name	XPN	MotherMaidenLastName~~~~~M
PID	7	Date/Time Of Birth	TS	19150511
PID	8	Administrative Sex	IS	M
PID	9	Patient Alias	XPN	
PID	10	Race	CE	""
PID	11	Patient Address	XAD	HC 11, BOX 22B~""~CAPON BRIDGE~WV~12345~~P~""
PID	11	Patient Address_rep		~~BARNESVILLE~MD~~~N
PID	12	County Code	IS	027

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
PID	13	Phone Number - Home	XTN	(123)555-1212
PID	14	Phone Number - Business	XTN	""
PID	15	Primary Language	CE	
PID	16	Marital Status	CE	D
PID	17	Religion	CE	0
PID	18	Patient Account Number	CX	
PID	19	SSN Number - Patient	ST	654321
PID	20	Driver's License Number - Patient	DLN	
PID	21	Mother's Identifier	CX	
PID	22	Ethnic Group	CE	""
PID	23	Birth Place	ST	BARNESVILLE MD
PID	24	Multiple Birth Indicator	ID	
PID	25	Birth Order	NM	
PID	26	Citizenship	CE	
PID	27	Veterans Military Status	CE	
PID	28	Nationality	CE	
PID	29	Patient Death Date and Time	TS	20000301
PID	30	Patient Death Indicator	ID	
PID	31	Identity Unknown Indicator	ID	
PID	32	Identity Reliability Code	IS	
PID	33	Last Update Date/Time	TS	
PID	34	Last Update Facility	HD	
PID	35	Species Code	CE	
PID	36	Breed Code	CE	
PID	37	Strain	ST	
PID	38	Production Class Code	CE	
ORC	1	Order Control	ID	RE
ORC	2	Placer Order Number	EI	
ORC	3	Filler Order Number	EI	1685567~613_52_.001
ORC	4	Placer Group Number	EI	

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
ORC	5	Order Status	ID	CM
ORC	6	Response Flag	ID	
ORC	7	Quantity/ Timing	TQ	~~~19950109~19960110~~FILL/EXPIRATION
ORC	7	Quantity/ Timing_rep		~~~~19950109~~ISSUED
ORC	7	Quantity/ Timing_rep		~~~19950109~19950330~~DISPENSED/ LAST DISPENSED
ORC	7	Quantity/ Timing_rep		~~~~19950629~~CANCEL
ORC	8	Parent	CM	
ORC	9	Date/Time of Transaction	TS	19950109123449-0500
ORC	10	Entered By	XCN	63~OPPROVIDER40~TWO~~~~VistA2 00
ORC	11	Verified By	XCN	
ORC	12	Ordering Provider	XCN	947~OPPROVIDER41~TWO~A~MD~~ MD~RE
ORC	13	Enterer's Location / Room (Hospital Location IEN~Clinic)	PL	CCS/HOME VISIT~2559
ORC	14	Call Back Phone Number	XTN	
ORC	15	Order Effective Date/Time	TS	
ORC	16	Order Control Code Reason	CE	
ORC	17	Entering Organization	CE	613~MARTINSBURG VAMC~613_52_20~5005423~MARTINS BURG VAMC~NCPDP
ORC	18	Entering Device	CE	
ORC	19	Action By	XCN	
ORC	20	Advanced Beneficiary Notice Code	CE	
ORC	21	Ordering Facility Name	XON	MARTINSBURG, WV
ORC	22	Ordering Facility Address	XAD	
ORC	23	Ordering Facility Phone Number	XTN	
ORC	24	Ordering Provider Address	XAD	
ORC	25	Order Status Modifier (If CMOP drug, send CMOP status)	CWE	4500704~DISCONTINUED~9 9VA_52_100 OR 12~DISCONTINUED~613_52_100

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
RXE	1	Quantity/Timing	TQ	1&100MG~~~19950109~19950629~~FIL L/CANCEL
RXE	2	Give Code	CE	4005192~AMANTADI NE HCL 100MG CAP~99VA_52_6~0781-2048-01~~NDC OR ~AMANTADINE 100MG CAP~613_52_6~0781-2048-01~~NDC
RXE	3	Give Amount - Minimum	NM	0
RXE	4	Give Amount - Maximum	NM	
RXE	5	Give Units	CE	20~MG~613_52_6
RXE	6	Give Dosage Form	CE	63~CAP~613_50.7_.02 OR if VUID exists 63~CAP~613_50.7_.02~11111~CAP~99V A_50.7_.02
RXE	7(n)	Verb, Noun, Schedule, Conjunction	CE	~TAKE~613_52.0113_8 ~CAPSULE~613 _52.0113_3 ~Q8H~613_52.0113_7
RXE	7(n)	Patient Instructions	CE	~QAMHS~613_52_114
RXE	7(n)	Expanded Patient Instructions	CE	~IN THE MORNING AND AT BEDTIME~613_52_115
RXE	8	Deliver-To Location	CM	~~~~~WINDOW
RXE	9	Substitution Status	ID	
RXE	10	Dispense Amount	NM	90
RXE	11	Dispense Units	CE	
RXE	12	Number of Refills	NM	1
RXE	13	Ordering Provider's DEA Number	XCN	
RXE	14	Pharmacist/Treatment Supplier's Verifier ID	XCN	2992~OPPROVIDER42~THREE~M~~~~ PHARMACIST
RXE	15	Prescription Number	ST	5430744
RXE	16	Number of Refills Remaining	NM	
RXE	17	Number of Refills/Doses Dispensed	NM	
RXE	18	D/T of Most Recent Refill or Dose Dispensed	TS	19950111170823-0500
RXE	19	Total Daily Dose	CQ	

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
RXE	20	Needs Human Review	ID	
RXE	21	Pharmacy/Treatment Supplier's Special Dispensing Instructions	CE	TAKE ONE CAPSULE BY MOUTH EVERY EIGHT HOURS IN THE MORNING AND AT BEDTIME~~613_52_10.2
RXE	22	Give Per (Time Unit)	ST	D90
RXE	23	Give Rate Amount	ST	
RXE	24	Give Rate Units	CE	
RXE	25	Give Strength	NM	
RXE	26	Give Strength Units	CE	
RXE	27	Give Indication	CE	
RXE	28	Dispense Package Size	NM	
RXE	29	Dispense Package Size Unit	CE	
RXE	30	Dispense Package Method	ID	
RXE	31(n)	Supplementary Code: Local Drug	ST	11135~AMANTADINE HCL 100MG CAP~613_50_.01
RXE	31(n)	Supplementary Code: CMOP ID		C0255~~613_50_27
RXR	1	Route	CE	1~ORAL (BY MOUTH)~613_52.0113_6
RXR	2		CE	
RXR	3		CE	
RXR	4		CE	
RXR	5		CE	
FT1	1	Set ID - FT1	SI	
FT1	2	Transaction ID	ST	
FT1	3	Transaction Batch ID	ST	
FT1	4	Transaction Date	TS	19950109
FT1	5	Transaction Posting Date	TS	
FT1	6	Transaction Type	IS	CG
FT1	7	Transaction Code	CE	620~AMANTADINE~~613_52_39.2
FT1	8	Transaction Description	ST	
FT1	9	Transaction Description - Alt	ST	
FT1	10	Transaction Quantity	NM	

