Outpatient Pharmacy (PSO)

Version 7.0

Technical Manual / Security Guide



December 1997
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Department of Veterans Affairs (VA)

Office of Information and Technology (OIT)

Revision History

| Date | Patch | Description |
| --- | --- | --- |
| 10/2022 | PSO\*7\*701 | Updated Menu Text of option PSO EPCS PSDRPH KEY* 26.3.6 Kernel Key Allocation to Honor Key Delegation
* 26.4 Orphan PSO EPCS PSDRPH Key Allocate/De-Allocate (Audited)
 |
| 08/2022 | PSO\*7\*684 | * Updated [Routine List](#Routine_list): PSO7E684, PSO7P684
* Updated [Glossary](#_18._Glossary)
* Updated [Appendix H](#_26_Appendix_H:): DEA# Migration Enhancements
* Merged Appendix I into [Appendix H](#_26_Appendix_H:): DEA# Migration Enhancements
 |
| 05/2022 | PSO\*7\*667 | * Updated [Routine List](#Routine_list): PSODEARP, PSODEART, PSODEARU, PSOERXUT.
* Added Standalone Options: [PSO EPCS UTILITY FUNCTIONS] and menu options: [PSO EPCS EXPIRE DATE REPORT], [PSO EPCS LOGICAL ACCESS REPORT], [PSO EPCS PHARMACIST ACC REPORT], [PSO EPCS ACCESS REPORTS], [PSO EPCS PSDRPH]
* Added Appendix I: Pharmacy Operational Updates
 |
| 04/2022 | PSO\*7\*529 | * Updated Routine List: PSO7L529, PSO7M529, PSODEAU0, PSODEAUT, PSOVEXRX.
* Added Standalone Options: DEA Delete [PSO DEA DELETE], DEA Migration Report [PSO DEA MIGRATION REPORT].
* Added Appendix H: Pharmacy Operations – DEA# Enhancements DOJ/DEA Migration
 |
| 12/2021 | PSO\*7\*653 | * Added new PHARMACY TELEPHONE REFILLS file [(#52.444)](#P11_52_444) to Outpatient Pharmacy file Table located in the Files section
* Added new routines [PSOVEXRX](#P17_PSOVEXR) and [PSOVEXR1](#P17_PSOVEXR1) to Routine List section.
* Updated the M AudioFax section with the new [M AudioCARE](#P8_M_Audiocare) option description.
 |
| 09/2021 | PSO\*7\*561 | Added new routines [PSOBPSS2](#p16), [PSOBPSU4](#p16), [PSOSULB2](#p18) |
| 07/2021 | PSO\*7\*630 | * Added new routine PSORXFIN to Routine List section
 |
| 07/2021 | PSO\*7\*524 | * Updated Dispense Request with the new ZZZ segment for Hazardous Indicators (p. 62)
* Updated Segments used in the Outpatient Pharmacy HL7 interface Dispense Request with the new ZZZ segment for Hazardous Indicators (p. 68)
* Updated data elements for the Hazardous to Handle Indicator and the Hazardous to Dispose Indicator (p. 73)
 |
| 05/2021 | PSO\*7\*560 | * Added new routine PSOREJP6.
 |
| 04/2021 | PSO\*7\*635 | * Updated for PSO\*7.0\*635 (pg2)
* HPS Review. Updated file #52.45 to ERX SERVICE REASON CODES file (#52.45) (pg2), Updated Introduction with bullet list format (pg1)
 |
| 03/2021 | PSO\*7\*635 | * Update for Patch PSO\*7.0\*635. Updated Introduction (pg1), updated Related Manuals (pg4)
 |
| 03/2021 | PSO\*7\*625 | * Added new routines PSOSPML7, PSOSPML8, PSOSPMV to Routine List section
* Added three new menu options to the State Prescription Monitoring Program (SPMP) Menu:
	+ View/Export Void Prescriptions
	+ Manual Export/Prescription Correction
	+ CS Prescriptions Not Transmitted
* Added ASAP Zero Report Specifications to Appendix E
 |
| 12/2020 | PSO\*7\*581 | * Deleted PSO ERX VD SBN and PSO ERX HIDDEN #1 from Inbound ePrescribing protocols list. [(p.149)](file:///C%3A/eRX/eRx_4.0/Documentation/Release_Management/Documents_for_Review/Baylis_Randall/pso_7_0_p581_TM_Draft_20201019.docx#pg149)
 |
| 12/2020 | PSO\*7\*581 | * Updated Routine list:
	+ P14: PSO581EN & PSO581PO
	+ P15: PSOERX1D, PSOERX1E, PSOERXA5, PSOERXA6, PSOERXC1, PSOERXEN, PSOERXI1, PSOERXIA, PSOERXIB, PSOERXIC, PSOERXID, PSOERXIE, PSOERXIF, PSOERXIG, PSOERXIH, PSOERXII, PSOERXIU, PSOERXOA, PSOERXOB, PSOERXOC, PSOERXOD, PSOERXOE, PSOERXOF, PSOERXOG, PSOERXOH, PSOERXOI, PSOERXOJ, PSOERXOK, PSOERXOL, PSOERXOM, PSOERXON, PSOERXOU, PSOERXU2, PSOERXU3, PSOERXU5, PSOERXU6, PSOERXU7, and PSOERXU8
* Updated protocol name: PSO ERX CHANGE REQUEST, PSO ERX RX RENEWALREQUEST, PSO ERX SINGLE RXRENEWAL REQUEST (p.148)
* Updated File #52.49 (p.150), File #52.46 (p.154), File #52.47 (p.155), File #52.48 (p.156)
* Updated to Figure 5 (p.147)
 |
| 06/2020 | PSO\*7\*612 | Added routine PSOCLADD to Routine List (p. 14) |
| 06/2020 | PSO\*7\*546 | * Added new routines PSOUTOR and PSOUTOR1
* Added the Medication Status Check supervisor function
* Updated Title page, Revision History, Table of Contents, Index, and Footers
 |
| 07/2019 | PSO\*7\*528 | Changed name of the TRICARE CHAMPVA Bypass/Override Report (pp. 20, 34, 39, 42). |
| 03/2019 | PSO\*7\*522 | Updated Appendix A section B: Processing Rules - Deleted the text, "event type O01" and "event type O02"; and corrected the RDS message from "Pharmacy Encoded Order Message" to "Pharmacy Encoded Order/Treatment Dispense Message". Updated Appendix A section B:Transaction Specifications, subsection "Specific Transaction - Dispense Request" - corrected RDS-O01 references, the implemented message type is RDS-O13 |
| 02/2019 | PSO\*7\*481 | Added the new menu option for PSO\*7\*481, Non-VA Provider Import, to the PSO Maintenance Menu which is under the Outpatient Pharmacy Manager. Added the new option Non-VA Provider Inactivate to Standalone Options. Routine List updated. |
| 11/2018 | PSO\*7\*452 | Added a summary of Data Dictionary changes introduced by this patch.Added routines PSODIR4, PSODEMSB, PSOEOPNW, and PSOSUCAT to the Routine List.Added the PSO CLINICAL ALERT ENTER/EDIT template to the Templates section. |
| 11/2018 | PS0\*7\*508 | Added new Patch Details for Inbound ePrescribing (PSO\*7.0\*508) to Intro, pg1; Added PSO\*7\*508 documents to related manuals pg3; Updated Security Keys: PSO ERX ADV TECH, PSO ERX TECH, pg18 \*\*\* PSDRPH, pg32a PSO ERX TECH, pg32b PSO ERX VIEW, pg32c; Appendix G. Updated IEP Protocols; Removed PSO\*7.0\*508 reference from Inbound ePrescribing Remote Procedures; Updated Fig 5. IEP Process Flow v3.0, pg146; Removed New and Modified labels from Inbound ePrescribing Protocols, p147 and Inbound ePrescribing, pg148: Holding Queue File (File #52.49), p149 ; External Patient File (File #52.46), p152a ; EXTERNAL PHARMACY FILE (#52.47), pg152b EXTERNAL PERSON (File #52.48), pg153a; SERVICE REASON CODES (File #52.45) lists, p153b; Updated Outpatient Pharmacy: PRESCRIPTION FILE (File #52), p153c; and OUTPATIENT SITE (File #59), pg154. |
| 11/2018 | PSO\*7\*517 | Routine added PSO7P517 (p.13) |
| 08/2018 | PSO\*7\*482 | Added one routine (PSOPTC0) to list of routines (p. 13). |
| 08/2018 | PSO\*7\*505 | Clinical Ancillary Services updates:[Updates to ORC HL7 segment.](#OR30HL) [Added definition for ORC-30, Authorization mode.](#orc30) |
| 05/2018 | PSO\*7\*463 | Added technical components pertaining to the HAPE EDI Revenue Enhancements patch PSO\*7\*463 and updated the Routine List (PG. 13, 36) |
| 04/2018 | PSO\*7\*502 | Updates for ScripTalk enhancement:ScripTalk Printer 508 & OIT Compliance update throughout |
| 02/2018 | PSO\*7\*500 | Routine deleted: PSODGAL |
| 02/2018 | PSO\*7\*402 | Routines added: PSO7P402, PSODOSU4 |
| 01/2018 | PSO\*7\*497 | Data Dictionary Updates, Index  |
| 12/2017 | PSO\*7\*467 | Adding PSO\*7\*467 information |
| 04/2017 | PSO\*7\*472 | Added New Patch Details for Native Domain Standardization Medication Patch PSO\*7\*472, Data Dictionary Update.  |
| 02/2017 | PSO\*7\*465 | Added the Confidential Address and revised the Temporary Address. |
| 12/2016 | 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. |
| 08/2016 | PSO\*7\*451 | Routines added: PSOASAP, PSOSPMA3, PSOSPMB3, PSOSPMKY, PSOSPMU0, PSOSPMU2, PSOSPMU3Added PSO SPMP ADMIN Security Key entryUpdate the Outpatient Pharmacy Menu Diagrams |
| 06/2016 | PSO\*7\*448 | Updated Title Page to current OI&T standardsUpdated routine list; added the menu option Pharmacy Productivity/Revenue Report; added Electronic Claims Management Engine (ECME) to the External Relations table. |
| 04/2016 | PSO\*7\*411 | Updated Routine List with routines PSOCROC, PSODGAL3, PSONEWOA, PSONEWOC, and PSOOCKV1. |
| 08/2014 | PSO\*7\*408 | Updated [PSO AUTOQUEUE JOBS] optionFiles added to OP: (#58.4) SPMP ASAP RECORD DEFINITION, (#58.41) SPMP STATE PARAMETERS, (#58.42) SPMP EXPORT BATCHRoutines added: PSO408PI, PSOASAP0, PSORTSUT, PSOSPML0, PSOSPML1, PSOSPML2, PSOSPML3, PSOSPML4, PSOSPML5, PSOSPML6, PSOSPMSP, PSOSPMU1, PSOSPMUTAdded new Supervisor Functions menu option: State Prescription Monitoring Program Menu with option namesUpdated the GlossaryAdded Appendix E: Outpatient Pharmacy ASAP Standard for Prescription Monitoring Programs (PMP)Updated Index |
| 08/2014 | PSO\*7\*313 | Added new routine PSOOTMRX |
| 05/2014 | PSO\*7\*423 | Updated PID-11 documentation, updated RDX segment example, updated Expense Notes & Dispensing Provider, updated RXD-9 documentation. |
| 03/2014 | PSO\*7\*372PSO\*7\*416 | Renumber all pagesUpdated Revision History and Table of Contents.Added to the Related ManualsUpdate Index |
| 01/2014 | PSO\*7\*434 | Two documentation updates: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&LThe 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.  |
| 11/2013 | 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, PSOBPSSLAdd PSO EPHARMACY SITE MANAGER to security keys (added twice to document). |
| 05/2013 | PSO\*7\*391 | Added new routine PSOPKIV2 to the list of routines.PSDRPH key added to Security key section. |
| 01/2013 | PSO\*7\*390 | Update Revision HistoryAdded option Automate Internet Refill that was missed in the manual for PSO\*7\*264Add new routines: PSODGAL2, PSODDPR7, PSODDPR8Add menu option; Check Drug InteractionAdded BSA & CrCL to the Glossary |
| 09/2012 | PSO\*7\*386 | Added description of patch’s new security key PSO TECH ADV and modifications to the HOLD/UNHOLD functionality. |
| 03/2012 | PSO\*7\*367 | Added routine PSOFDAUT.Updated NTE Segment listing. |
| 03/2012 | PSO\*7\*354 | Added new menu option Enter/Edit Automated Dispensing DevicesUpdated list of files with file 52.53Added file 52.53 to file security sectionAdded new menu option Enter/Edit Automated Dispensing DevicesAdded RXD-13 Dispense-To location |
| 02/2012 | PSO\*7\*385 | Removed "TRICARE" from file 52.87 nameChanged 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 itemsAdded Advanced Beneficiary Notice Code for ePharmacy Rx in Appendix A references |
| 02/2012 | PSO\*7\*354 | Updated list of files with file 52.53 |
| 09/2011 | PSO\*7\*382 | Added routine PSOMPHRC. |
| 04/2011 | PSO\*7\*343 | Added routine PSOFDAMG. |
| 04/2011 | PSO\*7\*316 | Removed routine PSOQUAP.Documentation released with PSO\*7\*343. |
| 04/2011 | PSO\*7\*251 | Updated the Table of Contents.Change the number of files from 24 to 26.Added the following routines 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 tableChange 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.  |
| 11/2010 | 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. |
| 06/2010 | 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; |
| 10/2009 | PSO\*7\*326 | Added routine PSOPATLK. |
| 08/2009 | PSO\*7\*320 | Added routines PSORMRX, PSORMRXD, and PSORMRXP. |
| 08/2009 | PSO\*7\*311 | Deleted Pharmacy Patient Non-VA Meds Report/Clean-up menu. |
| 07/2009 | PSO\*7\*289 | Added files, routines, and the NDC Validation and ePharmacy Site Parameter options to the list. |
| 01/2009 | PSO\*7\*305 | Added routine PSOATRFC. Extended the PSOAUTRF security key description. Added the Privacy Notification element to the NTE segment. |
| 08/2008 | 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. |
| 07/2008 | PSO\*7\*279 | Update for the addition of the PSOAUTRF key. |
| 06/2008 | PSO\*7\*288 | Update for the new menu option [Pharmacy Patient Non-VA Meds Report/Clean-up].  |
| 05/2008 | PSO\*7\*294 | Update Routine List with routines PSOQ0076, PSOQ0186, PSOQ0236, PSOQ0496, PSOQ0595, PSOQCF04, PSOQMCAL, PSOQRART, PSOQTIU4, PSOQUAP, PSOQUAP2, and PSOQUTIL. |
| 10/2007 | 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. |
| 10/2007 | 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. |

