**Department of Veterans Affairs**

**OUTPATIENT PHARMACY (PSO)**

**TECHNICAL MANUAL/SECURITY GUIDE**



**Version 7.0**

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***Revision History***

| **Date** | | **Revised Pages** | **Patch Number** | **Description** |
| --- | --- | --- | --- | --- |
| 11/2017 | | [1](#PSO_7_467_1), [3](#PSO_7_467_3), [11](#PSO_7_467_11), [14](#PSO_7_467_14), [15](#PSO_7_467_15), [16](#PSO_7_467_16), [28-29](#PSO_7_467_28), [30](#PSO_7_467_30), [36](#PSO_7_467_36), [134-142](#PSO_7_467_134) | PSO\*7.0\*467 | Added new Patch Details for Inbound ePrescribing (PSO\*7.0\*467).  (B. Fisher Developer) |
| 04/2017 | | 12 | PSO\*7\*472 | Added New Patch Details for Native Domain Standardization Medication Patch PSO\*7\*472, Data Dictionary Update.  (D.D. Requirements Analyst) |
| 02/2017 | | 61-63 | PSO\*7\*465 | Added the Confidential Address and made revisions to the Temporary Address. (G. Werner Tech Writer) |
| 12/2016 | | 1, 3, 5, 6, 11, 12, 14, 19, 21, 22, 23, 34, 37, 39, 43, 50, 115-130, 131-132 | PSO\*7\*454 | Added new OneVA Pharmacy routines; updated sections and added information about the new OneVA Pharmacy label; added Data Base Integration Agreement, added new External packages: eMI, HDR/CDS Repository; added Appendix for OneVA Pharmacy HL7-eMI-HDR/CDS Repository & HL7-eMI-VistA messaging; updated Table of Contents to include changes; updated revision date for December 2016; Updated Index.  (K. Coupland Tech Writer) |
| 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   1. 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 PSOOCKV1.  (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 | | 62, 69, 70, 71 | 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) |
| 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 *active* Veteran’s Health Identity Card (VHIC) number was added to the PID segment (PID-4) on the VistA side.  * Format:   [VIC Card #]~~~USVHA&&0363~PI~VA FACILITY ID&742V1&L   1. 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) |
| 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](#p354_9), [11](#p354_11), [31](#p354_31), [34](#p354_34), [69](#PSO354_69), [70](#PSO354_70), [71](#PSO354_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) |
| 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.   1. 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, PSOATRR, 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 have experience with other Veterans Health Information Systems and Technology Architecture (VistA) software and have 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.

Effective with the OneVA Pharmacy Patch PSO\*7.0\*454 (December 2016), Pharmacists are able to dispense prescriptions that originated in other VistA host sites. The OneVA Pharmacy User Manual and Installation Guide describe the site parameter required to use this functionality.

Effective with the Inbound ePrescribing Patch PSO\*7.0\*467 (October 2017), pharmacists are able to receive and process prescriptions that originated from external providers. The Inbound ePrescribing User Manual, Installation Guide, and Implementation Guide describe the site parameters required to use this functionality.

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*

*Installation Guide – OneVA Pharmacy*

*Release Notes – OneVA Pharmacy*

*User Manual – OneVA Pharmacy*

*Release Notes – Inbound ePrescribing (PSO\*7\*467)*

*Installation Guide – Inbound ePrescribing (PSO\*7\*467)*

*User Manual – Inbound ePrescribing (PSO\*7\*467)*

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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** |
| --- | --- |
| PSON52 | File New Prescriptions in File (#52) |
| PSORN52 | File Renewed Prescriptions in File (#52) |
| PSOR52 | File Refill Prescriptions in File (#52) |

This package requires 28 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.

Note icon **Note**: The OneVA Pharmacy Patch PSO\*7\*454 introduced the OneVA Pharmacy label-generation functionality with new/updated label routines. In order to print the OneVA Pharmacy label, each site must use a standard VistA laser label printer and label stock. The printer must be able to print 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. For additional information related to the label stock go to the VA Software Document Library (VDL), select the Clinical section then choose the “Pharm: Outpatient Pharmacy” page. Locate the “User Manual – Supplemental – Outpatient Pharmacy” document and refer to the section titled “Laser Labels Phase II (PSO\*7\*161) and FY07 Q2 Release (PSO\*7\*200).”

Note icon **Note**: The barcode printed on the OneVA Pharmacy label will contain the host site information where the prescription order originated.

## Options to be Deleted during Installation

Note icon**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 icon**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 SIGED | #51 |
| PSO BATCH PARTIAL | #52 |
|  |  |
| **Print** | **File** |
| PSO ACTION PROFILE #3 | #44 |
| PSOBJP | #52 |
|  |  |
| **Sort:** | **File** |
| PSOBJP | #52 |

## Routines to be Deleted during Installation

Note icon**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.

|  |  |
| --- | --- |
| Caution | **\*\*\*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:

1. Autocancel Rx’s on Admission
2. Nightly Rx Cost Compile
3. Nightly Management Data Compile
4. Compile AMIS Data (NIGHT JOB)
5. Expire Prescriptions
6. Auto-delete from Suspense
7. 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 icon**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**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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

# Files

This package requires the 28 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

UP SEND DATA USER

DATE SEC. COMES SITE RSLV OVER

FILE # NAME DD CODE W/FILE DATA PTS 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

52.09 REMOTE PRESCRIPTION LOG 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

52.45 ERX SERVICE REASON CODES YES YES NO

52.46 ERX EXTERNAL PATIENT YES YES NO

52.47 ERX EXTERNAL PHARMACY YES YES NO

52.48 ERX EXTERNAL PERSON YES YES NO

52.49 ERX HOLDING QUEUE 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

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.

## Native Domain Standardization Medication Patch PSO\*7\*472, Data Dictionary Update

### Description:

This patch will add a new field Coding System multiple to files

DRUG INGREDIENTS (#50.416), VA GENERIC (#50.6), VA PRODUCT (#50.68),

VA DRUG CLASS (#50.605) for the purpose of interoperability.

DRUG INGREDIENTS (#50.416) file shall be updated to include a new

field multiple to store the RXNORM / UNII codes from the respective

Standards Development Organizations.

VA GENERIC (#50.6) file shall be updated to include a new field multiple to

store the RXNORM / UNII codes from the respective Standards Development

Organizations.

VA PRODUCT (#50.68) file shall be updated to include a new field multiple

to store the RXNORM code from the Standards Development Organization.

VA DRUG CLASS (#50.605) file shall be updated to include a new field

multiple to store the RXNORM / UNII codes from the respective Standards

Development Organizations.

### Patch Components

Files & Fields Associated

| File Name (Number) | DRUG INGREDIENTS | VA GENERIC (#50.6) |
| --- | --- | --- |
| Field Name (Number) | (#50.416) CODING | CODING SYSTEM (#5) |
| New/Modified/Deleted | SYSTEM (#4) New | New |
| VA PRODUCT (#50.68) | VA DRUG CLASS (#50.605) |  |
| CODING SYSTEM (#43) New | CODING SYSTEM (#5) | New |

# 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 | PSOARCDE | PSOARCF1 | PSOARCF2 |
| PSOARCF3 | PSOARCF4 | PSOARCF5 | PSOARCF6 | PSOARCIN | PSOARCLT | PSOARCR1 | PSOARCR2 |
| PSOARCRR | 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 | PSOCLO1 | PSOCLOLS | PSOCLPRE |
| PSOCLUTL | PSOCMOP | PSOCMOPA | PSOCMOPB | PSOCMOPC | PSOCMOPR | PSOCMOPT | 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 | PSO467PI | PSO467PO |
| PSOERX | PSOERX1 | PSOERX1A | PSOERX1B | PSOERX1C | PSOERXA0 | PSOERXA1 | PSOERXA2 |
| PSOERXA3 | PSOERXA4 | PSOERXD1 | PSOERXD2 | PSOERXH1 | PSOERXO1 | PSOERXP1 | PSOERXR1 |
| PSOERXU1 | PSOERXX1 | PSOERXX2 | PSOERXX3 | PSOERXX4 | PSOERXX5 | PSOORFI1 | PSOORNE2 |
| PSOEXBCH | PSOEXDT | PSOEXREF | PSOEXRST | PSOFDAMG | PSOFDAUT | PSOFSIG | PSOFTDR |
| PSOFUNC | PSOHCPRS | PSOHCSUM | PSOHDR | PSOHELP | PSOHELP1 | PSOHELP2 | PSOHELP3 |
| PSOHELP4 | PSOHLD | PSOHLDA | PSOHLDC | PSOHLDI1 | PSOHLDIS | PSOHLDS | PSOHLDS1 |
| PSOHLDS2 | PSOHLDS3 | PSOHLDS4 | PSOHLEXC | PSOHLEXP | PSOHLINC | PSOHLINL | PSOHLNE1 |
| PSOHLNE2 | PSOHLNE3 | PSOHLNE4 | PSOHLNEW | PSOHLPII | PSOHLPIS | PSOHLSG | PSOHLSG1 |
| PSOHLSG2 | PSOHLSG3 | PSOHLSG4 | PSOHLSG5 | PSOHLSIG | PSOHLSIH | PSOHLSN | PSOHLSN1 |
| PSOHLSN2 | PSOHLSN3 | PSOHLSNC | 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 | PSOOREDX | 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 | PSOORAL2 |
| PSOROS | PSORRD | PSORLLL1 | PSORLLL2 | PSORLLL3 | PSORLLL4 | PSORLLL5 | PSORLLLH |
| PSORLLLI | PSORWRAP | PSORX1 | PSORREF | PSORREF0 | PSORREF1 | PSORRP | PSORRPA1 |
| PSORRX1 | PSORRX2 |  |  |  |  |  |  |

## Additional Information

**Standards and Conventions Committee (SACC) Exemptions**

The following PSO routines will generate errors reported in the XINDEX utility from using non-standard M syntax, due to the need to consume external web services:

PSOERXA1

PSOERXO1

The following waiver permits the use of this non-standard M syntax to allow the use of Cache features to consume external web services. This waiver is located in the HealtheVet Web Services Client (HWSC) Developer Guide.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  | | --- | --- | | **OITIMB33554520 - Migration from M2J to VistA Web Services Client (VWSC)** | | | **Keywords** | M2J,VWSC,J2EE | | **Decision Date** | 12/1/2006 | | **Decision Type** | Architecture | | **Decision Making Body** | HPMO CCB | | **Description** | On December 1, 2006, the HPMO Change Control Board voted to accept the migration of VistA from the current M2J solution to the VistA Web Services Client (VWSC). This decision was made for a number of reasons, in particular the fact that the existing 12-year-old M standard has been surpassed by evolving technologies and can no longer address today’s requirements. Additionally, we are no longer required to support DSM, previously the primary VistA/M hosting environment. Today, all sites are standardized on Caché 5.0 systems. As such, approvals were granted as follows: Waiver of the requirement to adhere to the existing 1995 M standard (that does not address the implementation of web services); Implementation of an industry standard such as web services for VistA/M to J2EE calls using Caché’s built in HTTP and web service client feature; Use of VWSC as an interim solution that ensures continuity of integration between VistA/M applications and migrated J2EE applications as HealtheVet evolves by enabling the consumption of external web services by legacy VistA applications; and Deprecation of the original M2J approach. | | **Rationale** | This architectural change allows for a number of improvements, including better scalability, resilience, and performance. Deployment and configuration is far less complicated for administrators, and the APIs can be used by a variety of clients rather than solely M-based. It also places responsibility for support, maintenance, etc. with the vendor rather than OI&T. | | **Record Type** | TDR | | **State** | Approved | | **Date Submitted** | 2/14/2007 8:37:24 AM |   **Supporting Documentation**   |  |  |  |  | | --- | --- | --- | --- | | Link | Document Title | Description | Date | | Download | Migration from M2J to VistA Web Services Client (VWSC) Email Notification | Email notification alerting of the decision | 2/13/2007 | | Download | VWSC Architecture | Proposed architecture view of VWSC | 12/1/2006 | | Download | VWSC Proposed View | Proposed logical view of VistA Web Services Client (VWSC) | 12/1/2006 | |

# 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. |
| PSDRPH | This key is assigned to users for accessing the Inbound ePrescribing (eRx) Holding Queue functionality. The key allows users to access all options in the eRx Holding Queue. This key also authorizes pharmacists to verify and dispense controlled substance prescription(s). The PSDRPH security key should be given to registered Pharmacists working on controlled substances to honor Drug Enforcement Administration regulations, and should not be given to non-pharmacists except in cases where the package coordinator (ADPAC) is not a registered pharmacist. |
| 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 ERX ADV TECH | This key was introduced by patch PSO\*7\*467 for the Inbound eRx Holding Queue. The key allows users to Validate Patient/Provider/Drug/SIG, Accept Patient/Provider/Drug Validations, Reject, Hold/Un Hold, Search, Sort, Remove/UnRemove, and Print. |
| PSO ERX TECH | This key was introduced by patch PSO\*7\*467 for the Inbound eRx Holding Queue functionality. The key allows users to Validate Patient/Provider/Drug/SIG, Hold/Un Hold, Search, Sort, and Print. |
| PSO ERX VIEW | This key was introduced by patch PSO\*7\*467 for the Inbound eRx Holding Queue functionality. The key allows users to Search, Sort, and View an eRx only. |
| 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 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 *External Interface Menu* [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 *TRICARE CHAMPVA Bypass/Override Report* [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 *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. |

## 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 icon**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.

Note icon**Note**: The HL Logical Link Entry/Node set up for Outpatient Pharmacy V. 7.0 is PSORRXSEND. This is a new Logical Link installed with Patch PSO\*7\*454.