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
FT1	11	Transaction Amount - Extended	CP	
FT1	12	Transaction Amount - Unit	CP	0.009
FT1	13	Department Code	CE	
FT1	14	Insurance Plan ID	CE	
FT1	15	Insurance Amount	CP	
FT1	16	Assigned Patient Location	PL	
FT1	17	Fee Schedule	IS	
FT1	18	Patient Type	IS	ONSC
FT1	19	Diagnosis Code - FT1	CE	
FT1	20	Performed By Code	XCN	12345~FINISHING PHARM~613_52_38
FT1	21	Ordered By Code	XCN	
FT1	22	Unit Cost	CP	
FT1	23	Filler Order Number	EI	
FT1	24	Entered By Code	XCN	
FT1	25	Procedure Code	CE	
FT1	26	Procedure Code Modifier	CE	
FT1	1	Set ID - FT1	SI	
FT1	2	Transaction ID	ST	
FT1	3	Transaction Batch ID	ST	
FT1	4	Transaction Date	TS	19950109
FT1	5	Transaction Posting Date	TS	
FT1	6	Transaction Type	IS	CO
FT1	7	Transaction Code	CE	1~PSO NSC RX COPAY NEW~500_52_105
OBX	1	Set ID - OBX	SI	1
OBX	2	Value Type	ID	CE
OBX	3	Observation Identifier	CE	WAS THE PATIENT COUNSELED
OBX	4	Observation Sub-Id	ST	
OBX	5	Observation Value	CE	4500633~YES~99VA_52_41 OR 1~YES~613_52_41
OBX	6	Units	CE	
OBX	7	References Range	ST	

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
OBX	8	Abnormal Flags	IS	
OBX	9	Probability	NM	
OBX	10	Nature of Abnormal Test	ID	
OBX	11	Observation Result Status	ID	F
OBX	12	Date Last Observation Normal Value	TS	
OBX	13	User Defined Access Checks	ST	
OBX	14	Date/Time of the Observation	TS	
OBX	15	Producer's ID	CE	
OBX	16	Responsible Observer	XCN	
OBX	17	Observation Method	CE	
OBX	18	Equipment Instance Identifier	EI	
OBX	19	Date/Time of the Analysis	TS	
OBX	1	Set ID - OBX	SI	2
OBX	2	Value Type	ID	CE
OBX	3	Observation Identifier	CE	WAS COUNSELING UNDERSTOOD
OBX	4	Observation Sub-Id	ST	
OBX	5	Observation Value	CE	4500630~NO~99VA_52_42 OR 0~NO~613_52_42
OBX	6	Units	CE	
OBX	7	References Range	ST	
OBX	8	Abnormal Flags	IS	
OBX	9	Probability	NM	
OBX	10	Nature of Abnormal Test	ID	
OBX	11	Observation Result Status	ID	F
OBX	12	Date Last Observation Normal Value	TS	
OBX	13	User Defined Access Checks	ST	
OBX	14	Date/Time of the Observation	TS	

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
OBX	15	Producer's ID	CE	
OBX	16	Responsible Observer	XCN	
OBX	17	Observation Method	CE	
OBX	18	Equipment Instance Identifier	EI	
OBX	19	Date/Time of the Analysis	TS	
NTE	1	Set ID - NTE	SI	1
NTE	2	Source of Comment	ID	
NTE	3	Comment	FT	RENEWED FROM RX # 123456
NTE	4	Comment Type	CE	RE~REMARKS~613_52_12
ORC	1	Order Control	ID	RF
ORC	2	Placer Order Number	EI	
ORC	3	Filler Order Number	EI	1
ORC	4	Placer Group Number	EI	
ORC	5	Order Status	ID	
ORC	6	Response Flag	ID	
ORC	7	Quantity/Timing	TQ	~~~19950330~~~DISPENSED
ORC	8	Parent	CM	~1685567
ORC	9	Date/Time of Transaction	TS	19950306
ORC	10	Entered By	XCN	
ORC	11	Verified By	XCN	
ORC	12	Ordering Provider	XCN	947~OPPROVIDER41~TWO~A~MD~~MD~VistA200
ORC	13	Enterer's Location	PL	
ORC	14	Call Back Phone Number	XTN	
ORC	15	Order Effective Date/Time	TS	
ORC	16	Order Control Code Reason	CE	REFILL
ORC	17	Entering Organization	CE	613~MARTINSBURG VAMC~613_52.1_8~5005423~MARTINS BURG VAMC~NCPDP
ORC	18	Entering Device	CE	
ORC	19	Action By	XCN	
ORC	20	Advanced Beneficiary Notice Code	CE	

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
ORC	21	Ordering Facility Name	XON	MARTINSBURG, WV
ORC	22	Ordering Facility Address	XAD	
ORC	23	Ordering Facility Phone Number	XTN	
ORC	24	Ordering Provider Address	XAD	
ORC	25	Order Status Modifier	CWE	
RXE	1	Quantity/Timing	TQ	~~~19950330~~~REFILL
RXE	2	Give Code	CE	4005192~AMANTADI NE HCL 100MG CAP~99VA_52_6~0781-2048-01~~NDC OR ~AMANTADINE 100MG CAP~613_52_6~0781-2048-01~~NDC
RXE	3	Give Amount - Minimum	NM	0
RXE	4	Give Amount - Maximum	NM	
RXE	5	Give Units	CE	20~MG~613_52_6
RXE	6	Give Dosage Form	CE	20~MG~613_52_6
RXE	7	Provider's Administration Instructions	CE	
RXE	8	Deliver-To Location	CM	~~~~~MAIL
RXE	9	Substitution Status	ID	
RXE	10	Dispense Amount	NM	90
RXE	11	Dispense Units	CE	
RXE	12	Number of Refills	NM	
RXE	13	Ordering Provider's DEA Number	XCN	
RXE	14	Pharmacist/Treatment Supplier's Verifier ID	XCN	2992~OPPROVIDER42~THREE~M~~~~ PHARMACIST
RXE	15	Prescription Number	ST	
RXE	16	Number of Refills Remaining	NM	
RXE	17	Number of Refills/Doses Dispensed	NM	
RXE	18	D/T of Most Recent Refill or Dose Dispensed	TS	199503290934-0500
RXE	19	Total Daily Dose	CQ	