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# 1. Introduction

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

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

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

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 (December 13, 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.

Effective with the Inbound ePrescribing Patch PSO\*7.0\*508 (October 2018), 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.

Effective Inbound ePrescribing Patch PSO\*7.0\*581 (December 2020), pharmacists are able to receive and process incoming electronic prescription (eRX) sent from the IEP Processing Hub down to VistA and into the eRX Holding Queue.

Effective Inbound ePrescribing Patch PSO\*7.0\*635 (April 2021), Warranty defect remediation provides software fixes for:

* SIG text is supposed to be up to 1000 characters, Inbound eRx software assigns wrong unit of measure in RxRenewal Request, RxRenewal Request failing at hub because "IndicationForUse" segment is not sending in "Sig" segment
* Inbound eRx software assigns wrong unit of measure in RxRenewal Request
* RxRenewal Request failing at hub because "IndicationForUse" segment is not sending in "Sig" segment.
* NewRx coming in with ObservationDateTime, causing a failure at the eRx processing hub when generating an RxRenewal Request
* Updated Data Dictionary - ERX SERVICE REASON CODES file (#52.45), ACR codes in ERX SERVICE REASON CODES file (#52.45) have an extra space at the end
* ACR codes in ERX SERVICE REASON CODES file (#52.45) have an extra space at the end.
* VA 'Refills' displaying incorrectly for RxRenewal response replace response messages
* VA 'Refills' not displaying correct refills for Replace RxRenewal Response message, extend the logic from 365 days to 1 and half year for messages related to display at hub (Track/Audit page), a backlog of messages is queueing up and waiting for outbound delivery to CH during peak hours, reports page columns are missing in the last three reports
* NewRx counts not showing for summary new Rx Only and report totals at the bottom of the tables do not align with the correct column
* Reports - number of records not being displayed at the bottom of all reports and column width for Message Type in Track/Audit not wide enough
* When editing the Validate Drug/SIG for Replace RxRenewal Response, eRx refills are not decrementing correctly and incorrectly displays the # of Refills.

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.

# 2. Orientation

## 2.1. 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.

## 2.2. 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*

*ScripTalkÒ 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)*

*Pharmacy Re-Engineering (PRE) Installation Guide – Inbound ePrescribing (PSO\*7\*508)*

*Pharmacy Re-Engineering (PRE) Release Notes – Inbound ePrescribing (PSO\*7\*508)*

*Pharmacy Re-Engineering (PRE) User Guide – Inbound ePrescribing (PSO\*7\*508)*

*Technical Manual/Security Guide - Outpatient Pharmacy V.7.0'*

*Pharmacy Re-Engineering (PRE) Installation Guide – Inbound ePrescribing (PSO\*7\*581)*

*Pharmacy Re-Engineering (PRE) Release Notes – Inbound ePrescribing (PSO\*7\*581)*

*Pharmacy Re-Engineering (PRE) User Guide – Inbound ePrescribing (PSO\*7\*581)*

*Technical Manual/Security Guide - Outpatient Pharmacy V.7.0'*

*[Pharmacy Re-Engineering (PRE) Installation Guide – Inbound ePrescribing (PSO\*7\*635)](#pg3)*

*[Pharmacy Re-Engineering (PRE) Release Notes – Inbound ePrescribing (PSO\*7\*635)](#pg3)*

*[Pharmacy Re-Engineering (PRE) User Guide – Inbound ePrescribing (PSO\*7\*635)](#pg3)*

*[Technical Manual/Security Guide - Outpatient Pharmacy V.7.0'](#pg3)*

# 3. Implementation and Maintenance

## 3.1. 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:

Table 1: 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:

Table 2: Disk Space

| Space | Description |
| --- | --- |
| 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**: 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: The barcode printed on the OneVA Pharmacy label will contain the host site information where the prescription order originated.

## 3.2. Options to be Deleted during Installation

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

Table 3: Options to be Deleted during Installation

| 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 |

## 3.3. Templates to be Deleted during Installation

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

Table 4: Templates to be Deleted - Input

| Input | File |
| --- | --- |
| PSO DRUG  | #50 |
| PSO SIGED  | #51 |
| PSO BATCH PARTIAL | #52 |

Table 5: Templates to be Deleted - Print

| Print | File |
| --- | --- |
| PSO ACTION PROFILE #3 | #44 |
| PSOBJP | #52 |

Table 6: Templates to be Deleted - Dort

| Sort | File |
| --- | --- |
| PSOBJP | #52 |

## 3.4. Routines to be Deleted during Installation

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

Table 7: Routines to be Deleted

| Routine | Routine | Routine | Routine | Routine |
| --- | --- | --- | --- | --- |
| 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.

## 3.5. M AudioCARE (Telephone Refill Requests)

If telephone refill requests are processed using AudioCARE, the installation of PSO\*7\*653 patch will add the new class I *Process Telephone Refills* [PSO PROCESS TELEPHONE REFILLS] option and take out-of-order the class III *Process Telephone Refills* [A3A PHONE REFILLS] option. PSO\*7\*653 enhanced the Process Telephone Refills functionality by replacing the widely distributed class III VEXRX routine with the new class I PSOVEXRX routine suitable for national release. This modification enables enhancements and updates to the Telephone Refills system to be deployed across the enterprise using the National Patch Module.

|  |  |
| --- | --- |
| Caution | **\*\*\*Important\*\*\***Telephone refill requests (M AudioCARE) cannot be processed without the new PSOVEXRX routine. |

## 3.6. 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.

## 3.7. 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 REDACTED. The recommended device name is REDACTED.

## 3.8. 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.)

### 3.8.1. 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*

*Non-VA Provider Import*

*Prescription Cost Update*

*Purge Drug Cost Data*

*Purge External Batches*

*Recompile AMIS Data*

## 3.9. Queue Background Jobs

**[PSO AUTOQUEUE JOBS]**

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

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

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

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

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

QUEUED TO RUN AT WHAT TIME: This is the date/time desired for TaskMan to start this option.

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

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

**Note:** When the background job fails to transmit the data to the state, a MailMan message is generated and sent to the subscribers of the REDACTED 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.

**Note:** The default values on the screen display below for TASK ID, QUEUED TO RUN AT WHAT TIME, DEVICE FOR QUEUED JOB OUTPUT, and RESCHEDULING FREQUENCY, not to indicate user input.

Edit Option Schedule

 Option Name: PSO AUTOCANCEL

 Menu Text: **Autocancel on Admission** TASK ID: **2617405**

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

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

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

 QUEUED TO RUN ON VOLUME SET:

 RESCHEDULING FREQUENCY: **1D**

 TASK PARAMETERS:

 SPECIAL QUEUEING:

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

COMMAND: Press <PF1>H for help Insert

# 4. 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:

## 4.1. 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

52.444 PHARMACY TELEPHONE REFILLS YES NO 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

## 4.2. EPIP Outpatient Pharmacy Remediation, Patch PSO\*7.0\*452Data Dictionary Update

PSO\*7.0\*452 enables a new warning message that is sent to members of the new PHARMACY SUPERVISORS MailMan group, notifying recipients that one or more Outpatient Pharmacy sites are approaching the upper limit of the defined prescription numbering series. The new warning is intended to prevent an unintentional shutdown of prescription processing that will occur if the pharmacy reaches the upper limit of the numbering series. For additional information about the early warning message, refer to the *Outpatient Pharmacy (PSO) Manager’s User Manual*.

This patch is delivered with companion patch PSS\*1.0\*215, which adds a new RX# UPPER BOUND WARNING LIMIT field (#48) to the PHARMACY SYSTEM file (#59.7). The value stored in this field determines when the early warning message is sent. If no custom value is entered in this field, then the message will be sent when 1000 numbers remain in the series. For more information about this Data Dictionary change, refer to the *Pharmacy Data Management Technical Manual/Security Guide*.

PSO\*7.0\*452 also adds a Clinical Alert that displays in the header area with patient demographic information when using certain Outpatient Pharmacy [PSO] options. Pharmacy Supervisors can use the Clinical Alert to make Pharmacy staff aware of information such as drug interactions or the patient’s participation in clinical trials. For more information about Clinical Alerts, refer to the *Outpatient Pharmacy (PSO) Manager’s User Manual*.

The companion patch PSS\*1.0\*215 adds a CLINICAL ALERT multiple field (#109) to the PHARMACY PATIENT file (#55). This field stores the date and time of the alert and provides a free-text field for the alert text. For more information about this Data Dictionary change, refer to the *Pharmacy Data Management Technical Manual/Security Guide*.