## 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: **Fil**er 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 |
| Enterprise Messaging Infrastructure (eMI) Enterprise Service Bus (ESB) | 2.2 |
| Health Data Repository/Clinical Data Service (HDR/CDS) Repository | 3.14.1 |

Note icon**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 icon**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.

Note iconNote: The OneVA Pharmacy Patch PSO\*7\*454 introduces new functionality that allows for a pharmacist to remotely refill a prescription from another VistA instance. This patch utilizes Health Level 7 (HL7) messaging to send and receive remote prescription details from another VAMC. This allows a 'dispensing', or 'non-custodial' Pharmacy to refill a prescription that originated from another VA facility. The VA facility where the prescription exists is considered the 'host' facility. VistA utilizes HL7 to send a query message to the Enterprise Messaging Services (eMI) Enterprise Service Bus (ESB). eMI is used to query the Health Data Repository/Clinical Data Service (HDR/CDS) Repository for all active medications from all sites. The medications are returned to the querying site. Once the prescriptions are received, they are displayed below any 'local' prescriptions within the Patient Prescription Processing [PSO LM BACKDOOR ORDERS] option sorted by facility. The pharmacist can then view the remote prescriptions and will be able to refill or partially fill any active prescriptions that are not considered controlled substances at either facility. To be fully functional, the site must be configured to eMI.

## 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), Controlled Substances (CS), and Health Level Seven. 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

|  |  |
| --- | --- |
| PSDRPH | This key is assigned to users for accessing the Inbound ePrescribing (eRx) Holding Queue functionality. The key allows users to access all options in the eRx Holding Queue. This key also authorizes pharmacists to verify and dispense controlled substance prescription(s). The PSDRPH security key should be given to registered Pharmacists working on controlled substances to honor Drug Enforcement Administration regulations, and should not be given to non-pharmacists except in cases where the package coordinator (ADPAC) is not a registered pharmacist. |
| 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 ERX ADV TECH | This security key is used by advanced pharmacy technicians to Validate Patient/Provider/Drug/SIG, Accept Patient/Provider/Drug Validations, Reject, Hold/Un Hold, Search, Sort, Remove, and Print in the Inbound ePrescribing Holding Queue. |
| PSO ERX TECH | This security key is used by pharmacy technicians to Validate Patient/Provider/Drug/SIG, Hold/Un Hold, Search, Sort, and Print in the Inbound ePrescribing Holding Queue. |
| PSO ERX VIEW | This security key is assigned to users with the need to Search, Sort, and View an eRx only in the Inbound ePrescribing Holding Queue. |
| 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 *Exempt Rx Patient Status from Copayment* [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 |  |  |  |  |  |
| 52.09 | REMOTE PRESCRIPTION LOG | # | P | P | P | P |
| 52.11 | PATIENT NOTIFICATION (Rx READY) |  |  |  |  |  |
| 52.4 | RX VERIFY | @ | @ | @ | @ | @ |
| 52.41 | PENDING OUTPATIENT ORDERS |  |  | @ |  |  |
| 52.43 | PRESCRIPTION REFILL REQUEST | @ | @ | @ | @ | @ |
| 52.45 | ERX SERVICE REASON CODES | @ | @ | @ | @ | @ |
| 52.46 | ERX EXTERNAL PATIENT | @ | @ | @ | @ | @ |
| 52.47 | ERX EXTERNAL PHARMACY | @ | @ | @ | @ | @ |
| 52.48 | ERX EXTERNAL PERSON | @ | @ | @ | @ | @ |
| 52.49 | ERX HOLDING QUEUE | @ | @ | @ | @ | @ |
| 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 |  |  |  |  |  |

Note iconPlease 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 eRx

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

OneVA Pharmacy Prescription Report

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

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Third Party Payer Rejects - Worklist

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Pharmacy Productivity/Revenue Report

View ePharmacy Rx

List One Patient’s Archived Rx’s

Manual Print of Multi-Rx Forms

OneVA Pharmacy Prescription Report

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.

*(This page included for two-sided copying.)*

# 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.

Note icon **Note**: The OneVA Pharmacy Patch PSO\*7\*454 introduced the OneVA Pharmacy label-generation functionality with new/updated label routines. The barcode printed on the OneVA Pharmacy label will contain the host site information where the prescription order originated not the dispensing site where the prescription is being filled.

*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

|  |  |
| --- | --- |
| Caution | **\*\*\*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 icon**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,"$70s",\*94,"H",$S('$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",$S(‘$D(X):2,X="M":2,X="S":1,X="L":6,1:2), ";000",\*25,\*20,"\*"

BAR CODE OFF="\*",\*20,!,?$S($D(X1):X1,1:0),$S($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,"[;",$S('$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

Note icon\*\*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: $C(8)

OPEN EXECUTE: W \*27,"[4W",\*27,"[0Y",\*27,"[30t"

10 PITCH: $C(27)\_"[4w" 12 PITCH: $C(27)\_"[5w"

DESCRIPTION: MANNESMANN TALLY 290/132 COLUMNS

16 PITCH: $C(27)\_"[6w" DEFAULT PITCH: $C(27)\_"[4w"

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

BAR CODE ON: \*26,"F0",$S('$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 icon**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 icon**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.

Note icon **Note**: The OneVA Pharmacy Patch PSO\*7\*454 introduced the OneVA Pharmacy label-generation functionality with new/updated label routines. The barcode printed on the OneVA Pharmacy label will contain the host site information where the prescription order originated not the dispensing site where the prescription is being filled.

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: 1 CTRL CODE ABBREVIATION: LLI

FULL NAME: LASER LABEL INIT

CONTROL CODE: W \*27,"&r1F",\*27,"E",\*27,"&l0O",\*27,"&u300D",\*27,"&l3A",\*27,"&l0

E",!

NUMBER: 2 CTRL CODE ABBREVIATION: F10

FULL NAME: TEN POINT FONT - NO BOLD

CONTROL CODE: W \*27,"(10U",\*27,"(s1p10v0s0b16602X"

NUMBER: 3 CTRL CODE ABBREVIATION: F8

FULL NAME: EIGHT POINT FONT - NO BOLD

CONTROL CODE: W \*27,"(10U",\*27,"(s1p8v0s0b16602X"

NUMBER: 4 CTRL CODE ABBREVIATION: F12

FULL NAME: TWELVE POINT FONT - NO BOLD

CONTROL CODE: W \*27,"(10U",\*27,"(s1p12v0s0b16602X"

NUMBER: 5 CTRL CODE ABBREVIATION: F9

FULL NAME: NINE POINT FONT - NO BOLD

CONTROL CODE: W \*27,"(10U",\*27,"(s1p9v0s0b16602X"

NUMBER: 6 CTRL CODE ABBREVIATION: ST

FULL NAME: START OF TEXT

CONTROL CODE: S PSOY=PSOY+PSOYI W \*27,"\*p",PSOX,"x",PSOY,"Y"

NUMBER: 7 CTRL CODE ABBREVIATION: CDII

FULL NAME: CRITICAL DRUG INTERACTION INITIALIZATION

CONTROL CODE: S PSOX=0,PSOY=1400,PSOYI=50,PSOFONT="F10"

NUMBER: 8 CTRL CODE ABBREVIATION: PMII

FULL NAME: PMI SECTION INITIALIZATION

CONTROL CODE: S PSOX=0,PSOY=1350,PSOYI=50,PSOFONT="F10",PSOYM=3899

NUMBER: 12 CTRL CODE ABBREVIATION: ACI

FULL NAME: ADDRESS CHANGE INITIALIZATION

CONTROL CODE: S PSOHFONT="F12",PSOX=1210,PSOY=700,PSOFY=1270

NUMBER: 13 CTRL CODE ABBREVIATION: ALI

FULL NAME: ALLERGY SECTION INITIALIZATION

CONTROL CODE: S PSOFONT="F10",PSOX=0,PSOY=1350,PSOYI=50,PSOYM=2700

NUMBER: 14 CTRL CODE ABBREVIATION: FWU

FULL NAME: FONT WITH UNDERLINE CONTROL CODE: W \*27,"&d0D"

NUMBER: 15 CTRL CODE ABBREVIATION: FDU

FULL NAME: FONT DISABLE UNDERLINE CONTROL CODE: W \*27,"&d@"

NUMBER: 17 CTRL CODE ABBREVIATION: SPI

FULL NAME: SUSPENSE PRINT INITIALIZATION

CONTROL CODE: S PSOFONT="F10",PSOX=1210,PSOY=1350,PSOYI=50,PSOCX=1775,PSOYM=27

00

NUMBER: 18 CTRL CODE ABBREVIATION: WLI

FULL NAME: WARNING LABEL INITIALIZATION

CONTROL CODE: S PSOX=1050,PSOY=55

NUMBER: 19 CTRL CODE ABBREVIATION: RNI

FULL NAME: REFILL NARRATIVE INITIALIZATION

CONTROL CODE: S PSOY=2860,PSOFONT="F10",PSOX=0,PSOYI=50,PSOYM=3950

NUMBER: 20 CTRL CODE ABBREVIATION: CNI

FULL NAME: COPAY NARRATIVE INITIALIZATION

CONTROL CODE: S PSOY=2860,PSOX=1210,PSOYM=3950,PSOFONT="F10",PSOYI=50

NUMBER: 21 CTRL CODE ABBREVIATION: PII

FULL NAME: PATIENT INSTRUCTION INITIALIZATION

CONTROL CODE: S PSOX=1210,PSOY=760,PSOFONT="F12"

NUMBER: 22 CTRL CODE ABBREVIATION: RPI

FULL NAME: REFILL PRINT INITIALIZATION

CONTROL CODE: S PSOFONT="F10",PSOBYI=65,PSOTYI=50,PSOLX=0,PSORX=1210,PSOY=1350

,PSOYM=3650,PSOXI=90,PSOSYI=135

NUMBER: 23 CTRL CODE ABBREVIATION: BLH

FULL NAME: BOTTLE LABEL HEADER INITIALIZATION

CONTROL CODE: S PSOX=100,PSOY=50,PSOYI=30,PSOFONT="F9"

NUMBER: 24 CTRL CODE ABBREVIATION: BLB

FULL NAME: BOTTLE LABEL BODY INITIALIZATION

CONTROL CODE: S PSOX=0,PSODX=275,PSOY=150,PSOYI=40,PSOYM=379,PSOFONT="F10"

NUMBER: 25 CTRL CODE ABBREVIATION: BLF

FULL NAME: BOTTLE LABEL FOOTER INITIALIZATION

CONTROL CODE: S PSODY=460,PSOX=0,PSOCX=280,PSOQY=550,PSOTY=610,PSOFONT="F10",P

SOQFONT="F8",PSODFONT="F9",PSOTFONT="F10"

NUMBER: 26 CTRL CODE ABBREVIATION: RT

FULL NAME: ROTATE TEXT CONTROL CODE: W \*27,"&a90P"

NUMBER: 27 CTRL CODE ABBREVIATION: NR

FULL NAME: NORMAL ROTATION CONTROL CODE: W \*27,"&a0P"

NUMBER: 28 CTRL CODE ABBREVIATION: PFDI

FULL NAME: PHARMACY FILL DOCUMENT INITIALIZATION

CONTROL CODE: S PSOFONT="F10",PSOX=0,PSOY=700,PSOYI=40,PSOYM=969

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,"(s1p6v0s0b16602X"

NUMBER: 33 CTRL CODE ABBREVIATION: EBT

FULL NAME: END OF BARCODE TEXT

CONTROL CODE: W \*27,"(8U",\*27,"(s1p8v0s0b16602T",!