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
RXE	20	Needs Human Review	ID	
RXE	21	Pharmacy/Treatment Supplier's Special Dispensing Instructions	CE	
RXE	22	Give Per (Time Unit)	ST	D90
RXE	23	Give Rate Amount	ST	
RXE	24	Give Rate Units	CE	
RXE	25	Give Strength	NM	
RXE	26	Give Strength Units	CE	
RXE	27	Give Indication	CE	
RXE	28	Dispense Package Size	NM	
RXE	29	Dispense Package Size Unit	CE	
RXE	30	Dispense Package Method	ID	
RXE	31(n)	Supplementary Code: Local Drug	ST	11135~AMANTADINE HCL 100MG CAP~613_50_.01
RXE	31(n)	Supplementary Code: CMOP ID		C0255~~613_50_27
FT1	1	Set ID - FT1	SI	
FT1	2	Transaction ID	ST	
FT1	3	Transaction Batch ID	ST	
FT1	4	Transaction Date	TS	19950330
FT1	5	Transaction Posting Date	TS	
FT1	6	Transaction Type	IS	CG
FT1	7	Transaction Code (Pharmacy Orderable Item/Name, Coding System)	CE	620~AMANTADINE~~613_52_39.2
FT1	8	Transaction Description	ST	
FT1	9	Transaction Description - Alt	ST	
FT1	10	Transaction Quantity	NM	
FT1	11	Transaction Amount - Extended	CP	
FT1	12	Transaction Amount - Unit	CP	0.009

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
FT1	1	Set ID - FT1	SI	
FT1	2	Transaction ID	ST	
FT1	3	Transaction Batch ID	ST	
FT1	4	Transaction Date	TS	19950330
FT1	5	Transaction Posting Date	TS	
FT1	6	Transaction Type	IS	CG
FT1	7	Transaction Code	CE	1~PSO NSC RX COPAY NEW~500_52_105
ORC	1	Order Control	ID	RF
ORC	2	Placer Order Number	EI	
ORC	3	Filler Order Number	EI	1
ORC	4	Placer Group Number	EI	
ORC	5	Order Status	ID	
ORC	6	Response Flag	ID	
ORC	7	Quantity/Timing	TQ	
ORC	8	Parent	CM	~1685567
ORC	9	Date/Time of Transaction	TS	199503061212-0500
ORC	10	Entered By	XCN	
ORC	11	Verified By	XCN	
ORC	12	Ordering Provider	XCN	947~OPPROVIDER41~TWO~A~MD~~ MD~VistA200
ORC	13	Enterer's Location	PL	
ORC	14	Call Back Phone Number	XTN	
ORC	15	Order Effective Date/Time	TS	
ORC	16	Order Control Code Reason	CE	PARTIAL
ORC	17	Entering Organization	CE	613~MARTINSBURG VAMC~613_52.2_.09~5005423~MARTI NSBURG VAMC~NCPDP
ORC	18	Entering Device	CE	
ORC	19	Action By	XCN	
ORC	20	Advanced Beneficiary Notice Code	CE	
ORC	21	Ordering Facility Name	XON	MARTINSBURG, WV
ORC	22	Ordering Facility Address	XAD	

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
ORC	23	Ordering Facility Phone Number	XTN	
ORC	24	Ordering Provider Address	XAD	
ORC	25	Order Status Modifier	CWE	
RXE	1	Quantity/Timing	TQ	~~~19950306~~~PARTIAL
RXE	2	Give Code	CE	4005192~AMANTADI NE HCL 100MG CAP~99VA_52_6~0781-2048-01~~NDC OR ~AMANTADINE 100MG CAP~613_52_6~0781-2048-01~~NDC
RXE	3	Give Amount - Minimum	NM	0
RXE	4	Give Amount - Maximum	NM	
RXE	5	Give Units	CE	20~MG~613_52_6
RXE	6	Give Dosage Form	CE	
RXE	7	Provider's Administration Instructions	CE	
RXE	8	Deliver-To Location	CM	~~~~~WINDOW
RXE	9	Substitution Status	ID	
RXE	10	Dispense Amount	NM	30
RXE	11	Dispense Units	CE	
RXE	12	Number of Refills	NM	
RXE	13	Ordering Provider's DEA Number	XCN	
RXE	14	Pharmacist/Treatment Supplier's Verifier ID	XCN	2992~OPPROVIDER42~THREE~M~~~~ PHARMACIST
RXE	15	Prescription Number	ST	
RXE	16	Number of Refills Remaining	NM	
RXE	17	Number of Refills/Doses Dispensed	NM	
RXE	18	D/T of Most Recent Refill or Dose Dispensed	TS	19950307144822-0500
RXE	19	Total Daily Dose	CQ	
RXE	20	Needs Human Review	ID	

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
RXE	21	Pharmacy/Treatment Supplier's Special Dispensing Instructions	CE	
RXE	22	Give Per (Time Unit)	ST	D30
RXE	23	Give Rate Amount	ST	
RXE	24	Give Rate Units	CE	
RXE	25	Give Strength	NM	
RXE	26	Give Strength Units	CE	
RXE	27	Give Indication	CE	
RXE	28	Dispense Package Size	NM	
RXE	29	Dispense Package Size Unit	CE	
RXE	30	Dispense Package Method	ID	
RXE	31(n)	Supplementary Code: Local Drug	ST	11135~AMANTADINE HCL 100MG CAP~613_50_.01
RXE	31(n)	Supplementary Code: CMOP ID		C0255~~613_50_27
NTE	1	Set ID - NTE	SI	
NTE	2	Source of Comment	ID	
NTE	3	Comment	FT	PT OUT RX ON SUSP FOR 24 MORE DAYS
NTE	4	Comment Type~Name of Coding System	CE	RE~REMARKS~613_50_27
FT1	1	Set ID - FT1	SI	
FT1	2	Transaction ID	ST	
FT1	3	Transaction Batch ID	ST	
FT1	4	Transaction Date	TS	19950306
FT1	5	Transaction Posting Date	TS	
FT1	6	Transaction Type	IS	CG
FT1	7	Transaction Code (Pharmacy Orderable Item/Name, Coding System)	CE	620~AMANTADINE~~613_52_39.2
FT1	8	Transaction Description	ST	
FT1	9	Transaction Description - Alt	ST	
FT1	10	Transaction Quantity	NM	

Segment	Piece/ Sequence	Description/ Field Name	Data Type	Data Value
FT1	11	Transaction Amount - Extended	CP	
FT1	12	Transaction Amount - Unit	CP	0.009
FT1	1	Set ID - FT1	SI	
FT1	2	Transaction ID	ST	
FT1	3	Transaction Batch ID	ST	
FT1	4	Transaction Date	TS	19950306
FT1	5	Transaction Posting Date	TS	
FT1	6	Transaction Type	IS	CG
FT1	7	Transaction Code	CE	1~PSO NSC RX COPAY NEW~500_52_105

Appendix E: Outpatient Pharmacy ASAP Standard for Prescription Monitoring Programs (PMP)

Introduction

The data elements in this standard include those described in the Prescription Monitoring Program Model Act of October 2002 developed by the Alliance of States with Prescription Monitoring Programs and the National Association of State Controlled Substances Authorities.