## 4.3. Native Domain Standardization Medication Patch PSO\*7\*472, PSO\*7\*497, Data Dictionary Update

### 4.3.1. 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.

### 4.3.2 Patch Components

Table 8: Files & Fields Associated

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

# 5. 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.

*
* PSO5241
* PSO5252
* PSO525AP
* PSO5291
* PSO52AP1
* PSO52API
* PSO52B
* PSO52CLR
* PSO52EX
* PSO53
* PSO55FX2
* PSO55FX3
* PSO581EN
* PSO581PO
* PSO59
* PSO7E529
* PSO7E684
* PSO7L529
* PSO7M529
* PSO7P529
* PSO7P517
* PSO7P684
* 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
* PSOASAP
* 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
* PSOBPSS2
* PSOBPSSL
* PSOBPSSP
* PSOBPSU1
* PSOBPSU2
* PSOBPSU3
* PSOBPSU4
* PSOBPSUT
* PSOBRPRT
* PSOBSET
* PSOBSET1
* PSOBUILD
* PSOCAN
* PSOCAN1
* PSOCAN2
* PSOCAN3
* PSOCAN3N
* PSOCAN4
* PSOCIDC1
* PSOCIDC2
* PSOCIDC3
* PSOCIDC4
* PSOCIDC7
* PSOCIDC8
* PSOCIDC9
* PSOCLADD
* PSOCLEAN
* PSOCLERK
* PSOCLO1
* PSOCLOLS
* 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
* PSOCPF
* PSOCPF1
* PSOCPF2
* PSOCPIB
* PSOCPIB3
* PSOCPIB4
* PSOCPIB5
* PSOCPIBC
* PSOCPIBF
* PSOCPPRE
* PSOCPTRH
* PSOCPTRI
* PSOCPVW
* PSOCROC
* 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
* PSODEAU0
* PSODEAUT
* PSODEARP
* PSODEART
* PSODEARU
* PSODEDT
* PSODELI
* PSODEM
* PSODEMSB
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* PSODGAL3
* PSODGDG1
* PSODGDG2
* PSODGDGI
* PSODGDGP
* PSODI
* PSODIAG
* PSODIR
* PSODIR1
* PSODIR2
* PSODIR3
* PSODIR4
* PSODISP
* PSODISP1
* PSODISP2
* PSODISP3
* PSODISPS
* PSODIV
* PSODLKP
* PSODOSCL
* PSODOSU2
* PSODOSU4
* PSODOSUN
* PSODOSUT
* PSODP
* PSODPT
* PSODRDU1
* PSODRDU2
* PSODRDUP
* PSODRG
* PSODRGN
* PSODSPL
* PSODSRC
* PSODUE
* PSOECMC2
* PSOECMP2
* PSOECMPS
* PSOELPS2
* PSOELPST
* PSOEN145
* PSOEOPNW
* PSOERX
* PSOERX1
* PSOERX1A
* PSOERX1B
* PSOERX1C
* PSOERX1D
* PSOERX1E
* PSOERXA0
* PSOERXA1
* PSOERXA2
* PSOERXA3
* PSOERXA4
* PSOERXA5
* PSOERXA6
* PSOERXC1
* PSOERXD1
* PSOERXD2
* PSOERXEN
* PSOERXH1
* PSOERXI1
* PSOERXIA
* PSOERXIB
* PSOERXIC
* PSOERXID
* PSOERXIE
* PSOERXIF
* PSOERXIG
* PSOERXIH
* PSOERXII
* PSOERXIU
* PSOERXO1
* PSOERXOA
* PSOERXOB
* PSOERXOC
* PSOERXOD
* PSOERXOE
* PSOERXOF
* PSOERXOG
* PSOERXOH
* PSOERXOI
* PSOERXOJ
* PSOERXOK
* PSOERXOL
* PSOERXOM
* PSOERXON
* PSOERXOU
* PSOERXP1
* PSOERXR1
* PSOERXU1
* PSOERXU2
* PSOERXU3
* PSOERXU4
* PSOERXU5
* PSOERXU6
* PSOERXU7
* PSOERXU8
* PSOERXUT
* PSOERXX1
* PSOERXX2
* PSOERXX3
* PSOERXX4
* PSOERXX5
* PSOEXBCH
* PSOEXDT
* PSOEXREF
* PSOEXRST
* PSOFDAMG
* PSOFDAUT
* PSOFSIG
* PSOFTDR
* PSOFUNC
* PSOHCPRS
* PSOHCSUM
* PSOHDR
* PSOHELP
* PSOHELP1
* PSOHELP2
* PSOHELP3
* PSOHELP4
* PSOHLD
* PSOHLDA
* PSOHLDC
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* 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
* PSOICDA
* PSOIOS
* PSOLAB
* PSOLBL
* PSOLBL1
* PSOLBL2
* PSOLBL3
* PSOLBL4
* PSOLBLD
* PSOLBLD1
* PSOLBLN
* PSOLBLN1
* PSOLBLN2
* PSOLBLS
* PSOLBLT
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* PSOLLL9
* PSOLLLH
* PSOLLLHN
* PSOLLLI
* PSOLLLW
* PSOLLU1
* PSOLLU2
* PSOLLU3
* PSOLLU4
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* 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
* PSONCPD1
* PSONCPD2
* PSONCPD3
* PSONCPDP
* PSONDCUT
* PSONDCV
* PSONEW
* PSONEW1
* PSONEW2
* PSONEW3
* PSONEWF
* PSONEWG
* PSONEWOA
* PSONEWOC
* PSONFI
* PSONGR
* PSONRXN
* PSONTEG
* PSONVAR1
* PSONVARP
* PSONVAVW
* PSONVNEW
* PSOOCKV1
* 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
* PSOPTC0
* 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
* PSOREJP6
* PSOREJU1
* PSOREJU2
* PSOREJU3
* PSOREJU4
* PSOREJUT
* PSORELD1
* PSORELDT
* PSORENW
* PSORENW0
* PSORENW1
* PSORENW2
* PSORENW3
* PSORENW4
* PSORESK
* PSORESK1
* PSORESUS
* PSORFL
* PSORLLL1
* PSORLLL2
* PSORLLL3
* PSORLLL4
* PSORLLL5
* PSORLLLH
* PSORLLLI
* PSORLST
* PSORLST2
* PSORMRX
* PSORMRXD
* PSORMRXP
* PSORN52
* PSORN52A
* PSORN52C
* PSORN52D
* PSOROS
* PSORPTS
* PSORPTS1
* PSORRD
* PSORREF
* PSORREF0
* PSORREF1
* PSORRP
* PSORRPA1
* PSORRX1
* PSORRX2
* PSORTSUT
* PSORWRAP
* PSORX1
* PSORXCLE
* PSORXDL
* PSORXED
* PSORXED1
* PSORXEDT
* PSORXFIN
* 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
* PSOSPMA3
* PSOSPMB3
* PSOSPMKY
* PSOSPML0
* PSOSPML1
* PSOSPML2
* PSOSPML3
* PSOSPML4
* PSOSPML5
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* PSOSPML8
* PSOSPMSP
* PSOSPMU0
* PSOSPMU1
* PSOSPMU2
* PSOSPMU3
* PSOSPMUT
* PSOSPMV
* PSOSPSIG
* PSOSUBCH
* PSOSUCAT
* PSOSUCH1
* PSOSUCHG
* PSOSUCLE
* PSOSUDCN
* PSOSUDEL
* PSOSUDP1
* PSOSUDP2
* PSOSUDPR
* PSOSUINV
* PSOSULB1
* PSOSULB2
* 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
* PSOUT433
* PSOUTIL
* PSOUTL
* PSOUTLA
* PSOUTLA1
* PSOUTLA2
* PSOUTOR
* PSOUTOR1
* PSOVCNT
* PSOVDF1
* PSOVDF2
* PSOVDF3
* PSOVDFK
* PSOVER
* PSOVER1
* PSOVER2
* PSOVERC
* PSOVEXR1

* [PSOVEXRX](#P17_PSOVEXR1)
* PSOVRPT
* PSOVWI
* PSOXR
* PSOXR1
* PSOXR10
* PSOXR11
* PSOXR12
* PSOXR13
* PSOXR14
* PSOXR15
* PSOXR16
* PSOXR17
* PSOXR18
* PSOXR19
* PSOXR2
* PSOXR20
* PSOXR21
* PSOXR22
* PSOXR3
* PSOXR4
* PSOXR5
* PSOXR6
* PSOXR7
* PSOXR8
* PSOXR9
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* PSOXWRN
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* PSOXZA2
* PSOXZA3
* PSOXZA4
* PSOXZA5
* PSOXZA6
* PSOXZA7
* PSOXZA8
* PSOXZA9
* PSONVAP2
* PSONVAP3
* PSONVAP4

**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.

Table 9: Waiver Permit

| 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 |

# 6. Exported Options

## 6.1 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.

## 6.2 Security Keys

Table 10: Security Keys

| Key | Description |
| --- | --- |
| 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). 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. 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 updated by patch PSO\*7\*508 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 Message View (MV), Acknowledge (ACK) – Refill Response, Refill Request (OP), Acknowledge (ACK) – Rx Cancel, Acknowledge (ACK) – Inbound Refill Error.. |
| PSO ERX TECH | This key was updated by patch PSO\*7\*508 for the Inbound eRx Holding Queue functionality. The key allows users to Validate Patient/Provider/Drug/SIG, Hold/Un Hold, Search, Sort, and Print, Message View (MV), Acknowledge (ACK) – Refill Response, Refill Request (OP). |
| 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 TECH ADV | This security key is used by pharmacy technicians to HOLD and UNHOLD prescriptions using a subset of the HOLD reasons available to PSORPH key holders. |
| PSO COPAY | This key is used to identify users to notify when a copay exemption cannot be determined at the time a prescription fill is released. Holders of this key are also notified any time the *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 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 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. |

## 6.3 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.

# 7. 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.

## 7.1. 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

# 8. 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).”

# 9. External Interfaces

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

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

**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.

## 9.1 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.

# 10. External Relations

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

Table 11: Packages - External

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

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

**Note:** 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 middleware application. A middleware application 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 middleware.

## 10.1. 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.

# 11. Internal Relations

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

Table 12: Packages - Internal

| Package | Description |
| --- | --- |
| 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

# 12. 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.

# 13. Templates

Table 13: Templates - Sort

| 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 |

Table 14: Templates - Input

| Input | File |
| --- | --- |
| PSO CLINICAL ALERT ENTER/EDIT | 55 |
| 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 |

Table 15: Templates - Print

| 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 |

# 14. Software Product Security

## 14.1. 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 REDACTED. The recommended device name is REDACTED.

## 14.2. Archiving/Purging

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

## 14.3. Interfacing

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

## 14.4. 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.

## 14.5. 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.

## 14.6. Security Keys

Table 16: Security Keys

| Key | Description |
| --- | --- |
| 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. This security key is used to Validate Patient (VP), Validate Provider (VM), Validate Drug/SIG (VD), Accept Validation (AV), Accept eRx (AC), Reject (RJ), Remove (RM), Hold (H), Un-Hold (UH), Search/Sort, Print, Message View (MV), Acknowledge (ACK) – Refill Response, Refill Request (OP), Acknowledge (ACK) – Rx Cancel, Acknowledge (ACK) – Inbound Refill Error.](#pg32a) |
| 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 Message View (MV), Acknowledge (ACK) – Refill Response, Refill Request (OP), Acknowledge (ACK) – Rx Cancel, Acknowledge (ACK) – Inbound Refill Error in the Inbound ePrescribing Holding Queue.](#pg32b) |
| PSO ERX TECH | This security key is used by pharmacy technicians to Validate Patient/Provider/Drug/SIG, Hold/Un Hold, Search, Sort, and Print Message View (MV), Acknowledge (ACK) – Refill Response, Refill Request (OP)in the Inbound ePrescribing Holding Queue. |
| PSO ERX VIEW | [This security key is assigned to users with the need to Search, Sort, Print, Message View (MV) an eRx only in the Inbound ePrescribing Holding Queue.](#pg32c) |
| 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 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. |

## 14.7 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.

Table 17: 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 | @ | Pp | @ | @ | @ |
| 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 |  |  |  |  |  |

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

# 15. 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.

## 15.1. 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 List Manager

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

Non-VA Provider Import

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 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

Medication Status Check

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 Void Prescriptions

View/Export Batch

Export Batch Processing

Accounting Of Disclosures Report

Manage Secure SHell (SSH) Keys

Unmark Rx Fill as Administered In Clinic

CS Prescriptions Not Transmitted

Manual Export/Prescription Correction

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

## 15.2. Pharmacist Menu

**Bingo Board User ...**

Enter New Patient

Display Patient’s Name on Monitor

Remove Patient’s Name from Monitor

Status of Patient’s Order

**Change Label Printer**

**Change Suspense Date**

**Check Drug Interaction**

**DUE Supervisor ...**

1 Enter a New Answer Sheet

2 Edit an Existing Answer Sheet

3 Create/Edit a Questionnaire

4 Batch Print Questionnaires

5 DUE Report

**Enter/Edit Clinic Sort Groups**

**External Interface Menu …**

Purge External Batches

Reprint External Batches

View External Batches

**Medication Profile**

**Pharmacy Intervention Menu ...**

Enter Pharmacy Intervention

Edit Pharmacy Intervention

Print Pharmacy Intervention

Delete Intervention

View Intervention

**Print from Suspense File**

**Process Order Checks**

**Pull Early from Suspense**

**Queue CMOP Prescription**

**Release Medication**

**Return Medication to Stock**

**Rx (Prescriptions) ...**

Patient Prescription Processing

Barcode Rx Menu ...

Barcode Batch Prescription Entry

Check Quality of Barcode

Process Internet Refills

Complete Orders from OERR

Discontinue Prescription(s)

Edit Prescriptions

ePharmacy Menu ...

Ignored Rejects Report

ePharmacy Medication Profile (View Only)

NDC Validation

ePharmacy Medication Profile Division Preferences

ePharmacy Site Parameters

Third Party Payer Rejects - View/Process

Third Party Payer Rejects - Worklist

TRICARE CHAMPVA 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

**Update Patient Record**

**Verification ...**

List Non-Verified Scripts

Non-Verified Counts

Rx Verification by Clerk

## 15.3. 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**

## 15.4. 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.

Non-VA Provider Inactivate [PSO NON-VA PROVIDER INACTIVATE] option was added by patch PSO\*7.0\*481. This option is only accessible by users with programmer level access and is not attached to a menu. See the Non-VA Provider Import (PSO\*7.0\*481) Deployment, Installation, Back-out and Rollback Guide for more information.