NUMBER: 34 CTRL CODE ABBREVIATION: BLBC

FULL NAME: BOTTLE LABEL BARCODE

CONTROL CODE: W \*27,"(s1p10.4v4,12b4,12s24670T",\*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,"(s1p10v0s0b16602T",\*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,"(s1p14.4v6,1

8b6,18s24670T"

NUMBER: 43 ABBREVIATION: F6B

FULL NAME: SIX POINT FONT, BOLDED

CONTROL CODE: W \*27,"(10U",\*27,"(s1p6v0s3b16602T"

NUMBER: 44 ABBREVIATION: F8B

FULL NAME: EIGHT POINT FONT, BOLDED

CONTROL CODE: W \*27,"(10U",\*27,"(s1p8v0s3b16602T"

NUMBER: 45 ABBREVIATION: F9B

FULL NAME: NINE POINT FONT, BOLDED

CONTROL CODE: W \*27,"(10U",\*27,"(s1p9v0s3b16602T"

NUMBER: 46 ABBREVIATION: F10B

FULL NAME: TEN POINT FONT, BOLDED

CONTROL CODE: W \*27,"(10U",\*27,"(s1p10v0s3b16602T"

NUMBER: 47 ABBREVIATION: F12B

FULL NAME: 12 POINT FONT BOLDED

CONTROL CODE: W \*27,"(10U",\*27,"(s1p12v0s3b16602T"

NUMBER: 72 ABBREVIATION: PFI

FULL NAME: PATIENT FILL INITIALIZATION

CONTROL CODE: S PSOFONT="F10",PSOX=1210,PSOY=710,PSOYI=45,PSOHFONT="F12",PSOBY

I=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,PSOHYI

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

The following is an example form:

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:

| Control Code | Variable |
| --- | --- |
| MLI | PSOHFONT – font for header lines |
| ACI | PSOHFONT – 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 |
|  | 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: $C(8)

CLOSE EXECUTE: U IO K IO(1,IO) S IO=$ZIO C IO S

QUE="/QUEUE="\_$E(ION,1,6)\_"/DELETE",QUE=$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** | Body Surface Area. The Dubois formula is used to calculate the Body Surface Area using the following formula:  BSA (m²) = 0.20247 x Height (m)0.725  x Weight (kg)0.425  The equation is performed using the most recent patient height and weight values that are entered into the vitals package.  The calculation is not intended to be a replacement for independent clinical judgment. |
| **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** | 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:  Modified Cockcroft-Gault equation using Adjusted Body Weight in kg (if ht > 60in)  This calculation is not intended to be a replacement for independent clinical judgment. |
| **DHCP** | See VistA. |
| **eMI** | Enterprise Messaging Services |
| **eRx** | ePrescription |
| **ESB** | Enterprise Service Bus |
| **HDR/CDS** | Health Data Repository/Clinical Data Services |
| **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. |
| **OneVA Pharmacy Label** | Labels printed for traveling Veterans against prescriptions that originated from another VistA instance other than the site dispensing the prescription. |
| **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. |
| **SPM**P | 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:

| **RDS** | **Pharmacy/Treatment Encoded Order Message** |
| --- | --- |
| MSH | Message Header |
| [PID] | Patient Identification |
| [PV1] | Patient Visit |
| [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~ OPPROVIDER~TWO ||2438~OPPROVIDER~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 0.1MGS.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^OPPROVIDER^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:

| **RRD** | **Pharmacy Encoded Order Ack. Message** |
| --- | --- |
| 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 icon**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.VHA.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 | XPN | R |  |  | Patient Name | OPPATIENT~ONE |
|  | 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~NY~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~LGMR120.8 |
|  | 3 | 250 | CE | R | Y |  | Allergen Code/Mnemonic/Description | 128~ASPIRIN~LGMR120.8 |
|  | 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~OPPROVIDER~TWO |
|  | 12 | 250 | XCN | O |  |  | Ordering Provider | 987~OPPROVIDER~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 | 57~7TH FLOOR~99PSC |
|  | 19 | 250 | XCN | O |  |  | Action By | 65421~OPPROVIDER5~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 | 65536 | FT | O |  |  | Comment | USE 50 FOR TESTING BY MOUTH TWICE A DAY FOR 30 DAYS |
|  | 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~HEMATEST 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~OPPROVIDER3~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~HEMATEST 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 |
|  | 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~OPPROVIDER~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
* Confidential Address 3rd up-arrow piece if it is Active

If Confidential Address is Active, for each Confidential Address Category, an entry

will be made into the HL7 record starting in the up-arrow piece 3.

* **Patient Temporary Address 3rd up-arrow piece or piece after the last Confidential Address entry if the Confidential Address is active.**

**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 Confidential Address**

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

**[PID-11] Patient Temporary Address**

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

**Example: 100 PERMANENT ADDRESS~""""~NEW YORK~NY~10018~USA~P**~""""~061^~~SAN ANTONIO~TX~~~N^**1 CONFIDENTIAL STREET~""""~NEW YORK~NY~10019~USA~VACAE**~""""~061~~~20160628&20160718^**1 CONFIDENTIAL STREET~""""~NEW YORK~NY~10019~USA~VACAA**"

^HL(772,35537819,"IN",3,0)="~""""~061~~~20160628&20160718^**1 CONFIDENTIAL STREET~""""~NEW YORK~NY~10019~USA~VACAM**~""""~061~~~20160628&20160718^**200 TEMPROARY ADDRESS~""""~NEW YORK~NY~10017~USA~C**

[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: Confidential address – active:**

PADD-1~PADD-2~SPRING~TX~77379~~P~PADD-3~201^~~""~""~~~N^1 CONFIDENTIAL STREET~""""~NEW YORK~NY~10019~USA~VACAM~

**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)

Note icon**Note:**

For each Active Confidential Address Category entered for the patient, an entry will be made into the HL7 record delimited by ^.

The code is looping down the Confidential Address Categories and creating an entry for each one.

category=1 (ELIGIBILITY/ENROLLMENT): VACAE

category=2 (APPOINTMENT/SCHEDULING): VACAA

category=3 (COPAYMENTS/VETERAN BILLING): VACAC

category=4 (MEDICAL RECORDS): VACAM

category=5 (ALL OTHERS): VACAO

otherwise= null

The “C” is hardcoded after USA (the country) on the Temporary Address record.

The vendor will need to read through the addresses (^ pieces) until it finds the C in the 7th ~ piece of data for a temporary address.

The following determines whether to send the Temporary Address.

It first checks the TEMPORARY ADDRESS ACTIVE? flag, if set to Yes then checks the TEMPORARY ADDRESS START DATE against the processing date range start date and if passes then checks the TEMPORARY ADDRESS END DATE against the processing date range end date. If these pass then the Temporary Address is sent in the HL7 record.

There can be up to 5 Confidential address entries (one for each active Confidential Address Category) , 1 Permanent address and 1 Temporary address.

***Below is an example of a PID-11 segment with all 7 addresses populated.***

^HL(772,35537804,"IN",0)="^^241^241^3160628^"

^HL(772,35537804,"IN",1,0)="PID|||1004459532V886809~~~USVHA&&0363~NI~VA FACILITY

ID&200M&L^101017111~~~USSSA&&0363~SS~VA FACILITY ID&442&L^""""~~~USDOD&&0363~TI

N~VA FACILITY ID&442&L^""""~~~USDOD&&0363~FIN~VA FACILITY ID&442&L^7187158~~~USV

HA&&0363~PI~VA FACILITY ID&442&L|"

^HL(772,35537804,"IN",2,0)="|last~name~M~~~~L||19710313|F|||100 PERMANENT ADDR

ESS~""""~NEW YORK~NY~10018~USA~P~""""~061^~~SAN ANTONIO~TX~~~N^**1 CONFIDENTIAL ST**

**REET~""""~NEW YORK~NY~10019~USA~VACAE**~""""~061~~~20160628&20160718^**1 CONFIDENTIA**

**L STREET~""""~NEW YORK~NY~10019~USA~VACAA**"

^HL(772,35537804,"IN",3,0)="~""""~061~~~20160628&20160718^**1 CONFIDENTIAL STREET~**

**""""~NEW YORK~NY~10019~USA~VACAC**~""""~061~~~20160628&20160718^**1 CONFIDENTIAL STR**

**EET~""""~NEW YORK~NY~10019~USA~VACAM**~""""~061~~~20160628&20160718^**1 CONFIDENTIAL**

**STREET~""""~NEW YORK~NY~10019~USA~VACAO**~"""""

^HL(772,35537804,"IN",4,0)="~061~~~20160628&20160718^**200 TEMPROARY ADDRESS~""""~**

**NEW YORK~NY~10017~USA~C**~""""~061~~~20160623&20160802||(222)222-2222~PRN~PH^(111)

111-1111~WPN~PH||||||||||||||||||"

[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 VistAand 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 icon**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 icon**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.VHA.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 | XPN | R |  |  | Patient Name | OPPATIENT~ONE |
|  | 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~NY~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~HEMATEST 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~HEMATEST 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 – 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^^^USSSA^SS||OPPATIENT^ONE||19590116|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.VHA.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 | XPN | R |  |  | Patient Name | OPPATIENT~ONE |
|  | 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~OPPROVIDER2~THREE |
|  | 11 | 250 | XCN | O |  |  | Verified By | 115~OPPROVIDER~TWO |
|  |  |  |  |  |  |  |  |  |
| RXD | 1 | 4 | NM | R |  |  | Dispense Sub-ID Counter | 1 (Fill Number) |
|  | 2 | 250 | CE | R |  | 0292 | Dispense/Give Code | XH001~HEMATEST 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~OPPROVIDER1~ONE |
|  | 13 | 200 | CM | O |  |  | Dispense-To Location | 123456789101112131415 |
|  | 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 VistAmust 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) |
|  | 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 |
|  | 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 VistArejects 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.