Per the model act, the information submitted for each prescription, should include, but not be limited to:

Dispenser identification number

Date prescription filled

Prescription number

Prescription is new or is a refill

NDC for drug dispensed

Quantity dispensed

Number of days supply of the drug

Patient identification number

Patient name

Patient address

Patient date of birth

Prescriber identification number

Date prescription issued by prescriber

Person who received the prescription from the dispenser, if other than the patient

Source of payment for prescription

State issued serial number (If state chooses to establish a serialized prescription system.)

Safety Updates for Medication Prescription Management (SUMPM)

Patch *7*408 – State Prescription Drug Monitoring Program

The State Prescription Monitoring Program (SPMP) menu is used to identify prescriptions for controlled substance drugs, Schedule 2 through 5, dispensed by the VA Outpatient Pharmacy facilities, and to create and transmit an export file containing this information to the Prescription Drug Monitoring Programs (PDMP) of each state. This menu allows Veterans Health Administration (VA) Outpatient Pharmacies to comply with mandatory reporting to State Controlled Substance Rx databases as required by the Consolidated Appropriations Act, 2012, PL 112-74.

Each state has established its own PDMP to manage an electronic database that collects designated data on dispensed controlled substances. States distribute data from the database to individuals authorized under state law to receive the information for purposes of their profession. The information is reported to the state using the American Society for Automation in Pharmacy (ASAP) data format, which was developed by the Alliance of States with Prescription Monitoring Programs and the National Association of State Controlled Substances Authorities.

Note: Prescription fills **Administered in Clinic** will not be sent to the states.
Only outpatient prescriptions (new and updated) dispensed to patients will be submitted to the states.

ASAP Segment Hierarchy Layout

```
TH - Transaction Header (one per file)
  IS - Information Source (one per TH)
    PHA - Pharmacy Header (one to 2,000 per IS)
      PAT - Patient Information (one to 25,000 per PHA)
        DSP - Dispensing Record (one to 300 per PAT)
          PRE - Prescriber Information (one per DSP)
          CDI - Compound Drug Ingredient Detail (zero to 25 per DSP)
          AIR - Additional Information Reporting (zero to one per DSP)
        PAT - Patient Information
          DSP - Dispensing Record
            PRE - Prescriber Information
            CDI - Compound Drug Ingredient Detail
            AIR - Additional Information Reporting
          DSP - Dispensing Record
            PRE - Prescriber Information
            CDI - Compound Drug Ingredient Detail
            AIR - Additional Information Reporting
          DSP - Dispensing Record
            PRE - Prescriber Information
            CDI - Compound Drug Ingredient Detail
            AIR - Additional Information Reporting
        PAT - Patient Information
          DSP - Dispensing Record
            PRE - Prescriber Information
            CDI - Compound Drug Ingredient Detail
            AIR - Additional Information Reporting
      TP - Pharmacy Trailer (one per PHA)
    PHA - Pharmacy Header
      PAT - Patient Information
        DSP - Dispensing Record
          PRE - Prescriber Information
          CDI - Compound Drug Ingredient Detail
          AIR - Additional Information Reporting
      PAT - Patient Information
        DSP - Dispensing Record
          PRE - Prescriber Information
          CDI - Compound Drug Ingredient Detail
          AIR - Additional Information Reporting
      TP - Pharmacy Trailer
    TT - Transaction Trailer (one per TH)
```

SPMP Data Source (PSO*7*408)

Data Element	Name Description	Data Source
TH–Transaction Header		
TH01	Version/Release Number Code uniquely identifying the transaction Format = xx.x	File: SPMP STATE PARAMETERS (#58.41) Field: ASAP VERSION field (#1) Option: View/Edit SPMP State Parameters [PSO SPMP STATE PARAMETERS] Example: 4.0, 4.1, 4.2
TH02	Transaction Control Number Sender-assigned code uniquely identifying a transaction This number must be used in TT01	ASAP 3.0 : Business Partner Implementation Version (Not Used) ASAP 4.0+: Transaction Control Number VA Site Number – Export Batch Number Example: 500-3038
TH03	Transaction Type Identifies the purpose of initiating the transaction 01 Send/Request Transaction 02 Acknowledgment (Used in Response only) 03 Error Receiving (Used in Response only) 04 Void (Used to void a specific Rx in a real-time transmission, or an entire batch file that was transmitted)	ASAP 3.0 : Transaction Control Number ASAP 4.0+: Transaction Type (Always "01" - Send/Request Transaction)
TH04	Response ID Contains the Transaction Control Number of a transaction that initiated the transaction Required in response transaction only	ASAP 3.0 : Transaction Type (Not Used) ASAP 4.0+: Response ID (Not Used)
TH05	Creation Date Date the transaction was created Format: CCYYMMDD	ASAP 3.0 : Message Type (Not Used) ASAP 4.0+: Creation Date (Format: YYYYMMDD) Date the Export Batch was created Example: 20130115
TH06	Creation Time Time the transaction was created Format: HHMMSS or HHMM	ASAP 3.0 : Response ID (Not Used) ; ASAP 4.0+: Creation Time. Format: HHMMSS or HHMM Time the Export Batch was created Example: 091522
TH07	File Type Code specifying the type of transaction P Production T Test	ASAP 3.0 : Project ID (Not Used) ASAP 4.0+: File Type. <ul style="list-style-type: none"> • P is reported when running from a production account • T is reported when running from a non-production account