DEA Delete [PSO DEA DELETE] option was added by patch PSO\*7.0\*529. This option is only accessible by users with programmer-level access and is not attached to a menu. See the PSO\*7.0\*529 Deployment, Installation, Back-out and Rollback Guide for more information.

DEA Migration Report [PSO DEA MIGRATION REPORT] option was added by patch PSO\*7.0\*529. This option is only accessible by users with programmer level access and is not attached to a menu. See the PSO\*7.0\*529 Deployment, Installation, Back-out and Rollback Guide for more information.

The ePCS DEA Utility Functions [PSO EPCS UTILITY FUNCTIONS] option was added as a stand-alone option to support Pharmacy Operational Updates as part of patch PSO\*7.0\*667. This option is only accessible by users with programmer level access and is not attached to a menu. See the PSO\*7.0\*667 Deployment, Installation, Back-out and Rollback Guide for more information. This option has the following menu items:

* [PSO EPCS EXPIRE DATE REPORT]
* [PSO EPCS LOGICAL ACCESS REPORT]
* [PSO EPCS PHARMACIST ACC REPORT]
* [PSO EPCS ACCESS REPORTS]
* [PSO EPCS PSDRPH]

# 16. 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.

# 17. 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**: 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.

## 17.1. 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.

## 17.2. 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:** 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

\*\*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.

## 17.3. 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.

### 17.3.1. Hardware Setup

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

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

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

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

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

**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...

### 17.3.2. 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

### 17.3.3. VMS Print Queue Setup

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

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

The following is an example form:

Form name Number Description

--------- ------ -----------

LABELFORM 2 LASER LABEL

 /LENGTH=255 /MARGIN=(BOTTOM=6) /STOCK=LABELFORM /TRUNCATE /WIDTH=512

### 17.3.4. 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:

Table 18: Variables

| 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 |

### 17.3.5. ScripTalkÒ Printers

ScripTalkÒ 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 ScripTalkÒ 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 ScripTalkÒ label near the reader and presses a button, the content of the label is read aloud.

The ScripTalk label, released in 2003, has a 2K memory capacity, which limits the amount of prescription data that can be audibly read to the blind or low-vision Veteran using the system. New ScripTalk labels with 10K capacity are now available. Patch PSO\*7\*502 takes advantage of that capacity by sending more prescription data, including Drug Warnings, to the ScripTalk label.

The data sent to the ScripTalk label (either 2K or 10K), will now be controlled by one of two new parameters, depending on how your ScripTalk device definitions are set up. If they are set up at the system level using a mapped device, the dataset will be controlled by the new SCPIPTALK PRINTER TYPE SubField (#.03) in the SCRIPTALK PRINT DEVICE MAPPING SubFile (#59.747) of the PHARMACY SYSTEM File (#59.7), which patch PSS\*1.0\*217 introduces. If your ScripTalk device definition is set at the Outpatient Site level, the dataset will be controlled by the new SCRIPTRALK PRINTER TYPE Field (#107.2) in the OUTPATIENT SITE File (#59), which this patch introduces. Neither of these new fields will be populated upon patch install of PSO\*7\*502, and the software assumes a 2k dataset when either parameter is null.

The new ScripTalk 10K printers and labels are backward compatible with the 2K dataset. When a site upgrades to the new 10K equipment, once the hardware is set up and ready for implementation of the new 10K dataset, simply set the applicable parameter to 10K.

In addition, sites will now be able to control whether or not the non-ScripTalk label prints as voided or not voided. This will be in the OUTPATIENT SITE File (#59) and will be by division (outpatient site).

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.

**Note:** when using 10k printers make sure that the device is set up to use a Print Queue. If it is not then the 10k labels will not print.

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: xxxxx.xxxxxxxxx.xxx.xx.xxx

 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",!

Example: ScripTalk Device Definition Enter/Edit

CHOOSE 1-5: 4 PSO SCRIPTALK MAIN MENU ScripTalk Main Menu

 PT ScripTalk Patient Enter/Edit

 QBAR Queue ScripTalk Label by Barcode

 QRX Queue ScripTalk Label by Rx#

 RPT ScripTalk Reports ...

 Reprint a non-voided Outpatient Rx Label

 PARM Set Up and Test ScripTalk Device ...

 Void Label Setup

Select ScripTalk Main Menu <TEST ACCOUNT> Option: PARM Set Up and Test ScripTal

k Device

 ScripTalk Device Definition Enter/Edit

 Print Sample ScripTalk Label

 Test ScripTalk Device

 Reinitialize ScripTalk Printer

Select Set Up and Test ScripTalk Device <TEST ACCOUNT> Option: SCRIPTalk Device

Definition Enter/Edit

Define ScripTalk Printer by (D)ivision or (P)rinter mapping?: (D/P): Division

Division: *<enter your division>*

SCRIPTALK DEVICE: SCRIPTALK 10K// **<enter your ScripTalk device>**

SCRIPTALK AUTO-PRINT SETTINGS: AUTO PRINT// ?

 Enter 'A' if ScripTalk label printing should be automatic, "M" if label

 will be queued manually.

 Choose from:

 A AUTO PRINT

 M MANUAL PRINT

SCRIPTALK AUTO-PRINT SETTINGS: AUTO PRINT//

SCRIPTALK PRINTER TYPE: 10K LABEL// ?

 Enter 2 if this ScripTalk printer is a 2K printer, enter 10 if this

 ScripTalk printer is a 10K printer.

 Choose from:

 2 2K LABEL

 10 10K LABEL

SCRIPTALK PRINTER TYPE: 10K LABEL//

Define ScripTalk Printer by (D)ivision or (P)rinter mapping?: (D/P): Printer

Select LABEL PRINTER TO BE MAPPED: *<enter label printer>*

 SCRIPTALK DEVICE: SCRIPTALK 10K *<ScripTalk device>*

 SCRIPTALK PRINTER TYPE: ?

 Enter 2 if this ScripTalk printer is a 2K printer, enter 10 if this

 ScripTalk printer is a 10K printer.

 Choose from:

 2 2K LABEL

 10 10K LABEL

 SCRIPTALK PRINTER TYPE:

# 18. Glossary

Table 19: Glossary

| Term | Description |
| --- | --- |
| 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)0.425The 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 that 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. |
| DEA | Drug Enforcement Agency |
| DHCP | See VistA. |
| DOJ | Department of Justice |
| eMI | Enterprise Messaging Services |
| eRx | ePrescription |
| ESB | Enterprise Service Bus |
| HDR/CDS | Health Data Repository/Clinical Data Services |
| IRMS | Information Resources Management Service |
| ISO | International Standards Organization |
| 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 |
| OSI | Open System Interconnection |
| PDMP | Prescription Drug Monitoring Programs |
| POE | Pharmacy Ordering Enhancements project. POE is a series of enhancements to improve the ordering processes between Inpatient Medications and Outpatient Pharmacy. For Outpatient Pharmacy, POE changes occur in patch PSO\*7\*46. |
| Prescription | This term is now referred to throughout the software as medication orders. |
| Purge | Prescriptions, typically those that have been expired or canceled for more than a year, are saved to tape. Purging removes them from online storage.  |
| Reprinted Label | Unlike a partial prescription, a reprint does not count as workload. |
| SPMP | State Prescription Monitoring Program |
| VDEF | VistA Data Extraction Framework |
| VHA | Veterans’ Health Administration |
| VHIC | Veterans’ Health Identification Card |
| VistA | Acronym for Veterans Health Information Systems and Technology Architecture, the new name for Decentralized Hospital Computer Program (DHCP).  |
| VUID | VHA Unique Identifier. A unique integer assigned to reference terms VHA wide. |

# 19. Appendix A: Outpatient Pharmacy HL7 Interface Specifications

## 19.1. A. General Information

### 19.1.1. 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.

### 19.1.2. 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).

### 19.1.3. 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.

### 19.1.4. 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:

1. position - position of the data field within the segment.
2. name - unique descriptive name for the field.
3. ID number - integer that uniquely identifies the data field throughout the Standard.
4. maximum length - maximum number of characters that one occurrence of the data field may occupy.
5. optionality - whether the data field is required (R), optional (O), or conditional (C) in a segment.
6. repetition - whether the field may repeat (N=no; Y=yes; (integer)= no. of repeats).
7. table - a table of values for a field (See HL7 Standard V. 2.4, Section 2.7.6 for source of tables).
8. data type - restrictions on the contents of the data field (See HL7 Standard V. 2.4, Section 2.9).

### 19.1.5. 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

## 19.2. B. Transaction Specifications

### 19.2.1. 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.

### 19.2.2. Processing Rules

A Pharmacy Encoded Order Message 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.

Table 20: HL7 Messages will be used to Support the Exchange of Outpatient Pharmacy Data with Any Automatic Dispensing System

|  |  |
| --- | --- |
| RDS | Pharmacy Encoded Order / Treatment Dispense Message |
| RRD | Pharmacy Encoded Order Ack. Message |
| ACK | General Ack. Message |

Table 21: 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 |

### 19.2.3. Specific Transaction – Dispense Request

Table 22: Pharmacy Encoded Order/Treatment Dispense Message

| RDS | Pharmacy Encoded Order/Treatment Dispense 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 |
| ZZZ | Hazardous Drug Information |
| } |  |

**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

ZZZ||||N|N

Table 23: Pharmacy Encoded Order Acknowledgment Message

| 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

### 19.2.4*. 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 an interoperability between the barcode on the VHIC card and data in the HL7 PID segment. As of Patch PSO\*7\*434, the *active* VHIC number(s) were added to the list of identifiers in the PID Segment in sequence PID-4.

**Note**: The changes in HL7 message generated by OPAI are tested with ScriptPro 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||||||||||||||||||

Table 24: 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~XXXXXXX.XXX.XX.XXX~DNS |
|  | 5 | 180 | HD | R |  | 0361 | Receiving Application | PSO DISPENSE |
|  | 6 | 180 | HD | R |  | 0362 | Receiving Facility – DNS name and port of dispensing machine | ~XXXXXXXX.XXX.XXX.XX.XXX:####~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 |
|  | 30 | 250 | CNE | O | 1 | 0483 | Enterer Authorization Mode | EL |
|  |  |  |  |  |  |  |  |  |
| 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 Instructions2 = Patient Instructions Narrative3 = Drug Warning Narrative4 = Profile Information5 = Drug Interactions6 = Drug Allergy Indications7 = PMI Sheet8 = Medication Instructions9 = Privacy Notification | Medication InstructionsNOTE: 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/treatmentdispense instructions | ^IBUPROFEN400MG 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 InstructionsNOTE: 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 |
| ZZZ | 4 | 1 | TX | R |  | 0136 | Hazardous to Handle Indicator | Y (Data Value is either Y or N) |
|  | 5 | 1 | TX | R |  | 0136 | Hazardous to Dispose Indicator | N(Data Value is either Y or N) |

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:** 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).

[ORC-30] Enterer Authorization Mode is passed for digitally signed controlled substance orders. The value of ‘EL’ is used, representing a value of ‘Electronic’.

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

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

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

[RXE-2] Give Code identifies the substance ordered as encoded by the Pharmacy. The components, in order, are the VA Product ID, VA Product Name, National Drug File, local file pointer, local drug name, and the local file.

[RXE-3] Give Amount - Minimum is a required field but it will not be used in Outpatient Pharmacy V. 7.0. It will always be a null value ("").

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

[RXE-6] Give Dosage Form is a coded element field. The fourth component is the pointer to the DOSAGE FORM file (#50.606). The fifth component is the form name, and the sixth component is the name of coding system (99PSF).

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

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

[RXE-10] Dispense Amount identifies the quantity.

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

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

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

[RXE-18] D/T of Most Recent Refill or Dose Dispensed contains the last date/time the patient received this particular drug. This is the PRIOR FILL DATE field (#102.1) from the PRESCRIPTION file (#52).

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

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

An indicator that the drug is a controlled substance or not (Y/N).

An indicator if the patient is a ScripTalk patient (0 or 1).

An indicator if the patient’s PMI language preference is something other than English (Y/N).

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

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

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

DEA, SPECIAL HDLG field (#3) from the DRUG file (#50).

NDC field (#27) from the PRESCRIPTION file (#52).

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

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

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

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

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

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

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

[RXR-1] Route is the medication route.

