Outpatient Pharmacy (PSO)

Version 7.0

Technical Manual / Security Guide

December 1997
(Revised June 2026)

Department of Veterans Affairs (VA)

Office of Information and Technology (OIT)

Revision History

Date	Patch	Description
06/2026	PSO*7*810	• Updated Section 23.4 and Table 36– PAT22 description
6/2026	PSO*7*814	• Updated Section 25. 5 – ERX Holding Queue file #52.49
08/2025	PSO*7*766	• Updated Section 5 – Routine List
08/2025	PSO*7*737	• Updated Introduction with PSO*7*737 patch description • Updated Section 2.2 Related Manuals • Added PSOOCPGX to 5 – Routine List • Updated the Glossary • Updated Revision History and Footer
08/2025	PSO*7*774	• Updated Introduction • Updated Routine List • Updated note under External Relations • Updated Data Base Integration Agreements (IAs) • Updated OneVA Pharmacy General Information • Updated OneVA Pharmacy New Menu • Updated OneVA Pharmacy New Flag • Updated New Fields on Existing Files • Updated OneVA Pharmacy New File • Updated OneVA Pharmacy HL7 Message Types • Updated Table 37: Segment • Updated Figure 2: Example RTB^K13 Prescription Query Service Response • Added Note to RDS^O13 Pharmacy/Treatment Dispense Message Request
07/2025	PSO*7*772	• Added PSOASAP1 and PSOASAP2 to 5 – Routine List • Added section 23.5 SPMP Data Source (PSO*7*772)
07/2025	PSO*7*770	• Updated 5 – Routine List • Updated 25.2 – Protocol List • Updated Data Dictionary File #52.49, File #52.45 • Updated 6.2 – Security Keys
05/2025	PSO*7*748	Updated Section 5 – Routine List
09/2024	PSO*7*732	PSO EPCS PSDRPH FILER Remote Procedure added to section 26.5 in Appendix H

Date	Patch	Description
07/2024	PSO*7*746	• Updated 5 – Routine List • Updated 25.2 – Protocol List • Updated Data Dictionary File #52.49, File #52.45
04/2024	PSO*7*736	OneVA Pharmacy migration from IBM WebSphere (VIERS) to VDIF • Introduction • Updated External Relations • Updated _Ref161303409 RDT and RDF data segments to change VA Product ID to VA Product IEN • Updated Figure 6 to replace VA Product ID with VA Product IEN in the 14th position • Updated Glossary
12/2023	PSO*7*700	• Updated 5 – Routine List • Updated 6.2 – Security Keys (New key: PSO ERX WORKLOAD TECH)
12/2023	PSO*7*731	• Removed instances of Detox number (#) in DEA Number Integrity Check [PSO EPCS DEA INTEGRITY REPORT]
06/2023	PSO*7*545	• Updated Routine List: PSO7E545 • Updated Standalone Options • Updated Menu and Options
10/2022	PSO*7*701	• Updated Menu Text of option PSO EPCS PSDRPH KEY • 26.3.6 Kernel Key Allocation to Honor Delegation • 26.4 Orphan PSO EPCS PSDRPH Key Allocate/De-Allocate (Audited)
9/2022	PSO*7*441	• Added new routines PSO441PI, PSOPRK, PSOPRKA, PSORPC01, PSORPTP • Added PSO PARK LIST and PSO PARK to the Templates section.
08/2022	PSO*7*684	• Updated Routine List: PSO7E684, PSO7P684 • Updated Glossary • Updated _Ref108689655 • Merged Appendix I into _Ref108689655

Date	Patch	Description
05/2022	PSO*7*667	• Updated 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]. _Ref95910123
12/2021	PSO*7*653	• Added new PHARMACY TELEPHONE REFILLS file (#52.444) to Outpatient Pharmacy file Table located in the Files section • Added new routines PSOVEXRX and PSOVEXR1 to Routine List section. • Updated the M AudioFax section with the new M AudioCARE option description.
09/2021	PSO*7*561	Added new routines PSOBPSS2, PSOBPSU4, PSOSULB2
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)

Date	Patch	Description
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: o View/Export Void Prescriptions o Manual Export/Prescription Correction o 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)
12/2020	PSO*7*581	• Updated Routine list: o P14: PSO581EN & PSO581PO o 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).

Date	Patch	Description
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. Added definition for ORC-30, Authorization mode.

Date	Patch	Description
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 and 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, PSOSPMU3 Added PSO SPMP ADMIN Security Key entry. Update the Outpatient Pharmacy Menu Diagrams
06/2016	PSO*7*448	Updated Title Page to current OI&T standards Updated routine list; added the menu option Pharmacy Productivity/Revenue Report; added Electronic Claims Management Engine (ECME) to the External Relations table.
04/2016	PSO*7*411	Updated Routine List with routines PSOCROC, PSODGAL3, PSONEWOA, PSONEWOC, and PSOOCKV1.

Date	Patch	Description
08/2014	PSO*7*408	Updated [PSO AUTOQUEUE JOBS] option Files added to OP: (#58.4) SPMP ASAP RECORD DEFINITION, (#58.41) SPMP STATE PARAMETERS, (#58.42) SPMP EXPORT BATCH Routines added: PSO408PI, PSOASAP0, PSORTSUT, PSOSPML0, PSOSPML1, PSOSPML2, PSOSPML3, PSOSPML4, PSOSPML5, PSOSPML6, PSOSPMSP, PSOSPMU1, PSOSPMUT Added new Supervisor Functions menu option: State Prescription Monitoring Program Menu with option names Updated the Glossary Added Appendix E: Outpatient Pharmacy ASAP Standard for Prescription Monitoring Programs (PMP) Updated Index
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*372 PSO*7*416	Renumber all pages Updated Revision History and Table of Contents. Added to the Related Manuals Update 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&L The Outpatient Pharmacy Automation Interface (OPAI) has been changed to delimit the text on the pharmacy warning labels, correcting the problem in which text from one warning label runs into the text of another warning label.

Date	Patch	Description
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, PSOBPSSL Add 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 History Added option Automate Internet Refill that was missing in the manual for PSO*7*264 Add new routines: PSODGAL2, PSODDPR7, PSODDPR8 Add menu option; Check Drug Interaction Added BSA & CrCL to the Glossary
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 Devices Updated list of files with file 52.53 Added file 52.53 to file security section Added new menu option Enter/Edit Automated Dispensing Devices Added RXD-13 Dispense-To location
02/2012	PSO*7*385	Removed "TRICARE" from file 52.87 name Changed name of PSO TRICARE and PSO TRICARE MGR security keys to PSO TRICARE/CHAMPVA and PSO TRICARE/CHAMPVA MGR respectively. Updated ePharmacy Menu with correct menu items Added Advanced Beneficiary Notice Code for ePharmacy Rx in Appendix A references
02/2012	PSO*7*354	Updated list of files with file 52.53

Date	Patch	Description
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 table Change the number of files from 24 to 26. Changed menu item Process Drug/Drug Interactions to Process Order Checks. Removed heading and information under Routine Mapping.
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.

Date	Patch	Description
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.

The OneVA Pharmacy patch PSO*7*736 (April 2024) replaces the query to the HDR/CDS repository with a query to the Veterans Data Information Exchange (VDIF). This patch also includes modifications to the "PROVIDER HOLD" status abbreviation from "PH" to "HP" and also adds "DISCONTINUED BY PROVIDER", "DISCONTINUED (EDIT)", and "NON-VERIFIED" statuses for display on the patient's medication profile for remote prescriptions.

The OneVA Pharmacy Patch PSO*7.0*774 (September 2025) extends OneVA functionality to include Auto-Unpark and Auto-Release capabilities.

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.

PSO*7*737, along with other related patches, adds Pharmacogenomic (PGx) order checking to medication orders entered through Inpatient Medications, Outpatient Pharmacy, and Computerized Patient Record System (CPRS). PSO*7*737 also creates a new Pharmacy option called 'Check Pharmacogenomic Interaction Check' (PSS CHECK PGX INTERACTION) that allows a user to enter drug(s), gene(s), phenotype(s), and genotype(s) and see the PGx order checks returned from the vendor for the data entered. This option also allows for patient selection and returns PGx order checks based on the patient's Genomic lab data and current medication profile.

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
ScripTalk® Talking Prescription Labels Installation Guide
Herbal/OTC/Non-VA Meds Documentation Release Notes
VistA Data Extraction Framework (VDEF) Installation & User Configuration Guide
Pharmacy Re-Engineering (PRE) Application Program Interface (API) Manual
Dosing Order Check User Manual
VistA to MOCHA Interface Document
Installation Guide – OneVA Pharmacy
Release Notes – OneVA Pharmacy
User Manual – OneVA Pharmacy
*Release Notes – Inbound ePrescribing (PSO*7*467)*

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

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

*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)*

*Pharmacy Re-Engineering (PRE) Release Notes – Inbound ePrescribing (PSO*7*635)*

*Pharmacy Re-Engineering (PRE) User Guide – Inbound ePrescribing (PSO*7*635)*

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

*Pharmacy Outpatient Release Notes – (PSO*7*737)*

*Pharmacy Outpatient Pharmacist's User Guide V.7.0 - (PSO*7*737)*

*Pharmacy Outpatient Manager's User Guide V.7.0 – (PSO*7*737)*

*Pharmacy Outpatient Technician's User Guide V.7.0 - (PSO*7*737)*

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.

*****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, stop, or both 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

FILE #	NAME	UP DATE DD	SEND SEC. CODE	DATA COMES W/FILE	SITE DATA	RSLV PTS	USER OVER RIDE
50.073	DUE QUESTIONNAIRE	YES	YES	NO			
50.0731	DUE ANSWER SHEET	YES	YES	NO			
50.0732	DUE QUESTION	YES	YES	NO			
50.0733	DUE SECTION	YES	YES	NO			
50.9	DRUG COST	YES	YES	NO			
52	PRESCRIPTION	YES	YES	NO			
52.09	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*452 Data 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 and 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
- PSO770PI
- PSO7L529
- PSO7L684
- PSO7M529
- PSO7P517
- PSO7P529
- PSO7P684
- PSOACR
- 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
- PSOASAP1
- PSOASAP2
- 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
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- PSOCLEAN
- PSOCLERK
- PSOCLO1
- PSOCLOLS
- PSOCLUTL
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- PSOCMOPA
- PSOCMOPB
- PSOCMOPC
- PSOCMOPR
- PSOCMOPT
- PSOCOPAY
- PSOCOST
- PSOCOSTP
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- PSOCP1
- PSOCPA
- PSOCPB
- PSOCPBA2
- PSOCPBAK
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- PSOCPBK2
- PSOCPBK3
- PSOCPBK4
- PSOCPBK5
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- PSOCPF2
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- PSOCPIB3
- PSOCPIB4
- PSOCPIB5
- PSOCPIBC
- PSOCPIBF
- PSOCPPRE
- PSOCPTRH
- PSOCPTRI
- PSOCPVW
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- PSOCSTM
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- PSODDPR7
- PSODDPR8

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- PSODEAMA
- PSODEAME
- PSODEARA
- PSODEARB
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- PSODEART
- PSODEART
- PSODEARU
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- PSODEM
- PSODEMSB
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- PSODGDGP
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- PSODLKP
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- PSODOSUT
- PSODP
- PSODPT
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- PSODRG
- PSODRGN
- PSODRGU0
- PSODSPL
- PSODSRC
- PSODUE
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- PSOECMPS
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- PSOERPR1
- PSOERPR2
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- PSOERPT2
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- PSOERUT7
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- PSOERXIF
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- PSOERXIH
- PSOERXII
- PSOERXIU
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- PSOERXOC
- PSOERXOD
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- PSOERXOF
- PSOERXOG
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- PSOERXOL
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- PSOERXX4
- PSOERXX5
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- PSOEXDT
- PSOEXREF
- PSOEXRST
- PSOFDAMG
- PSOFDAUT
- PSOFSIG
- PSOFTDR
- PSOFUNC
- PSOHCPRS
- PSOHCSUM
- PSOHDR
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- PSOHELP2
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- PSOHELP4
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- PSOHLUP1
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- PSOIOS
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- PSONDCV
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- PSOPKIV2
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- PSOPXRMI
- PSOPXRMU
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- PSOSULOG
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- PSOSUPAT
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- PSOSUPRX
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- PSOSUSRP
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- PSOUTOR1
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- PSOXZA8
- PSOXZA9

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

OITIMB33554520 - Migration from M2J to VistA Web Services Client (VWSC)	
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 OIT.
Record Type	TDR
State	Approved
Date Submitted	2/14/2007 8:37:24 AM

Table 10: 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, inquire into other Outpatient Pharmacy V. 7.0 files, or both.

6.2 Security Keys

Table 11: 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.

Key	Description
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 WORKLOAD RPH	This key was introduced by patch PSO*7*770 for the Inbound eRx Holding Queue functionality. The key is used to identify users that are supposed to work through a list of eRx in a FIFO (First In First Out) sequence. It will be mostly used by Meds-By-Mail (MbM) given the high volume of eRx prescriptions they process daily.
PSO ERX WORKLOAD TECH	This key was updated by patch PSO*7*770 for the Inbound eRx Holding Queue functionality. The key is used to identify users that are supposed to work through a list of eRx in a FIFO (First In First Out) sequence. It will be mostly used by Meds-By-Mail (MbM) given the high volume of eRx prescriptions they process daily.
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.

Key	Description
PSOA PURGE	**NOTE:** Disabled until further notice. This key should be assigned to the package coordinator, any person who will be responsible for archiving prescriptions, or both.
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.
PROVIDER	Holders of this key will be prompted for ICD-9 Diagnosis code entry.

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). 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 WORKLOAD TECH	This key was introduced by patch PSO*7*700 for the Inbound eRx Holding Queue functionality. The key is used to identify users that are supposed to work through a list of eRx in a FIFO (First In First Out) sequence. It will be mostly used by Meds-By-Mail (MbM) given the high volume of eRx prescriptions they process daily.
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.

Key	Description
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, any person who will be responsible for archiving prescriptions, or both.
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: FILER AND LINK MANAGEMENT OPTIONS


   SM     SYSTEMS LINK MONITOR
   FM     MONITOR, START, STOP FILERS
   LM     TCP LINK MANAGER START/STOP
   SA     STOP ALL MESSAGING BACKGROUND PROCESSES
   RA     RESTART/START ALL LINKS AND FILERS
   DF     DEFAULT FILERS STARTUP
   SL     START/STOP LINKS
   PI     PING (TCP ONLY)
   ED     LINK EDIT
   ER     LINK ERRORS ...

SELECT FILER AND LINK MANAGEMENT OPTIONS OPTION: SL  START/STOP LINKS
```

```
THIS OPTION IS USED TO LAUNCH THE LOWER LEVEL PROTOCOL FOR THE
APPROPRIATE DEVICE. PLEASE SELECT THE NODE WITH WHICH YOU WANT
TO COMMUNICATE

SELECT HL LOGICAL LINK NODE: PSO DISP
THE LLP WAS LAST SHUTDOWN ON MAY 11, 2004 07:29:53.
THIS LLP HAS BEEN ENABLED!
```

Example: Shutting Down the Interface

```
SELECT OPTION NAME: HL MAIN MENU       HL7 MAIN MENU


          EVENT MONITORING MENU ...
          SYSTEMS LINK MONITOR
          FILER AND LINK MANAGEMENT OPTIONS ...
          MESSAGE MANAGEMENT OPTIONS ...
          INTERFACE DEVELOPER OPTIONS ...
          SITE PARAMETER EDIT

SELECT HL7 MAIN MENU OPTION: FILER AND LINK MANAGEMENT OPTIONS


   SM     SYSTEMS LINK MONITOR
   FM     MONITOR, START, STOP FILERS
   LM     TCP LINK MANAGER START/STOP
   SA     STOP ALL MESSAGING BACKGROUND PROCESSES
   RA     RESTART/START ALL LINKS AND FILERS
   DF     DEFAULT FILERS STARTUP
   SL     START/STOP LINKS
   PI     PING (TCP ONLY)
   ED     LINK EDIT
   ER     LINK ERRORS ...