Data Element	Name Description	Data Source
TH08	Routing Number This field is reserved for real-time transmissions that go through a network switch to indicate, if necessary, the specific state PMP to whom the transactions should be routed	ASAP 3.0 : Creation Date (Format: YYYYMMDD) ASAP 4.0 : Composite Element Separator (:) ASAP 4.1+: Routing Number (Real-time transactions only) (Not Used)
TH09	Segment Terminator Character This terminates the TH segment and sets the actual value of the data segment terminator for the entire transaction	ASAP 3.0 : Creation Time. Format: HHMMSS or HHMM ASAP 4.0+: Segment Terminator Character <ul style="list-style-type: none"> For ASAP version 4.0, the separator is set to “\” (backward slash) For ASAP version 4.0, 4.1 and 4.2, the separator is set to “~” (tilde)
TH10	File Type Code specifying the type of transaction P Production T Test	ASAP 3.0 only <ul style="list-style-type: none"> P is reported when running from a production account T is reported when running from a non-production account
TH11	Message Free-form text message.	ASAP 3.0 only (not used)
TH12	Composite Element Separator The delimiter used to separate component data elements within a composite data structure.	ASAP 3.0 only
TH13	Data Segment Terminator Character This terminates the TH segment and sets the actual value of the data segment terminator for the entire transaction set. Note: This Data Element was released as NOT USED because ASAP 3.0 does not require the actual segment terminator value to be in the TH13 field.	ASAP 3.0 only
IS–Information Source		
IS01	Unique Information Source ID Reference number or identification number as defined by the business partners Example: Phone number	VA concatenated with the VA Site Number Example: VA500
IS02	Information Source Entity Name Entity name of the Information Source	File: INSTITUTION (#4) Field: OFFICIAL VA NAME (#100) Example: OKLAHOMA CITY VA MEDICAL CENTER
IS03	Message Free-form text for a message Used for more detailed information if required by the PMP	Not Used

Data Element	Name Description	Data Source
IS04- IS10	ASAP 3.0 only	Not Used
IR–Information Receiver (ASAP 3.0 Only)		
IR01	Unique Information Receiver ID Reference number or identification number as defined by the business partners Example: Phone number	VA concatenated with the VA Site Number Example: VA500
IR02	Information Receiver Entity Name Entity name of the Information Receiver	File: STATE (#5) Field: NAME (#.01) Concatenated with “PMP PROGRAM” Example: OKLAHOMA PMP PROGRAM
IR03- IR10	ASAP 3.0 only	Not Used
PHA–Pharmacy Header		
PHA01	National Provider Identifier (NPI) Identifier assigned to the pharmacy by Centers for Medicare and Medicaid Services (CMS) Used if required by the PMP	Retrieved via the Kernel API \$\$NPI^XUSNPI (DBIA # 4532) using the NPI INSTITUTION field (#101) in the OUTPATIENT SITE file (#59) Example: 1043278211
PHA02	NCPDP/NABP Provider ID Identifier assigned to the pharmacy by the NCPDP/NABP. Used if required by the PMP	File: OUTPATIENT SITE (#59) Field: NCPDP NUMBER (#1008) Option: Site Parameter Enter/Edit [PSO SITE PARAMETERS] Example: 3706972
PHA03	DEA Number Identifier assigned to the pharmacy by the Drug Enforcement Administration (DEA) Used if required by the PMP	Retrieved via the Kernel API \$\$WHAT^XUAF4 (DBIA # 2171) using the RELATED INSTITUTION field (#100) in the OUTPATIENT SITE file (#59) Example: AV4597211
PHA04	Pharmacy Name or Dispensing Prescriber Name Free-form text for the name of the pharmacy	File: OUTPATIENT SITE (#59) Field: NAME (#.01) Option: Site Parameter Enter/Edit [PSO SITE PARAMETERS] Example: OKLAHOMA CITY
PHA05	Address Information – 1 Free-form text for address information	File: OUTPATIENT SITE (#59) Field: MAILING FRANK STREET (#.02) Option: Site Parameter Enter/Edit [PSO SITE PARAMETERS] Example: 921 N.E. 13th. Street (119)
PHA06	Address Information – 2 Free-form text for additional address information	Not Used

Data Element	Name Description	Data Source
PHA07	City Address Free-form text for city name	File: OUTPATIENT SITE (#59) Field: MAILING FRANK CITY (#.07) Option: Site Parameter Enter/Edit [PSO SITE PARAMETERS] Example: OKLAHOMA CITY
PHA08	State Address U.S. Postal Service state code	File: STATE (#5) Field: ABBREVIATION (#1) Option: Site Parameter Enter/Edit [PSO SITE PARAMETERS] Example: OK Note: The pointer to STATE file (#5) is retrieved from OUTPATIENT SITE file (#59) MAILING FRANK STATE field (#.08).
PHA09	ZIP Code Address U.S. Postal Service ZIP code Use if available	File: OUTPATIENT SITE (#59) Field: MAILING FRANK ZIP+4 CODE (#.05) Option: Site Parameter Enter/Edit [PSO SITE PARAMETERS] Example: 731045028 (no dash)
PHA10	Phone Number Complete phone number including area code	File: OUTPATIENT SITE (#59) Field: PHONE NUMBER (#.04) Option: Site Parameter Enter/Edit [PSO SITE PARAMETERS] Example: 4056948387 (no dashes)
PHA11	Contact Name Free-form text for contact name	Not Used
PHA12	Chain Site ID Store number assigned by the chain to the pharmacy location Used when PMP needs to identify the specific pharmacy from which information is required	Not Used
PHA13	Message Free-form text message	Not Used
PAT–Patient Information		
PAT01	ID Qualifier of Patient Identifier Code identifying the jurisdiction that issues the ID in PAT03 Used if the PMP requires such identification	Always US (United States), except ASAP 3.0 (not used)

Data Element	Name Description	Data Source
PAT02	ID Qualifier Code to identify the type of ID in PAT03. If PAT02 is used, PAT03 is required 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 99 Other (Trading partner agreed upon ID, such as cardholder ID)	Always 07 (Social Security Number)
PAT03	ID of Patient Identification number for the patient as indicated in PAT02 An example would be the driver's license number	ASAP 3.0 : Unique System ID - Patient (Not Used) ASAP 4.0+: ID of Patient (SSN) Retrieved via the Kernel API \$\$DEM^VADPT (DBIA #10061) return variable VADM(2) Example: 666554444 (no dashes)
PAT04	ID Qualifier of Additional Patient Identifier Code identifying the jurisdiction that issues the ID in PAT06 Used if the PMP requires such identification	ASAP 3.0 : SSN Retrieved via the Kernel API \$\$DEM^VADPT (DBIA #10061) return variable VADM(2) Example: 666554444 (no dashes) ASAP 4.0+: ID Qualifier of Additional Patient Identifier (Not Used)
PAT05	Additional Patient ID Qualifier Code to identify the type of ID in PAT06 if the PMP requires a second identifier If PAT05 is used, PAT06 is required 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 99 Other (Trading partner agreed upon ID, such as cardholder ID)	Not Used
PAT06	Additional ID Identification that might be required by the PMP to further identify the individual An example: in PAT03, driver's license is required and in	Not Used