[ZZZ-4] The Hazardous to Handle Indicator identifies the medication is Hazardous to Handle as identified in the PSNDF file (#50.68). Data value is either Y or N.

[ZZZ-5] The Hazardous to Dispose Indicator identifies the medication is Hazardous to Dispose as identified in the PSNDF file (#50.68). Data value is either Y or N.

### 19.2.5. 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

Table 25: 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~XXXXXXX.XXX.XX.XXX~DNS |
|  | 5 | 180 | HD | R |  | 0361 | Receiving Application | PSO DISPENSE |
|  | 6 | 180 | HD | R |  | 0362 | Receiving Facility – DNS name and port of dispensing machine | ~XXXXXXXX.XXX.XXX.XX.XXX:####~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).

### 19.2.6. 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

Table 26: 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 | ~XXXXXXXX.XXX.XXX.XX.XXX:####~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 NotesNDC 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.

# 20. Appendix B: HL7 Messaging with an External System

## 20.1. 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.

## 20.2. 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).

## 20.3. 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.

## 20.4. 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.

Table 27: HL7 Order Message Segment

| 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.

Table 28: Segment

| 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.

Table 29: Segment

| 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 |

### 20.4.1. 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)

# 21. Appendix C:

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

# 22. 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. |

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

## 22.1. 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

## 22.2. 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

## 22.3. 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).

## 22.4. 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~XXXX.XXXXXXXXXXX.XXX.XX.XXX~DNS^PSO VDEF IE SIDE^200HD~XXX.XXX.XX.XXX~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

## 22.5. HL7 Outpatient Pharmacy VDEF Message

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

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

VUID from the VA PRODUCT file (#50.68)

VA PRODUCT Name from the VA PRODUCT file (#50.68)

99VA\_52\_6

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

Null

DRUG Name from the DRUG file (#50)

(Station Number)\_52\_6

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

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

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

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

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

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

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

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

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

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

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

Table 30: 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~XXXX.XXXXXXXXXXXX.XXX.XX.XXX~DNS |
| MSH | 5 | Receiving Application | HD | PSO VDEF IE SIDE |
| MSH | 6 | Receiving Facility | HD | 200HD~XXX.XXX.XX.XXX~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~99VA\_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~AMANTADINE 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\_.02OR if VUID exists63~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\_41OR1~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\_42OR0~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~AMANTADINE HCL 100MG CAP~99VA\_52\_6~0781-2048-01~~NDCOR~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~AMANTADINE HCL 100MG CAP~99VA\_52\_6~0781-2048-01~~NDCOR~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 |

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

## 2.3.1. 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.)

## 23.2. 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.

## 23.3. 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)

## 23.4. SPMP Data Source (PSO\*7\*408)

| Data Element | Name Description | Data Source |
| --- | --- | --- |
| TH–Transaction Header |
| TH01 | Version/Release NumberCode 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 NumberSender-assigned code uniquely identifying a transactionThis number must be used in TT01 | ASAP 3.0 : Business Partner Implementation Version (Not Used)ASAP 4.0+: Transaction Control NumberVA Site Number – Export Batch Number**Example**: 500-3038 |
| TH03 | Transaction Type Identifies the purpose of initiating the transaction01 Send/Request Transaction02 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 NumberASAP 4.0+: Transaction Type (Always "01" - Send/Request Transaction) |
| TH04 | Response IDContains the Transaction Control Number of a transaction that initiated the transactionRequired in response transaction only | ASAP 3.0 : Transaction Type (Not Used)ASAP 4.0+: Response ID (Not Used) |
| TH05 | Creation DateDate 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 TimeTime the transaction was created Format: HHMMSS or HHMM | ASAP 3.0 : Response ID (Not Used); ASAP 4.0+: Creation Time. Format: HHMMSS or HHMMTime the Export Batch was created**Example**: 091522 |
| TH07 | File TypeCode specifying the type of transactionP ProductionT 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 NumberThis 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 CharacterThis 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 HHMMASAP 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 TypeCode specifying the type of transactionP ProductionT 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 | MessageFree-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 CharacterThis terminates the TH segment and sets the actual value of the data segment terminator for the entire transaction setNote: 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 IDReference number or identification number as defined by the business partnersExample: Phone number | VA concatenated with the VA Site Number**Example**: VA500 |
| IS02 | Information Source Entity NameEntity name of the Information Source | **File**: INSTITUTION (#4)**Field**: OFFICIAL VA NAME (#100)**Example**: OKLAHOMA CITY VA MEDICAL CENTER |
| IS03 | MessageFree-form text for a messageUsed 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 IDReference number or identification number as defined by the business partnersExample: Phone number | VA concatenated with the VA Site Number**Example**: VA500 |
| IR02 | Information Receiver Entity NameEntity 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 $$NPI^XUSNPI (DBIA # 4532) using the NPI INSTITUTION field (#101) in the OUTPATIENT SITE file (#59)**Example**: 1043278211 |
| PHA02 | NCPDP/NABP Provider IDIdentifier assigned to the pharmacy by the NCPDP/NABP.Used if required by the PMP | **File**: OUTPATIENT SITE (#59)**Field**: NCPDP NUMBER (#1008)**Option**: Site Parameter Enter/Edit [PSO SITE PARAMETERS]**Example**: 3706972 |
| PHA03 | DEA Number Identifier assigned to the pharmacy by the Drug Enforcement Administration (DEA)Used if required by the PMP | Retrieved via the Kernel API $$WHAT^XUAF4 (DBIA # 2171) using the RELATED INSTITUTION field (#100) in the OUTPATIENT SITE file (#59)**Example**: AV4597211 |
| PHA04 | Pharmacy Name or Dispensing Prescriber NameFree-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 codeUse 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 locationUsed when PMP needs to identify the specific pharmacy from which information is required | Not Used |
| PHA13 | MessageFree-form text message | Not Used |
| PAT–Patient Information |
| PAT01 | ID Qualifier of Patient IdentifierCode identifying the jurisdiction that issues the ID in PAT03Used if the PMP requires such identification | Always **US** (United States), except ASAP 3.0 (not used) |
| PAT02 | ID QualifierCode to identify the type of ID in PAT03. If PAT02 is used, PAT03 is required01 Military ID02 State Issued ID03 Unique System ID04 Permanent Resident Card (Green Card)05 Passport ID06 Driver’s License ID07 Social Security Number08 Tribal ID99 Other (Trading partner agreed upon ID, such as cardholder ID) | Always **07** (Social Security Number) |
| PAT03 | ID of PatientIdentification 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 $$DEM^VADPT (DBIA #10061) return variable VADM(2)**Example**: 666554444 (no dashes) |
| PAT04 | ID Qualifier of Additional Patient IdentifierCode identifying the jurisdiction that issues the ID in PAT06Used if the PMP requires such identification  | ASAP 3.0 : SSNRetrieved via the Kernel API $$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 QualifierCode to identify the type of ID in PAT06 if the PMP requires a second identifierIf PAT05 is used, PAT06 is required01 Military ID02 State Issued ID03 Unique System ID04 Permanent Resident Card (Green Card)05 Passport ID06 Driver’s License ID07 Social Security Number08 Tribal ID99 Other (Trading partner agreed upon ID, such as cardholder ID) | Not Used |
| PAT06 | Additional IDIdentification 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 NamePatient’s last name | Retrieved via the Kernel API $$DEM^VADPT (DBIA #10061) return variable VADM(1) – first value before the comma (e.g., SMITH, JOHN F)**Example**: SMITH |
| PAT08 | First NamePatient’s first name | Retrieved via the Kernel API $$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 NamePatient’s middle name or initial if availableUsed if available in pharmacy system and required by the PMP | Retrieved via the Kernel API $$DEM^VADPT (DBIA #10061) return variable VADM(1) –value following the first name (e.g., SMITH, JOHN F)Example: F |
| PAT10 | Name PrefixPatient’s name prefix such as Mr. or Dr.Used if available in pharmacy system and required by the PMP | Not Used |
| PAT11 | Name SuffixPatient’s name prefix such as Jr. or the IIIUsed if available in pharmacy system and required by the PMP | Not Used |
| PAT12 | Address Information – 1Free-form text for street address information | Retrieved via the Registration API $$ADD^VADPT (DBIA #10061) return variable VAPA(1)**Example**: 1235 STREET NAME ST |
| PAT13 | Address Information – 2Free-form text for additional address information, if required by the PMP and is available in the pharmacy system | Retrieved via the Registration API $$ADD^VADPT (DBIA #10061) return variable VAPA(2)**Example**: BLDG 101 APT #102 |
| PAT14 | City AddressFree-form text for city name | Retrieved via the Registration API $$ADD^VADPT (DBIA #10061) return variable VAPA(4)**Example**: ARDMORE |
| PAT15 | State AddressU.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 $$ADD^VADPT (DBIA #10061) return variable VAPA(5)Example: OK |
| PAT16 | ZIP Code Address U.S. Postal Service ZIP codePopulate with zeros if the patient address is outside the U.S. | Retrieved via the Registration API $$ADD^VADPT (DBIA #10061) return variable VAPA(6)**Example**: 723005500 (no dash) |
| PAT17 | Phone NumberComplete phone number including the area code when the PMP requires and is available in the pharmacy system | Retrieved via the Registration API $$ADD^VADPT (DBIA #10061) return variable VAPA(8)**Example**: 4245556666 (no dashes) |
| PAT18 | Date of BirthDate patient was bornFormat: CCYYMMDD | ASAP 3.0 : Email Address (Not Used)ASAP 4.0+: Patient DOB Retrieved via the Kernel API $$DEM^VADPT (DBIA #10061) return variable VADM(3)**Example**: 19661112 |
| PAT19 | Gender CodeCode indicating the sex of the patient if required by the PMPF Female M MaleU Unknown | ASAP 3.0 : Patient DOBRetrieved via the Kernel API $$DEM^VADPT (DBIA #10061) return variable VADM(3)**Example**: 19661112ASAP 4.0+: Patient Gender Code Retrieved via the Kernel API $$DEM^VADPT (DBIA #10061) return variable VADM(5). If no value is found ,reports **U**Example: F |
| PAT20 | Species CodeUsed if required by the PMP to differentiate a prescription for an individual from one prescribed for an animal01 Human02 Veterinary Patient | ASAP 3.0 : Patient Gender CodeRetrieved via the Kernel API $$DEM^VADPT (DBIA #10061) return variable VADM(5). If no value is found ,reports **U**ASAP 4.0+: Species CodeAlways **01** (Human) |
| PAT21 | Patient Location CodeCode indicating where the patient is located when receiving pharmacy services if required by the PMP01 Home02 Intermediary Care03 Nursing Home04 Long-Term/Extended Care05 Rest Home06 Boarding Home07 Skilled-Care Facility08 Sub-Acute Care Facility09 Acute-Care Facility10 Outpatient11 Hospice98 Unknown99 Other | Always **10** (Outpatient) |
| PAT22 | Country of Non-U.S. ResidentUsed when the patient’s address is a foreign country and PAT12 through PAT16 are left blank. This is a free-form text field  | ASAP 3.0 : Primary Prescription Coverage Type (Not Used) ASAP 4.0+:Country of Non-U.S. ResidentRetrieved via the Registration API $$ADD^VADPT (DBIA #10061) return variable VAPA(25)Example: MX |
| PAT23-PAT40 | Not Used |  |
| DSP–Dispensing Record |
| DSP01 | Reporting StatusDSP01 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 NumberSerial number assigned to the prescription by the pharmacy | **File**: PRESCRIPTION (#52)**Field**: RX # (#.01)**Example**: 10930393 |
| DSP03 | Date WrittenDate the prescription was written (authorized)Format: CCYYMMDD | **File**: PRESCRIPTION (#52)**Field**: ISSUE DATE (#1)**Example**: 20130117 |
| DSP04 | Refills AuthorizedNumber of refills authorized by the prescriber | **File**: PRESCRIPTION (#52)**Field**: # OF REFILLS (#9)Example: 5 |
| DSP05 | Date FilledDate prescription was filledFormat: 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 NumberNumber of the fill of the prescription0 indicates original dispensing01-99 is the refill number | * Original