SELECT FILER AND LINK MANAGEMENT OPTIONS OPTION: SL  START/STOP LINKS

THIS OPTION IS USED TO LAUNCH THE LOWER LEVEL PROTOCOL FOR THE
APPROPRIATE DEVICE. PLEASE SELECT THE NODE WITH WHICH YOU WANT
TO COMMUNICATE

SELECT HL LOGICAL LINK NODE: PSO DISP
THE LLP WAS LAST STARTED ON JUN 02, 2004 09:52:02.

OKAY TO SHUT DOWN THIS JOB? YES
THE JOB FOR THE PSO DISP LOWER LEVEL PROTOCOL WILL BE SHUT DOWN.
```

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 12: 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

Package	Minimum Version Needed
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 introduced new functionality that allows for a pharmacist to remotely refill (and original fill with the introduction of PSO*7*774) 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. Before the release of patch PSO*7*736, VistA utilized HL7 to send a query message to middleware application and then the middleware application was 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 (or original fill with the introduction of PSO*7*774) any active prescriptions that are not considered controlled substances at either facility. The OneVA Pharmacy patch PSO*7*736 (January 2024) replaces the query to the HDR/CDS repository with a query to the Veterans Data Information Exchange (VDIF). The OneVA Pharmacy software sends an HL7 message to VDIF National Health Connect to an existing TCP Service to request patient medications. PSO*7*774 (September 2025) also introduced auto-unpark and auto-release functionality (on the ‘host’ facility) for OneVA Pharmacy processing.

NOTE: The OneVA HL7 Listener Service is using an existing connection that all 130+ VistAs have with the National HL7 Health Connect.

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. Pharmacy patch PSO*7*774 also introduced Outpatient Pharmacy as a subscriber to Kernel as part of IA 4129 to set the DUZ to PSOAUTORELEASE,PROXY USER for downstream ECME processing. 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 13: 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 14: Templates - Sort

Sort	File
PSO COST STAT	50.9
PSO BBWAIT SORT	52.11
PSO DEA DISUSER2 SORT	200
PSO DEA DIV SORT	200
PSO DEA PSDRPH SORT	200
PSO DEA SET PARMS SORT	200
PSO DRUG LIST	50
PSO DRUG WARNINGS	52
PSO HOLD LIST	52
PSO INTERVENTIONS	9009032.4
PSO NARC LIST	52
PSOUPAT	52
PSO PARK LIST	52

Table 15: 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

Input	File
PSOD DUE BUILD QUESTIONNAIRE	50.073
PSOD DUE EDIT	50.0731

Table 16: 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 DEA PRIVS PRINT	200
PSO DEA DISUSER PRIVS PRINT	200
PSO DEA PSDRPH PRINT	200
PSO DEA SET PARMS PRINT	200
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 PARK	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, inquire into other Outpatient Pharmacy files, or both.

14.6 Security Keys

Table 17: 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.
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.
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.
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.

Key	Description
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, any person who will be responsible for archiving prescriptions, or both.
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 18: 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	@	@	@

File Numbers	File Names	DD	RD	WR	DEL	LAYGO
52.87	PSO AUDIT LOG	@	Pp	@	@	@
52.9	PHARMACY PRINTED QUEUE					
52.91	TPB ELIGIBILITY	@				
52.92	TPB INSTITUTION LETTERS	@				
53	RX PATIENT STATUS					
58.4	SPMP ASAP RECORD DEFINITION					
58.41	SPMP STATE PARAMETERS	@	@	@	@	@
58.42	SPMP EXPORT BATCH					
59	OUTPATIENT SITE					
59.1	OUTPATIENT AMIS DATA	@		@	@	@
59.12	OUTPATIENT PHARMACY MANAGEMENT DATA	@		@	@	@
59.2	WAITING TIME	@	@	@	@	@
59.3	GROUP DISPLAY	@	@	@	@	@
59.8	OUTPATIENT CLINIC SORT GROUP					

NOTE: 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

Batch eRx Change Request/VistA Drug Replacement

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 not attached to a menu and therefore must be assigned individually to each user requiring access. See the Non-VA Provider Import (PSO*7.0*481) Deployment, Installation, Back-out and Rollback Guide for more information.

The DEA Delete [PSO DEA DELETE] option was added by patch PSO*7.0*529. This option is not attached to a menu. **NOTE**: **THIS OPTION SHOULD NEVER BE RUN**. 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 not attached to a menu and therefore must be assigned individually to each user requiring access. 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] menu option was added as a stand-alone menu option to support Pharmacy Operational Updates as part of patch PSO*7.0*667 and updated as part of patch PSO*7.0*545. This option is not attached to a menu and therefore must be assigned individually to each user requiring access. See the PSO*7.0*667 and PSO*7.0*545 Deployment, Installation, Back-out and Rollback Guide for more information. This 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]
- Set Pharmacy Operating Mode [PSO VAMC MBM PHARMACY MODE]
- Print Setting Parameters Privileges [PSO EPCS SET PARMS]
- Print Prescribers with Privileges [PSO EPCS PRIVS]

- Edit Facility DEA# and Expiration Date [PSO EPCS EDIT DEA# AND XDATE]
- Print Audits for Prescriber Editing [PSO EPCS PRINT EDIT AUDIT]
- Print DISUSER Prescribers with Privileges [PSO EPCS DISUSER PRIVS]
- Allow VA Number if DEA Number Expired [PSO EPCS EXPIRED DEA FAILOVER]
- Manual DEA Number Entry [PSO EPCS DEA MANUAL ENTRY]
- Manually Entered DEA Number Report [PSO EPCS MANUAL DEA REPORT]
- DEA Number Integrity Check [PSO EPCS DEA INTEGRITY REPORT]

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

*****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
```

NOTE: **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 were not, 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 19: 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

Control Code	Variable
	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 ScripTalk® Printers

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

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

The 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 20: 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: $BSA\ (m^2) = 0.20247 \times Height\ (m)^{0.725} \times Weight\ (kg)^{0.425}$ The equation is performed using the most recent patient height and weight values that are entered into the vitals package. The calculation is not intended to be a replacement for independent clinical judgment.
CPRS	Computerized Patient Record System. CPRS is a Graphical User Interface (GUI) in VistA that provides order entry and results reporting for multiple packages.
CrCL	Creatinine Clearance. The CrCL value 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

Term	Description
Gene	A gene is a section of an individual's DNA that provides instructions for making proteins, including those that affect how the body processes medications.
Genotype	A genotype is a combination of alleles (version of a gene) which can influence how an individual processes medications.
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
PGx	Pharmacogenomic
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
VDIF	Veterans Data Information Exchange
VHA	Veterans' Health Administration

Term	Description
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:

a. position - position of the data field within the segment.

b. name - unique descriptive name for the field.

c. ID number - integer that uniquely identifies the data field throughout the Standard.

d. maximum length - maximum number of characters that one occurrence of the data field may occupy.

e. optionality - whether the data field is required (R), optional (O), or conditional (C) in a segment.

f. repetition - whether the field may repeat (N=no; Y=yes; (integer)= no. of repeats).

g. table - a table of values for a field (See HL7 Standard V. 2.4, Section 2.7.6 for source of tables).

h. data type - restrictions on the contents of the data field (See HL7 Standard V. 2.4, Section 2.9).

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, construct / deconstruct the information, or both 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 21: 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 22: 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 23: Pharmacy Encoded Order / Treatment Dispense Message

RDS	Pharmacy Encoded Order / Treatment Dispense Message
MSH	Message Header
[PID]	Patient Identification

RDS	Pharmacy Encoded Order / Treatment Dispense Message
[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 24: 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 25: 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.XX X.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

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
IAM	2	250	CE	O	Y	0127	Allergen Type Code	D~DRUG~LGMR 120.8
	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

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
NTE	1	1	SI	O			Set ID	1
	3	65536	FT	O			Comment	USE 50 FOR TESTING BY MOUTH TWICE A DAY FOR 30 DAYS
	4	250	RE	O			Comment Type – 1 = Medication Instructions 2 = Patient Instructions Narrative 3 = Drug Warning Narrative 4 = Profile Information 5 = Drug Interactions 6 = Drug Allergy Indications 7 = PMI Sheet 8 = Medication Instructions 9 = Privacy Notification	Medication Instructions **NOTE**: The separator value "\.sp\" has been added to NTE-3, 3 = Drug Warning Narrative, to separate the different warning labels.
RXE	1	200	TQ	R			Quantity/Timing	Null
	2	250	CE	R			Give Code	XH001~HEMATEST TAB (NOT FOR ORAL USE)~99PSNDF~3207.12039.4321~HEMATEST REAGENT TAB. 100/BTL~99PSD
	3	20	NM	R			Give Amount-Minimum	Null
	5	250	CE	R			Give Units	20~MG~99PSU
	6	250	CE	O			Give Dosage Form	165~TAB,TEST~99PSF
	8	200	CM	O			Deliver-To Location	WINDOW
	9	25	ST	O			Substitution Status	(Trade name)
	10	20	NM	O			Dispense Amount	30

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	11	250	CE	O			Dispense Units	~TAB
	12	3	NM	O			Number of Refills	3
	13	250	XCN	O			Ordering Provider's DEA Number	EZ9278277
	14	250	XCN	C			Pharmacist/Treatment Supplier's Verifier ID	188~OPPROVIDER3~ONE
	15	20	ST	R			Prescription Number	100002202
	16	20	NM	O			Number of Refills Remaining	3
	17	20	NM	O			Number of Refills/Doses Dispensed	0
	18	26	TS	O			D/T of Most Recent Refill	200404050830
	21	250	CE	R			Pharmacy/treatment dispense instructions	^IBUPROFEN 400MG TAB
	31	1	ID	R			Supplementary Code = spec hdlg, ScripTalk, PMI language preference	N^0^N
RXD	1	10	NM	R			Dispense Sub-ID Counter	0
	2	250	CE	R			Dispense/Give Code	XH001~HEMATEST TAB (NOT FOR ORAL USE)~99PSNDF~3207.12039.4321~HEMATEST REAGENT TAB. 100/BTL~99PSD
	3	26	TS	R			Date/Time Dispensed	20040405
	7	20	ST	R			Prescription Number	100002202
	8	20	NM	O			Number of Refills Remaining	3
	9	25	ST	O			Dispense Notes – DEA spec hdlg, NDC code	S^193-2426-21
	10	200	XCN	O			Dispensing Provider	157~OPPROVIDER~TWO
	12	10	CQ	O			Total Daily Dose	30
	13	200	CM	O			Dispense-To Location	CERTIFIED MAIL

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	15	10	CE	O			Pharmacy/Treatment Supplier's Special Dispensing Instructions	~NON-SAFETY
	19	26	TS	O			Substance Expiration Date	20040615
	25	250	CE	O			Supplementary Code	8~NO ALCOHOL
NTE	1	4	SI	O			Set ID-Notes and Comments	7
	3	6000	FT	O	Y		Comment	PMI free text
	4	250	CE	O			Comment Type – P MI	Patient Medication Instructions **NOTE**: The separator value "\.sp\" has been added to NTE-3, 3 = Drug Warning Narrative, to separate the different warning labels.
RXR	1	250	CE			0162	Route	1~ORAL (BY MOUTH)~99PSR
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 VistA and the second component is his/her name.

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

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

[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 26: 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.XX X.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

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	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

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	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||1959011
6|M
ORC|OR|12345|||||||^OPPROVIDER2^THREE|^OPPROVIDER^TWO
RXD|1|D0082^DIGOXIN 0.25MG TAB^99PSNDF^372.3^DIGOXIN 0.25MG
TAB^99PSD|20031215||||123987||06505-5840-
00^20031212^1|1234567^OPPROVIDER1^ONE|||123456789101112131415|||||45201|20041201|BAXTER
```

Table 27: 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

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	7	26	TS	R			Date/Time of Birth	19280622
	8	1	IS			0001	Administrative Sex	M
ORC	1	2	ID	R		0119	Order Control	OR
	2	22	EI	C			Placer Order Number	12345
	10	250	XCN	O			Entered By	114~OPPROVIDER2~THREE
	11	250	XCN	O			Verified By	115~OPPROVIDER~TWO
RXD	1	4	NM	R			Dispense Sub-ID Counter	1 (Fill Number)
	2	250	CE	R		0292	Dispense/Give Code	XH001~HEMATEST TAB (NOT FOR ORAL USE)~99PSNDF~3207.12039.4321~HEMATEST REAGENT TAB. 100/BTL~99PSD
	3	26	TS	R			Date/Time Dispensed	20040405
	7	20	ST	R			Prescription Number	100002202
	9	25	ST	O			Dispense Notes NDC Code^Release Date time^Vendor dispense code	06505-5840-00^200312120915^1
	10	200	XCN	O			Dispensing Provider (Verifying/Dispensing Pharmacist)	1234567~OPPROVIDER1~ONE
	13	200	CM	O			Dispense-To Location	123456789101112131415
	18	20	ST	O			Substance Lot Number	45201
	19	26	TS	O			Substance Expiration Date	20050405
	20	250	CE	O		0227	Substance Manufacturer Name	BAXTER

Notes pertaining to some data elements:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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 28: 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

Segment	Piece	Description / Field Name	Data	Data Type
	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 29: 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

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

* Field must contain unique data

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

Table 30: 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

Segment	Piece	Description / Field Name	Data	Data Type
	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 VistA rejects a new or discontinue order message. For new order messages, the rejections are largely based on the drug, provider, or patient associated with the prescription order.

Drug exceptions

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

Provider exceptions

- Provider is not authorized to write med orders
- Provider has an inactive date (date of today or less)
- Provider has a termination date (date of today or less)

- Provider does not hold the PROVIDER key
- Invalid provider entry

Patient exceptions

- Patient is deceased
- Invalid patient entry

Other exceptions

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

- Missing effective date
- Missing Entered by data

For discontinue order messages, these are the possible exceptions:

Provider exceptions

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

Other exceptions

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

- Unable to cancel Pending order, status is REFILL REQUEST
- Patient mismatch in prescription
- Prescription is being edited by another user
- Unable to cancel prescription, status is DISCONTINUED
- Unable to cancel prescription, status is DELETED
- Unable to cancel prescription, status is DISCONTINUED BY PROVIDER
- Unable to cancel prescription, status is DISCONTINUED (EDIT)

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)

*****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^^^1995
0111170823-0500^^^TAKE ONE CAPSULE BY MOUTH EVERY EIGHT HOURS IN THE MORNING AND AT
BEDTIME~~613_52_10.2^D90^^^^^^^^^11135~ AMANTADINE HCL 100MG CAP ~613_50_.01|C0255~~613_50_27
RXR^1~ORAL (BY MOUTH)~613_52.0113_6
FT1^^^^19950109^^CG^620~AMANTADINE~~613_52_39.2^^^^^0.009^^^^^^ONSC^12345~FINISHING
PHARM~613_52_38
FT1^2^^^19950109^^CO^1~PSO NSC RX COPAY NEW~500_52_105
OBX^1^CE^WAS THE PATIENT COUNSELED^^4500633~YES~99VA_52_41^^^^^^F
OBX^2^CE^WAS COUNSELING UNDERSTOOD^^4500630~NO~99VA_52_42^^^^^^F
NTE^1^^RENEWED FROM RX # 123456^RE~REMARKS~613_52_12
ORC^RF^^1^^^^^~~~19950330~~~DISPENSED^~1685567^19950306^^^947~OPPROVIDER41~TWO~A~MD~~MD~VISTA2
00^^^^REFILL^613~MARTINSBURG
VAMC~613_52.1_8~5005423~MARTINSBURG VAMC~NCPDP^^^^MARTINSBURG, WV
RXE^~~~19950330~~~REFILL^4005192~AMANTADINE HCL 100MG CAP~99VA _52_6~0781-2048-01~~NDC
^0^^20~MG~613_52_6^^^^^^^^MAIL^^90^^^^2992~OPPROVIDER42~THREE~M~~~~PHARMACIST^^^^199503290934
-0500^^^^D90^^^^^^^^^11135~ AMANTADINE HCL 100MG CAP ~613_50_.01|C0255~~613_50_27
FT1^^^^19950330^^CG^620~AMANTADINE~~613_52_39.2^^^^^0.009
FT1^2^^^19950330^^CG^1~PSO NSC RX COPAY NEW~500_52_105
ORC^RF^^1^^^^^~1685567^199503061212-
0500^^^947~OPPROVIDER41~TWO~A~MD~~MD~VISTA200^^^^PARTIAL^613~MARTINSBURG
VAMC~613_52.2_.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^^^^1995030714
4822-0500^^^D30^^^^^^^^^11135~ AMANTADINE HCL 100MG CAP ~613_50_.01|C0255~~613_50_27
NTE^^PT OUT RX ON SUSP FOR 24 MORE DAYS^RE~REMARKS~613_50_27
FT1^^^^19950306^^CG^620~AMANTADINE~~613_52_39.2^^^^^0.009
FT1^2^^^19950306^^CG^1~PSO NSC RX COPAY NEW~500_52_105
```