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

|  |  |
| --- | --- |
| Caution | **\*\*\*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 (VDEFVIEn) exported with VDEF V. 1.0. The VDEFVIEn 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^^^19950111170823-0500^^^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~VistA200^^^^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\_52.2\_.09~5005423~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^^^^19950307144822-0500^^^^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 icon**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 |
| 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 |
| 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 |  |
| 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~~~~~VistA200 |
| 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~MARTINSBURG 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 |
|  |  |  |  |  |
| RXE | 1 | Quantity/Timing | TQ | 1&100MG~~~19950109~19950629~~FILL/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~99VA\_\_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 |  |
| 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 | ST | C0255~~613\_50\_27 |
| RXR | 1 | Route | CE | 1~ORAL (BY MOUTH)~613\_52.0113\_6 |
| RXR | 2 | Administration Site | CE |  |
| RXR | 3 | Administration Device | CE |  |
| RXR | 4 | Administration Method | CE |  |
| RXR | 5 | Routing Instruction | 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 |  |
| 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 |  |
| 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 |  |
| 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~MARTINSBURG 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 | 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 |  |
| 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 | ST | 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 |
| 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~MARTINSBURG 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 | 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 |  |
| 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 | ST | 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 |  |
| 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 Implemetation 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.   * **P** is reported when running from a production account * **T** is reported when running from a non-production account |
| 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   * 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   * **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 |
| 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 |
| 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) |
| 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 PAT06, Social Security number is also required | Not Used |
| 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 $$ADD^VADPT (DBIA #10061) return variable VAPA(8)  **Example**: 4245556666 (no dashes) |
| PAT18 | **Date of Birth**  Date patient was born  Format: CCYYMMDD | ASAP 3.0 : Email Address (Not Used) ASAP 4.0+: Patient DOB  Retrieved via the Kernel API $$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 $$DEM^VADPT (DBIA #10061) return variable VADM(5).  If no value is found ,reports **U**  ASAP 4.0+: Species Code  Always **01** (Human) |
| PAT21 | **Patient Location Code**  Code indicating where the patient is located when receiving pharmacy services if required by the PMP  01 Home  02 Intermediary Care  03 Nursing Home  04 Long-Term/Extended Care  05 Rest Home  06 Boarding Home  07 Skilled-Care Facility  08 Sub-Acute Care Facility  09 Acute-Care Facility  10 Outpatient  11 Hospice  98 Unknown  99 Other | Always **10** (Outpatient) |
| PAT22 | **Country of Non-U.S. Resident**  Used when the patient’s address is a foreign country and PAT12 through PAT16 are left blank.  This is a free-form text field | ASAP 3.0 : Primary Prescription Coverage Type (Not Used)  ASAP 4.0+:Country of Non-U.S. Resident  Retrieved via the Registration API $$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**   * (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 | * **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**  Number of the fill of the prescription  0 indicates original dispensing  01-99 is the refill number | * **Original**   0   * **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. | * **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. | * **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) |
| DSP10 | **Days Supply**  Estimated number of days the medication will cover | * **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)   * 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 $$NATURE^ORUTL3 (IA# 5890) provides the Nature of Order, which is translated the following way:   * 01 W * 02 V or T * 05 E * 99 Other |
| DSP13 | **Partial Fill Indicator**  Used when the quantity in DSP09 is less than the met quantity per dispensing authorized by the prescriber. This dispensing activity is often referred to as a split filling.  00 Not a Partial Fill  01 First Partial Fill  **Note:** For additional fills per prescription, increment by 1. The second partial fill is reported as 02, up to a maximum of 99. | **ASAP 4.0 and 4.1**   * 01 Partial Fill * 02 Non-Partial Fill   **ASAP 4.2 and above**   * 00 Non-Partial Fill * 01 Partial 1 * 02 Partial 2 * 03 Partial 3 |
| DSP14 | **Pharmacist National Provider Identifier (NPI)**  Identifier assigned to the pharmacist by CMS if the pharmacist applies for a number  This number can be used to identify the pharmacist dispensing the medication | Retrieved via the Kernel API $$NPI^XUSNPI (DBIA # 4532) using the prescription fill pharmacist.  **Example**: 1043278211 |
| DSP15 | **Pharmacist State License Number**  This data element can be used to identify the pharmacist dispensing the medication  Assigned to the pharmacist by the State Licensing Board | Not Used |
| DSP16 | **Classification Code for Payment Type**  Code identifying the type of payment, i.e. how it was paid for, if required by the PMP  01 Private Pay (Cash, Charge, Credit Card)  02 Medicaid  03 Medicare  04 Commercial Insurance  05 Military Installations and VA  06 Workers’ Compensation  07 Indian Nations  99 Other | Always **05** (Military Installations and VA) |
| DSP17 | **Date Sold**  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  This date may be different from DSP05 | Not Used |
| DSP18 | **RxNorm Product Qualifier**  01 Semantic Clinical Drug (SCD)  02 Semantic Branded Drug (SBD)  03 Generic Package (GPCK)  04 Branded Package (BPCK)  **Note:** DSP18 and DSP19 are placeholder fields pending RxNorm becoming an industry standard and should not be required until such time. | Not Used |
| DSP19 | **RxNorm Code**  Used for electronic prescriptions to capture the prescribed drug product identification, if required by the PMP.  **Note:** DSP18 and DSP19 are placeholder fields pending RxNorm becoming an industry standard and should not be required until such time. | Not Used |
| DSP20 | **Electronic Prescription Reference Number**  Used to provide an audit trail for electronic prescriptions, if required by the PMP  **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. | Not Used |
| DSP21 | **Electronic Prescription Order Number**  **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. | Not Used |
| 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 | * **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) |
| RX15-RX16 | **Not Used** |  |
| RX17 | **Quantity Prescribed**  Number of metric units dispensed in metric decimal format.  Example: 2.5 | * **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 | * **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  **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)  **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) | | |
| 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 |

# Appendix F: OneVA Pharmacy HL7 Messaging using eMI for External System

## OneVA Pharmacy General Information

The overall OneVA Pharmacy design has several components. They are:

* Veterans Health Information Systems and Technology Architecture (VistA) (Patch PSO\*7.0\*454)
* Health Level 7 (HL7) Messaging
* Enterprise Messaging Infrastructure (eMI) Enterprise Service Bus (ESB)
* Health Data Repository/Clinical Data Service (HDR/CDS) Repository

VistA is the user interface where a pharmacist uses the “Patient Prescription Processing [PSO LM BACKDOOR ORDERS]” menu (found within the VistA Pharmacy Outpatient Pharmacy Manager package) to query for and refill patient’s active and refillable prescriptions from other VA Pharmacy VistA instances. The OneVA Pharmacy VistA patch, PSO\*7.0\*454, uses Health Level 7 (HL7) messaging to query and receive remote prescription details to and from the Health Data Repository/Clinical Data Services (HDR/CDS) Oracle Repository.

The VistA instance the Veteran is refilling the prescription is considered the ‘dispensing’ VistA instance. This patch allows a Pharmacist from a ‘dispensing’ VistA instance to refill a prescription that originated from another VA Pharmacy VistA instance and print a prescription label at the dispensing site. The VA Pharmacy VistA instance where the prescription originated and currently exits is the ‘host’ VistA instance. The host VistA instance is where the update to the prescription record is made after the fill is processed and the host label file is being extracted to return to the dispensing site via HL7.

The OneVA Pharmacy patch sends the HL7 query message through the new Enterprise Messaging Infrastructure (eMI) Enterprise Service Bus (ESB) transport protocol. eMI executes a Web Service call to query the HDR/CDS Repository for specific medication information from all VA Pharmacy’s VistA sites. eMI’ s configuration contains filtering processes that applies specific business rules against the HDR/CDS Web Service call to return the appropriate prescriptions to the dispensing VistA. VistA and eMI communicate using HL7 v2.5.1 over Minimal Layer Protocol (MLLP). Communication to the HDR/CDS Repository is done via Simple Object Access Protocol (SOAP) Web Services.

The medications return to the dispensing site via HL7 messaging. Once the prescription reaches the dispensing site, they display below any 'local' prescriptions on the ‘Medication Profile’ screen. The prescriptions displayed to the Pharmacist by VA Pharmacy site. The dispensing Pharmacist can then view the ‘remote’ prescriptions and select one to refill or partially fill.

For label printing, VistA triggers the HL7 message stream that executes during the full or partial refill prescription processes. The event triggers the handling of the printing of the host label information at the dispensing printing device.

## OneVA Pharmacy New Menu

A new option has been created to allow reporting regarding what 'remote' prescriptions have been filled by a particular facility, and what facilities have refilled prescriptions that belong to a target facility. This menu is OneVA Pharmacy Prescription Report [PSO REMOTE RX REPORT].

## OneVA Pharmacy New Logical Link

A new HL7 logical link, PSORRXSEND will facilitate the sending of the HL7 messages to EMI. The PSO VISTA PHARM and PSO EMI PHARM application parameters will control the message processing within VistA. The existing multi-threaded listener will be leveraged at each facility for receiving the HL7 messages into VistA.

## OneVA Pharmacy New Flag

| Caution | **\*\*\*Important\*\*\***  DO NOT turn on the OneVA Pharmacy Flag until directed to do so. Please know OneVA Pharmacy will be rolled out nationally in accordance to the ‘Deployment/Installation Schedule’ as outlined in “Installation Guide – OneVA Pharmacy” document found on the VA VDL, under the Clinical section within the “Pharm: Outpatient Pharmacy” page ‘ The software will be released, deployed, and installed with the activation flag set to the “off” position. The Existing Product Intake Program (EPIP) Implementation Team will coordinate with the sites Pharmacy Automatic Data Processing Application Coordinator (ADPAC) on the specific date in which to activate the software. |
| --- | --- |

To use OneVA Pharmacy, the user turns on the ‘ONEVA PHARMACY FLAG (#3001)’. The 'ONEVA PHARMACY FLAG (#3001)’ is located on the ‘OUTPATIENT SITE NAME (#59)’ file. This field will allow each division to toggle the OneVA Pharmacy logic 'on' or 'off' depending on current needs. The user changes the field by using ‘FILEMAN [FM]’ and editing the 'ONEVA PHARMACY FLAG (#3001)’ field. The software patch delivers the ‘ONEVA PHARMACY FLAG (#3001)’ in the 'off' state. When this flag is in the 'off' state, the HDR/CDS Repository is not queried for external prescriptions and other VistA instances will not be able to refill prescriptions that belong to the VistA instance with the flag set to the 'off' state. When in the 'on' state, all prescription queries and actions may be taken for remote queries, refills, and partial fills. To process prescriptions from another VistA instance, that instance will also need to have its ‘ONEVA PHARMACY FLAG (#3001)’ set to the 'on' state.

## OneVA Pharmacy New Protocols

Patch PSO\*7\*454 adds new protocols to the PROTOCOL file (#101) to facilitate the OneVA Pharmacy messaging. They are:

1. PSO LM MEDICATION PROFILE (Modified)
2. PSO LM REFILL REMOTE ORDER (New)
3. PSO LM REMOTE ORDER MENU (New)
4. PSO LM REMOTE ORDER SELECTION (New)
5. PSO LM REMOTE PARTIAL (New)
6. PSO LM REMOTE REPORT DETAILS (New)
7. PSO LM REMOTE RX REPORT (New)
8. PSO LM REMOTE RX REPORT MENU (New)
9. PSO LM SELECT REPORT ITEM (New)
10. PSO REMOTE RX QBP Q13 ESUBS (New)
11. PSO REMOTE RX QBP Q13 EVENT (New)
12. PSO REMOTE RX RDS O13 ESUBS (New)
13. PSO REMOTE RX RDS O13 EVENT (New)

## OneVA Pharmacy New Application Parameters

Patch PSO\*7\*454 adds two new HL7 application parameters to the HL7 APPLICATION PARAMETER file (#771). They are:

PSO EMI PHARM

PSO VISTA PHARM

## New Fields on Existing Files

Patch PSO\*7\*454 adds new fields to the PRESCRIPTION (#52) REFILL file (#52.1). They are:

REMOTE FILL SITE (#52.1,91)

REMOTE PHARMACMIST (#52.1,92)

REMOTE PHARMACIST PHONE (#52.1,93)

Patch PSO\*7\*454 adds new fields to the PRESCRIPTION (#52) PARTIAL DATE file (#52.2). They are:

REMOTE FILL SITE (#52.2,91)

REMOTE PHARMACMIST (#52.2,92)

REMOTE PHARMACIST PHONE (#52.2,93)

Patch PSO\*7\*454 adds the new ONEVA PHARMACY FLAG field (#3001) to the OUTPATIENT SITE (#59) file).

## OneVA Pharmacy New File

The Remote Prescription Log File (#52.09) logs all activity related to OneVA Pharmacy ‘remote refills’ and ‘partial fills’. The log file will record all actions taken by the local or dispensing site as well as all actions taken by any external facility for any remote or host prescription. The log is input into the OneVA Pharmacy reports found on the OneVA Pharmacy Prescription Report [PSO REMOTE RX REPORT] menu.