0* Refill

Refill # (e.g., 1, 2, …)* Partial

0 |
| DSP07 | Product ID QualifierUsed to identify the type of product ID contained in DSP0801 NDC02 UPC03 HRI04 UPN05 DIN06 Compound (used to indicate it is a compound’ if used, the CDI segment then becomes a required segment) | Always **01** (NDC) |
| DSP08 | Product IDFull product identification as indicated in DSP07, including leading zeros without punctuationIf 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 DispensedNumber of metric units dispensed in metric decimal formatExample: 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 SupplyEstimated 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 CodeIdentifies the unit of measure for the quantity dispensed in DSP09, if required by the PMP01 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 CodeCode indicating how the pharmacy received the prescription, if required by the PMP01 Written Prescription02 Telephone Prescription03 Telephone Emergency Prescription04 Fax Prescription05 Electronic Prescription99 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 IndicatorUsed 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 numberThis 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 NumberThis data element can be used to identify the pharmacist dispensing the medicationAssigned to the pharmacist by the State Licensing Board | Not Used |
| DSP16 | Classification Code for Payment TypeCode identifying the type of payment, i.e. how it was paid for, if required by the PMP01 Private Pay (Cash, Charge, Credit Card)02 Medicaid03 Medicare04 Commercial Insurance05 Military Installations and VA06 Workers’ Compensation07 Indian Nations99 Other | Always **05** (Military Installations and VA) |
| DSP17 | Date SoldUsage 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 agentThis date may be different from DSP05 | Not Used |
| DSP18 | RxNorm Product Qualifier01 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 CodeUsed 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 NumberUsed 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 Status00 Add01 Change02 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 NumberSerial number assigned to the prescription by the pharmacy | **File**: PRESCRIPTION (#52)**Field**: RX # (#.01)**Example**: 10930393 |
| RX04-RX07 | Not Used |  |
| RX08 | Date Rx WrittenDate the prescription was written (authorized)Format: CCYYMMDD | **File**: PRESCRIPTION (#52)**Field**: ISSUE DATE (#1)**Example**: 20130117 |
| RX09-RX012 | Not Used |  |
| RX13 | Product ID QualifierUsed to identify the type of product ID contained in DSP0801 NDC02 UPC03 HRI04 UPN | Always **01** (NDC) |
| RX14 | Product IDFull 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 PrescribedNumber 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 SupplyEstimated 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 AuthorizedNumber 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 UsedASAP 4.0+: Prescriber National Provider Identifier (NPI)Retrieved via the Kernel API $$NPI^XUSNPI (DBIA # 4532) using the prescription fill provider**Example**: 1043278211 |
| PRE02 | DEA NumberIdentifying number assigned to a prescriber or an institution by the Drug Enforcement Administration (DEA) | ASAP 3.0 : Not UsedASAP 4.0+: Prescriber DEA NumberFirst “-“ (dash) piece of the value returned by the Kernel API $$DEA^XUSER (DBIA # 2343) using the prescription fill provider**Example**: AV4598251 |
| PRE03 | DEA Number SuffixIdentifying 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 NPIASAP 4.0+: Prescriber DEA Number SuffixSecond “-“ (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 NumberIdentification assigned to the Prescriber by the State Licensing BoardUsed if required by the PMP | ASAP 3.0 : Prescriber DEA NumberASAP 4.0+: Prescriber State License Number (Not Used) |
| PRE05 | Last NamePrescriber’s last name Used if required by the PMP | ASAP 3.0 : Prescriber DEA Number SuffixASAP 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 NamePrescriber’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 NamePrescriber’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 NumberPrescriber’s phone number | ASAP 3.0 : Prescriber's Last NameASAP 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 NamePrescriber’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 NamePrescriber’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 NamePharmacist’s last name  | **File**: NEW PERSON (#200)**Field**: NAME (#.01)First value before the comma (e.g., **SMITH**, JOHN F)**Example**: SMITH |
| RPH07 | First NamePharmacist’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 NamePharmacist’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 CountNumber 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 NumberIdentifying control number that must be uniqueAssigned by the originator of the transactionMust match the number in TH02 | Same as TH02 |
| TT02 | Segment CountTotal number of segments included in the transaction including the header and trailer segments | Calculated for each transmission |

Table 31: ASAP Zero Report Specifications (PSO\*7\*625)

| Segment | Element ID | Element Name | Requirement |
| --- | --- | --- | --- |
| TH: Transaction Header (required) |
|  | TH01 | 4.2A | R |
|  | TH02 | 123456 | R |
|  | TH05 | 20150101 | R |
|  | TH06 | 223000 | R |
|  | TH07 | P | R |
|  | TH09 | \\ | R |
| IS: Information Source (required) |
|  | IS01 | 7705555555 | R |
|  | IS02 | PHARMACY NAME | R |
|  | IS03 | Date Range of Report #YYYYMMDD#-#YYYYMMDD# | R |
| PHA: Pharmacy Header (required) |
|  | PHA03 | ZZ1234567 | R |
| PAT: Patient Information (required) |
|  | PAT07 | REPORT | R |
|  | PAT08 | ZERO | R |
| DSP: Dispensing Record (required) |
|  | DSP05 | 20150101 | R |
| PRE: Prescriber Information (required; can be null as follows: PRE\*\*\*\*\*\*\*\)  |
| CDI: Compound Drug Ingredient Detail |
| AIR: Additional Information Reporting |
| TP: Pharmacy Trailer (required)  |
|  | TP01 | 7 | R |
| TT: Transaction Trailer (required) |
|  | TT01 | 123456 | R |
|  | TT02 | 10 | R |

**Sample Zero Report**

The following example illustrates a zero report using the above values.

TH\*4.2A\*123456\*01\*\*20150108\*223000\*P\*\*\\

IS\*7705555555\*PHARMACY NAME\*#20150101#-#20150107#\

PHA\*\*\* ZZ1234567\

PAT\*\*\*\*\*\*\*REPORT\*ZERO\*\*\*\*\*\*\*\*\*\*\*\*\

DSP\*\*\*\*\*20150108\*\*\*\*\*\*\

PRE\*\

CDI\*\

AIR\*\

TP\*7\

TT\*123456\*10\

# 24. Appendix F: OneVA Pharmacy HL7 Messaging using Middleware Application for External System

## 24.1. 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
* A middleware application
* Health Data Repository/Clinical Data Service (HDR/CDS) Repository
* Patch PSO\*7\*497, which fixes the following OneVA Pharmacy critical defects:
1. To fix the auto-suspend defect.
2. To limit refill permissions to only those personnel who have the correct key(s).
3. "Trade Name" prevented from being refilled/partial filled by a remote OneVA pharmacy location so that dispensing errors are reduced on prescriptions due to the lack of information.
4. To identify titration prescriptions at the host site and to disallow refills of such titration prescriptions at the dispensing site.
5. Update OneVA Pharmacy functionality to add menu item for turning OFF/ON Switch for OneVA Pharmacy ADPACs

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 a middleware application. The middleware application executes a Web Service call to query the HDR/CDS Repository for specific medication information from all VA Pharmacy’s VistA sites. The middleware’ 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 middleware 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.

## 24.2. 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].

## 24.3. OneVA Pharmacy New Logical Link

A new HL7 logical link, PSORRXSEND will facilitate the sending of the HL7 messages to middleware. 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.

## 24.4 OneVA Pharmacy New Flag

|  |  |
| --- | --- |
| Caution | **\*\*\*Important\*\*\***DO NOT turn on the OneVA Pharmacy Flag until directed to do so. 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 (#101)’. The 'ONEVA PHARMACY FLAG (#101)’ is located on the ‘PHARMACY SYSTEM FILE (#59.7)’ This field will allow sites to toggle the OneVA Pharmacy logic 'on' or 'off' depending on current needs. The user changes the field by using option, PSS SYS EDIT and editing the 'ONEVA PHARMACY FLAG (#101)’ field.

The patch PSS\*1\*212 delivers the ‘ONEVA PHARMACY FLAG (#101)’ 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. In order to process prescriptions from another VistA instance, that instance will also need to have its ‘ONEVA PHARMACY FLAG (#101)’ set to the 'on' state.

To turn on the ‘ONEVA PHARMACY FLAG (#101)’

Select OPTION NAME: PSS SYS EDIT Pharmacy System Parameters Edit

Pharmacy System Parameters Edit

PMIS PRINTER: PP8//

PMIS LANGUAGE: English//

WARNING LABEL SOURCE: NEW//

CMOP WARNING LABEL SOURCE: NEW//

OPAI WARNING LABEL SOURCE: NEW//

AUTOMATE CPRS REFILL:

ONEVA PHARMACY FLAG: ON//

## 24.5. OneVA Pharmacy Modified Protocols

Patch PSO\*7\*497 modifies the following protocols to the PROTOCOL file (#101) to remediate critical defects found in PSO\*7\*454. They are:

1. PSO LM REFILL REMOTE ORDER (Modified)
2. PSO LM REMOTE ORDER MENU (Modified)
3. PSO LM REMOTE PARTIAL (Modified)

## 24.6. 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)

## 24.7. 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

## 24.8. 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).

## 24.9. 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)

## 24.10. 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.

Figure 1: Dispensing VistA Instance to HDR/CDS Repository



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

Figure 2: Business Capability Processed for 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 a middleware application. A middleware application 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.

Figure 3: Processing Sequence of Events and Message Type



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 a middleware application 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. The middleware 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.

Figure 4: Dispense Order from another VA Pharmacy Location Functionality



## 24.11. 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

### 24.11.1 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:** 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

Table 32: 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 |  |

### 24.11.2. RTB^K13 Prescription Query Service Reponses

Middleware will query the HDR/CDS Repository and apply the filter and transformation logic. The Middleware application 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

Table 33: 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 |
| appendi | 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. |

Figure 5: 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.

Figure 6: Example RTB^K13 HL7 RDF Segment



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

The ‘RDS^O13’ is a pass through message that requires no transformation by a middleware application. 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:** 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

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

Table 34: 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 |
| 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 |

Figure 7: Example RDS^O13 Pharmacy/Treatment Dispense Message Request Refill



Figure 8: Example RDS^O13 Pharmacy/Treatment Dispense Message Request Partial Fill



### 24.11.4. 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:** 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

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

Table 35: 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 |
| 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 |

## 24.12. 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 a middleware application
Response Type: ACK
MSA-01: CR
MSA-03: {MESSAGE INDICATING INVALID DATA}

# 25. Appendix G: Inbound ePrescribing (IEP)

## 25.1. Inbound ePrescribing Process Flow

A high-level overview of the Inbound ePrescribing (IEP) process flow for pharmacy data messages is outlined in Figure 9 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 2017071 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 2017071 XML format and structure

* Data Access Services (DAS):

Serves as secured-layer gateway/proxy for all messages (in NCPDP 2017071 XML format) between Change Healthcare and the eRx Processing Hub

* eRx Processing Hub:

Receives, persists, validates, manipulates, and sends NCPDP 2017071 XML messages

Validates designated pharmacy from NCPDP 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 9: Inbound ePrescribing Process Flow (Version 4.0)



The Inbound eRx processing flow is sequential in nature as depicted in Figure 5 (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 2017071 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 2017071 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 2017071 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 2017071 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 2017071 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.

## 25.2. Inbound ePrescribing Protocols

Inbound ePrescribing adds the following new protocols to facilitate the Inbound ePrescribing processing.