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 31: 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

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
ORC	8	Parent	CM	
ORC	9	Date/Time of Transaction	TS	19950109123449-0500
ORC	10	Entered By	XCN	63~OPPROVIDER40~TWO~~~~~VistA 200
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	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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_.02 OR if VUID exists 63~CAP~613_50.7_.02~11111~CAP~99VA__50.7_.02
RXE	7(n)	Verb, Noun, Schedule, Conjunction	CE	~TAKE~613_52.0113_8|~CAPSULE~613_52.0113_3|~Q8H~613_52.0113_7
RXE	7(n)	Patient Instructions	CE	~QAMHS~613_52_114
RXE	7(n)	Expanded Patient Instructions	CE	~IN THE MORNING AND AT BEDTIME~613_52_115
RXE	8	Deliver-To Location	CM	~~~~~WINDOW
RXE	9	Substitution Status	ID	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
FT1	3	Transaction Batch ID	ST	
FT1	4	Transaction Date	TS	19950109
FT1	5	Transaction Posting Date	TS	
FT1	6	Transaction Type	IS	CO
FT1	7	Transaction Code	CE	1~PSO NSC RX COPAY NEW~500_52_105
OBX	1	Set ID - OBX	SI	1
OBX	2	Value Type	ID	CE
OBX	3	Observation Identifier	CE	WAS THE PATIENT COUNSELED
OBX	4	Observation Sub-Id	ST	
OBX	5	Observation Value	CE	4500633~YES~99VA_52_41 OR 1~YES~613_52_41
OBX	6	Units	CE	
OBX	7	References Range	ST	
OBX	8	Abnormal Flags	IS	
OBX	9	Probability	NM	
OBX	10	Nature of Abnormal Test	ID	
OBX	11	Observation Result Status	ID	F
OBX	12	Date Last Observation Normal Value	TS	
OBX	13	User Defined Access Checks	ST	

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

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
RXE	2	Give Code	CE	4005192~AMANTADI NE HCL 100MG CAP~99VA_52_6~0781-2048-01~~NDC OR ~AMANTADINE 100MG CAP~613_52_6~0781-2048-01~~NDC
RXE	3	Give Amount - Minimum	NM	0
RXE	4	Give Amount - Maximum	NM	
RXE	5	Give Units	CE	20~MG~613_52_6
RXE	6	Give Dosage Form	CE	20~MG~613_52_6
RXE	7	Provider's Administration Instructions	CE	
RXE	8	Deliver-To Location	CM	~~~~~MAIL
RXE	9	Substitution Status	ID	
RXE	10	Dispense Amount	NM	90
RXE	11	Dispense Units	CE	
RXE	12	Number of Refills	NM	
RXE	13	Ordering Provider's DEA Number	XCN	
RXE	14	Pharmacist/Treatment Supplier's Verifier ID	XCN	2992~OPPROVIDER42~THREE~M~~~~PHARMACIST
RXE	15	Prescription Number	ST	
RXE	16	Number of Refills Remaining	NM	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
ORC	21	Ordering Facility Name	XON	MARTINSBURG, WV
ORC	22	Ordering Facility Address	XAD	
ORC	23	Ordering Facility Phone Number	XTN	
ORC	24	Ordering Provider Address	XAD	
ORC	25	Order Status Modifier	CWE	
RXE	1	Quantity/Timing	TQ	~~~19950306~~~PARTIAL
RXE	2	Give Code	CE	4005192~AMANTADI NE HCL 100MG CAP~99VA_52_6~0781-2048-01~~NDC OR ~AMANTADINE 100MG CAP~613_52_6~0781-2048-01~~NDC
RXE	3	Give Amount - Minimum	NM	0
RXE	4	Give Amount - Maximum	NM	
RXE	5	Give Units	CE	20~MG~613_52_6
RXE	6	Give Dosage Form	CE	
RXE	7	Provider's Administration Instructions	CE	
RXE	8	Deliver-To Location	CM	~~~~~WINDOW
RXE	9	Substitution Status	ID	
RXE	10	Dispense Amount	NM	30

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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	

Segment	Piece / Sequence	Description / Field Name	Data Type	Data Value
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)

23.1 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 Number Code uniquely identifying the transaction Format = xx.x	**File**: SPMP STATE PARAMETERS (#58.41) **Field**: ASAP VERSION field (#1) **Option**: View/Edit SPMP State Parameters [PSO SPMP STATE PARAMETERS] **Example**: 4.0, 4.1, 4.2
TH02	Transaction Control Number Sender-assigned code uniquely identifying a transaction This number must be used in TT01	ASAP 3.0 : Business Partner Implementation Version (Not Used) ASAP 4.0+: Transaction Control Number VA Site Number – Export Batch Number **Example**: 500-3038

Data Element	Name Description	Data Source
TH03	Transaction Type Identifies the purpose of initiating the transaction 01 Send/Request Transaction 02 Acknowledgment (Used in Response only) 03 Error Receiving (Used in Response only) 04 Void (Used to void a specific Rx in a real-time transmission, or an entire batch file that was transmitted)	ASAP 3.0 : Transaction Control Number ASAP 4.0+: Transaction Type (Always "01" - Send/Request Transaction)
TH04	Response ID Contains the Transaction Control Number of a transaction that initiated the transaction Required in response transaction only	ASAP 3.0 : Transaction Type (Not Used) ASAP 4.0+: Response ID (Not Used)
TH05	Creation Date Date the transaction was created Format: CCYYMMDD	ASAP 3.0 : Message Type (Not Used) ASAP 4.0+: Creation Date (Format: YYYYMMDD) Date the Export Batch was created **Example**: 20130115
TH06	Creation Time Time the transaction was created Format: HHMMSS or HHMM	ASAP 3.0 : Response ID (Not Used); ASAP 4.0+: Creation Time. Format: HHMMSS or HHMM Time the Export Batch was created **Example**: 091522
TH07	File Type Code specifying the type of transaction P Production T Test	ASAP 3.0: Project ID (Not Used) ASAP 4.0+: File Type. • **P** is reported when running from a production account • **T** is reported when running from a non-production account

Data Element	Name Description	Data Source
TH08	Routing Number This field is reserved for real-time transmissions that go through a network switch to indicate, if necessary, the specific state PMP to whom the transactions should be routed	ASAP 3.0: Creation Date (Format: YYYYMMDD) ASAP 4.0 : Composite Element Separator (:) ASAP 4.1+: Routing Number (Real-time transactions only) (Not Used)
TH09	Segment Terminator Character This terminates the TH segment and sets the actual value of the data segment terminator for the entire transaction	ASAP 3.0: Creation Time. Format: HHMMSS or HHMM ASAP 4.0+: Segment Terminator Character • For ASAP version 4.0, the separator is set to "\" (backward slash) • For ASAP version 4.0, 4.1 and 4.2, the separator is set to "~" (tilde)
TH10	File Type Code specifying the type of transaction P Production T Test	ASAP 3.0 only • **P** is reported when running from a production account • **T** is reported when running from a non-production account
TH11	Message Free-form text message.	ASAP 3.0 only (not used)
TH12	Composite Element Separator The delimiter used to separate component data elements within a composite data structure.	ASAP 3.0 only
TH13	Data Segment Terminator Character This terminates the TH segment and sets the actual value of the data segment terminator for the entire transaction set **NOTE:** This Data Element was released as NOT USED because ASAP 3.0 does not require the actual segment terminator value to be in the TH13 field.	ASAP 3.0 only

Data Element	Name Description	Data Source
IS–Information Source		
IS01	Unique Information Source ID Reference number or identification number as defined by the business partners Example: Phone number	VA concatenated with the VA Site Number **Example**: VA500
IS02	Information Source Entity Name Entity name of the Information Source	**File**: INSTITUTION (#4) **Field**: OFFICIAL VA NAME (#100) **Example**: OKLAHOMA CITY VA MEDICAL CENTER
IS03	Message Free-form text for a message Used for more detailed information if required by the PMP	Not Used
IS04-IS10	ASAP 3.0 only	Not Used
IR–Information Receiver (ASAP 3.0 Only)		
IR01	Unique Information Receiver ID Reference number or identification number as defined by the business partners Example: Phone number	VA concatenated with the VA Site Number **Example**: VA500
IR02	Information Receiver Entity Name Entity name of the Information Receiver	**File**: STATE (#5) **Field**: NAME (#.01) Concatenated with "PMP PROGRAM" **Example**: OKLAHOMA PMP PROGRAM
IR03-IR10	ASAP 3.0 only	Not Used

Data Element	Name Description	Data Source
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 Registration API $$NPI^XUSNPI (ICR # 4532) using the NPI INSTITUTION field (#101) in the OUTPATIENT SITE file (#59) **Example**: 1043278211
PHA02	NCPDP/NABP Provider ID Identifier assigned to the pharmacy by the NCPDP/NABP. Used if required by the PMP	**File**: OUTPATIENT SITE (#59) **Field**: NCPDP NUMBER (#1008) **Option**: Site Parameter Enter/Edit [PSO SITE PARAMETERS] **Example**: 3706972
PHA03	DEA Number Identifier assigned to the pharmacy by the Drug Enforcement Administration (DEA) Used if required by the PMP	Retrieved via the Registration API $$WHAT^XUAF4 (ICR # 2171) using the RELATED INSTITUTION field (#100) in the OUTPATIENT SITE file (#59) **Example**: AV4597211
PHA04	Pharmacy Name or Dispensing Prescriber Name Free-form text for the name of the pharmacy	**File**: OUTPATIENT SITE (#59) **Field**: NAME (#.01) **Option**: Site Parameter Enter/Edit [PSO SITE PARAMETERS] **Example**: OKLAHOMA CITY
PHA05	Address Information – 1 Free-form text for address information	**File**: OUTPATIENT SITE (#59) **Field**: MAILING FRANK STREET (#.02) **Option**: Site Parameter Enter/Edit [PSO SITE PARAMETERS] **Example**: 921 N.E. 13th. Street (119)
PHA06	Address Information – 2 Free-form text for additional address information	Not Used

Data Element	Name Description	Data Source
PHA07	City Address Free-form text for city name	**File**: OUTPATIENT SITE (#59) **Field**: MAILING FRANK CITY (#.07) **Option**: Site Parameter Enter/Edit [PSO SITE PARAMETERS] **Example**: OKLAHOMA CITY
PHA08	State Address U.S. Postal Service state code	**File**: STATE (#5) **Field**: ABBREVIATION (#1) **Option**: Site Parameter Enter/Edit [PSO SITE PARAMETERS] Example: OK **Note**: The pointer to STATE file (#5) is retrieved from OUTPATIENT SITE file (#59) MAILING FRANK STATE field (#.08).
PHA09	ZIP Code Address U.S. Postal Service ZIP code Use if available	**File**: OUTPATIENT SITE (#59) **Field**: MAILING FRANK ZIP+4 CODE (#.05) **Option**: Site Parameter Enter/Edit [PSO SITE PARAMETERS] **Example**: 731045028 (no dash)
PHA10	Phone Number Complete phone number including area code	**File**: OUTPATIENT SITE (#59) **Field**: PHONE NUMBER (#.04) **Option**: Site Parameter Enter/Edit [PSO SITE PARAMETERS] **Example**: 4056948387 (no dashes)
PHA11	Contact Name Free-form text for contact name	Not Used
PHA12	Chain Site ID Store number assigned by the chain to the pharmacy location Used when PMP needs to identify the specific pharmacy from which information is required	Not Used

Data Element	Name Description	Data Source
PHA13	Message Free-form text message	Not Used
PAT–Patient Information		
PAT01	ID Qualifier of Patient Identifier Code identifying the jurisdiction that issues the ID in PAT03 Used if the PMP requires such identification	Always **US** (United States), except ASAP 3.0 (not used)
PAT02	ID Qualifier Code to identify the type of ID in PAT03. If PAT02 is used, PAT03 is required 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 99 Other (Trading partner agreed upon ID, such as cardholder ID)	Always **07** (Social Security Number)
PAT03	ID of Patient Identification number for the patient as indicated in PAT02 An example would be the driver's license number	ASAP 3.0 : Unique System ID - Patient (Not Used) ASAP 4.0+: ID of Patient (SSN) Retrieved via the Registration API $$DEM^VADPT (ICR #10061) return variable VADM(2) **Example**: 666554444 (no dashes)

Data Element	Name Description	Data Source
PAT04	ID Qualifier of Additional Patient Identifier Code identifying the jurisdiction that issues the ID in PAT06 Used if the PMP requires such identification	ASAP 3.0 : SSN Retrieved via the Registration API $$DEM^VADPT (ICR #10061) return variable VADM(2) **Example**: 666554444 (no dashes) ASAP 4.0+: ID Qualifier of Additional Patient Identifier (Not Used)
PAT05	Additional Patient ID Qualifier Code to identify the type of ID in PAT06 if the PMP requires a second identifier If PAT05 is used, PAT06 is required 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 99 Other (Trading partner agreed upon ID, such as cardholder ID)	Not Used
PAT06	Additional ID Identification that might be required by the PMP to further identify the individual An example: in PAT03, driver's license is required and in PAT06, Social Security number is also required	Not Used
PAT07	Last Name Patient's last name	Retrieved via the Registration API $$DEM^VADPT (ICR #10061) return variable VADM(1) – first value before the comma (e.g., SMITH, JOHN F) **Example**: SMITH

Data Element	Name Description	Data Source
PAT08	First Name Patient's first name	Retrieved via the Registration API $$DEM^VADPT (ICR #10061) return variable VADM(1) – first value after the comma and before blank space (e.g., SMITH, JOHN F) Example: JOHN
PAT09	Middle Name Patient's middle name or initial if available Used if available in pharmacy system and required by the PMP	Retrieved via the Registration API $$DEM^VADPT (ICR #10061) return variable VADM(1) –value following the first name (e.g., SMITH, JOHN F) Example: F
PAT10	Name Prefix Patient's name prefix such as Mr. or Dr. Used if available in pharmacy system and required by the PMP	Not Used
PAT11	Name Suffix Patient's name prefix such as Jr. or the III Used if available in pharmacy system and required by the PMP	Not Used
PAT12	Address Information – 1 Free-form text for street address information	Retrieved via the Registration API $$ADD^VADPT (ICR #10061) return variable VAPA(1) **Example**: 1235 STREET NAME ST
PAT13	Address Information – 2 Free-form text for additional address information, if required by the PMP and is available in the pharmacy system	Retrieved via the Registration API $$ADD^VADPT (ICR #10061) return variable VAPA(2) **Example**: BLDG 101 APT #102
PAT14	City Address Free-form text for city name	Retrieved via the Registration API $$ADD^VADPT (ICR #10061) return variable VAPA(4) **Example**: ARDMORE