REMOTE PRESCRIPTION LOG file (#52.09)

PATIENT (.02)

RX NUMBER (.03)

SITE NUMBER (.04)

REQUEST TYPE (.05)

OUTGOING REQUEST PHARMACIST (.06)

REMOTE FILLING PHARMACIST (.061)

QUANTITY (.07)

DAYS SUPPLY (.08)

REFILL/PARTIAL DATE (.09)

DISPENSED DATE (.1)

REMOTE DRUG NAME (1)

LOCAL (MATCHED) DRUG (1.1)

TOTAL REFILL/PARTIAL FILL COST (1.2

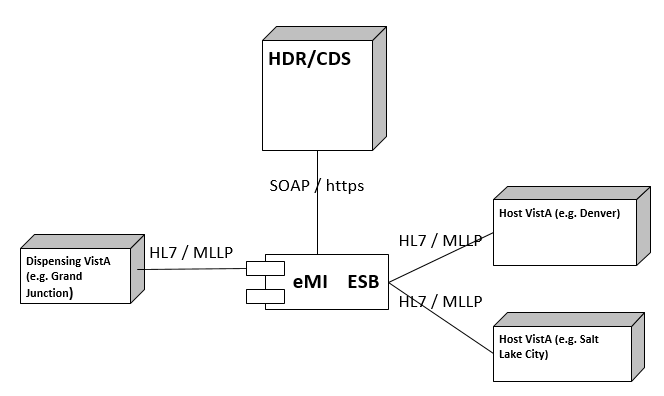
VA PRODUCT ID (1.3)

MESSAGE DETAILS (2)

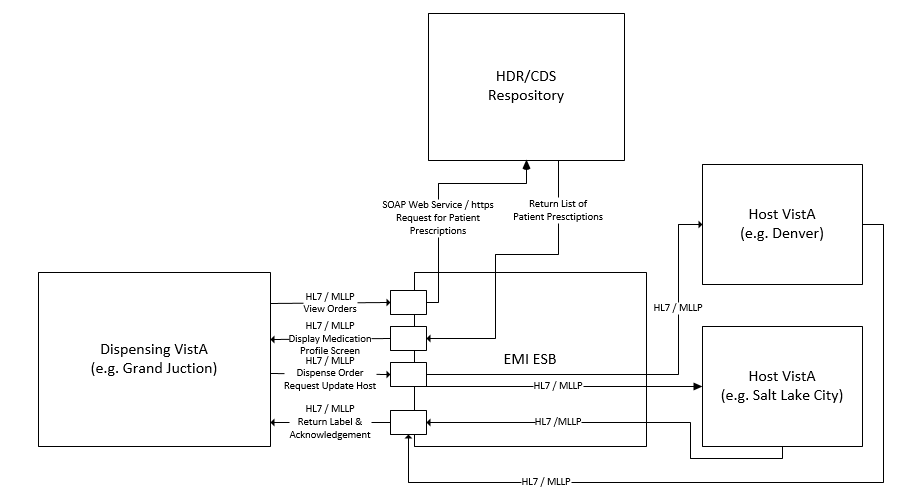
LABEL DATA (3)

## OneVA Pharmacy Component Diagram

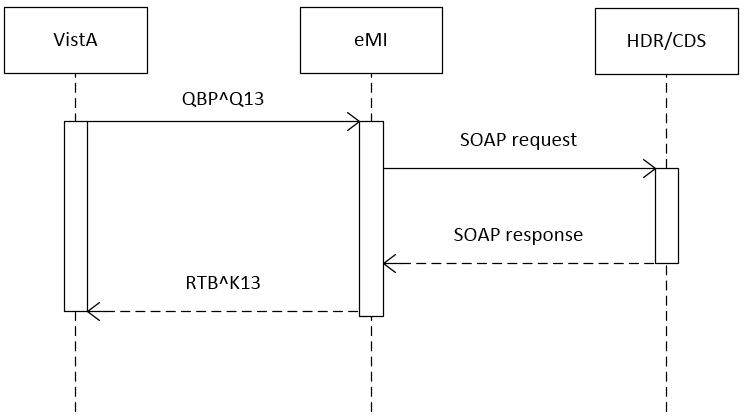
Version 2.5.1 of the HL7 specification will be used for the message format. The SOAP message versions are directed by the HDR/CDSs endpoint requirements. The following image shows the dispensing VistA instance query to the HDR/CDS Repository and the message communication flow from the dispensing VistA instance to one or more host VistA systems.



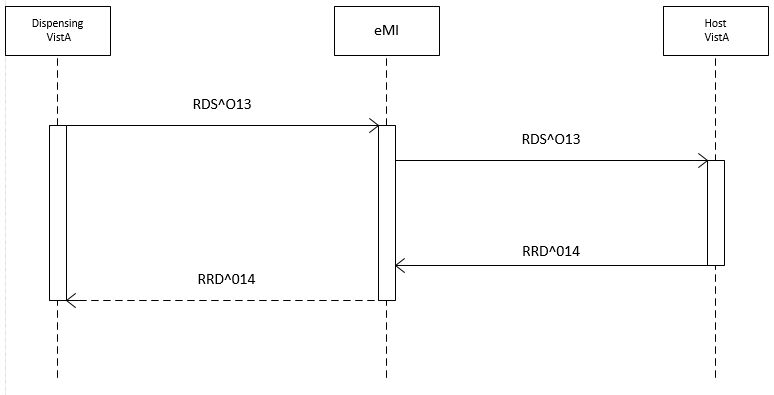
The following figure provides the business capability the components are processing specifically for the OneVA Pharmacy Patch.



When the Pharmacist enters a request to display the Medication Profile screen from a dispensing VistA instance, the QBP^Q13 HL7 ‘Query By Parameter Request’ message is sent to eMI. eMI will harvest the necessary information to send a SOAP request to the HDR/CDS Repository for the patient’s prescriptions. The SOAP response is transformed into a RTB^K13 HL7 ’Prescription Query Service Response’ message that contains the patient’s prescription data. The patient’s prescription data is returned to the dispensing VistA instance and displayed on the Medication Profile screen. The following image displays the sequence of events and message types for this processing.



When a Pharmacist selects a prescription from the Medication Profile screen from a dispensing VistA instance, the RDS^O13 HL7 ‘Pharmacy/Treatment Dispense’ message is sent to eMI. eMI will receive the request, determine the destination facility, and then forward the message to the host VistA instance. The host VistA instance will process the message and return a response message containing the prescription label. eMI will route the message back to the dispensing VistA, displaying the completion of the transaction to the Pharmacist on the screen. The following image displays the sequence of events and message types for the Dispense Order from Another VA Pharmacy Location functionality.



## OneVA Pharmacy HL7 Message Types

There are four HL7 message types created within the OneVA Pharmacy software. They are:

1. QBP^Q13 Query by Parameter Request
2. RTB^K13 Prescription Query Service Request
3. RDS^O13 Pharmacy/Treatment Dispense Message Request
4. RRD^O14 Prescription Refill/Partial Service Response

### QBP^Q13 Query by Parameter Request

The following table defines the data elements required for each of the following segments of the QBP^Q13 Query by Parameter Request.

Message Header (MSH) segment

Query Parameter Definition (QPD) segment

Patient Identification (PID) segment

Note icon**Note:** The MUMPS code is designed to use the ‘D BLDPID^PSOTPHL2(DFN,"",.PSORRDAT,.HL,.ERR)’ routine to create the Patient Identification (PID) segment.

Response Control Parameter (RCP) segment

| **Segment** | **Piece** | **Description/Field Name** | **Data Type** |
| --- | --- | --- | --- |
| **MSH** | 1 | Field Separator | ST |
|  | 2 | Encoding Characters | ST |
|  | 3 | Sending Application | HD |
|  | 4 | Sending Facility | HD |
|  | 5 | Receiving Application | HD |
|  | 6 | Receiving Facility | HD |
|  | 7 | Date/Time of Message | TS |
|  | 8 | Security | ST |
|  | 9 | Message Type | CM |
|  | 10 | Message Control ID | ST |
|  | 11 | Processing ID | PT |
|  | 12 | Version ID | ID |
|  | 13 | Sequence Number | NM |
|  | 14 | Continuation Pointer | ST |
|  | 15 | Accept Acknowledgement | ID |
|  | 16 | Application Acknowledgement | ID |
|  | 17 | Country Code | ID |
|  | 18 | Character Set | ID |
|  | 19 | Principal Language of Messages | CE |
| **QDP** | 1 | Message Type | ST |
|  | 2 | Message Query Name | CE |
|  | 3 | Query Tag | ST |
|  | 4 | User Parameters | Optional |
| **PID** | 1 | Set ID – Patient ID | SI |
|  | 2 | Patient ID (External ID) | CK |
|  | 3 | Patient ID (Internal ID) | CK |
|  | 4 | Alternate Patient ID | CK |
|  | 5 | Patient Name | PN |
|  | 6 | Mother’s Maiden Name | ST |
|  | 7 | Date of Birth | TS |
|  | 8 | Sex | ID |
|  | 9 | Patient Alias | PN |
|  | 10 | Race | ID |
|  | 11 | Patient Address | AD |
|  | 12 | County Code | ID |
|  | 13 | Phone Number – Home | TN |
|  | 14 | Phone Number – Business | TN |
|  | 15 | Language – Patient | ST |
|  | 16 | Marital Status | ID |
|  | 17 | Religion | ID |
|  | 18 | Patient Account Number | CK |
|  | 19 | SSN Number – Patient | ST |
|  | 20 | Driver’s Lic Num – Patient | CM |
|  | 21 | Mother’s Identifier | CK |
|  | 22 | Ethnic Group | ID |
|  | 23 | Birth Place | ST |
|  | 24 | Multiple Birth Indicator | ID |
|  | 25 | Birth Order | NM |
|  | 26 | Citizenship | ID |
|  | 27 | Veterans Military Status | CE |
| **RCP** | 1 | Query Priority | ST |
|  | N | Ignored |  |

### RTB^K13 Prescription Query Service Reponses

eMI will query the HDR/CDS Repository and apply the filter and transformation logic. eMI will formulate the RTB^K13 HL7 message, which contains the prescription records for the selected patient.

The following table defines the data elements required for each of the following segments of the RTB^K13 Prescription Query Service Response.