Data Element	Name Description	Data Source
	PAT06, Social Security number is also required	
PAT07	Last Name Patient's last name	Retrieved via the Kernel API \$\$DEM^VADPT (DBIA #10061) return variable VADM(1) – first value before the comma (e.g., SMITH, JOHN F) Example: SMITH
PAT08	First Name Patient's first name	Retrieved via the Kernel API \$\$DEM^VADPT (DBIA #10061) return variable VADM(1) – first value after the comma and before blank space (e.g., SMITH, JOHN F) Example: JOHN
PAT09	Middle Name Patient's middle name or initial if available Used if available in pharmacy system and required by the PMP	Retrieved via the Kernel API \$\$DEM^VADPT (DBIA #10061) return variable VADM(1) –value following the first name (e.g., SMITH, JOHN F) Example: F
PAT10	Name Prefix Patient's name prefix such as Mr. or Dr. Used if available in pharmacy system and required by the PMP	Not Used
PAT11	Name Suffix Patient's name prefix such as Jr. or the III Used if available in pharmacy system and required by the PMP	Not Used
PAT12	Address Information – 1 Free-form text for street address information	Retrieved via the Registration API \$\$ADD^VADPT (DBIA #10061) return variable VAPA(1) Example: 1235 STREET NAME ST
PAT13	Address Information – 2 Free-form text for additional address information, if required by the PMP and is available in the pharmacy system	Retrieved via the Registration API \$\$ADD^VADPT (DBIA #10061) return variable VAPA(2) Example: BLDG 101 APT #102
PAT14	City Address Free-form text for city name	Retrieved via the Registration API \$\$ADD^VADPT (DBIA #10061) return variable VAPA(4) Example: ARDMORE
PAT15	State Address U.S. Postal Service state code if required by the PMP Note: Field was sized to handle international patients not residing in the U.S.	Retrieved via the Registration API \$\$ADD^VADPT (DBIA #10061) return variable VAPA(5) Example: OK
PAT16	ZIP Code Address U.S. Postal Service ZIP code Populate with zeros if the patient address is outside the U.S.	Retrieved via the Registration API \$\$ADD^VADPT (DBIA #10061) return variable VAPA(6) Example: 723005500 (no dash)
PAT17	Phone Number Complete phone number including the area code when the PMP requires and is available in the pharmacy system	Retrieved via the Registration API \$\$ADD^VADPT (DBIA #10061) return variable VAPA(8)

Data Element	Name Description	Data Source
		Example: 4245556666 (no dashes)
PAT18	Date of Birth Date patient was born Format: CCYYMMDD	ASAP 3.0 : Email Address (Not Used) ASAP 4.0+: Patient DOB Retrieved via the Kernel API \$\$DEM^VADPT (DBIA #10061) return variable VADM(3) Example: 19661112
PAT19	Gender Code Code indicating the sex of the patient if required by the PMP F Female M Male U Unknown	ASAP 3.0 : Patient DOB Retrieved via the Kernel API \$\$DEM^VADPT (DBIA #10061) return variable VADM(3) Example: 19661112 ASAP 4.0+: Patient Gender Code Retrieved via the Kernel API \$\$DEM^VADPT (DBIA #10061) return variable VADM(5). If no value is found ,reports U Example: F
PAT20	Species Code Used if required by the PMP to differentiate a prescription for an individual from one prescribed for an animal 01 Human 02 Veterinary Patient	ASAP 3.0 : Patient Gender Code Retrieved via the Kernel API \$\$DEM^VADPT (DBIA #10061) return variable VADM(5). If no value is found ,reports U ASAP 4.0+: Species Code Always 01 (Human)
PAT21	Patient Location Code Code indicating where the patient is located when receiving pharmacy services if required by the PMP 01 Home 02 Intermediary Care 03 Nursing Home 04 Long-Term/Extended Care 05 Rest Home 06 Boarding Home 07 Skilled-Care Facility 08 Sub-Acute Care Facility 09 Acute-Care Facility 10 Outpatient 11 Hospice 98 Unknown 99 Other	Always 10 (Outpatient)

Data Element	Name Description	Data Source
PAT22	Country of Non-U.S. Resident Used when the patient's address is a foreign country and PAT12 through PAT16 are left blank. This is a free-form text field	ASAP 3.0 : Primary Prescription Coverage Type (Not Used) ASAP 4.0+:Country of Non-U.S. Resident Retrieved via the Registration API \$\$ADD^VADPT (DBIA #10061) return variable VAPA(25) Example: MX
PAT23-PAT40	Not Used	
DSP–Dispensing Record		
DSP01	Reporting Status DSP01 requires one of the codes below. An empty or blank field no longer indicates a new prescription dispensing transaction. Individual PMPs may elect to require a subset of the codes below, specifically 00 and 02, but not 01. 00 New Record (indicates a new prescription dispensing transaction) 01 Revise (indicates that one or more data element values in a previously submitted transaction will be revised) 02 Void (message to the PMP to remove the original prescription transaction from its database, to mark the record as invalid, or to be ignored)	ASAP 4.0 <ul style="list-style-type: none"> • (Blank) New Record • 01 Revise Record • 02 Void Record • ASAP 4.1 and 4.2 • 00 New Record • 01 Revise Record • 02 Void Record
DSP02	Prescription Number Serial number assigned to the prescription by the pharmacy	File: PRESCRIPTION (#52) Field: RX # (#.01) Example: 10930393
DSP03	Date Written Date the prescription was written (authorized) Format: CCYYMMDD	File: PRESCRIPTION (#52) Field: ISSUE DATE (#1) Example: 20130117
DSP04	Refills Authorized Number of refills authorized by the prescriber	File: PRESCRIPTION (#52) Field: # OF REFILLS (#9) Example: 5
DSP05	Date Filled Date prescription was filled Format: CCYYMMDD	<ul style="list-style-type: none"> • Original Fill File: PRESCRIPTION (#52) Field: RELEASED DATE/TIME (#31) • Refill Sub-File: REFILL (#52.1) Field: RELEASED DATE/TIME (#17) • Partial Sub-File: PARTIAL (#52.2) Field: RELEASED DATE/TIME (#8) Example: 20130118
DSP06	Refill Number	<ul style="list-style-type: none"> • Original