Data Element	Name Description	Data Source
PAT15	State Address U.S. Postal Service state code if required by the PMP **NOTE:** Field was sized to handle international patients not residing in the U.S.	Retrieved via the Registration API $$ADD^VADPT (ICR #10061) return variable VAPA(5) Example: OK
PAT16	ZIP Code Address U.S. Postal Service ZIP code Populate with zeros if the patient address is outside the U.S.	Retrieved via the Registration API $$ADD^VADPT (ICR #10061) return variable VAPA(6) **Example**: 723005500 (no dash)
PAT17	Phone Number Complete phone number including the area code when the PMP requires and is available in the pharmacy system	Retrieved via the Registration API $$ADD^VADPT (ICR #10061) return variable VAPA(8) **Example**: 4245556666 (no dashes)
PAT18	Date of Birth Date patient was born Format: CCYYMMDD	ASAP 3.0 : Email Address (Not Used) ASAP 4.0+: Patient DOB Retrieved via the Registration API $$DEM^VADPT (ICR #10061) return variable VADM(3) **Example**: 19661112
PAT19	Gender Code Code indicating the sex of the patient if required by the PMP F Female M Male U Unknown	ASAP 3.0 : Patient DOB Retrieved via the Registration API $$DEM^VADPT (ICR #10061) return variable VADM(3) **Example**: 19661112 ASAP 4.0+: Patient Gender Code Retrieved via the Registration API $$DEM^VADPT (ICR #10061) return variable VADM(5). If no value is found ,reports **U** Example: F

Data Element	Name Description	Data Source
PAT20	Species Code Used if required by the PMP to differentiate a prescription for an individual from one prescribed for an animal 01 Human 02 Veterinary Patient	ASAP 3.0 : Patient Gender Code Retrieved via the Registration API $$DEM^VADPT (ICR #10061) return variable VADM(5). If no value is found ,reports **U** ASAP 4.0+: Species Code Always **01** (Human)
PAT21	Patient Location Code Code indicating where the patient is located when receiving pharmacy services if required by the PMP 01 Home 02 Intermediary Care 03 Nursing Home 04 Long-Term/Extended Care 05 Rest Home 06 Boarding Home 07 Skilled-Care Facility 08 Sub-Acute Care Facility 09 Acute-Care Facility 10 Outpatient 11 Hospice 98 Unknown 99 Other	Always **10** (Outpatient)
PAT22	Country of Non-U.S. Resident Used when the patient's address is a foreign country. This is a free-form text field	ASAP 3.0 : Primary Prescription Coverage Type (Not Used) ASAP 4.0+:Country of Non-U.S. Resident Retrieved via the Registration API $$ADD^VADPT (ICR #10061) return variable VAPA(25) Example: MX
PAT23-PAT40	Not Used	

Data Element	Name Description	Data Source
DSP–Dispensing Record		
DSP01	Reporting Status DSP01 requires one of the codes below. An empty or blank field no longer indicates a new prescription dispensing transaction. Individual PMPs may elect to require a subset of the codes below, specifically 00 and 02, but not 01. 00 New Record (indicates a new prescription dispensing transaction) 01 Revise (indicates that one or more data element values in a previously submitted transaction will be revised) 02 Void (message to the PMP to remove the original prescription transaction from its database, to mark the record as invalid, or to be ignored)	ASAP 4.0 • (Blank) New Record • 01 Revise Record • 02 Void Record • ASAP 4.1 and 4.2 • 00 New Record • 01 Revise Record • 02 Void Record
DSP02	Prescription Number Serial number assigned to the prescription by the pharmacy	**File**: PRESCRIPTION (#52) **Field**: RX # (#.01) **Example**: 10930393
DSP03	Date Written Date the prescription was written (authorized) Format: CCYYMMDD	**File**: PRESCRIPTION (#52) **Field**: ISSUE DATE (#1) **Example**: 20130117
DSP04	Refills Authorized Number of refills authorized by the prescriber	**File**: PRESCRIPTION (#52) **Field**: # OF REFILLS (#9) Example: 5

Data Element	Name Description	Data Source
DSP05	Date Filled Date prescription was filled Format: CCYYMMDD	• Original Fill **File**: PRESCRIPTION (#52) **Field**: RELEASED DATE/TIME (#31) • Refill **Sub-File**: REFILL (#52.1) **Field**: RELEASED DATE/TIME (#17) • Partial **Sub-File**: PARTIAL (#52.2) **Field**: RELEASED DATE/TIME (#8) **Example**: 20130118
DSP06	Refill Number Number of the fill of the prescription 0 indicates original dispensing 01-99 is the refill number	• Original 0 • Refill Refill # (e.g., 1, 2, …) • Partial 0
DSP07	Product ID Qualifier Used to identify the type of product ID contained in DSP08 01 NDC 02 UPC 03 HRI 04 UPN 05 DIN 06 Compound (used to indicate it is a compound' if used, the CDI segment then becomes a required segment)	Always **01** (NDC)

Data Element	Name Description	Data Source
DSP08	Product ID Full product identification as indicated in DSP07, including leading zeros without punctuation If the product is a compound, use 99999 for the first five characters of the product code. The remaining characters are assigned by the pharmacy. The CDI then becomes a required segment.	• Original Fill **File**: PRESCRIPTION (#52) **Field**: NDC (#27) • Refill **Sub-File**: REFILL (#52.1) **Field**: NDC (#11) • Partial **File**: PRESCRIPTION (#52) **Field**: NDC (#27) **Example**: 55555444422 (no dashes)
DSP09	Quantity Dispensed Number of metric units dispensed in metric decimal format Example: 2.5 **NOTE:** For compounds, show the first quantity in CDI04.	• Original Fill **File**: PRESCRIPTION (#52) **Field**: QTY (#7) • Refill **Sub-File**: REFILL (#52.1) **Field**: QTY (#1) • Partial **Sub-File**: PARTIAL (#52.2) **Field**: QTY (#.04) **Example**: 55555444422 (no dashes)

Data Element	Name Description	Data Source
DSP10	Days Supply Estimated number of days the medication will cover	• Original Fill **File**: PRESCRIPTION (#52) **Field**: DAYS SUPPLY (#8) • Refill **Sub-File**: REFILL (#52.1) **Field**: DAYS SUPPLY (#1.1) • Partial **Sub-File**: PARTIAL (#52.2) **Field**: QTY (#.041) Example: 90
DSP11	Drug Dosage Units Code Identifies the unit of measure for the quantity dispensed in DSP09, if required by the PMP 01 Each (used to report solid dosage units or indivisible package) 02 Milliliters (ml) (for liters adjust to the decimal milliliter equivalent) 03 Grams (gm) (for milligrams adjust to the decimal gram equivalent)	**File**: DRUG (#50) **Field**: NCPDP DISPENSE UNIT (#82) • 01 EA • 02 ML • 03 GM • (Blank) Other
DSP12	Transmission Form of Rx Origin Code Code indicating how the pharmacy received the prescription, if required by the PMP 01 Written Prescription 02 Telephone Prescription 03 Telephone Emergency Prescription 04 Fax Prescription 05 Electronic Prescription 99 Other	The CPRS API $$NATURE^ORUTL3 (IA# 5890) provides the Nature of Order, which is translated the following way: • 01 W • 02 V or T • 05 E • 99 Other

Data Element	Name Description	Data Source
DSP13	Partial Fill Indicator Used when the quantity in DSP09 is less than the met quantity per dispensing authorized by the prescriber. This dispensing activity is often referred to as a split filling. 00 Not a Partial Fill 01 First Partial Fill **NOTE:** For additional fills per prescription, increment by 1. The second partial fill is reported as 02, up to a maximum of 99.	ASAP 4.0 and 4.1 • 01 Partial Fill • 02 Non-Partial Fill ASAP 4.2 and above • 00 Non-Partial Fill • 01 Partial 1 • 02 Partial 2 • 03 Partial 3
DSP14	Pharmacist National Provider Identifier (NPI) Identifier assigned to the pharmacist by CMS if the pharmacist applies for a number This number can be used to identify the pharmacist dispensing the medication	Retrieved via the Registration API $$NPI^XUSNPI (ICR # 4532) using the prescription fill pharmacist. **Example**: 1043278211
DSP15	Pharmacist State License Number This data element can be used to identify the pharmacist dispensing the medication Assigned to the pharmacist by the State Licensing Board	Not Used

Data Element	Name Description	Data Source
DSP16	Classification Code for Payment Type Code identifying the type of payment, i.e. how it was paid for, if required by the PMP 01 Private Pay (Cash, Charge, Credit Card) 02 Medicaid 03 Medicare 04 Commercial Insurance 05 Military Installations and VA 06 Workers' Compensation 07 Indian Nations 99 Other	Always **05** (Military Installations and VA)
DSP17	Date Sold Usage of this field depends on the pharmacy having a point-of-sale system that is integrated with the pharmacy management system to allow a bidirectional flow of information, and the PMP requires the capturing of the date received by the patient or the patient's agent This date may be different from DSP05	Not Used
DSP18	RxNorm Product Qualifier 01 Semantic Clinical Drug (SCD) 02 Semantic Branded Drug (SBD) 03 Generic Package (GPCK) 04 Branded Package (BPCK) **NOTE:** DSP18 and DSP19 are placeholder fields pending RxNorm becoming an industry standard and should not be required until such time.	Not Used

Data Element	Name Description	Data Source
DSP19	RxNorm Code Used for electronic prescriptions to capture the prescribed drug product identification, if required by the PMP. **NOTE:** DSP18 and DSP19 are placeholder fields pending RxNorm becoming an industry standard and should not be required until such time.	Not Used
DSP20	Electronic Prescription Reference Number Used to provide an audit trail for electronic prescriptions, if required by the PMP **NOTE:** DSP20 and DSP21 should be reported as a pair to the prescription drug monitoring program, and each program decides which one, if not both, it decides to capture.	Not Used
DSP21	Electronic Prescription Order Number **NOTE:** DSP20 and DSP21 should be reported as a pair to the prescription drug monitoring program, and each program decides which one, if not both, it decides to capture.	Not Used
RX – RX Prescription Order (ASAP 3.0 only)		
RX01	Reporting Status 00 Add 01 Change 02 Delete	Not Used

Data Element	Name Description	Data Source
RX02	**Program Participation Status** Code to reflect the current status of the prescription in relation to program participation (i.e., refill reminder or education enrollment). 01 Rx is active and participation is current 02 Rx order has been discontinued by prescriber 03 Patient has refused participation for this Rx 04 Patient has requested disenrollment for this Rx	Not Used
RX03	Prescription Number Serial number assigned to the prescription by the pharmacy	**File**: PRESCRIPTION (#52) **Field**: RX # (#.01) **Example**: 10930393
RX04-RX07	Not Used	
RX08	Date Rx Written Date the prescription was written (authorized) Format: CCYYMMDD	**File**: PRESCRIPTION (#52) **Field**: ISSUE DATE (#1) **Example**: 20130117
RX09-RX012	Not Used	
RX13	Product ID Qualifier Used to identify the type of product ID contained in DSP08 01 NDC 02 UPC 03 HRI 04 UPN	Always **01** (NDC)

Data Element	Name Description	Data Source
RX14	Product ID Full product identification as indicated in RX13, including leading zeros without punctuation	• Original Fill **File**: PRESCRIPTION (#52) **Field**: NDC (#27) • Refill **Sub-File**: REFILL (#52.1) **Field**: NDC (#11) • Partial **File**: PRESCRIPTION (#52) **Field**: NDC (#27) **Example**: 55555444422 (no dashes)
RX15- RX16	Not Used	
RX17	Quantity Prescribed Number of metric units dispensed in metric decimal format. Example: 2.5	• Original Fill **File**: PRESCRIPTION (#52) **Field**: QTY (#7) • Refill **Sub-File**: REFILL (#52.1) **Field**: QTY (#1) • Partial **Sub-File**: PARTIAL (#52.2) **Field**: QTY (#.04) **Example**: 55555444422 (no dashes)

Data Element	Name Description	Data Source
RX18	Days Supply Estimated number of days the medication will cover	• Original Fill **File**: PRESCRIPTION (#52) **Field**: DAYS SUPPLY (#8) • Refill **Sub-File**: REFILL (#52.1) **Field**: DAYS SUPPLY (#1.1) • Partial **Sub-File**: PARTIAL (#52.2) **Field**: QTY (#.041) Example: 90
RX19	Not Used	
RX20	Number Of Refills Authorized Number of refills authorized by the prescriber	**File**: PRESCRIPTION (#52) **Field**: # OF REFILLS (#9) Example: 5
RX21-RX29	Not Used	
PRE – Prescriber Information		
PRE01	National Provider Identifier (NPI) Identifier assigned to the prescriber by CMS	ASAP 3.0 : Not Used ASAP 4.0+: Prescriber National Provider Identifier (NPI) Retrieved via the Registration API $$NPI^XUSNPI (ICR # 4532) using the prescription fill provider **Example**: 1043278211
PRE02	DEA Number Identifying number assigned to a prescriber or an institution by the Drug Enforcement Administration (DEA)	ASAP 3.0 : Not Used ASAP 4.0+: Prescriber DEA Number First "-" (dash) piece of the value returned by the Registration API $$DEA^XUSER (ICR # 2343) using the prescription fill provider **Example**: AV4598251

Data Element	Name Description	Data Source
PRE03	DEA Number Suffix Identifying number assigned to a prescriber by an institution when the institution's number is used as the DEA number, if required by the PMP	ASAP 3.0 : Prescriber NPI ASAP 4.0+: Prescriber DEA Number Suffix Second "-" (dash) piece of the value returned by the Registration API $$DEA^XUSER (ICR # 2343) using the prescription fill provider **Example**: 4598251PP
PRE04	Prescriber State License Number Identification assigned to the Prescriber by the State Licensing Board Used if required by the PMP	ASAP 3.0 : Prescriber DEA Number ASAP 4.0+: Prescriber State License Number (Not Used)
PRE05	Last Name Prescriber's last name Used if required by the PMP	ASAP 3.0 : Prescriber DEA Number Suffix ASAP 4.0+: Prescriber Last Name **File**: NEW PERSON (#200) **Field**: NAME (#.01) First value before the comma (e.g., **SMITH**, JOHN F) **Example**: SMITH
PRE06	First Name Prescriber's first name Used if required by the PMP	ASAP 3.0 : Prescriber State License Number (Not Used) ASAP 4.0+: Prescriber First Name **File**: NEW PERSON (#200) **Field**: NAME (#.01) First value after the comma and before blank space (e.g., SMITH, **JOHN** F) Example: JOHN

Data Element	Name Description	Data Source
PRE07	Middle Name Prescriber's middle name or initial Used if required by the PMP and is available in the pharmacy system	ASAP 3.0 : Prescriber Alternate ID (Not Used) ASAP 4.0+: Prescriber Middle Name **File**: NEW PERSON (#200) **Field**: NAME (#.01) First value after the comma and after the first blank space (e.g., SMITH, JOHN **F**) Example: F
PRE08	Phone Number Prescriber's phone number	ASAP 3.0 : Prescriber's Last Name ASAP 4.0 & 4.1: N/A (up to PRE07 only) ASAP 4.2: Prescriber's Phone Number **File**: NEW PERSON (#200) **Field**: PHONE NUMBER # (#.132) **Example**: 5559998888 (no dashes)
PRE09	Prescriber' First Name Prescriber's first name	ASAP 3.0 Only **File**: NEW PERSON (#200) **Field**: NAME (#.01) First value after the comma and before blank space (e.g., SMITH, **JOHN** F) Example: JOHN
PRE10	Prescriber' Middle Name Prescriber's middle name	ASAP 3.0 Only **File**: NEW PERSON (#200) **Field**: NAME (#.01) First value after the comma and after the first blank space (e.g., SMITH, JOHN **F**) Example: F
PRE11-PRE20	Not Used	
RPH – Pharmacist Information (ASAP 3.0 only)		
RPH01-RPH02	Not Used	