Message Header (MSH) segment

Message Acknowledgement (MSH) segment

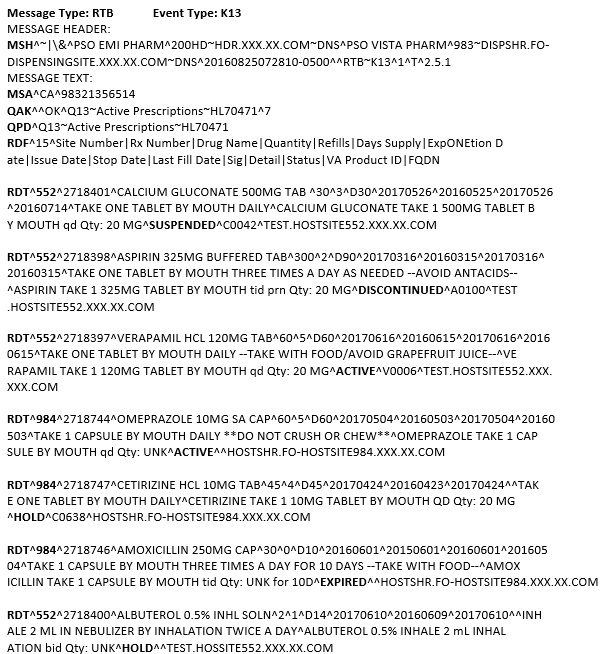
Query Acknowledgement (QAK) segment

Query Parameter Definition (QPD) segment

Table Row Definition (RDF) segment

| **Segment** | **Piece** | **Description/Field Name** | **Data Type/Description** |
| --- | --- | --- | --- |
| **MSH** | 1 | Field Separator | ST |
|  | 2 | Encoding Characters | ST |
|  | 3 | Sending Application | HD |
|  | 4 | Sending Facility | HD |
|  | 5 | Receiving Application | HD |
|  | 6 | Receiving Facility | HD |
|  | 7 | Date/Time of Message | TS |
|  | 8 | Security | ST |
|  | 9 | Message Type | CM |
|  | 10 | Message Control ID | ST |
|  | 11 | Processing ID | PT |
|  | 12 | Version ID | ID |
|  | 13 | Sequence Number | NM |
|  | 14 | Continuation Pointer | ST |
|  | 15 | Accept Acknowledgement | ID |
|  | 16 | Application Acknowledgement | ID |
|  | 17 | Country Code | ID |
|  | 18 | Character Set | ID |
|  | 19 | Principal Language of Messages | CE |
| **MSA** | 1 | Acknowledge Code | ID |
|  | 2 | Message Control ID | ST |
|  | 3 | Text Message | W |
|  | 4 | Expected Sequence Number | NM |
|  | 5 | Delayed Acknowledgement Type | W |
|  | 6 | Error Condition | W |
|  | 7 | Message Waiting Number | NM |
|  | 8 | Message Waiting Priority | ID |
| **QAK** | 1 | Query Tag |  |
|  | 2 | Query Response Status Code |  |
|  | 3 | Message Query Name |  |
|  | 4 | Count of RDT segments |  |
| **QDP** | 1 | Message Query Name | CE |
|  | 2 | Query Tag | ST |
|  | 3 | User Parameters |  |
| **RDF** | 1 | Site Number | Site Number of the facility where the veteran has or had a prescription |
|  | 2 | Rx Number | The prescription number |
|  | 3 | Drug Name (from the host site) | The name of the drug |
|  | 4 | Quantity | The quantify of the prescription |
|  | 5 | Refills | The number of refills remaining |
|  | 6 | Days Supply | The number of days the prescription should be used |
|  | 7 | Expiration Date | The expiration date of the prescription |
|  | 8 | Issue Date | The issue date of the prescription |
|  | 9 | Stop Date | The end date for the prescription (same as expiration date) |
|  | 10 | Last Fill Date | The last date the prescription was refilled |
|  | 11 | Sig |  |
|  | 12 | Detail |  |
|  | 13 | Status | The status of the prescription |
|  | 14 | VA Product ID | The VA ID of the drug |
|  | 15 | FQDN/Port | The fully qualified domain name of the host where the prescription originated and its port. |
| **RDT** | 1 | Site Number | Site Number of the facility where the veteran has or had a prescription |
|  | 2 | Rx Number | The prescription number |
|  | 3 | Drug Name (from the host site) | The name of the drug |
|  | 4 | Quantity | The quantify of the prescription |
|  | 5 | Refills | The number of refills remaining |
|  | 6 | Days Supply | The number of days the prescription should be used |
|  | 7 | Expiration Date | The expiration date of the prescription |
|  | 8 | Issue Date | The issue date of the prescription |
|  | 9 | Stop Date | The end date for the prescription (same as expiration date) |
|  | 10 | Last Fill Date | The last date the prescription was refilled |
|  | 11 | Sig |  |
|  | 12 | Detail |  |
|  | 13 | Status | The status of the prescription |
|  | 14 | VA Product ID | The VA ID of the drug |
|  | 15 | FQDN/Port | The fully qualified domain name of the host where the prescription originated and its port. |

#### Example RTB^K13 Prescription Query Service Response



#### Example RTB^K13 HL7 RDF Segment

The Table Row Definition (RDF) segment defines the content for the Table Row Data (RDT) segment in the RTB^K13 HL7 message. The following is an example of the RDF segment created for the RTB^K13 HL7 message. The image displays the format to use for each prescription order.

The image displays the RTB^K13 HL7 RDF Segment Example

### RDS^O13 Pharmacy/Treatment Dispense Message Request

The ‘RDS^O13’ is a pass through message that requires no transformation by eMI. The message can either be for a ‘Refill’ or ‘Partial Fill’ request. For a ‘Partial Fill’ request, the NTE segment will exist; it will not be there for a ‘Refill’ request.

The following table defines the data elements required for each of the following segments of the RTB^K13 Prescription Query Service Response.

Message Header (MSH) segment

Patient Identification (PID) segment

Note icon**Note:** The MUMPS code uses BLDPID^PSOTPHL2(DFN,"",.PSORRDAT,.HL,.ERR)’ to create the Patient Identification (PID) segment.

Common Order (ORC) segment

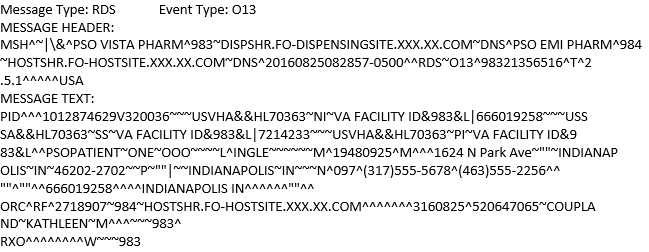
Pharmacy/Treatment Prescription Order (RXO

Notes and Comments (NTE) segment

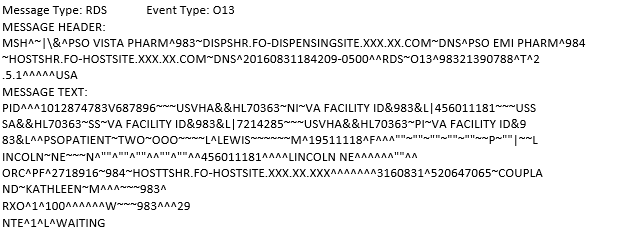
Note icon**Notes:** The Notes and Comments (NTE) segment will be present if the request is for a ‘Partial Fill’.

| **Segment** | **Piece** | **Description/Field Name** | **Data Type** |
| --- | --- | --- | --- |
| **MSH** | 1 | Field Separator | ST |
|  | 2 | Encoding Characters | ST |
|  | 3 | Sending Application | HD |
|  | 4 | Sending Facility | HD |
|  | 5 | Receiving Application | HD |
|  | 6 | Receiving Facility | HD |
|  | 7 | Date/Time of Message | TS |
|  | 8 | Security | ST |
|  | 9 | Message Type | CM |
|  | 10 | Message Control ID | ST |
|  | 11 | Processing ID | PT |
|  | 12 | Version ID | ID |
|  | 13 | Sequence Number | NM |
|  | 14 | Continuation Pointer | ST |
|  | 15 | Accept Acknowledgement | ID |
|  | 16 | Application Acknowledgement | ID |
|  | 17 | Country Code | ID |
|  | 18 | Character Set | ID |
|  | 19 | Principal Language of Messages | CE |
| **PID** | 1 | Set ID – Patient ID | SI |
|  | 2 | Patient ID (External ID) | CK |
|  | 3 | Patient ID (Internal ID) | CK |
|  | 4 | Alternate Patient ID | CK |
|  | 5 | Patient Name | PN |
|  | 6 | Mother’s Maiden Name | ST |
|  | 7 | Date of Birth | TS |
|  | 8 | Sex | ID |
|  | 9 | Patient Alias | PN |
|  | 10 | Race | ID |
|  | 11 | Patient Address | AD |
|  | 12 | County Code | ID |
|  | 13 | Phone Number – Home | TN |
|  | 14 | Phone Number – Business | TN |
|  | 15 | Language – Patient | ST |
|  | 16 | Marital Status | ID |
|  | 17 | Religion | ID |
|  | 18 | Patient Account Number | CK |
|  | 19 | SSN Number – Patient | ST |
|  | 20 | Driver’s Lic Num – Patient | CM |
|  | 21 | Mother’s Identifier | CK |
|  | 22 | Ethnic Group | ID |
|  | 23 | Birth Place | ST |
|  | 24 | Multiple Birth Indicator | ID |
|  | 25 | Birth Order | NM |
|  | 26 | Citizenship | ID |
|  | 27 | Veterans Military Status | CE |
| **ORC** | 1 | Order Control | ID |
|  | 2 | Placer Order Number | CM |
|  | 3 | Filler Order Number | CM |
|  | 4 | Placer Group Number | CM |
|  | 5 | Order Status | ID |
|  | 6 | Response Flag | ID |
|  | 7 | Quantity/Timing | TQ |
|  | 8 | Parent | CM |
|  | 9 | Date/Time of Transaction | TS |
|  | 10 | Entered By | CN |
|  | 11 | Verified By | CN |
|  | 12 | Ordering Provider | CN |
|  | 13 | Enterer’s Location | CM |
|  | 14 | Call Back Phone Number | TN |
|  | 15 | Order Effective Date/Time | TS |
|  | 16 | Order Control Code Reason | CE |
|  | 17 | Entering Organization | CE |
|  | 18 | Entering Device | CE |
|  | 19 | Action By | CN |
| **RXO** | 1 | Requested Give Code | CE |
|  | 2 | Requested Give Amount – Minimum | NM |
|  | 3 | Requested Give Amount – Maximum | NM |
|  | 4 | Requested Give Units | CE |
|  | 5 | Requested Dosage Form | CE |
|  | 6 | Provider’s Pharmacy Instructions | CE |
|  | 7 | Provider’s Administration Instructions | CE |
|  | 8 | Deliver to Location | CM |
|  | 9 | Allow Substitutions | ID |
|  | 10 | Requested Dispense Code | CE |
|  | 11 | Requested Dispense Amount | NM |
|  | 12 | Requested Dispense Units | CE |
|  | 13 | Number of Refills | NM |
|  | 14 | Ordering Provider’s DEA Number | CN |
|  | 15 | Pharmacist Verifier ID | CN |
|  | 16 | Needs Human Review | ID |
|  | 17 | Requested Giver Per (Time Unit) | ST |
| **NTE** | 1 | Set ID – NTE | SI |
|  | 2 | Source of Comment | ID |
|  | 3 | Comment | FT |
|  | 4 | Comment Type | CE |

#### Example RDS^O13 Pharmacy/Treatment Dispense Message Request Refill



#### Example RDS^O13 Pharmacy/Treatment Dispense Message Request Partial Fill



### RRD^O14 Prescription Refill/Partial Services Response

The ‘RRD^O14’ message is the response to the ‘RDS^O13’ message.

The following table defines the data elements required for each of the following segments of the RRD^O14 Prescription Refill/Partial Services Response

Message Header (MSH) segment

Message Acknowledgement (MSH) segment

Patient Identification (PID) segment

Note icon**Note:** The MUMPS code uses BLDPID^PSOTPHL2(DFN,"",.PSORRDAT,.HL,.ERR)’ to create the Patient Identification (PID) segment.

Common Order (ORC) segment

RXD Pharmacy/Treatment Dispense Segment

Notes and Comments (NTE) segment

Note icon**Notes:** The Notes and Comments (NTE) segment will be present if the request is for a ‘Partial Fill’.

| **Segment** | **Piece** | **Description/Field Name** | **Data Type** |
| --- | --- | --- | --- |
| **MSH** | 1 | Field Separator | ST |
|  | 2 | Encoding Characters | ST |
|  | 3 | Sending Application | HD |
|  | 4 | Sending Facility | HD |
|  | 5 | Receiving Application | HD |
|  | 6 | Receiving Facility | HD |
|  | 7 | Date/Time of Message | TS |
|  | 8 | Security | ST |
|  | 9 | Message Type | CM |
|  | 10 | Message Control ID | ST |
|  | 11 | Processing ID | PT |
|  | 12 | Version ID | ID |
|  | 13 | Sequence Number | NM |
|  | 14 | Continuation Pointer | ST |
|  | 15 | Accept Acknowledgement | ID |
|  | 16 | Application Acknowledgement | ID |
|  | 17 | Country Code | ID |
|  | 18 | Character Set | ID |
|  | 19 | Principal Language of Messages | CE |
| **MSA** | 1 | Acknowledge Code | ID |
|  | 2 | Message Control ID | ST |
|  | 3 | Text Message | W |
|  | 4 | Expected Sequence Number | NM |
|  | 5 | Delayed Acknowledgement Type | W |
|  | 6 | Error Condition | W |
|  | 7 | Message Waiting Number | NM |
|  | 8 | Message Waiting Priority | ID |
| **PID** | 1 | Set ID – Patient ID | SI |
|  | 2 | Patient ID (External ID) | CK |
|  | 3 | Patient ID (Internal ID) | CK |
|  | 4 | Alternate Patient ID | CK |
|  | 5 | Patient Name | PN |
|  | 6 | Mother’s Maiden Name | ST |
|  | 7 | Date of Birth | TS |
|  | 8 | Sex | ID |
|  | 9 | Patient Alias | PN |
|  | 10 | Race | ID |
|  | 11 | Patient Address | AD |
|  | 12 | County Code | ID |
|  | 13 | Phone Number – Home | TN |
|  | 14 | Phone Number – Business | TN |
|  | 15 | Language – Patient | ST |
|  | 16 | Marital Status | ID |
|  | 17 | Religion | ID |
|  | 18 | Patient Account Number | CK |
|  | 19 | SSN Number – Patient | ST |
|  | 20 | Driver’s Lic Num – Patient | CM |
|  | 21 | Mother’s Identifier | CK |
|  | 22 | Ethnic Group | ID |
|  | 23 | Birth Place | ST |
|  | 24 | Multiple Birth Indicator | ID |
|  | 25 | Birth Order | NM |
|  | 26 | Citizenship | ID |
|  | 27 | Veterans Military Status | CE |
| **ORC** | 1 | Order Control | ID |
|  | 2 | Placer Order Number | CM |
|  | 3 | Filler Order Number | CM |
|  | 4 | Placer Group Number | CM |
|  | 5 | Order Status | ID |
|  | 6 | Response Flag | ID |
|  | 7 | Quantity/Timing | TQ |
|  | 8 | Parent | CM |
|  | 9 | Date/Time of Transaction | TS |
|  | 10 | Entered By | CN |
|  | 11 | Verified By | CN |
|  | 12 | Ordering Provider | CN |
|  | 13 | Enterer’s Location | CM |
|  | 14 | Call Back Phone Number | TN |
|  | 15 | Order Effective Date/Time | TS |
|  | 16 | Order Control Code Reason | CE |
|  | 17 | Entering Organization | CE |
|  | 18 | Entering Device | CE |
|  | 19 | Action By | CN |
| **RXD** | 1 |  |  |
|  | 2 | Dispense/Give Control | CE |
|  | 3 | Date/Time Dispensed | TS |
|  | 4 | Actual Dispense Units | CE |
|  | 5 | Ignored |  |
|  | 6 | Ignored |  |
|  | 7 | Prescription Number | ST |
|  | 8 | Number of Refills Remaining | NM |
|  | 9 | Ignored |  |
|  | 10 | Dispensing Provider | XCN |
|  | 11 | Ignored |  |
|  | 12 | Total Daily Dose | CQ |
| **NTE** | 1 | Set ID – NTE | SI |
|  | 2 | Source of Comment | ID |
|  | 3 | Comment | FT |
|  | 4 | Comment Type | CE |