Data Element	Name Description	Data Source
	Number of the fill of the prescription 0 indicates original dispensing 01-99 is the refill number	0 <ul style="list-style-type: none"> • Refill Refill # (e.g., 1, 2, ...) • Partial 0
DSP07	Product ID Qualifier Used to identify the type of product ID contained in DSP08 01 NDC 02 UPC 03 HRI 04 UPN 05 DIN 06 Compound (used to indicate it is a compound' if used, the CDI segment then becomes a required segment)	Always 01 (NDC)
DSP08	Product ID Full product identification as indicated in DSP07, including leading zeros without punctuation If the product is a compound, use 99999 for the first five characters of the product code. The remaining characters are assigned by the pharmacy. The CDI then becomes a required segment.	<ul style="list-style-type: none"> • Original Fill File: PRESCRIPTION (#52) Field: NDC (#27) • Refill Sub-File: REFILL (#52.1) Field: NDC (#11) • Partial File: PRESCRIPTION (#52) Field: NDC (#27) Example: 55555444422 (no dashes)
DSP09	Quantity Dispensed Number of metric units dispensed in metric decimal format Example: 2.5 Note: For compounds, show the first quantity in CDI04.	<ul style="list-style-type: none"> • Original Fill File: PRESCRIPTION (#52) Field: QTY (#7) • Refill Sub-File: REFILL (#52.1) Field: QTY (#1) • Partial Sub-File: PARTIAL (#52.2) Field: QTY (#.04) Example: 55555444422 (no dashes)

Data Element	Name Description	Data Source
DSP10	Days Supply Estimated number of days the medication will cover	<ul style="list-style-type: none"> • Original Fill File: PRESCRIPTION (#52) Field: DAYS SUPPLY (#8) • Refill Sub-File: REFILL (#52.1) Field: DAYS SUPPLY (#1.1) • Partial Sub-File: PARTIAL (#52.2) Field: QTY (#.041) Example: 90
DSP11	Drug Dosage Units Code Identifies the unit of measure for the quantity dispensed in DSP09, if required by the PMP 01 Each (used to report solid dosage units or indivisible package) 02 Milliliters (ml) (for liters adjust to the decimal milliliter equivalent) 03 Grams (gm) (for milligrams adjust to the decimal gram equivalent)	File: DRUG (#50) Field: NCPDP DISPENSE UNIT (#82) <ul style="list-style-type: none"> • 01 EA • 02 ML • 03 GM • (Blank) Other
DSP12	Transmission Form of Rx Origin Code Code indicating how the pharmacy received the prescription, if required by the PMP 01 Written Prescription 02 Telephone Prescription 03 Telephone Emergency Prescription 04 Fax Prescription 05 Electronic Prescription 99 Other	The CPRS API \$\$NATURE^ORUTL3 (IA# 5890) provides the Nature of Order, which is translated the following way: <ul style="list-style-type: none"> • 01 W • 02 V or T • 05 E • 99 Other
DSP13	Partial Fill Indicator Used when the quantity in DSP09 is less than the met quantity per dispensing authorized by the prescriber. This dispensing activity is often referred to as a split filling. 00 Not a Partial Fill 01 First Partial Fill Note: For additional fills per prescription, increment by 1. The second partial fill is reported as 02, up to a maximum of 99.	ASAP 4.0 and 4.1 <ul style="list-style-type: none"> • 01 Partial Fill • 02 Non-Partial Fill ASAP 4.2 and above <ul style="list-style-type: none"> • 00 Non-Partial Fill • 01 Partial 1 • 02 Partial 2 • 03 Partial 3
DSP14	Pharmacist National Provider Identifier (NPI) Identifier assigned to the pharmacist by CMS if the pharmacist applies for a number This number can be used to identify the pharmacist dispensing the medication	Retrieved via the Kernel API \$\$NPI^XUSNPI (DBIA # 4532) using the prescription fill pharmacist. Example: 1043278211
DSP15	Pharmacist State License Number	Not Used

Data Element	Name Description	Data Source
	<p>This data element can be used to identify the pharmacist dispensing the medication</p> <p>Assigned to the pharmacist by the State Licensing Board</p>	
DSP16	<p>Classification Code for Payment Type</p> <p>Code identifying the type of payment, i.e. how it was paid for, if required by the PMP</p> <p>01 Private Pay (Cash, Charge, Credit Card)</p> <p>02 Medicaid</p> <p>03 Medicare</p> <p>04 Commercial Insurance</p> <p>05 Military Installations and VA</p> <p>06 Workers' Compensation</p> <p>07 Indian Nations</p> <p>99 Other</p>	Always 05 (Military Installations and VA)
DSP17	<p>Date Sold</p> <p>Usage of this field depends on the pharmacy having a point-of-sale system that is integrated with the pharmacy management system to allow a bidirectional flow of information, and the PMP requires the capturing of the date received by the patient or the patient's agent</p> <p>This date may be different from DSP05</p>	Not Used
DSP18	<p>RxNorm Product Qualifier</p> <p>01 Semantic Clinical Drug (SCD)</p> <p>02 Semantic Branded Drug (SBD)</p> <p>03 Generic Package (GPCK)</p> <p>04 Branded Package (BPCK)</p> <p>Note: DSP18 and DSP19 are placeholder fields pending RxNorm becoming an industry standard and should not be required until such time.</p>	Not Used
DSP19	<p>RxNorm Code</p> <p>Used for electronic prescriptions to capture the prescribed drug product identification, if required by the PMP.</p> <p>Note: DSP18 and DSP19 are placeholder fields pending RxNorm becoming an industry standard and should not be required until such time.</p>	Not Used
DSP20	<p>Electronic Prescription Reference Number</p> <p>Used to provide an audit trail for electronic prescriptions, if required by the PMP</p> <p>Note: DSP20 and DSP21 should be reported as a pair to the prescription drug monitoring program, and each program decides which one, if not both, it decides to capture.</p>	Not Used
DSP21	<p>Electronic Prescription Order Number</p> <p>Note: DSP20 and DSP21 should be reported as a pair to the prescription drug monitoring program, and each</p>	Not Used

Data Element	Name Description	Data Source
	program decides which one, if not both, it decides to capture.	
RX – RX Prescription Order (ASAP 3.0 only)		
RX01	Reporting Status 00 Add 01 Change 02 Delete	Not Used
RX02	Program Participation Status Code to reflect the current status of the prescription in relation to program participation (i.e. refill reminder or education enrollment). 01 Rx is active and participation is current 02 Rx order has been discontinued by prescriber 03 Patient has refused participation for this Rx 04 Patient has requested disenrollment for this Rx	Not Used
RX03	Prescription Number Serial number assigned to the prescription by the pharmacy	File: PRESCRIPTION (#52) Field: RX # (#.01) Example: 10930393
RX04- RX07	Not Used	
RX08	Date Rx Written Date the prescription was written (authorized) Format: CCYYMMDD	File: PRESCRIPTION (#52) Field: ISSUE DATE (#1) Example: 20130117
RX09- RX012	Not Used	
RX13	Product ID Qualifier Used to identify the type of product ID contained in DSP08 01 NDC 02 UPC 03 HRI 04 UPN	Always 01 (NDC)
RX14	Product ID Full product identification as indicated in RX13, including leading zeros without punctuation	<ul style="list-style-type: none"> • Original Fill File: PRESCRIPTION (#52) Field: NDC (#27) • Refill Sub-File: REFILL (#52.1) Field: NDC (#11) • Partial File: PRESCRIPTION (#52) Field: NDC (#27) Example: 55555444422 (no dashes)