Data Element	Name Description	Data Source
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 Registration API $$NPI^XUSNPI (ICR # 4532) using the prescription fill pharmacist. **Example**: 1043278211
RPH04-RPH05	Not Used	
RPH06	Last Name Pharmacist's last name	**File**: NEW PERSON (#200) **Field**: NAME (#.01) First value before the comma (e.g., **SMITH**, JOHN F) **Example**: SMITH
RPH07	First Name Pharmacist's first name	**File**: NEW PERSON (#200) **Field**: NAME (#.01) First value after the comma and before blank space (e.g., SMITH, **JOHN** F) Example: JOHN
RPH08	Middle Name Pharmacist's middle name or initial	**File**: NEW PERSON (#200) **Field**: NAME (#.01) First value after the comma and after the first blank space (e.g., SMITH, JOHN **F**) Example: F
RPH09-RPH11	Not Used	
CDI – Compound Drug Ingredient Detail (Not Used)		
CSR – Controlled Substance Reporting (ASAP 3.0 only – Not Used)		
AIR – Additional Information Reporting (Not Used)		
PLN – Third-Party Plan (ASAP 3.0 Only – Not Used)		

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

Table 32: ASAP Zero Report Specifications (PSO*7*625)

Segment	Element ID	Element Name	Requirement
TH: Transaction Header (required)			
	TH01	4.2	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