## OneVA Pharmacy Messaging Exceptions

With this integrated VistA patch, several points of failure could occur. The systems design will allow the process to continue if any of the various integration points fail, however, remote prescriptions will not display to the Pharmacist on the Medication Profile view.

There are application error messages that will display during the search for the patient and the patient’s prescriptions. They are:

* No patient error message:

PATIENT IDENTIFIER NOT FOUND

* Multiple patients returned error messages:

MORE THAN ONE PATIENT RETURNED IN CALL TO HDR-CDS

MORE THAN ONE PATIENT FOUND ON RX DATABASE, CHECK ICN

* Patient returned, no prescription data returned error message:

PATIENT FOUND WITH NO PRESCRIPTION RECORDS

* Patient returned, no prescription data matching filters returned error message:

PATIENT FOUND WITH NO PRESCRIPTION RECORDS MATCHING SEARCH CRITERIA

* Call to HDR/CDS Repository Failed

THE RX DATABASE IS NOT RESPONDING TO THE REQUEST

* HDR/CDS Repository Reports a Failure

THE RX DATABASE RESPONDED WITH AN ERROR

* HL7 from VistA does not pass basic validation with eMI

Response Type: ACK

MSA-01: CR

MSA-03: {MESSAGE INDICATING INVALID DATA}

# Appendix G: Inbound ePrescribing (IEP)

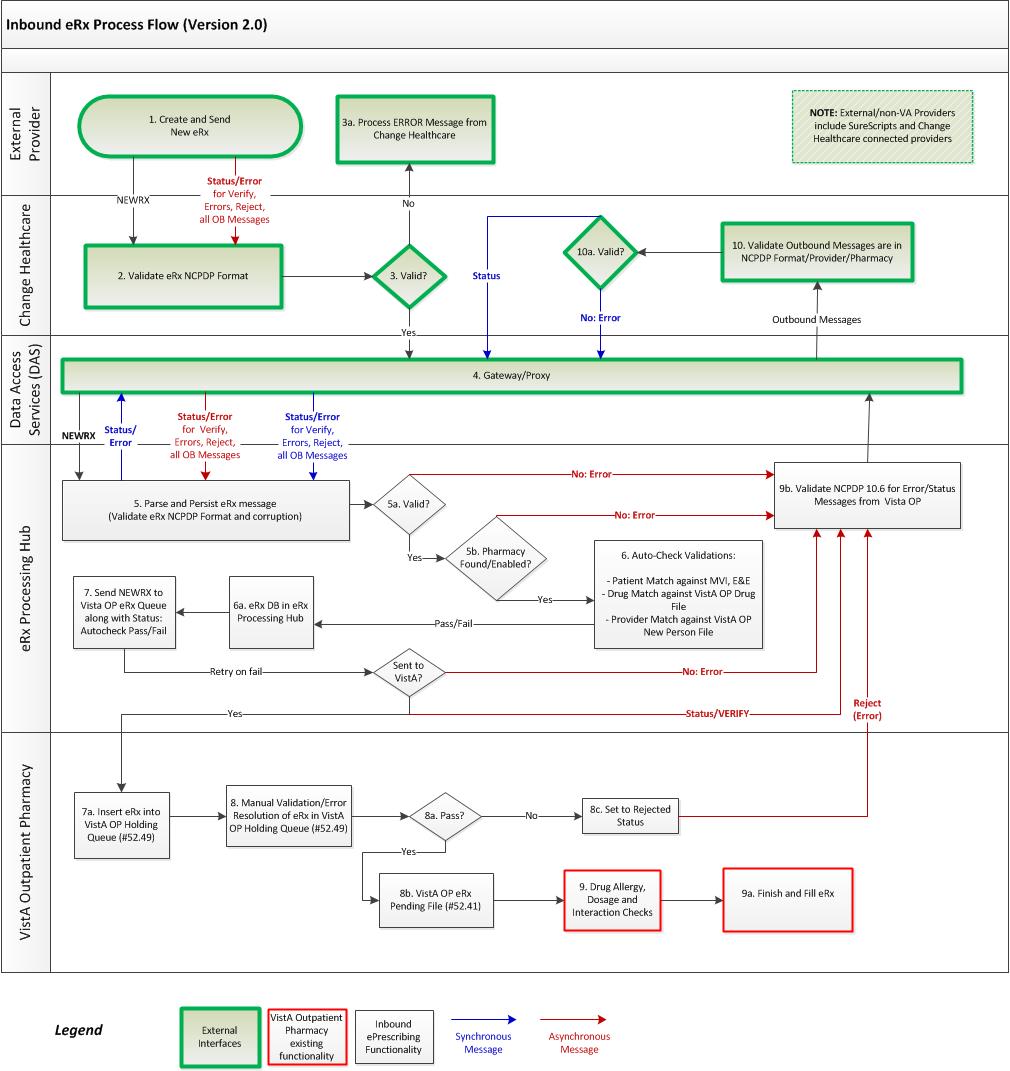
## Inbound ePrescribing Process Flow

A high-level overview of the Inbound ePrescribing (IEP) process flow for pharmacy data messages is outlined in Figure 1 below.

The IEP process flow depicts five (5) swim-lanes – one external to IEP (External Provider) and four (4) Inbound eRx processing tiers (Change Healthcare, Data Access Service (DAS), eRx Processing Hub and VistA Outpatient Pharmacy [OP]):

* External Provider:
  + External physicians (outside of the VA) who, with the use of a third party Electronic Medical Record (EMR) software, issue a prescription for a Veteran
  + The EMR system is registered with SureScripts and/or Change Healthcare and is responsible for creating and sending the eRx in NCPDP 10.6 XML format
  + The External Provider is registered with SureScripts and/or Change Healthcare and their provider information (e.g., National Provider Identification [NPI] number) is known and verified by Change Healthcare
* Change Healthcare:
  + Serves as proxy for all messages between the External Providers and the VA infrastructure (i.e., the DAS/eRx Processing Hub)
  + Supports and validates NCPDP 10.6 XML format and structure
* Data Access Services (DAS):
  + Serves as secured-layer gateway/proxy for all messages (in NCPDP 10.6 XML format) between Change Healthcare and the eRx Processing Hub
* eRx Processing Hub:
  + Receives, persists, validates, manipulates, and sends NCPDP 10.6 XML messages
  + Validates designated pharmacy from NCPDP 10.6 XML message and match to VistA OP instance
  + Performs auto-validation and matching (including patient, enrollment/registration, provider, drug)
  + Sends prescription data to VistA eRx Holding Queue.
  + Maintains processing statuses and errors
  + Provides administrative user interface (UI) to track, enable/disable transmission, and run reports
* VistA Outpatient Pharmacy (OP)
  + Provides VistA UI for pharmacy users (manual steps, review and validate patient, provider, and drug/SIG)
  + Processes ePrescription (eRx) Holding Queue transactions. Once the eRx is validated, it is processed into the PENDING OUTPATIENT ORDERS (#52.41) file

Figure : Inbound ePrescribing Process Flow (Version 2.0)



The Inbound eRx processing flow is sequential in nature as depicted in Figure 1 (above):

* Step 1: The Inbound eRx process flow begins with the External Provider, using their EMR system, creates and sends to Change Healthcare eRx message data in NCPDP 10.6 XML format. EMR Systems could also send via SureScripts, which are routed then through Change Healthcare.
* Step 2: In Change Healthcare, the eRx message is validated against the NCPDP 10.6 format to ensure that the message is in valid construct without any corruption.
* Step 3: If the message is valid, Change Healthcare routes the message to the VA infrastructure via DAS for further processing.
  + Step 3a: If the eRx message is invalid, an Error message is sent back to the External Provider (as per the NCPDP 10.6 specifications) without sending the message to VA.
* Step 4: DAS proxies the message to the eRx Processing Hub.
* Step 5: The eRx Processing Hub validates the NCPDP XML 10.6 format to ensure that the message is in a valid construct without any corruption and stores the message; the message is recorded in a transaction/processing table, which tracks the processing status of the message, as well as coordinates auto-validations and the synchronization with the VistA OP instance.
* Step 6: The eRx Processing Hub performs patient, provider and drug/SIG auto-validations. The prescription record is updated to capture the auto-validation results – passed/failed.
* Step 7: The eRx Processing Hub constructs the eRx data into the format of the eRx Holding Queue and sends to the respective VistA OP. The eRx system utilizes the NPI Institution in the Outpatient site file (#59) to identify the eRx institution. The institution identified as the NPI Institution is a pointer to the Institution file (#4). The NPI value for this NPI Institution in the Institution file (#4) is used to map the eRx.
* Step 8: In the respective VistA OP instance, pharmacy personnel perform manual validation of the eRx (e.g., patient match, drug match, etc.).
* Step 9: Once all the validations are completed successfully, the prescription is fulfilled in VistA OP based on the existing fulfillment routines.

**NOTE:** Change Healthcare validates all messages received back from eRx Processing Hub against the NCPDP 10.6 format to ensure that the message is in valid construct without any corruption, and sends it to the External Provider. The Inbound eRx process flow ends with the External Provider receiving the message update from VA. In some cases, some of the EMR’s send Status messages back to the Hub upon successful receipt of messages from VA.

## Inbound ePrescribing Protocols

Patch PSO\*7.0\*467 added the following new protocols to facilitate the Inbound ePrescribing processing.

PSO ERX ACCEPT ERX (New)

PSO ERX ACCEPT VALIDATION (New)

PSO ERX DISPLAY MENU (New)

PSO ERX EDIT (New)

PSO ERX HIDDEN ACTIONS (New)

PSO ERX HOLD (New)

PSO ERX HQ MENU (New)

PSO ERX HQ SEARCH (New)

PSO ERX HQ SELECT (New)

PSO ERX HQ SORT (New)

PSO ERX OP PRINT (New)

PSO ERX PRINT (New)

PSO ERX REMOVE (New)

PSO ERX REJECT (New)

PSO ERX RENEW REQUEST (New)

PSO ERX SELECT BY NUMBER (New)

PSO ERX UNHOLD (New)

PSO ERX VALIDATE DRUG (New)

PSO ERX VALIDATE PATIENT (New)

PSO ERX VALIDATE PROVDIER (New)

PSO ERX VALIDATION MENU (New)

PSO HIDDEN ACTIONS (Modified)

PSO HIDDEN ACTIONS #3 (Modified)

## Inbound ePrescribing Remote Procedures

Patch PSO\*7.0\*467 adds the following new remote procedures to facilitate the Inbound ePrescribing messaging:

PSOERXA0 DRGMTCH (New): Drug matching logic

PSOERXA0 PRVMTCH (New): Provider match logic

PSOERXA1 INCERX (New): Read and file incoming eRx (XML message)

## Inbound ePrescribing Menu Option

A new VistA option has been created that allows a pharmacist to view all inbound eRxs, validate patient, provider, and drug/SIG information, and ultimately, accept the eRx for sending to PENDING OUTPATIENT ORDERS file (#52.41). This menu is Complete Orders from eRx [PSO ERX FINISH]and is found on the Rx (Prescriptions) [PSO RX] menu.