Data Element	Name Description	Data Source
RX15- RX16	Not Used	
RX17	Quantity Prescribed Number of metric units dispensed in metric decimal format. Example: 2.5	<ul style="list-style-type: none"> • Original Fill File: PRESCRIPTION (#52) Field: QTY (#7) • Refill Sub-File: REFILL (#52.1) Field: QTY (#1) • Partial Sub-File: PARTIAL (#52.2) Field: QTY (#.04) Example: 55555444422 (no dashes)
RX18	Days Supply Estimated number of days the medication will cover	<ul style="list-style-type: none"> • Original Fill File: PRESCRIPTION (#52) Field: DAYS SUPPLY (#8) • Refill Sub-File: REFILL (#52.1) Field: DAYS SUPPLY (#1.1) • Partial Sub-File: PARTIAL (#52.2) Field: QTY (#.041) Example: 90
RX19	Not Used	
RX20	Number Of Refills Authorized Number of refills authorized by the prescriber	File: PRESCRIPTION (#52) Field: # OF REFILLS (#9) Example: 5
RX21- RX29	Not Used	
PRE – Prescriber Information		
PRE01	National Provider Identifier (NPI) Identifier assigned to the prescriber by CMS	ASAP 3.0 : Not Used ASAP 4.0+: Prescriber National Provider Identifier (NPI) Retrieved via the Kernel API \$\$NPI^XUSNPI (DBIA # 4532) using the prescription fill provider Example: 1043278211
PRE02	DEA Number Identifying number assigned to a prescriber or an institution by the Drug Enforcement Administration (DEA)	ASAP 3.0 : Not Used ASAP 4.0+: Prescriber DEA Number First “-“ (dash) piece of the value returned by the Kernel API \$\$DEA^XUSER (DBIA # 2343) using the prescription fill provider

Data Element	Name Description	Data Source
		Example: AV4598251
PRE03	DEA Number Suffix Identifying number assigned to a prescriber by an institution when the institution's number is used as the DEA number, if required by the PMP	ASAP 3.0 : Prescriber NPI ASAP 4.0+: Prescriber DEA Number Suffix Second “-“ (dash) piece of the value returned by the Kernel API \$\$DEA^XUSER (DBIA # 2343) using the prescription fill provider Example: 4598251PP
PRE04	Prescriber State License Number Identification assigned to the Prescriber by the State Licensing Board Used if required by the PMP	ASAP 3.0 : Prescriber DEA Number ASAP 4.0+: Prescriber State License Number (Not Used)
PRE05	Last Name Prescriber's last name Used if required by the PMP	ASAP 3.0 : Prescriber DEA Number Suffix ASAP 4.0+: Prescriber Last Name File: NEW PERSON (#200) Field: NAME (#.01) First value before the comma (e.g., SMITH, JOHN F) Example: SMITH
PRE06	First Name Prescriber's first name Used if required by the PMP	ASAP 3.0 : Prescriber State License Number (Not Used) ASAP 4.0+: Prescriber First Name File: NEW PERSON (#200) Field: NAME (#.01) First value after the comma and before blank space (e.g., SMITH, JOHN F) Example: JOHN
PRE07	Middle Name Prescriber's middle name or initial Used if required by the PMP and is available in the pharmacy system	ASAP 3.0 : Prescriber Alternate ID (Not Used) ASAP 4.0+: Prescriber Middle Name File: NEW PERSON (#200) Field: NAME (#.01) First value after the comma and after the first blank space (e.g., SMITH, JOHN F) Example: F
PRE08	Phone Number Prescriber's phone number	ASAP 3.0 : Prescriber's Last Name ASAP 4.0 & 4.1: N/A (up to PRE07 only) ASAP 4.2: Prescriber's Phone Number File: NEW PERSON (#200) Field: PHONE NUMBER # (#.132) Example: 5559998888 (no dashes)
PRE09	Prescriber' First Name Prescriber's first name	ASAP 3.0 Only File: NEW PERSON (#200) Field: NAME (#.01) First value after the comma and before blank space (e.g., SMITH, JOHN F)

Data Element	Name Description	Data Source
		Example: JOHN
PRE10	Prescriber' Middle Name Prescriber's middle name	ASAP 3.0 Only File: NEW PERSON (#200) Field: NAME (#.01) First value after the comma and after the first blank space (e.g., SMITH, JOHN F) Example: F
PRE11- PRE20	Not Used	
RPH – Pharmacist Information (ASAP 3.0 only)		
RPH01- RPH02	Not Used	
RPH03	National Provider Identification (NPI) Identifier assigned to the pharmacist by CMS if the pharmacist applies for a number. This number is used to identify the pharmacist who dispensed the medication.	Retrieved via the Kernel API \$\$NPI^XUSNPI (DBIA # 4532) using the prescription fill pharmacist. Example: 1043278211
RPH04- RPH05	Not Used	
RPH06	Last Name Pharmacist's last name	File: NEW PERSON (#200) Field: NAME (#.01) First value before the comma (e.g., SMITH, JOHN F) Example: SMITH
RPH07	First Name Pharmacist's first name	File: NEW PERSON (#200) Field: NAME (#.01) First value after the comma and before blank space (e.g., SMITH, JOHN F) Example: JOHN
RPH08	Middle Name Pharmacist's middle name or initial	File: NEW PERSON (#200) Field: NAME (#.01) First value after the comma and after the first blank space (e.g., SMITH, JOHN F) Example: F
RPH09- RPH11	Not Used	
CDI – Compound Drug Ingredient Detail (Not Used)		
CSR – Controlled Substance Reporting (ASAP 3.0 only – Not Used)		
AIR – Additional Information Reporting (Not Used)		
PLN – Third-Party Plan (ASAP 3.0 Only – Not Used)		

Data Element	Name Description	Data Source
TP–Pharmacy Trailer		
TP01	Detail Segment Count Number of detail segments included for the pharmacy, including the Pharmacy Header (PHA) including the Pharmacy Trailer (TP) segments	Calculated for each transmission
TT–Transaction Trailer		
TT01	Transaction Control Number Identifying control number that must be unique Assigned by the originator of the transaction Must match the number in TH02	Same as TH02
TT02	Segment Count Total number of segments included in the transaction including the header and trailer segments	Calculated for each transmission

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