Segment	Element ID	Element Name	Requirement
	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*4.2*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\
```

23.5 SPMP Data Source (PSO*7*772)

23.5.1 ASAP Standard Version 4.2A Implementation

Table 33: ASAP 4.2A Baseline Dataset

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TH-Transaction Header Segment	**Purpose: To indicate the start of a transaction. It also assigns the segment terminator, data element separator, and control number.** **Level: Header** **Requirement: Required**			
TH01 - Version / Release Number	Code uniquely identifying the transaction. Format = x.x 4.2A ASAP Version 4 Release 2A	$$TH01^PSOASAP()	ASAP VERSION field (#1) retrieved from the SPMP STATE PARAMETERS file (#58.41)	Required
TH02 - Transaction Control Number	Sender assigned code uniquely identifying a transaction. This number must be used in TT01. Recommendation: Use a Globally Unique Identifier (GUID) or other nonrepeating alphanumeric combination to populate this field.	$$TH02^PSOASAP()	VA site number (via Registration API $$SITE^VASITE()) and BATCH NUMBER field (#58.42,.01) of the SPMP EXPORT BATCH file. (ex: 500-182)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TH03 - Transaction Type	Identifies the purpose of initiating the transaction. 01 Send/Request Transaction 02 Acknowledgment (Used in Response only.) 03 Error Receiving (Used in Response only.) 04 Void (Used to void a specific Rx in a real-time transmission, or an entire batch file that has been transmitted. When 04 is used the appropriate transaction control number in TH02 for the specific prescription or batch file must be included. When 04 is used only the TH Header Segment and the Transaction Trailer Segment are used.)	$$TH03^PSOASAP()	VistA sends '01'	Optional
TH04 - Response ID	Contains the Transaction Control Number of a transaction that initiated the transaction. Required in response transaction only.	$$TH04^PSOASAP()	VistA sends "" (null)	Optional
TH05 - Creation Date	Date the transaction was created. Format: CCYYMMDD.	$$TH05^PSOASAP()	Kernel API - $$FMTHL7^XLFDT($$HTFM^XLFDT($H) Example: 20240904	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TH06 - Creation Time	Time the transaction was created. Format: HHMMSS or HHMM. Do not use colons or other non-numeric characters.	$$TH06^PSOASAP()	1) Call Kernel API - $$HTFM^XLFDT($H)which returns back UTC date/time Example: 091522 2) Take the TIME value of the returned date/time stamp and set that data to be exactly 6 in length and append a ""Z"" to the end.	Required
TH07 - File Type	Code specifying the type of transaction. P Production T Test	$$THO7^PSOASAP()	Retrieved via the Kernel API - $$PROD^XUPROD(1)	Required
TH08 - Routing Number/BIN	This field can be used for real-time transmissions that go through an intermediary or network switch to indicate, if necessary, the specific state that the transactions should be routed to.	$$TH08^PSOASAP()	VistA sends "" (null)	Optional
TH09 - Segment Terminator Character	This terminates the TH segment and sets the actual value of the data segment terminator for the entire transaction. **NOTE:** The ASAP 4.2a Standard document uses the "~" in all examples. See the "Data Element Separators and Segment Terminators" in the standard's introduction for more information.	$$TH09^PSOASAP()	Retrieved from the SEGMENT TERMINATOR CHAR field (#58.4001,.03) of the SPMP ASAP RECORD DEFINITION file. Tilde character "~"	Required

Table 34: Information Source (IS) 4.2A

Data Element	Name Description	Data Source	Data Source Notes	Requirement
IS – Information Source Segment	**Purpose: To convey the name and identification numbers of the entity supplying the information.** **Level: Header** **Requirement: Required**			
IS01 - Unique Information Source ID	Reference number or identification number as defined by the business partners. (Example: Phone number. However, if a phone number is used to populate this field, do not include hyphens).	$$IS01^PSOASAP()	Hard-coded "VA"_facility code (via Registration API $$SITE^VASITE()) Example: VA500	Required
IS02 - Information Source Entity Name	Entity name of the Information Source.	$$IS02^PSOASAP()	OFFICIAL VA NAME field (#100) retrieved from the INSTITUTION file (#4) Example: OKLAHOMA CITY VA MEDICAL CENTER	Required
IS03 - Message	Freeform text message. Use of this field is defined by the PDMP. Many PDMPs may designate this field to hold the submission period date range of the file transmitted. When used to indicate the date range, it must be the first data text in the field and must be inserted with using the following layout (where ""#"" and ""-"" are those literal characters): #CCYYMMDD#-#CCYYMMDD# For example, a pharmacy may be submitting records for the reporting period of March 1, 2012 through March 7, 2012 but only filled reportable	$$IS03^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
	prescriptions on March 3, and March 5. The full submission period date range would be reported in IS03 as #20120301#-#20120307# It is up to the PDMP to further define how to enter the submission date range for exceptional cases, such as for late submission records. **NOTE:** IS03 can also be used to show the date range for Zero Reports.			

Table 35: Pharmacy Header (PHA) 4.2A

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PHA – Pharmacy Header Segment	**Purpose: To identify the pharmacy or the dispensing prescriber. It is required that information be provided in at least one of the following fields: PHA01, PHA02, or PH03.** **Level: Header** **Requirement: Required**			
PHA01 - National Provider Identifier (NPI)	Identifier assigned to the pharmacy by CMS. Used if required by the PDMP.	$$PHA01^PSOASAP()	NPI INSTITUTION field (#101) retrieved via the Kernel API $$NPI^XUSNPI (ICR# 4532) from OUTPATIENT SITE file (#59)	Optional
PHA02 - NCPDP/NABP Provider ID	Identifier assigned to pharmacy by the National Council for Prescription Drug Programs. Used if required by the PDMP.	$$PHA02^PSOASAP()	NCPDP NUMBER field (#1008) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA03 - DEA Number	Identifier assigned to the pharmacy by the Drug Enforcement Administration. Used if required by the PDMP.	$$PHA03^PSOASAP()	FACILITY DEA NUMBER (#4,52) retrieved via the Kernel API $$WHAT^XUAF4 (ICR# 2171) using the RELATED INSTITUTION field (#100) in the OUTPATIENT SITE file (#59)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PHA04 - Pharmacy or Dispensing Prescriber Name	Freeform name of the pharmacy. **NOTE:** If a dispensing prescriber, the prescriber's name and professional degree should be entered, such as John Doe MD.	$$PHA04^PSOASAP()	NAME field (#.01) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA05 - Address Information - 1	Freeform text for address information.	$$PHA05^PSOASAP()	MAILING FRANK STREET ADDRESS field (#.02) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA06 - Address Information - 2	Freeform text for additional address information.	$$PHA06^PSOASAP()	VistA sends "" (null)	Optional
PHA07 - City Address	Freeform text for city name.	$$PHA07^PSOASAP()	MAILING FRANK CITY field (#.07) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA08 - State Address	U.S. Postal Service state code.	$$PHA08^PSOASAP()	ABBREVIATION field (#1) retrieved from the STATE file (#5) via pointer MAILING FRANK STATE field (#.08) in the OUTPATIENT SITE file (#59) Example: OK	Optional
PHA09 - ZIP Code Address	U.S. Postal Service ZIP Code. Use if available.	$$PHA09^PSOASAP()	MAILING FRANK ZIP+4 CODE field (#.05) retrieved from OUTPATIENT SITE file (#59) **NOTE:** hyphen excluded Example: 731045028	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PHA10 - Phone Number	Complete phone number including area code.	$$PHA10^PSOASAP()	AREA CODE (#.03) and PHONE NUMBER (#.04) fields retrieved from OUTPATIENT SITE file (#59) **NOTE:** hyphens excluded Example: 4056948387	Optional
PHA11 - Contact Name	Freeform name.	$$PHA11^PSOASAP()	VistA sends "" (null)	Optional
PHA12 - Chain Site ID	Store number assigned by the chain to the pharmacy location. Used when PDMP needs to identify the specific pharmacy from which information is required.	$$PHA12^PSOASAP()	VistA sends "" (null)	Optional
PHA13 - Pharmacy's Permit Number / License Number	Used to help identify the sending pharmacy	$$PHA13^PSOASAP()	VistA sends "" (null)	Optional

Table 36: Patient Information (PAT) 4.2A

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT – Patient Information Segment	**Purpose: Used to report the patient's name and basic information as contained in the pharmacy record.** **Level: Detail** **Requirement: Required**			

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT01 - ID Qualifier of Patient Identifier	Code identifying the jurisdiction that issues the ID in PAT03. Used if the PDMP requires such identification. ASAP version 4.2a Standard Appendix A lists jurisdictions	$$PAT01^PSOASAP()	VistA sends 'US'	Optional
PAT02 - ID Qualifier	Code to identify the type of ID in PAT03. If PAT02 is used, PAT03 is required. 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 99 Other (Trading partner agreed upon ID, such as cardholder ID.)	$$PAT02^PSOASAP()	VistA sends '07'	Optional
PAT03 - ID of Patient	Identification number for the patient as indicated in PAT02. An example would be the driver's license number.	$$PAT03^PSOASAP()	Retrieved from the SOCIAL SECURITY NUMBER field (#2,.09) of the PATIENT file via the REGISTRATION DEM^VADPT API ICR #10061	Optional
PAT04 - ID Qualifier of Additional Patient Identifier	Code identifying the jurisdiction that issues the ID in PAT06. Used if the PDMP requires such identification. ASAP version 4.2a Standard Appendix A lists jurisdictions.	$$PAT04^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT05 - Additional Patient ID Qualifier	Code to identify the type of ID in PAT06 if the PDMP requires a second identifier. If PAT05 is used, PAT06 is required. 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 99 Other (Trading partner agreed upon ID, such as cardholder ID.)	$$PAT05^PSOASAP()	VistA sends "" (null)	Optional
PAT06 - Additional ID	Identification that might be required by the PDMP to further identify the individual. An example might be in that PAT03 driver's license is required and in PAT06 Social Security number is also required.	$$PAT06^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT07 - Last Name	Patient's last name.	$$PAT07^PSOASAP()	Retrieved using the following logic: a. If the patient DFN exists in the NAME COMPONENTS file (#20), the FAMILY (LAST) NAME field (#1) in the NAME COMPONENTS file (#20). b. If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, the first comma delimited piece of the NAME field (#.01) in the PATIENT file (#2). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Required
PAT08 - First Name	Patient's first name.	$$PAT08^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), the GIVEN (FIRST) NAME field (#2) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, the first space delimited piece of the second comma delimited piece of the NAME field (#.01) in the PATIENT file (#2). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT09 - Middle Name	Patient's middle name or initial if available. Used if available in pharmacy system and required by the PDMP.	$$PAT09^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), the MIDDLE NAME field (#3) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, the second space delimited piece of the second comma delimited piece of the NAME field (#.01) in the PATIENT file (#2). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Optional
PAT10 - Name Prefix	Patient's name prefix such as Mr. or Dr. Used if available in pharmacy system and required by the PDMP.	$$PAT10^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), the PREFIX field (#4) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, VistA sends "" (null). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT11 - Name Suffix	Patient's name suffix such as Jr. or the III. Used if available in pharmacy system and if required by the PDMP.	$$PAT11^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), the SUFFIX field (#5) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, VistA sends "" (null). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Optional
PAT12 - Address Information - 1	Field size has been increased to 35 bytes from 30 bytes in 4.1. However, in order to accommodate pharmacy management systems storing 30 bytes or less for the patient address, no programming change is necessary if that is the maximum length of the field in the pharmacy management system. If the address stored in the system is a P.O. box number, defer to the specifications of the PDMP as to whether this should be reported in PAT12 or PAT13.	$$PAT12^PSOASAP()	Retrieved from the STREET ADDRESS [LINE 1] field (#.111) in the PATIENT file (#2). Retrieved using the REGISTRATION API, ADD^VADPT ICR #10061	Required
PAT13 - Address Information - 2	Freeform text for additional address information, if required by the PDMP and is available in pharmacy system.	$$PAT13^PSOASAP()	Retrieved from the STREET ADDRESS [LINE 2] field (#.112) in the PATIENT file (#2). Retrieved using the REGISTRATION API, ADD^VADPT ICR #10061	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT14 - City Address	Freeform text for city name.	$$PAT14^PSOASAP()	Retrieved from the CITY field (#.114) in the PATIENT file (#2). Retrieved using the REGISTRATION API, ADD^VADPT ICR #10061	Required
PAT15 - State Address	U.S. Postal Service state code if required by the PDMP. **NOTE:** Field has been sized to handle international patients not residing in the U.S.	$$PAT15^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061). Retrieved using the following logic: If the COUNTRY field (#.1173) in the PATIENT file (#2) is the United States, retrieved from the ABBREVATION field (#1) in the STATE file (#5) pointed to by the STATE field (#.115) in the PATIENT file (#2). If the COUNTRY field (#.1173) in the PATIENT file (#2) is not the United States, retrieved from the PROVINCE field (#.1171) in the PATIENT file (#2).	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT16 - ZIP Code Address	U.S. Postal Service ZIP code. Postal code will be reported for non-U.S. addresses.	$$PAT16^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061). Retrieved using the following logic: If the COUNTRY field (#.1173) in the PATIENT file (#2) is the United States, retrieved from the ZIP CODE field (#.116) in the PATIENT file (#2). If the COUNTRY field (#.1173) in the PATIENT file (#2) is not the United States, retrieved from the POSTAL CODE (#.1172) in the PATIENT file (#2).	Required
PAT17 - Phone Number	Complete phone number including area code when a state PDMP requires and is available in the pharmacy system. **NOTE:** Do not include hyphens in the number.	$$PAT17^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061). Retrieved using the following logic: Use PHONE NUMBER [RESIDENCE] field (#.131) in the PATIENT file (#2) if not null Else use PHONE NUMBER [CELLULAR] field (#.134) in the PATIENT file (#2) if not null Else PHONE NUMBER [WORK] field (#.132) in the PATIENT file (#2) if not null Else use K-WORK PHONE NUMBER field (#.21011) in the PATIENT file (#2) if not null	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
			Else use K2-WORK PHONE NUMBER field (#.2199) in the PATIENT file (#2) if not null Else use E-WORK PHONE NUMBER field (#.33011) in the PATIENT file (#2) if not null Else use E2-WORK PHONE NUMBER field (#.331011) in the PATIENT file (#2) if not null Else use AREA CODE field (#.03) in the OUTPATIENT SITE file (#59) concatenated to the PHONE NUMBER field (#.04) in the OUTPATIENT SITE file (#59)	
PAT18 - Date of Birth	Date patient was born. Format: CCYYMMDD.	$$PAT18^PSOASAP()	Retrieved from the DATE OF BIRTH field (#.03) in the PATIENT file (#2) Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Required
PAT19 - Gender Code	Code indicating the sex of the patient if required by the PDMP. F Female M Male U Unknown	$$PAT19^PSOASAP()	Retrieved using the Registration API $$DEM^VADPT (ICR #10061) and return variable VADM(5). If no value is found, VistA sends 'U'	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT20 - Species Code	Used if required by the PDMP to differentiate a prescription for an individual from one prescribed for an animal. 01 Human 02 Veterinary Patient	$$PAT20^PSOASAP()	VistA sends '01'	Optional
PAT21 - Patient Location Code	Code indicating where patient is located when receiving pharmacy services if required by the PDMP. 01 Home 02 Intermediary Care 03 Nursing Home 04 Long-Term/Extended Care 05 Rest Home 06 Boarding Home 07 Skilled-Care Facility 08 Sub-Acute Care Facility 09 Acute-Care Facility 10 Outpatient 11 Hospice 98 Unknown 99 Other	$$PAT21^PSOASAP()	VistA sends '10'	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT22 - Country of Non-U.S. Resident	Used when the patient's address is a foreign country. This is a freeform text field. ASAP does not provide a list of countries for this field. PDMPs may permit some of the other address fields to not be used if this field is populated.	$$PAT22^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061). Retrieved If COUNTRY field (#.1173) in the PATIENT file (#2) points to the US in the COUNTRY CODE file (#779.004), VistA returns "" (null). Else VistA returns the FIPS CODE field (#1.2) in the COUNTRY CODE file (#779.004) pointed to by the COUNTRY field (#.1173) in the PATIENT file (#2).	Optional
PAT23 - Name of Animal	Used if required by the PDMP for prescriptions written by a veterinarian and the pharmacist has access to this information at the time of preparing the prescription.	$$PAT23^PSOASAP()	VistA sends "" (null)	Not Used
PAT07 – PAT09 Note: The NAME field is a delimited value in which the last name and first name are separated by a comma; the middle name and/or suffix are after the first name separated by a space "LAST,FIRST MIDDLE SUFFIX". **PAT07 – PAT11 Note:** The REGISTRATION package does not allow special characters in the PATIENT name during the registration process, with the exception of spaces, apostrophes, hyphens, and one comma. Since other characters are not permitted via end-user options, the probability of special characters in the PATIENT name fields that would cause a data transmission failure is unlikely.				

Table 37: Dispensing Record (DSP) 4.2A

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP – Dispensing Record Segment	**Purpose: To identify the basic components of the dispensing of a given prescription order including the date and quantity.** **Level: Detail** **Requirement: Required**			
DSP01 - Reporting Status	00 New Record 01 Revise 02 Void DSP01 requires one of the codes below. An empty or blank field no longer indicates a new prescription dispensing transaction. A PDMP may elect to require a subset of the codes below, specifically 00 and 02, but not 01. 00 This code indicates a new prescription dispensing transaction. 01 This code indicates that one or more data element values in a previously submitted transaction are being revised. Examples of when a revision may be necessary include corrections to typographical errors in original data submissions; or change occurred to the prescription between the time the record was submitted and the time the patient picked it up, such as dispensing a smaller metric quantity, adding or correcting patient information, correcting prescriber DEA number, or payment type. When receiving a	$$DSP01^PSOASAP()	Derived by retrieving the RECORD TYPE field (#2) in the PRESCRIPTIONS subfile (58.42001) of the SPMP EXPORT BATCH file (#58.42) for the prescription being exported and assigning a code based on the value where: N = NEW Rx and VistA sends '00' for New Record R = REFILL and VistA sends '01' for Revise V = VOID and VistA sends '02' for Void	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
	transaction with a DSP01 value of 01, the PDMP will override all of the detail segments' data of the original prescription transaction with all of the detail segments' data from the revised prescription transaction. So it is essential to submit all of the data elements in all of the detail segments populated with the identical data as it appeared in the original record, with only the changed data element(s) content being different (and DSP01 with a value of 01). Do not use 01 in combination with a zero metric quantity to indicate that the prescription was not picked up. Use the value 02 instead as described below. If the PDMP receives a prescription transaction with DSP01 as 01 and a separate prescription transaction with DSP01 as 02, the PDMP will only void the original prescription transaction and will not attempt to apply a revision. Because the PAT segment loops at a higher level than the other detail segments, the only ways to submit revisions to PAT data elements are either: 1) to not loop the DSP segment within the PAT segment – or 2) to loop the DSP segment within PAT segment and have every DSP01 record element within the loop have a DSP01 of 01. 02 This code is a message to the PDMP to remove the original prescription transaction from its database (or to mark the record as invalid and to be ignored). There can be several reasons for sending a void			

Data Element	Name Description	Data Source	Data Source Notes	Requirement
	transaction. One example would be when the prescription was never picked up and the medication was returned to stock. Another example would be when the prescription was reported in error. A DSP01 value of 02 can also be used as an alternative to the DSP01 value of 01 in order to send PDMP corrections. When submitting corrections in this manner; first submit a record with a DSP01 of 02 to indicate to the PDMP to void the original prescription transaction; then submit a brand-new prescription transaction with a DSP01 value of 00 with the correct information. **NOTE:** Examples of the correct use of codes in DSP01 are shown in Appendix D in the ASAP version 4.2a Standard, as well as the limited data set to void a prescription that PDMPs can elect to use.			
DSP02 - Prescription Number	Serial number assigned to the prescription by the pharmacy.	$$DSP02^PSOASAP()	RX # field (.01) retrieved from the PRESCRIPTION file (#52)	Required