## Inbound ePrescribing Holding Queue File (File #52.49)

A new VistA Inbound eRx Holding Queue (ERX HOLDING QUEUE FILE #52.49) was created that holds all of the prescription information received on an eRx from an external provider. New Remote Procedures (RPC) were created within the OP package to accept the incoming HealtheVet Web Services Client (HWSC) messages (e.g., PSOERXA0 DRGMTCH, PSOERXA0 PRVMTCH, PSOERXA1 INCERX, etc.), which contains all of the needed elements for a prescription from a non-VA medical facility. Using the inbound HWSC message, a new entry is placed in the eRx Holding Queue file.

The Inbound eRx Holding Queue uses List Manager for user interaction. The Inbound eRx Holding Queue lists all eRxs received from external providers, with extended options available for users to view all of the details about the prescriptions. Additional extended options were created to allow the pharmacist to validate patient, provider, and drug/SIG information.

ERX Holding Queue File #52.49

ERX HUB ID(#.01)              New

   RELATED OR PARENT MESSAGE

   ID(#.02)                      New

   MESSAGE DATE/TIME(#.03)       New

   EXTERNAL PATIENT

   IDENTIFIER(#.04)              New

   VISTA PATIENT(#.05)           New

   INSTITUTION(#.06)             New

   PHARMACY SYSTEM(#.07)         New

   MESSAGE TYPE(#.08)            New

   EXTERNAL/PROVIDER ORDER

   NUMBER(#.09)                  New

   VISTA PENDING OUTPATIENT

   ORDER(#.1)                    New

   OE/RR ORDER NUMBER(#.12)      New

  PHARMACY PRESCRIPTION

  NUMBER(#.13)                  New

  ERX ORDER STATUS(#1)          New

  DRUG VALIDATED BY(#1.11)      New

  DRUG VALIDATED

  DATE/TIME(#1.12)              New

  PATIENT VALIDATED BY(#1.13)   New

  PATIENT VALIDATED

  DATE/TIME(#1.14)              New

  PROV STAT

  (AUTO VALIDATION)( #1.2)      New

  PROV STAT

(MANUAL VALIDATION)( #1.3)    New

  DRUG STAT

  (AUTO VALIDATION)( #1.4)      New

  DRUG STAT

  (MANUAL VALIDATION)( #1.5)    New

  PATIENT STATUS

(AUTO VAL)( #1.6)             New

  PATIENT STATUS

  (MANUAL VAL)( #1.7)           New

  PROVIDER VALIDATED BY(#1.8)   New

  PROVIDER VALIDATED

  DATE/TIME(#1.9)               New

  EXTERNAL PROVIDER(#2.1)       New

  EXTERNAL PHARMACIST(#2.2)     New

  VA MATCHED PROVIDER(#2.3)     New

  TO/FROM QUALIFIER(#2.4)       New

ERX EXTERNAL PHARMACY(#2.5)   New

  ERX EXTERNAL SUPERVISOR(#2.6  New

  EXTERNAL DRUG/SUPPLY(#3.1)    New

  MATCHED DRUG/SUPPLY(#3.2)     New

  PRODUCT CODE(#4.1)            New

  DRUG DB CODE QUALIFIER(#4.11) New

 PRODUCT CODE QUALIFIER(#4.2)  New

 STRENGTH(#4.3)                New

 DRUG DB CODE(#4.4)            New

  FORM SOURCE CODE(#4.5)        New

   FORM CODE(#4.6)               New

   STRENGTH SOURCE CODE(#4.7)    New

   STRENGTH CODE(#4.8)           New

   DEA SCHEDULE(#4.9)            New

   QUANTITY(#5.1)                New

   CODE LIST QUALIFIER(#5.2)     New

   UNIT SOURCE CODE(#5.3)        New

   POTENCY UNIT CODE(#5.4)       New

   DAYS SUPPLY(#5.5)             New

   REFILLS(#5.6)                 New

   REFILL QUALIFIER(#5.7)        New

   SUBSTITUTIONS(#5.8)           New

   WRITTEN DATE(#5.9)            New

   LAST FILL DATE(#6.1)          New

   EXPIRATION DATE(#6.2)         New

   EFFECTIVE DATE(#6.3)          New

   PERIOD END(#6.4)              New

   DELIVERED ON DATE(#6.5)       New

   DATE VALIDATED(#6.6)          New

   DIRECTIONS(#7)                New

   NOTES(#8)                     New

   DIAGNOSIS(#9)                 New

   PRIOR AUTHORIZATION(#10.2)    New

   PRIOR AUTHORIZATION

   QUALIFIER(#10.3)              New

   PRIOR AUTHORIZATION

   STATUS(#10.4)                 New

   DO NOT FILL(#10.5)            New

   NEEDED NO LATER THAN(#10.6)   New

   TIMEZONE(#10.7)               New

   TIME ZONE DIFFERENCE

   QUANTITY(#10.8)               New

   NEEDED NO LATER THAN

   REASON(#10.9)                 New

   STRUCTURED SIG(#11)           New

   ORDER CHECKS(#12)

   PATIENT FACILITY UNIT(#13.1)  New

   BED(#13.2)                    New

   ROOM(#13.3)                   New

   OBSERVATION(#14)              New

   OBSERVATION NOTES(#15)        New

   DRUG USE EVALUATION(#16)      New

   EXTERNAL PHARMACY(#17.1)      New

   EXTERNAL PHARMACIST(#17.2)    New

   TRANSFERRED TO VA

   PHARMACY(#17.3)               New

   XFER TO EXTERNAL

  PHARMACY(#17.4)               New

 PAYER INFORMATION(#18)        New

  STATUS HISTORY(#19)           New

   VISTA QUANTITY(#20.1)         New

   VISTA DAYS SUPPLY(#20.2)      New

   VISTA VERB(#20.3)             New

   VISTA ROUTING(#20.4)          New

   VISTA REFILLS(#20.5)          New

   VISTA CLINIC(#20.6)           New

   QUANTITY/TIMING(#21)          New

   FROM(22.1)                    New

   FROM QUALIFIER(#22.2)         New

   TO(#22.3)                     New

   TO QUALIFIER(#22.4)           New

   CH SENT DATE/TIME(#22.5)      New

   RELATED INSTITUTION(#24.1)    New

   DIVISION(24.2)                New

   SENDER SECONDARY ID(#24.3     New

   SENDER TERTIARY ID(#24.4)     New

   RECEIVER SECONDARY ID(#24.5)  New

   RECEIVER TERTIARY ID(#24.6)   New

   CH MESSAGE ID(25)             New

   PENDING OUTPATIENT

   ORDER#(#25.2)                 New

   VA DISPENSING

   INSTRUCTIONS(#26)             New

   VA PATIENT INSTRUCTIONS(#27)  New

   DRUG COVERAGE STATUS(#28)     New

   VA PROVIDER COMMENTS(#30)     New

   VA UNEXPANDED SIG(#31)        New

   EXTERNAL FORM CODE(#41)       New

   EXTERNAL POTENCY UNIT         New

   CODE(#42)                     New

   EXTERNAL STRENTH CODE(#43)    New

   PAYER CARDHOLDER ID

   CONVERTED (#44)               New

   PROCESSING ERRORS(#100)       New

## Inbound ePrescribing External Patient File (File #52.46)

The ERX External Patient File #52.46 stores patient information from each incoming eRx.

ERX External Patient File #52.46

NAME (#.01)                    New

  LAST NAME (#.02)               New

  FIRST NAME(#.03)               New

  MIDDLE NAME(#.04)              New

SUFFIX(#.05)                   New

 PREFIX(#.06)                   New

 GENDER(#.07)                   New

  DATE OF BIRTH(#.08)            New

  ERX EXTERNAL PHARMACY(#.09)    New

 FILE ID(#1.1)                  New

 MEDICAL RECORD ID #(#1.2)      New

 ACCOUNT NUMBER(#1.3)           New

 SSN(#1.4)                      New

 LINKED VISTA PATIENT(#1.5)     New

  PLACE/LOCATION QUALIFIER(#1.6) New

 PATIENT RELATIONSHIP(#1.7)     New

  COMMUNICATION(#2)              New

  ADDRESS LINE 1(#3.1)           New

   ADDRESS LINE 2(#3.2)           New

   CITY(#3.3)                     New

   STATE(#3.4)                    New

   ZIP CODE(#3.5)                 New

   IDENTIFICATION(#5)             New

## Inbound ePrescribing External Pharmacy File (#52.47)

## The ERX External Pharmacy File #52.47 is a sub-file that holds the identification elements passed in with the incoming eRx on pharmacy information.

ERX External Pharmacy File #52.47

NAME(#.01)                     New

   NCPDP ID(#.02)                 New

   NPI(#.03)                      New

   DEA NUMBER(#.04)               New

   STORE NAME(#.05)               New

   ADDRESS LINE 1(#1.1)           New

   ADDRESS LINE 2(#1.2)           New

   CITY(#1.3)                     New

   STATE(#1.4)                    New

   ZIP(#1.5)                      New

   TYPE(#1.6)                     New

   PLACE/LOCATION QUALIFIER(#1.7) New

   SPECIALTY(#1.8)                New

   IDENTIFICATION(#2)             New

   COMMUNICATION(#3)              New

   ASSOCIATED ERX PERSON(#4)      New

## Inbound ePrescribing External Person (File #52.48)

The ERX External Person File #52.48 stores external provider information from the incoming new eRx. Each provider record is unique based on a combination of parameters.

ERX External Person File #52.48

NAME(#.01)                     New

    LAST NAME(#.02)                New

    FIRST NAME(#.03)               New

    MIDDLE NAME(#.04)              New

    SUFFIX(#.05)                   New

    PREFIX(#.06)                   New

    PERSON TYPE(#1.1)              New

    SPECIALTY(#1.2)                New

    ASSOCIATED ERX PHARMACY(#1.3)  New

    NCPDP ID(#1.4)                 New

    NPI(#1.5)                      New

    DEA #(#1.6)                    New

    HIN(#1.7)                      New

    STATE LICENSE NUMBER(#1.8)     New

    CLINIC NAME(#2.1)              New

    PLACE/LOCATION QUALIFIER(#2.2) New

    COMMUNICATION(#3)              New

    STREET ADDRESS LINE 1(#4.1)    New

    ADDRESS LINE 2(#4.2)           New

    CITY(#4.3)                     New

    STATE(#4.4)                    New

    ZIP CODE(#4.5)                 New

    AGENT LAST NAME(#5.1)          New

    AGENT FIRST NAME(#5.2)         New

    AGENT MIDDLE NAME(#5.3)        New

    AGENT SUFFIX(#5.4)             New

    AGENT PREFIX(#5.5)             New

    IDENTIFICATION(#6)             New

**Inbound ePrescribing** **Service Reason Codes (File #52.45)**

The ERX Service Reason Codes File #52.45 stores the Service Reason Codes and their corresponding translations.

ERX Service Reason Codes File #52.45

     NUMBER (#.001)                 New

     SERVICE REASON CODE (#.01)     New

     BRIEF DESCRIPTION (#.02)       New

     CODE TYPE (#.03)               New

     FULL DESCRIPTION (#1)          New

## Inbound ePrescribing New Field in Existing File

A new field for a VA site’s default eRx clinic (DEFAULT ERX CLINIC #10) was added to the Outpatient Site File #59 and is also released as part of the VistA patch for Inbound ePrescribing.

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