PSO ERX ACCEPT ERX

PSO ERX ACCEPT VALIDATION

PSO ERX ACKNOWLEDGE

PSO ERX ADD COMMENT

PSO ERX CHANGE REQUEST

PSO ERX DISPLAY MENU

PSO ERX EDIT

PSO ERX HIDDEN ACTIONS

PSO ERX HOLD

PSO ERX HQ MENU

PSO ERX HQ SEARCH

PSO ERX HQ SELECT

PSO ERX HQ SORT

PSO ERX JUMP TO OP

PSO ERX MESSAGE VIEW

PSO ERX OP PRINT

PSO ERX PCV MENU

PSO ERX PCV MESSAGE VIEW

PSO ERX PCV SEARCH QUEUE

PSO ERX PCV SELECT BY NUMBER

PSO ERX PCV SELECT PATIENT

PSO ERX PCV SORT ENTRIES

PSO ERX PRINT

PSO ERX REFILL REQUEST

PSO ERX REJECT

PSO ERX REMOVE

 PSO ERX RX RENEWAL REQUEST

PSO ERX SELECT BY NUMBER

PSO ERX SINGLE REFILL REQUEST

PSO ERX SINGLE RXRENEWAL REQUEST

PSO ERX STATUS HISTORY

PSO ERX UNHOLD

PSO ERX VALIDATE DRUG

PSO ERX VALIDATE PATIENT

PSO ERX VALIDATE PROVDIER

PSO ERX VALIDATION MENU

PSO HIDDEN ACTIONS

PSO HIDDEN ACTIONS #3

PSO LM HIDDEN OTHER

PSO LM HIDDEN OTHER #2

## 25.3. Inbound ePrescribing Remote Procedures

Inbound ePrescribing added the following new remote procedures to facilitate the Inbound ePrescribing messaging:

[PSOERXA0 DRGMTCH: Drug matching logic](#pg148)

[PSOERXA0 PRVMTCH: Provider match logic](#pg148)

[PSOERXA1 INCERX: Read and file incoming eRx (XML message)](#pg148)

PSOERX1 INCERX: Read and file incoming eRx (XML message) in the 2017 script format, which replaces PSOERXA1 INCERX, which was the RPC used for the 10.6 script format