DSP03 - Date Written	Date the prescription was written (authorized). Format: CCYYMMDD	$$DSP03^PSOASAP()	ISSUE DATE field (#1) retrieved from the PRESCRIPTION file (#52)	Required
DSP04 - Refills Authorized	The number of refills authorized by the prescriber.	$$DSP04^PSOASAP()	Retrieved from the # OF REFILLS field (#52,9) of the PRESCRIPTION file	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP05 - Date Filled	Date prescription was prepared. Format: CCYYMMDD.	$$DSP05^PSOASAP()	Retrieved from one of three locations depending on the type of fill. Original Fill: RELEASED DATE/TIME field (#31) of the PRESCRIPTION file (#52) Refill: RELEASED DATE/TIME field (#17) of the REFILL subfile (#52.1) Partial: RELEASED DATE/TIME field (#8) of the PARTIAL subfile (#52.2)	Required
DSP06 - Refill Number	Number of the fill of the prescription. 0 indicates original dispensing, 01-99 is the refill number.	$$DSP06^PSOASAP()	Retrieved from the AL and AM cross-references of the PRESCRIPTION file (#52) and PARTIAL DATE subfile (#52.2) respectively.	Required
DSP07 - Product ID Qualifier	Used to identify the type of product ID contained in DSP08. 01 NDC 02 UPC 03 HRI 04 UPN 05 DIN 06 Compound (Used to indicate it is a compound. The CDI segment then becomes a required segment. Also, see instructions for DSP08.)	$$DSP07^PSOASAP()	VistA sends '01'	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement

DSP08 - Product ID	Full product identification as indicated in DSP07, including zeros without punctuation. If the product is a compound, use 99999 as the first five characters of the product code. The remaining characters are assigned by the pharmacy. The CDI then becomes a required segment.
	
	NOTE: If a controlled substance is part of a kit, the NDC of the kit should be reported if it is a legitimate manufacturer's NDC. If not, the NDC of the controlled substance within the kit should be reported. Also, if multiple controlled substances are in the kit, use the CDI segment to report it as a compound.
		$$DSP08^PSOASAP()	Retrieved from one of the following locations in respective order:
			Void
			RETURN TO STOCK subfile (52.07)
			NDC field (#16)
			If not at 52.07,16 then
			DRUG file (#50)
			NDC field (#31)
			If not at 50,31 then
			REFILL:
			REFILL subfile (#52.1)
			NDC field (#11)
			ORIGINAL:
			PRESCRIPTION file (#52)
			NDC field (#27)
				Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP09 - Quantity Dispensed	Number of metric units dispensed in metric decimal format. Example: 2.5. **NOTE:** For compounds show the first quantity in CDI04. Appendix B in ASAP version 4.2a Standard contains specific instructions.	$$DSP09^PSOASAP()	Retrieved from one of the following locations in respective order: Void RETURN TO STOCK LOG subfile (#52.07) QTY field (#3) Original Fill PRESCRIPTION file (#52) QTY field (#7) Refill REFILL subfile (#52.1) QTY field (#1) Partial PARTIAL subfile (#52.2) QTY field (#.04)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP10 - Days Supply	The calculated or estimated number of days the medication will cover.	$$DSP10^PSOASAP()	Retrieved from one of the following locations in respective order: Void RETURN TO STOCK LOG subfile (#52.07) DAYS SUPPLY field (#4) Original Fill PRESCRIPTION file (#52) DAYS SUPPLY field (#8) Refill REFILL subfile (#52.1) DAYS SUPPLY field (#1.1) Partial PARTIAL subfile (#52.2) QTY field (#.041)	Required
DSP11 - Drug Dosage Units Code	Identifies the unit of measure for the quantity dispensed in DSP09, if required by the PDMP. Appendix B in ASAP version 4.2a Standard contains specific instructions. 01 Each (used to report solid dosage or indivisible package) 02 Milliliters (ml) (for liters adjust to the decimal milliliter equivalent) 03 Grams (gm) (for milligrams adjust to the decimal gram equivalent)	$$DSP11^PSOASAP()	Retrieved from the NCPDP DISPENSE UNIT field (#50,82) of the DRUG file. Coded data: 01-EA 02-ML 03-GM BLANK	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP12 - Transmission Form of Rx Origin Code	Code indicating how the pharmacy received the prescription, if required by the PDMP. 01 Written Prescription 02 Telephone Prescription 03 Telephone Emergency Prescription 04 Fax Prescription 05 Electronic Prescription 06 Transferred/Forwarded Rx 99 Other	$$DSP12^PSOASAP()	The ORDER ENTRY/RESULTS REPORTING API $$NATURE^ORUTL3 provides the Nature of Order, which is translated the following way: 01 W 02 V or T 05 E 99 Other ICR# 5890	Optional
DSP13 - Partial Fill Indicator	This field is used when the quantity in DSP09 is less than the metric 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. So the second partial fill would be reported as 02, up to a maximum of 99	$$DSP13^PSOASAP()	Codes indicating partial or non-partial fill: 00 Non-Partial Fill 01 Partial 1 02 Partial 2	Optional
DSP14 - Pharmacist National Provider Identifier (NPI)	Identifier assigned to the pharmacist by CMS if the pharmacist applies for a number. This number can be used to identify the pharmacist dispensing the medication.	$$DSP14^PSOASAP()	Retrieved via the Kernel API $$NPI^XUSNPI using the prescription fill pharmacist. ICR# 4532	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP15 - Pharmacist State License Number	Assigned to the pharmacist by the State Licensing Board. This data element can be used to identify the pharmacist dispensing the medication.	$$DSP15^PSOASAP()	VistA sends "" (null)	Optional
DSP16 - Classification Code for Payment Type	Code identifying the type of payment, i.e. how it was paid for, if required by the PDMP. 01 Private Pay (Cash, Charge, Credit Card) 02 Medicaid 03 Medicare 04 Commercial Insurance 05 Military Installations and VA 06 Workers' Compensation 07 Indian Nations 99 Other	$$DSP16^PSOASAP()	VistA sends '05'	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP17 - Date Sold	This field is used to determine the date the prescription was dispensed (sold to, picked up by, or otherwise left the pharmacy), not the date it was prepared. This date could be captured from the point-of-sale (POS) system, if the pharmacy has a POS system, and there is a bidirectional flow with the pharmacy management system in order to capture and report this date. Or it could be captured and reported from a will-call management system, integrated with the pharmacy management system.	$$DSP17^PSOASAP()	Retrieved from one of the following locations in respective order via $$DSP05^PSOASAP(): Void RETURN TO STOCK LOG subfile (#52.07) RELEASED DATE/TIME field (#21) Original Fill PRESCRIPTION file (#52) RELEASED DATE/TIME field (#31) Refill REFILL subfile (#52.1) RELEASED DATE/TIME field (#17) Partial PARTIAL subfile (#52.2) RELEASED DATE/TIME (#8)	Not Used
DSP18 - RxNorm Product Qualifier	01 Semantic Clinical Drug (SCD) 02 Semantic Branded Drug (SBD) 03 Generic Package (GPCK) 04 Branded Package (BPCK) RxNorm code that is populated in the DRU-010-09 field in the SCRIPT transaction. **NOTE:** DSP18 and DSP19 are placeholder fields pending RxNorm becoming an industry standard. These fields should not be required until such time.	$$DSP18^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP19 - RxNorm Code	Used for electronic prescriptions to capture the prescribed drug product identification, if required by the PDMP.	$$DSP19^PSOASAP()	VistA sends "" (null)	Optional
DSP20 - Electronic Prescription Reference Number	This field should be populated with the Initiator Reference Number from field UIB-030-01 in the SCRIPT transaction.	$$DSP20^PSOASAP()	VistA sends "" (null)	Optional
DSP21 - Electronic Prescription Order Number	This field will be populated with the Initiator Control Reference from field UIH-030-01 in the SCRIPT standard. **NOTE:** DSP20 and DSP21 should be reported as a pair to the PDMP and the PDMP will decide which one, if not both, it decides to capture. By requiring the reporting of both, this avoids specification variations that would require custom programming to accommodate a PDMP. Also, the information reported by the pharmacy management system will depend on the information received at the pharmacy with an electronic prescription.	$$DSP21^PSOASAP()	VistA sends "" (null)	Optional
DSP22 - Quantity Prescribed	This field has been added in order to add clarity to the value reported in DSP13 Partial Fill Indicator	$$DSP22^PSOASAP()	VistA sends "" (null)	Not used
DSP23 - Rx SIG	This field would capture the actual directions printed on the prescription vial label. If the directions exceed 200 characters, truncation would be allowed.	$$DSP23^PSOASAP()	Concatenate the SIG1 multiple (#52.04,.01) into a single string	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP24 - Treatment Type	While this field can be used to indicate that the prescription was for opioid dependency treatment when Code 02 is used, it can also be used to provide other reasons for the opioid prescription through use of the additional codes. 01 = Not Used for Opioid Dependency Treatment 02 = Used for Opioid Dependency Treatment 03 = Pain Associated with Active and Aftercare Cancer Treatment 04 = Palliative Care in Conjunction with a Serious Illness 05 = End-of-Life and Hospice Care 06 = A Pregnant Individual with a Pre-existing Prescription for Opioids 07 = Acute Pain for an Individual with an Existing Opioid Prescription for Chronic Pain 08 = Individuals Pursuing an Active Taper of Opioid Medications 09 = Patient is Participating in a Pain Management Contract 99 = Other (trading partner agreed upon reason) *Codes 03 through 99 added 6/28/2017. **NOTE:** These new codes can only be reported if provided by the prescriber with the prescription.	$$DSP24^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP25 - Diagnosis Code	This field is used to report the ICD-10 code. If required by a PDMP, this field would be populated only when the ICD-10 code is included with the prescription.	$$DSP25^PSOASAP()	VistA sends "" (null)	Optional

Table 38: Prescriber Information (PRE) 4.2A

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE – Prescriber Information Segment	**Purpose: To identify the prescriber of the prescription.** **Level: Detail** **Requirement: Required**			
PRE01 - National Provider Identifier (NPI)	Identifier assigned to the prescriber by CMS. **NOTE:** If the prescriber does not have a DEA number and prescribed a noncontrolled substance that is a reportable drug to the PDMP, this field should be used as the identifier.	$$PRE01^PSOASAP()	Retrieved via the Kernel API $$NPI^XUSNPI using the prescription fill provider ICR# 4532	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE02 - DEA Number	Identifying number assigned to a prescriber or an institution by the Drug Enforcement Administration (DEA).	$$PRE02^PSOASAP()	Retrieved from one of the following locations in respective order: Provider DEA# associated with the CPRS order The ORDER ENTRY/RESULTS REPORTING procedure ARCHIVE^ORDEA retrieves the value at the DEA # field (#101.52,10) of the ORDER DEA ARCHIVE INFO file. The first piece by ""-"" is returned. ICR# 5709 Prescription fill provider or facility DEA# The Kernel API $$DEA^XUSER retrieves the value at the DEA NUMBER field (#200.5321,.01) of the NEW PERSON file. The first piece by ""-"" is returned. ICR# 2343 Pharmacy DEA# the Kernel API $$WHAT^XUAF4 is called to return the FACILITY DEA NUMBER field (#4,52) of the INSTITUTION file. ICR# 2171	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE03 - DEA Number Suffix	Identifying number assigned to a prescriber by an institution when the institution's DEA number is used, if required by the PDMP.	$$PRE03^PSOASAP()	Retrieved from one of the following locations in respective order: Provider DEA# suffix associated with the CPRS order The ORDER ENTRY/RESULTS REPORTING procedure ARCHIVE^ORDEA retrieves the value at the DEA # field (#101.52,10) of the ORDER DEA ARCHIVE INFO file. The 2nd piece by ""-"" is returned. ICR# 5709 Prescription fill provider or facility DEA# suffix The Kernel API $$DEA^XUSER retrieves the value at the DEA NUMBER field (#200.5321,.01) from the NEW DEA #'S multiple of the NEW PERSON file. The 2nd piece by ""-"" is returned. ICR# 2343 VA# If DEA# from PHA03 is equal to the DEA# from PHA02, then The Kernel API $$DEA^XUSER retrieves the value at the VA# field (#200,53.3) of the NEW PERSON file. ICR# 2171	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE04 - Prescriber State License Number	Identification assigned to the Prescriber by the State Licensing Board. Used if required by the PDMP.	$$PRE04^PSOASAP()	VistA sends "" (null)	Optional
PRE05 - Last Name	Prescriber's last name. Used if required by the PDMP.	$$PRE05^PSOASAP()	NAME field (#200,.01) from the NEW PERSON file. ICR# 10061	Optional
PRE06 - First Name	Prescriber's first name. Used if required by the PDMP.	$$PRE06^PSOASAP()	NAME field (#200,.01) from the NEW PERSON file. ICR# 10061	Optional
PRE07 - Middle Name	Prescriber's middle name or initial. Used if required and is available in the pharmacy system.	$$PRE07^PSOASAP()	NAME field (#200,.01) from the NEW PERSON file. ICR# 10061	Optional
PRE08 - Phone Number	The prescriber's primary phone number.	$$PRE08^PSOASAP()	Retrieved from the PHONE NUMBER # field (#200,.132) of the NEW PERSON file. ICR# 10061	Optional
PRE09 - XDEA Number	This field gives a PDMP the option of requiring the XDEA Number (NADEAN) in the PRE Segment when the prescription is for opioid dependency.	$$PRE09^PSOASAP()	VistA sends "" (null)	Not Used

Table 39: Compound Drug Ingredient Detail (CDI) 4.2A

Data Element	Name Description	Data Source	Data Source Notes	Requirement
CDI – Compound Drug Ingredient Detail Segment	**Purpose: To identify the individual ingredients that make up a compound.** **Level: Detail** **Requirement: Not Used**			
CDI01 - Compound Drug Ingredient Sequence Number	The first reportable ingredient is 1. Each additional reportable ingredient is incremented by 1.	$$CDI01^PSOASAP()	VistA sends "" (null)	Required
CDI02 - Product ID Qualifier	Code to identify the type of product ID contained in CDI03. 01 NDC 02 UPC 03 HRI 04 UPN 05 DIN 06 CPD (This code is not used in this segment.)	$$CDI02^PSOASAP()	VistA sends "" (null)	Required
CDI03 - Product ID	Full product identification as indicated in CDI02, including leading zeros without punctuation.	$$CDI03^PSOASAP()	VistA sends "" (null)	Required
CDI04 - Component Ingredient Quantity	Metric decimal quantity of the ingredient identified in CDI03. Example: 2.5. Appendix B in ASAP version 4.2a Standard contains specific instructions.	$$CDI04^PSOASAP()	VistA sends "" (null)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
CDI05 - Compound Drug Dosage Units Code	Identifies the unit of measure for the quantity dispensed in CDI04, if required by the prescription-monitoring program. Appendix B in ASAP version 4.2a Standard contains specific instructions. 01 Each (used to report solid dosage units or indivisible package) 02 Milliliters (ml) (for liters adjust to the decimal milliliter equivalent) 03 Grams (gm) (for milligrams adjust to the decimal gram equivalent)	$$CDI05^PSOASAP()	VistA sends "" (null)	Optional

Table 40: Additional Information Reporting (AIR) 4.2A

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR – Additional Information Reporting Segment	**Purpose: To report a prescription blank serial number, information on person dropping off or picking up the prescription, or information regarding the prescription not included in the other detail segments. Note: If this segment is used, at least one of the data elements (fields) will be required.** **Level: Detail** **Requirement: Optional**			
AIR01 - State Issuing Rx Serial Number	U.S.P.S. state code of state that issued serialized prescription blank. This is required if AIR02 is used. ASAP version 4.2a Standard Appendix A lists jurisdictions.	$$AIR01^PSOASAP()	VistA sends "" (null)	Optional
AIR02 - State Issued Rx Serial Number	Number assigned to state issued serialized prescription blank. Required if state issues serialized prescription pads for prescribers to use.	$$AIR02^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR03 - ID Issuing Jurisdiction	Code identifying the jurisdiction that issues the ID contained in AIR05. Used if required by the PDMP. ASAP version 4.2a Standard Appendix A lists jurisdictions.	$$AIR03^PSOASAP()	VistA sends "" (null)	Optional
AIR04 - ID Qualifier of Person Dropping Off or Picking Up Rx	Code indicating the type of ID in AIR05 if required by the PDMP. 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 99 Other (Trading partner agreed upon ID)	$$AIR04^PSOASAP()	VistA sends "" (null)	Optional
AIR05 - ID of Person Dropping Off or Picking Up Rx	ID number of the person dropping off or picking up the prescription, if required by the PDMP. **NOTE:** Because historically there has been a noticeable amount of extraneous information entered in this field, which has interfered with data analysis, it is important that every effort be made to ensure that only the unadorned customer ID and no additional information be entered into this field.	$$AIR05^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR06 - Relationship of Person Dropping Off or Picking Up Rx	Code indicating the relationship to the person dropping off or picking up Rx, if required by the PDMP. 01 Patient 02 Parent/Legal Guardian 03 Spouse 04 Caregiver 99 Other	$$AIR06^PSOASAP()	VistA sends "" (null)	Optional
AIR07 - Last Name of Person Dropping Off or Picking Up Rx	Last name of the person dropping off or picking up Rx, if required by the PDMP.	$$AIR07^PSOASAP()	VistA sends "" (null)	Optional
AIR08 - First Name of Person Dropping Off or Picking Up Rx	First name of the person dropping off or picking up Rx, if required by the PDMP.	$$AIR08^PSOASAP()	VistA sends "" (null)	Optional
AIR09 - Last Name or Initials of Pharmacist	Last name or initials of the pharmacist dispensing the medication, if required by the PDMP.	$$AIR09^PSOASAP()	VistA sends "" (null)	Optional
AIR10 - First Name of Pharmacist	First name of the pharmacist dispensing the medication, if required by the PDMP.	$$AIR10^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR11 - Dropping Off/Picking Up Identifier Qualifier	Additional qualifier for the ID contained in AIR05. 01 Person Dropping Off 02 Person Picking Up 98 Unknown/Not Applicable (An example of Unknown: Where the pharmacist does not know which person it is. Or there is no ID to collect at drop-off, such as when a prescription is phoned in. An example of Not Applicable: When the prescription is delivered.) **NOTE:** Both 01 and 02 cannot be required by a PDMP. Usage of this field depends on whether a PDMP has interest in knowing whether the information supplied in fields AIR04–AIR08 is for the person dropping off or picking up the prescription.	$$AIR11^PSOASAP()	VistA sends "" (null)	Optional

Table 41: Pharmacy Trailer (TP) 4.2A

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TP – Pharmacy Trailer Segment	**Purpose: To identify the end of data for a given pharmacy and provide the count of the total number of detail segments included for the pharmacy, including the pharmacy header (PHA) and the pharmacy trailer (TP) segments.** **Level: Summary** **Requirement: Required**			
TP01 - Detail Segment Count	Number of detail segments included for the pharmacy including the pharmacy header (PHA) and the pharmacy trailer (TP) segments.	$$TP01^PSOASAP()	Calculates the number of detail segments included (PAT, DSP, PRE, CDI, AIR) in addition to the pharmacy header (PHA) and pharmacy trailer (TP)	Required

Table 42: Transaction Trailer (TT) 4.2A

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TT – Transaction Trailer Segment	**Purpose: To indicate the end of the transaction and provide the count of the total number of segments included in the transaction.** **Level: Summary** **Requirement: Required**			
TT01 - Transaction Control Number	Identifying control number that must be unique. Assigned by the originator of the transaction. Must match the number in TH02 sent by the pharmacy.	$$TT01^PSOASAP()	VA site number (via Registration API $$SITE^VASITE()) and BATCH NUMBER field (#58.42,.01) of the SPMP EXPORT BATCH file. (ex: 500-182)	Required
TT02 - Segment Count	Total number of segments included in the transaction including the header (TH) and trailer (TT) segments.	$$TT02^PSOASAP()	Calculated for each transmission.	Required

23.5.2 ASAP Standard Version 4.2B Implementation

Table 43: ASAP 4.2B Baseline Dataset - Transaction Header (TH) 4.2B

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TH – Transaction Header Segment	**Purpose: To indicate the start of a transaction. It also assigns the segment terminator, data element separator, and control number.** **Level: Header** **Requirement: Required**			
TH01 - Version / Release Number	Used to identify the transaction Version / Release. Format = x.x 4.2B ASAP Version 4 Release 2B	$$TH01^PSOASAP()	ASAP VERSION field (#1) retrieved from the SPMP STATE PARAMETERS file (#58.41)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TH02 - Transaction Control Number	Sender assigned code uniquely identifying a transaction. This number must be used in TT01. Recommendation: Use a Globally Unique Identifier (GUID) or other nonrepeating alphanumeric combination to populate this field.	$$TH02^PSOASAP()	VA site number (via Registration API $$SITE^VASITE()) and BATCH NUMBER field (#58.42,.01) of the SPMP EXPORT BATCH file. (ex: 500-182)	Required
TH03 - Transaction Type	Identifies the purpose of initiating the transaction. 01 Send/Request Transaction 02 Acknowledgment (Used in Response only.) 03 Error Receiving (Used in Response only.) 04 Void (Used to void a specific Rx in a real-time transmission, or an entire batch file that has been transmitted. When 04 is used the appropriate transaction control number in TH02 for the specific prescription or batch file must be included. When 04 is used only the TH Header Segment and the Transaction Trailer Segment are used.)	$$TH03^PSOASAP()	VistA sends '01'	Optional
TH04 - Response ID	Contains the Transaction Control Number of a transaction that initiated the transaction. Required in response transaction only.	$$TH04^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TH05 - Creation Date	Date the transaction was created. Format: CCYYMMDD.	$$TH05^PSOASAP()	Kernel API - $$FMTHL7^XLFDT($$HTFM^XLFDT($H) Example: 20240904	Required