## 25.4. 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.

## 25.5. 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**

 .01 ERX HUB ID

 .02 RELATED OR PARENT MESSAGE ID

 .03 MESSAGE DATE/TIME

 .04 EXTERNAL PATIENT IDENTIFIER

 .05 VISTA PATIENT

 .06 INSTITUTION

 .07 PHARMACY SYSTEM

 .08 MESSAGE TYPE

 .09 EXTERNAL/PROVIDER ORDER NUMBER

 .1 VISTA PENDING OUTPATIENT ORDER

 .12 OE/RR ORDER NUMBER

 .13 PHARMACY PRESCRIPTION NUMBER

 .14 RELATES TO HUB ID

 1 ERX ORDER STATUS

 1.11 DRUG VALIDATED BY

 1.12 DRUG VALIDATED DATE/TIME

 1.13 PATIENT VALIDATED BY

 1.14 PATIENT VALIDATED DATE/TIME

 1.2 PROV STAT (AUTO VALIDATION)

 1.3 PROV STAT (MANUAL VALIDATION)

 1.4 DRUG STAT (AUTO VALIDATION)

 1.5 DRUG STAT (MANUAL VALIDATION)

 1.6 PATIENT STATUS (AUTO VAL)

 1.7 PATIENT STATUS (MANUAL VAL)

 1.8 PROVIDER VALIDATED BY

 1.9 PROVIDER VALIDATED DATE/TIME

 2.1 EXTERNAL PROVIDER

 2.2 EXTERNAL PHARMACIST

 2.3 VA MATCHED PROVIDER

 2.4 TO/FROM QUALIFIER

 2.5 ERX EXTERNAL PHARMACY

 2.6 ERX EXTERNAL SUPERVISOR

 3.1 EXTERNAL DRUG/SUPPLY

 3.2 MATCHED DRUG/SUPPLY

 4.1 PRODUCT CODE

 4.11 DRUG DB CODE QUALIFIER

 4.2 PRODUCT CODE QUALIFIER

 4.3 STRENGTH

 4.4 DRUG DB CODE

 4.5 FORM SOURCE CODE

 4.6 FORM CODE

 4.7 STRENGTH SOURCE CODE

 4.8 STRENGTH CODE

 4.9 DEA SCHEDULE

 5.1 QUANTITY

 5.2 CODE LIST QUALIFIER

 5.3 UNIT SOURCE CODE

 5.4 POTENCY UNIT CODE

 5.5 DAYS SUPPLY

 5.6 REFILLS

 5.7 REFILL QUALIFIER

 5.8 SUBSTITUTIONS

 5.9 WRITTEN DATE

 6.1 LAST FILL DATE

 6.2 EXPIRATION DATE

 6.3 EFFECTIVE DATE

 6.4 PERIOD END

 6.5 DELIVERED ON DATE

 6.6 DATE VALIDATED

 7 DIRECTIONS

 8 NOTES

 9 DIAGNOSIS

 10.2 PRIOR AUTHORIZATION

 10.3 PRIOR AUTHORIZATION QUALIFIER

 10.4 PRIOR AUTHORIZATION STATUS

 10.5 DO NOT FILL

 10.6 NEEDED NO LATER THAN

 10.7 TIMEZONE

 10.8 TIME ZONE DIFFERENCE QUANTITY

 10.9 NEEDED NO LATER THAN REASON

 11 STRUCTURED SIG

 12 ORDER CHECKS

 13.1 PATIENT FACILITY UNIT

 13.2 BED

 13.3 ROOM

 14 OBSERVATION

 15 OBSERVATION NOTES

 16 DRUG USE EVALUATION

 17.1 EXTERNAL PHARMACY

 17.2 EXTERNAL PHARMACIST

 17.3 TRANSFERRED TO VA PHARMACY

 17.4 XFER TO EXTERNAL PHARMACY

 18 PAYER INFORMATION

 19 STATUS HISTORY

 20.1 VISTA QUANTITY

 20.2 VISTA DAYS SUPPLY

 20.3 VISTA VERB

 20.4 VISTA ROUTING

 20.5 VISTA REFILLS

 20.6 VISTA CLINIC

 21 QUANTITY/TIMING

 22.1 FROM

 22.2 FROM QUALIFIER

 22.3 TO

 22.4 TO QUALIFIER

 22.5 CH SENT DATE/TIME

 24.1 RELATED INSTITUTION

 24.2 DIVISION

 24.3 SENDER SECONDARY ID

 24.4 SENDER TERTIARY ID

 24.5 RECEIVER SECONDARY ID

 24.6 RECEIVER TERTIARY ID

 25 CH MESSAGE ID

 25.2 PENDING OUTPATIENT ORDER#

 26 VA DISPENSING INSTRUCTIONS

 27 VA PATIENT INSTRUCTIONS

 28 DRUG COVERAGE STATUS

 30 VA PROVIDER COMMENTS

 31 VA UNEXPANDED SIG

 41 EXTERNAL FORM CODE

 42 EXTERNAL POTENCY UNIT CODE

 43 EXTERNAL STRENTH CODE

 44 PAYER CARDHOLDER ID CONVERTED?

 49 MEDICATION DISPENSED/REQUESTED

 50 REQUEST/RESPONSE COMMENTS

 50.1 NOTE ADDED BY

 50.2 NOTE DATE/TIME

 51.1 REFILL/CHANGE REQEUST PERSON

 51.2 # OF REFILLS REQUESTED

 52.1 RESPONSE VALUE

 52.2 RESPONSE NOTE

 52.3 RESPONSE REFERENCE NUMBER

 53 RESPONSE NOTE

 55 RESPONSE CODES

 60 REQUEST/RESPONSE ERROR TEXT

 60.1 REQUEST/RESPONSE ERROR CODE

 61 REQUEST/RESPONSE ERR DCODES

 70.1 FACILITY NAME

 70.2 FACILITY ADDRESS LINE 1

 70.3 FACILITY ADDRESS LINE 2

 70.4 FACILITY CITY

 70.5 FACILITY STATE

 70.6 FACILITY ZIP CODE

 70.7 COUNTRY CODE

 71 10.6 FACILITY ID

 72 10.6 FACILITY COMM

 73 2017 FACILITY COMMUNICATION

 74.1 2017 FAC NCPDPID

 74.2 2017 FAC STATE LIC NUMBER

 74.3 2017 FAC MEDICARE NUMBER

 74.4 2017 FAC MEDICAID NUMBER

 74.5 2017 FAC UPIN

 74.6 2017 FACILITY ID

 75.1 2017 FAC DEA NUMBER

 75.2 2017 FAC HIN

 75.3 2017 FAC NPI

 75.4 2017 FAC MUTUALLY DEFINED

 75.5 2017 FAC REMS ENROLLMENT ID

 76 2017 FACILITY DIRECT ADDRESS

 80.1 CHANGE REQUEST TYPE

 80.2 RETURN RECEIPT

 80.3 REQUEST REFERENCE NUMBER

 80.4 CHANGE RX STATUS FLAG

 80.5 CHANGE/CANCEL DENIED BY HUB

 100 PROCESSING ERRORS

 201 MESSAGE HISTORY

 301.1 2017 LTC LEVEL OF CHANGE

 301.2 2017 URGENCY INDICATOR CODE

 301.3 2017 PROHIBIT RENEWAL REQUEST

 302 2017 NO KNOWN ALLERGIES

 303 2017 ALLERGIES

 304 2017 BENEFITS COORDINATION

 305 2017 OBSERVATION NOTES

 306 2017 OBSERVATION

 307.1 2017 FOLLOW-UP PRESCRIBER

 311 2017 MEDICATIONS

 312.1 SCRIPT VERSION NUMBER

 312.2 REQUEST REFERENCE NUMBER

 312.3 RETURN RECEIPT

 313.1 ECL VERSION

 313.2 DATA TYPE VERSION

 313.3 STRUCTURES VERSION

 313.4 TRANSACTION DOMAIN

 313.5 TRANSACTION VERSION

 313.6 TRANSPORT VERSION

 314.1 SENDER SOFTWARE DEVELOPER

 314.2 SENDER SOFTWARE PRODUCT

 314.3 SENDER SOFTWARE VERSION REL

 315.1 CHANGE MES REQ CODE

 316 CHANGE MES SUB CODE

 318.1 CH RES STATE LICENSE NUM

 318.2 CH RES MEDICARE NUMBER

 318.3 CH RES MEDICAID NUMBER

 319.1 CH RES UPIN

 319.2 CH RES DEA NUMBER

 319.3 CH RES HIN

 319.4 CH RES SOCIAL SECURITY NUMBER

 319.5 CH RES NPI

 321.1 CH RES CERT TO PRESCRIBE

 321.2 CH RES DATA 2000 WAIVER ID

 321.3 CH RES MUTUALLY DEFINED

 322.1 CH RES REMS PROVIDER ID

 322.2 CH RES STATE SUBSTANCE NUMBER

 323 CH RES SUPERVISOR

 324 VAL CH RES DATE

 325 CH RES SPECIALTY

## 25.6. 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**

 **.**01 NAME

 .02 LAST NAME

 .03 FIRST NAME

 .04 MIDDLE NAME

 .05 SUFFIX

 .06 PREFIX

 .07 GENDER

 .08 DATE OF BIRTH

 .09 ERX EXTERNAL PHARMACY

 1.1 FILE ID

 1.2 MEDICAL RECORD ID #

 1.3 ACCOUNT NUMBER

 1.4 SSN

 1.5 LINKED VISTA PATIENT

 1.6 COUNTRY CODE

 1.7 PATIENT RELATIONSHIP

 2 COMMUNICATION

 3.1 ADDRESS LINE 1

 3.2 ADDRESS LINE 2

 3.3 CITY

 3.4 STATE/PROVINCE

 3.5 POSTAL CODE

 5 IDENTIFICATION

 6 LAST LOCKED BY

 7.1 FORMER LAST NAME

 7.2 FORMER FIRST NAME

 7.3 FORMER MIDDLE NAME

 7.4 FORMER SUFFIX

 7.5 FORMER PREFIX

 8.1 PATIENT LOCATION FACILITY/UNIT

 8.2 PATIENT LOCATION/ROOM

 8.3 PATIENT LOCATION/BED

 8.4 LANGUAGE NAME CODE

 8.5 GESTATIONAL AGE

 8.6 HOSPICE INDICATOR

 9.1 ALTERNATE CONTACT LAST NAME

 9.2 ALTERNATE CONTACT FIRST NAME

 9.3 ALTERNATE CONTACT MIDDLE NAME

 9.4 ALTERNATE CONTACT SUFFIX

 9.5 ALTERNATE CONTACT PREFIX

 9.6 ALT CONTACT RELATIONSHIP

 10.1 ALT CONTACT FORMER LAST NAME

 10.2 ALT CONTACT FORMER FIRST NAME

 10.3 ALT CONTACT FORMER MIDDLE NAME

 10.4 ALT CONTACT FORMER SUFFIX

 10.5 ALT CONTACT FORMER PREFIX

 11.1 ALT CONTACT ADDRESS LINE 1

 11.2 ALT CONTACT ADDRESS LINE 2

 11.3 ALT CONTACT CITY

 11.4 ALT CONTACT STATE

 11.5 ALT CONTACT POSTAL CODE

 11.6 ALT CONTACT COUNTRY CODE

 13 2017 COMMUNICATION

 14 2017 DIRECT ADDRESS

 15 2017 ALT COMMUNICATION

 16 2017 ALT DIRECT ADDRESS

 17.1 2017 MEDICARE NUMBER

 17.2 2017 MEDICAID NUMBER

 17.3 2017 MEDICAL RECORD ID #

 18.1 2017 ACCOUNT NUMBER

 18.2 2017 SSN

 18.3 2017 MUTUALLY DEFINED

 18.4 2017 REMS PATIENT ID

 19 2017 SUBSTANCES

## 25.7. 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.

**Inbound ePrescribing External Pharmacy File (#52.47)**

 .01 NAME

 .02 NCPDP ID

 .03 NPI

 .04 DEA NUMBER

 .05 STORE NAME

 1.1 ADDRESS LINE 1

 1.2 ADDRESS LINE 2

 1.3 CITY

 1.4 STATE/PROVINCE

 1.5 POSTAL CODE

 1.6 TYPE

 1.7 COUNTRY CODE

 1.8 SPECIALTY

 2 IDENTIFICATION

 3 COMMUNICATION

 4 ASSOCIATED ERX PERSON

 5.1 FORMER LAST NAME

 5.2 FORMER FIRST NAME

 5.3 FORMER MIDDLE NAME

 5.4 FORMER SUFFIX

 5.5 FORMER PREFIX

 7 2017 COMMUNICATION

 8 2017 DIRECT ADDRESS

 9.1 2017 STATE LICENSE NUMBER

 9.2 2017 MEDICARE NUMBER

 9.3 2017 MEDICAID NUMBER

 9.4 2017 UPIN

 9.5 2017 HIN

 9.6 2017 MUTUALLY DEFINED

 10.1 2017 NCPDP ID

 10.2 2017 NPI

 10.3 2017 DEA NUMBER

## 25.8. 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.

**Inbound ePrescribing External Person (File #52.48)**

 **.**01 NAME

.02 LAST NAME

 .03 FIRST NAME

 .04 MIDDLE NAME

 .05 SUFFIX

 .06 PREFIX

 1.1 PERSON TYPE

 1.2 SPECIALTY

 1.3 ASSOCIATED ERX PHARMACY

 1.4 NCPDP ID

 1.5 NPI

 1.6 DEA #

 1.7 HIN

 1.8 STATE LICENSE NUMBER

 2.1 BUSINESS NAME

 2.2 COUNTRY CODE

 2.3 PRESCRIBER PLACE OF SERVICE

 2.4 FORMER LAST NAME

 2.5 FORMER FIRST NAME

 2.6 FORMER MIDDLE NAME

 2.7 FORMER SUFFIX

 2.8 FORMER PREFIX

 3 COMMUNICATION

 4.1 STREET ADDRESS LINE 1

 4.2 ADDRESS LINE 2

 4.3 CITY

 4.4 STATE/PROVINCE

 4.5 POSTAL CODE

 5.1 AGENT LAST NAME

 5.2 AGENT FIRST NAME

 5.3 AGENT MIDDLE NAME

 5.4 AGENT SUFFIX

 5.5 AGENT PREFIX

 6 IDENTIFICATION

 7.1 AGENT FORMER LAST NAME

 7.2 AGENT FORMER FIRST NAME

 7.3 AGENT FORMER MIDDLE NAME

 7.4 AGENT FORMER SUFFIX

 7.5 AGENT FORMER PREFIX

 11 2017 COMMUNICATION

 12 2017 DIRECT ADDRESS

 14.1 2017 STATE LICENCE #

 14.2 2017 MEDICARE NUMBER

 14.3 2017 MEDICAID NUMBER

 14.4 2017 UPIN

 14.5 2017 DEA NUMBER

 14.6 2017 HIN

 14.7 2017 SOCIAL SECURITY

 15.1 2017 NPI

 15.2 2017 CERTIFICATE TO PRESCRIBE

 15.3 2017 DATA 2000 WAIVER ID

 15.4 2017 MUTUALLY DEFINED

 15.5 2017 REMS ID

 15.6 2017 STATE CS NUMBER

 17.1 2017 PL NCPDP ID

 17.2 2017 PL STATE LICENSE NUMBER

 17.3 2017 PL MEDICARE NUMBER

 17.4 2017 PL MEDICAID NUMBER

 17.5 2017 PL UPIN

 17.6 2017 PL FACILITY ID

 18.1 2017 PL DEA NUMBER

 18.2 2017 PL HIN

 18.3 2017 PL NPI

 18.4 2017 PL MUTUALLY DEFINED ID

 18.5 2017 PL REMS HEALTHCARE ID

 18.6 2017 PL BUSINESS NAME

 19.1 VETERINARIAN

**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 (#52.45)

 .001 NUMBER

 .01 SERVICE REASON CODE

 .02 BRIEF DESCRIPTION

 .03 CODE TYPE

 .04 CODE DESCRIPTION

FULL DESCRIPTION

2.1 NCIT SUBTYPE

[Outpatient Pharmacy PRESCRIPTION FILE (File #52)](#pg153c)

[PRESCRIPTION (#52) ACTIVITY LOG SUB-FILE (#52.3)](#pg153c)

 [REASON (#.02)](#pg153c)

Outpatient Pharmacy OUTPATIENT SITE (File #59)

OUTPATIENT SITE (#59) ERX DEFAULT LOOKBACK DAYS

 (#10.2)

## 25.9. Inbound ePrescribing New Field in Existing File

A new field for a VA site’s default eRx clinic (ERX LOOKBACK DAYS #10.2) was added to the Outpatient Site File #59 and is also released as part of the VistA patch for Inbound ePrescribing.

# 26 Appendix H: DEA# Migration Enhancements

## 26.1 General Information

The overall design of Pharmacy Operations – DEA# Enhancements DOJ/DEA Migration has these components:

* + - * Veterans Health Information Systems and Technology Architecture (VistA) (Patches PSO\*7.0\*529, PSO\*7.0\*667, and PSO\*7.0\*684)
			* A VA Maintained DOJ/DEA web server with the names and DEA numbers of controlled substance prescribers.
			* A web service client to be used during installation to retrieve the provider information from the VA Maintained DOJ/DEA web server.
			* Filing the DOJ/DEA information into the DEA NUMBERS file (#8991.9) and linking the DEA NUMBERS file (#8991.9) to the NEW PERSON file (#200), NEW DEA #'S (#53.21) multiple.
			* New and modified menus and options containing DEA related functionality:

The DOJ/DEA migration process occurs as part of the patch installations of PSO\*7.0\*529. At installation, a search is made through the DEA # field (#53.2) of the NEW PERSON file (#200). For each DEA #, a call is made to the DOJ/DEA web server to retrieve the prescriber’s DEA information. If the call is successful, then the DEA information is filed in the DEA NUMBERS file (#8991.9) and the DEA NUMBERS file entry is linked to the prescriber in the NEW PERSON file (#200) and to the DEA BUSINESS ACTIVITY CODES file (#8991.8).

Patch PSO\*7.0\*684 performs a refresh “migration” of provider DEA information to new data dictionaries introduced by XU\*8\*688 and initially migrated by PSO\*7.0\*529. The DOJ/DEA migration process occurs as part of the patch installation. Prior to refreshing the DEA information, all old DEA information will be deleted. At installation, a search is made through the DEA # field (#53.2) of the NEW PERSON file (#200). For each DEA #, a call is made to the DOJ/DEA web server to retrieve the prescriber’s DEA information. If the call is successful, then the DEA information is filed in the DEA NUMBERS file (#8991.9) and the DEA NUMBERS file entry is linked to the prescriber in the NEW PERSON file (#200) and to the DEA BUSINESS ACTIVITY CODES file (#8991.8). Upon successful installation of this patch, an entry will be logged in the Kernel ^XTMP global for use by the environment check of the follow-on patch PSO\*7.0\*545 installation.

Patch PSO\*7.0\*684 also makes enhancements to the DEA Migration Report [PSO DEA MIGRATION REPORT] option to support the migration of DEA numbers from the NEW PERSON file (#200) to the DEA NUMBERS file (#8991.9).

## 26.2 The Web Server

The PSO DOJ/DEA WEB SERVER is a REST API web service that matches prescriber DEA numbers to the VA Maintained DOJ/DEA web server. If successful, the web service returns the valid DEA information for the prescriber.

* + - * The web service is accessed at the following URL: https:// dev.deals.vaec.va.gov
			* Protocol: The web service is a REST API and accepts and returns JSON request/ response objects.

HealtheVet Web Services Client (HWSC) - HWSC acts as an adjunct to the web services client functionality provided in Caché by leveraging Caché's platform-provided web services client capabilities. At the patch installation, entries are made in the WEB SERVER file (#18.12) for the entry PSO DOJ/DEA WEB SERVER and in the WEB SERVICES file (#18.02) for the entry PSO DOJ/DEA WEB SERVICE.

Consuming the Web Service - HWSC wrapper code is used to consume the web service, thereby making use of built-in error detection and error trap triggering.

Error response codes:

* + - * 404 – Page Not Found (DEA Not Found)
			* 6059 – Unable to establish a connection

HWSC Wrapper Calls:

* + - * // gets client REST request object SET REQUEST=$$GETREST^XOBWLIB("MY REST SERVICE","MY SERVER")
			* // executes HTTP GET method SET REQUEST=$$GET^XOBWLIB(REQUEST,XOBRSCE,XOBERR,XOBFERR)
			* JSON Response - Response is stored in the REQUEST. HttpResponse.Data object in JSON format.

## 26.3 New Menu and Options

A new menu option has been created to support VistA reports with PSO\*7\*667. This menu option is ePCS DEA Utility Functions [PSO EPCS UTILITY FUNCTIONS]. This option is a stand-alone option, not attached to any class 1 menus. The option has the following menu items:

* + - * DEA Expiration Date Report [PSO EPCS EXPIRE DATE REPORT]
			* Changes to DEA Prescribing Privileges Report [PSO EPCS LOGICAL ACCESS REPORT]
			* Allocation Audit of PSDRPH Key Report [PSO EPCS PHARMACIST ACC REPORT]
			* Enter/Edit EPCS Access Reports Parameters [PSO EPCS ACCESS REPORTS PARAM]
			* Print PSDRPH Key Holders [PSO EPCS PSDRPH]

### 26.3.1 DEA Expiration Date Report [PSO EPCS EXPIRE DATE REPORT]

This option can be used to print the DEA Expiration Date for all active users. It provides the following criteria to check the DEA expiration status:

 Report requires 132 Columns

 Select one of the following:

 A Active

 D DISUSERed

 B Both

 Select one of the following:

 E EXPIRED

 N NO EXP DATE

 3 <30-DAYS

 9 <90-DAYS

### 26.3.2 Changes to DEA Prescribing Privileges Report [PSO EPCS LOGICAL ACCESS REPORT]

This is an on-demand report option that will print the setting or a change to DEA prescribing privileges related to issuance of controlled substance prescription. It will prompt for a date range and will print data that has been modified. The data is retrieved from the XUEPCS DATA file (#8991.6).

### 26.3.3 Allocation Audit of PSDRPH Key Report [PSO EPCS PHARMACIST ACC REPORT]

This is an on-demand report option that will print the allocation of the PSDRPH key. It will prompt for a date range and will print the allocation of the PSDRPH key data that has been modified. The data is retrieved from the XUEPCS PSDRPH AUDIT file (#8991.7).

### 26.3.4 Enter/Edit EPCS Access Reports Parameters [PSO EPCS ACCESS REPORTS PARAM]

This option will help the sites to setup the printer device and the email group related to the following parameters:

* + - * Device for Pharmacist access report [PSOEPCS PHARM ACC RPT DEVICE]
			* Email Group for Pharmacist Access Report [PSOEPCS PHARM ACC REPORT EMAIL]
			* Device for Logical Access Report [PSOEPCS LOGICAL ACC REPORT DEV]
			* Email Group for Logical Access Report [PSOEPCS LOGICAL ACC RPT EMAIL]

### 26.3.5 Print PSDRPH Key Holders [PSO EPCS PSDRPH]

This option will print all active users holding the PSDRPH key. This report will sort by division and within division it sorts by key holder name. This report will print the key holder name, key holder Designated User (DUZ), the person who assigned key, and the date that the key was assigned.

### 26.3.6 Kernel Key Allocation to Honor Key Delegation

A Non-licensed pharmacist (a user who is not a registered pharmacist - or a non-pharmacist) now can assign the PSDRPH key permissions when using PSO EPCS PSDRPH KEY Allocate/De-Allocate (Audited) option without personally having the authorizations.

## 26.4 Orphan PSO EPCS PSDRPH Key Allocate/De-Allocate (Audited)

New option Allocate/De-Allocate of PSDRPH Key (Audited) [PSO EPCS PSDRPH KEY] option has been created and 'orphaned' (not attached to any class 1 menus). This option was copied from existing option Allocate/De-Allocate of PSDRPH Key [XU EPCS PSDRPH KEY].

## 26.5 DEA Expiration Date Report

The option DEA Expiration Date Report [PSO EPCS EXPIRE DATE REPORT] incorrectly included DEA numbers that expired in the past when the report is run with the '<30' day and '<90' day search criteria. This issue has been corrected so that no expired DEA numbers are included in the report when the report is run with the '<30' day and '<90' day search criteria.