TH06 - Creation Time	Time the transaction was created. Format: HHMMSS or HHMM. Do not use colons or other non-numeric characters.	$$TH06^PSOASAP()	1) Call Kernel API - $$HTFM^XLFDT($H)which returns back UTC date/time Example: 091522 2) Take the TIME value of the returned date/time stamp and set that data to be exactly 6 in length and append a "Z" to the end.	Required
TH07 - File Type	Code specifying the type of transaction. P Production T Test	$$THO7^PSOASAP()	Retrieved via the Kernel API - $$PROD^XUPROD(1)	Required
TH08 - Routing Number/BIN	This field can be used for real-time transmissions that go through an intermediary or network switch to indicate, if necessary, the specific state that the transactions should be routed to.	$$TH08^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TH09 - Segment Terminator Character	This terminates the TH segment and sets the actual value of the data segment terminator for the entire transaction. **NOTE:** The ASAP 4.2b Standard document uses the "~" in all examples. See the "Data Element Separators and Segment Terminators" in the standard's introduction for more information.	$$TH09^PSOASAP()	Retrieved from the SEGMENT TERMINATOR CHAR field (#58.4001,.03) of the SPMP ASAP RECORD DEFINITION file. Tilde character "~"	Required

Table 44: Information Source (IS) 4.2B

Data Element	Name Description	Data Source	Data Source Notes	Requirement
IS – Information Source Segment	**Purpose: To convey the name and identification numbers of the entity supplying the information.** **Level: Header** **Requirement: Required**			
IS01 - Unique Information Source ID	Reference number or identification number as defined by the business partners. (Example: Phone number. However, if a phone number is used to populate this field, do not include hyphens.)	$$IS01^PSOASAP()	Hard-coded "VA"_facility code (via Registration API $$SITE^VASITE()) Example: VA500	Required
IS02 - Information Source Entity Name	Entity name of the Information Source.	$$IS02^PSOASAP()	OFFICIAL VA NAME field (#100) retrieved from the INSTITUTION file (#4) Example: OKLAHOMA CITY VA MEDICAL CENTER	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
IS03 - Message	Freeform text message. Use of this field is defined by the PDMP. Many PDMPs may designate this field to hold the submission period date range of the file transmitted. When used to indicate the date range, it must be the first data text in the field and must be inserted with using the following layout (where """"#"""" and """"-"""" are those literal characters): #CCYYMMDD#-#CCYYMMDD# For example, a pharmacy may be submitting records for the reporting period of December 5, 2019 through December 11, 2019 but only filled reportable prescriptions on December 5 and December 7. The full submission period date range would be reported in IS03 as #20191205#-#20191211# It is up to the PDMP to further define how to enter the submission date range for exceptional cases, such as for late submission records. **NOTE:** IS03 can also be used to show the date range for Zero Reports.	$$IS03^PSOASAP()	VistA sends "" (null)	Optional

Table 45: Pharmacy Header (PHA) 4.2B

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PHA – Pharmacy Header Segment	**Purpose: To identify the pharmacy or the dispensing prescriber. It is required that information be provided in at least one of the following fields: PHA01, PHA02, or PH03. (Note: Situation for use of PHA04 through PHA13 is if needed by the state PDMP to further identify the sending pharmacy.)** **Level: Header** **Requirement: Required**			
PHA01 - National Provider Identifier (NPI)	Identifier assigned to the pharmacy by CMS. Used if required by the PDMP.	$$PHA01^PSOASAP()	NPI INSTITUTION field (#101) retrieved via the Kernel API $$NPI^XUSNPI (ICR# 4532) from OUTPATIENT SITE file (#59)	Optional
PHA02 - NCPDP/NABP Provider ID	Identifier assigned to pharmacy by the National Council for Prescription Drug Programs. Used if required by the PDMP.	$$PHA02^PSOASAP()	NCPDP NUMBER field (#1008) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA03 - DEA Number	Identifier assigned to the pharmacy by the Drug Enforcement Administration. Used if required by the PDMP.	$$PHA03^PSOASAP()	FACILITY DEA NUMBER (#4,52) retrieved via the Kernel API $$WHAT^XUAF4 (ICR# 2171) using the RELATED INSTITUTION field (#100) in the OUTPATIENT SITE file (#59)	Optional
PHA04 - Pharmacy or Dispensing Prescriber Name	Freeform name of the pharmacy. **NOTE:** If a dispensing prescriber, the prescriber's name and professional degree should be entered, such as John Doe MD.	$$PHA04^PSOASAP()	NAME field (#.01) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA05 - Address Information – 1	Freeform text for address information.	$$PHA05^PSOASAP()	MAILING FRANK STREET ADDRESS field (#.02) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA06 - Address Information - 2	Freeform text for additional address information.	$$PHA06^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PHA07 - City Address	Free-form text for city name.	$$PHA07^PSOASAP()	MAILING FRANK CITY field (#.07) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA08 - State Address	U.S. Postal Service state code.	$$PHA08^PSOASAP()	ABBREVIATION field (#1) retrieved from the STATE file (#5) via pointer MAILING FRANK STATE field (#.08) in the OUTPATIENT SITE file (#59) Example: OK	Optional
PHA09 - ZIP Code Address	U.S. Postal Service ZIP Code. Use if available. Exclude hyphen.	$$PHA09^PSOASAP()	MAILING FRANK ZIP+4 CODE field (#.05) retrieved from OUTPATIENT SITE file (#59) **NOTE:** hyphen excluded Example: 731045028	Optional
PHA10 - Phone Number	Complete phone number including area code. Exclude hyphens.	$$PHA10^PSOASAP()	AREA CODE (#.03) and PHONE NUMBER (#.04) fields retrieved from OUTPATIENT SITE file (#59) **NOTE:** hyphens excluded Example: 4056948387	Optional
PHA11 - Contact Name	Freeform name.	$$PHA11^PSOASAP()	VistA sends "" (null)	Optional
PHA12 - Chain Site ID	Store number assigned by the chain to the pharmacy location. Used when PDMP needs to identify the specific pharmacy from which information is required.	$$PHA12^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PHA13 - Pharmacy's Permit Number/License Number	Used to help identify the sending pharmacy	$$PHA13^PSOASAP()	VistA sends "" (null)	Optional

Table 46: Patient Information (PAT) 4.2B

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT – Patient Information	**Purpose: Used to report the patient's name and basic information as contained in the pharmacy record** **Level: Detail** **Requirement: Required**			
PAT01 - ID Qualifier of Patient Identifier	Code identifying the jurisdiction that issues the ID in PAT03. Used if the PDMP requires such identification. ASAP version 4.2b Standard Appendix A lists jurisdictions.	$$PAT01^PSOASAP()	VistA sends 'US'	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT02 - ID Qualifier	Code to identify the type of ID in PAT03. If PAT02 is used, PAT03 is required. 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 09 Vendor Specific (such as Appriss Health, Experian, LexisNexis) 10 Veterinary Patient Microchip Number 99 Other (Trading partner agreed upon ID, such as cardholder ID.)	$$PAT02^PSOASAP()	VistA sends '07'	Optional
PAT03 - ID of Patient	Identification number for the patient as indicated in PAT02. An example would be the driver's license number. **NOTE:** This field can only be populated with code 10 when provided on the prescription.	$$PAT03^PSOASAP()	Retrieved from the SOCIAL SECURITY NUMBER field (#2,.09) of the PATIENT file via the REGISTRATION DEM^VADPT API ICR #10061	Optional
PAT04 - ID Qualifier of Additional Patient Identifier	Code identifying the jurisdiction that issues the ID in PAT06. Used if the PDMP requires such identification. ASAP version 4.2b Standard Appendix A lists jurisdictions.	$$PAT04^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT05 - Additional Patient ID Qualifier	Code to identify the type of ID in PAT06 if the PDMP requires a second identifier. If PAT05 is used, PAT06 is required. 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 09 Vendor Specific (such as Appriss Health, Experian, LexisNexis) 10 Veterinary Patient Microchip Number 99 Other (Trading partner agreed upon ID, such as cardholder ID.)	$$PAT05^PSOASAP()	VistA sends "" (null)	Optional
PAT06 - Additional ID	Identification that might be required by the PDMP to further identify the individual. An example might be in that PAT03 driver's license is required and in PAT06 Social Security number is also required.	$$PAT06^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT07 - Last Name	Patient's last name.	$$PAT07^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), the FAMILY (LAST) NAME field (#1) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, the first comma delimited piece of the NAME field (#.01) in the PATIENT file (#2). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Required
PAT08 - First Name	Patient's first name.	$$PAT08^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), the GIVEN (FIRST) NAME field (#2) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, the first space delimited piece of the second comma delimited piece of the NAME field (#.01) in the PATIENT file (#2). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT09 - Middle Name	Patient's middle name or initial if available. Used if available in pharmacy system and required by the PDMP.	$$PAT09^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), the MIDDLE NAME field (#3) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, the second space delimited piece of the second comma delimited piece of the NAME field (#.01) in the PATIENT file (#2). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Optional
PAT10 - Name Prefix	Patient's name prefix such as Mr. or Dr. Used if available in pharmacy system and required by the PDMP.	$$PAT10^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), the PREFIX field (#4) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, VistA sends "" (null). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT11 - Name Suffix	Patient's name suffix such as Jr. or the III. Used if available in pharmacy system and if required by the PDMP.	$$PAT11^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), the SUFFIX field (#5) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, VistA sends "" (null). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Optional
PAT12 - Address Information – 1	Field size has been increased to 55 bytes from 35 bytes. However, in order to accommodate pharmacy management systems storing 35 bytes or less for the patient address, no programming change is necessary if that is the maximum length of the field in the pharmacy management system. If the address stored in the system is a P.O. box number, defer to the specifications of the PDMP as to whether this should be reported in PAT12 or PAT13.	$$PAT12^PSOASAP()	Retrieved from the STREET ADDRESS [LINE 1] field (#.111) in the PATIENT file (#2). Retrieved using the REGISTRATION API, ADD^VADPT ICR #10061	Required
PAT13 - Address Information – 2	Freeform text for additional address information, if required by the PDMP and is available in pharmacy system.	$$PAT13^PSOASAP()	Retrieved from the STREET ADDRESS [LINE 2] field (#.112) in the PATIENT file (#2). Retrieved using the REGISTRATION API, ADD^VADPT ICR #10061	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT14 - City Address	Freeform text for city name.	$$PAT14^PSOASAP()	Retrieved from the CITY field (#.114) in the PATIENT file (#2). Retrieved using the REGISTRATION API, ADD^VADPT ICR #10061	Required
PAT15 - State Address	U.S. Postal Service state code if required by the PDMP. **NOTE:** Field has been sized to handle international patients not residing in the U.S.	$$PAT15^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061)". Retrieved using the following logic: If the COUNTRY field (#.1173) in the PATIENT file (#2) is the United States, retrieved from the ABBREVATION field (#1) in the STATE file (#5) pointed to by the STATE field (#.115) in the PATIENT file (#2). If the COUNTRY field (#.1173) in the PATIENT file (#2) is not the United States, retrieved from the PROVINCE field (#.1171) in the PATIENT file (#2).	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT16 - ZIP Code Address	U.S. Postal Service ZIP code. Exclude hyphen. Postal code will be reported for non-U.S. addresses.	$$PAT16^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061). Retrieved using the following logic: If the COUNTRY field (#.1173) in the PATIENT file (#2) is the United States, retrieved from the ZIP CODE field (#.116) in the PATIENT file (#2). If the COUNTRY field (#.1173) in the PATIENT file (#2) is not the United States, retrieved from the POSTAL CODE (#.1172) in the PATIENT file (#2).	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT17 - Phone Number	Complete phone number including area code when a state PDMP requires and is available in the pharmacy system. **NOTE:** Exclude hyphens in the number.	$$PAT17^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061). Retrieved using the following logic: Use PHONE NUMBER [RESIDENCE] field (#.131) in the PATIENT file (#2) if not null Else use PHONE NUMBER [CELLULAR] field (#.134) in the PATIENT file (#2) if not null Else PHONE NUMBER [WORK] field (#.132) in the PATIENT file (#2) if not null Else use K-WORK PHONE NUMBER field (#.21011) in the PATIENT file (#2) if not null Else use K2-WORK PHONE NUMBER field (#.2199) in the PATIENT file (#2) if not null Else use E-WORK PHONE NUMBER field (#.33011) in the PATIENT file (#2) if not null Else use E2-WORK PHONE NUMBER field (#.331011) in the PATIENT file (#2) if not null Else use AREA CODE field (#.03) in the OUTPATIENT SITE file (#59) concatenated to the PHONE NUMBER field (#.04) in the OUTPATIENT SITE file (#59)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT18 - Date of Birth	Date patient was born. Format: CCYYMMDD.	$$PAT18^PSOASAP()	Retrieved from the DATE OF BIRTH field (#.03) in the PATIENT file (#2) Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Required
PAT19 - Gender Code	Code indicating the sex of the patient if required by the PDMP. F Female M Male U Unknown	$$PAT19^PSOASAP()	Retrieved using the Registration API $$DEM^VADPT (ICR #10061) and return variable VADM(5). If no value is found, VistA sends 'U'	Optional
PAT20 - Species Code	Used if required by the PDMP to differentiate a prescription for an individual from one prescribed for an animal. 01 Human 02 Veterinary Patient	$$PAT20^PSOASAP()	VistA sends '01'	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT21 - Patient Location Code	Code indicating where patient is located when receiving pharmacy services if required by the PDMP. 01 Home 02 Intermediary Care 03 Nursing Home 04 Long-Term/Extended Care 05 Rest Home 06 Boarding Home 07 Skilled-Care Facility 08 Sub-Acute Care Facility 09 Acute-Care Facility 10 Outpatient 11 Hospice 98 Unknown 99 Other	$$PAT21^PSOASAP()	VistA sends '10'	Optional
PAT22 - Country of Non-U.S. Resident	Used when the patient's address is a foreign country. This is a freeform text field. ASAP does not provide a list of countries for this field. PDMPs may permit some of the other address fields to not be used if this field is populated.	$$PAT22^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061). Retrieved If COUNTRY field (#.1173) in the PATIENT file (#2) points to the US in the COUNTRY CODE file (#779.004), VistA returns "" (null). Else VistA returns the FIPS CODE field (#1.2) in the COUNTRY CODE file (#779.004) pointed to by the COUNTRY field (#.1173) in the PATIENT file (#2).	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT23 - Name of Animal	Used if required by the PDMP for prescriptions written by a veterinarian and the pharmacist has access to this information at the time of preparing the prescription.	$$PAT23^PSOASAP()	VistA sends "" (null)	Not Used
PAT07 – PAT09 Note: The NAME field is a delimited value in which the last name and first name are separated by a comma; the middle name and/or suffix are after the first name separated by a space "LAST,FIRST MIDDLE SUFFIX". **PAT07 – PAT11 Note:** The REGISTRATION package does not allow special characters in the PATIENT name during the registration process, with the exception of spaces, apostrophes, hyphens, and one comma. Since other characters are not permitted via end-user options, the probability of special characters in the PATIENT name fields that would cause a data transmission failure is unlikely.				

Table 47: Dispensing Record (DSP) 4.2B

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP – Dispensing Record Segment	**Purpose: To identify the basic components of a dispensing a given prescription order including the date and quantity.** **Level: Detail** **Requirement: Required**			
DSP01 - Reporting Status	00 New Record 01 Revise 02 Void DSP01 requires one of the codes below. An empty or blank field no longer indicates a new prescription dispensing transaction. A PDMP may elect to require a subset of the codes below, specifically 00 and 02, but not 01. 00 This code indicates a new prescription dispensing transaction.	$$DSP01^PSOASAP()	Derived by retrieving the RECORD TYPE field (#2) in the PRESCRIPTIONS subfile (58.42001) of the SPMP EXPORT BATCH file (#58.42) for the prescription being exported and assigning a code based on the value where: N = NEW Rx and VistA sends '00' for New Record R = REFILL and VistA sends '01' for Revise V = VOID and VistA sends '02' for Void	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
	01 This code indicates that one or more data element values in a previously submitted transaction are being revised. Examples of when a revision may be necessary include corrections to typographical errors in original data submissions; or change occurred to the prescription between the time the record was submitted and the time the patient picked it up, such as dispensing a smaller metric quantity, adding or correcting patient information, correcting prescriber DEA number, or payment type. When receiving a transaction with a DSP01 value of 01, the PDMP will override all of the detail segments' data of the original prescription transaction with all of the detail segments' data from the revised prescription transaction. So it is essential to submit all of the data elements in all of the detail segments populated with the identical data as it appeared in the original record, with only the changed data element(s) content being different (and DSP01 with a value of 01). Do not use 01 in combination with a zero metric quantity to indicate that the prescription was not picked up. Use the value 02 instead as described below. If the PDMP receives a prescription transaction with DSP01 as 01 and a separate prescription transaction with DSP01 as 02, the PDMP will only void the original prescription			

Data Element	Name Description	Data Source	Data Source Notes	Requirement
	transaction and will not attempt to apply a revision. Because the PAT segment loops at a higher level than the other detail segments, the only ways to submit revisions to PAT data elements are either: 1) to not loop the DSP segment within the PAT segment – or 2) to loop the DSP segment within PAT segment and have every DSP01 record element within the loop have a DSP01 of 01. 02 This code is a message to the PDMP to remove the original prescription transaction from its database (or to mark the record as invalid and to be ignored). There can be several reasons for sending a void transaction. One example would be when the prescription was never picked up and the medication was returned to stock. Another example would be when the prescription was reported in error. A DSP01 value of 02 can also be used as an alternative to the DSP01 value of 01 in order to send PDMP corrections. When submitting corrections in this manner; first submit a record with a DSP01 of 02 to indicate to the PDMP to void the original prescription transaction; then submit a brand-new prescription transaction with a DSP01 value of 00 with the correct information.			

Data Element	Name Description	Data Source	Data Source Notes	Requirement
	NOTE: Examples of the correct use of codes in DSP01 are shown in Appendix D in the ASAP version 4.2b Standard, as well as the limited dataset to void a prescription that PDMPs can elect to use.			
DSP02 - Prescription Number	Serial number assigned to the prescription by the pharmacy.	$$DSP02^PSOASAP()	Retrieved from the RX # field (#52,.01) of the PRESCRIPTION file	Required
DSP03 - Date Written	Date the prescription was written (authorized). Format: CCYYMMDD	$$DSP03^PSOASAP()	ISSUE DATE field (#1) retrieved from the PRESCRIPTION file (#52)	Required
DSP04 - Refills Authorized	The number of refills authorized by the prescriber.	$$DSP04^PSOASAP()	Retrieved from the # OF REFILLS field (#52,9) of the PRESCRIPTION file	Required
DSP05 - Date Filled	Date prescription was prepared. Format: CCYYMMDD.	$$DSP05^PSOASAP()	Retrieved from one of three locations depending on the type of fill. Original Fill: RELEASED DATE/TIME field (#31) of the PRESCRIPTION file (#52) Refill: RELEASED DATE/TIME field (#17) of the REFILL subfile (#52.1) Partial: RELEASED DATE/TIME field (#8) of the PARTIAL subfile (#52.2)	Required
DSP06 - Fill Number	Number of the fill of the prescription. 0 indicates original dispensing, 01-99 is the refill number.	$$DSP06^PSOASAP()	Retrieved from the AL and AM cross-references of the PRESCRIPTION file (#52) and PARTIAL DATE subfile (#52.2) respectively.	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP07 - Product ID Qualifier	Used to identify the type of product ID contained in DSP08. 01 NDC 02 UPC 03 HRI 04 UPN 05 DIN 06 Compound (Used to indicate it is a compound. The CDI segment then becomes a required segment. Also, see instructions for DSP08.)	$$DSP07^PSOASAP()	VistA sends '01'	Required

DSP08 - Product ID	Full product identification as indicated in DSP07, including leading zeros without punctuation. If the product is a compound, use 99999 as the first five characters of the product code. The remaining six characters are assigned by the pharmacy. The CDI then becomes a required segment.
	NOTE: If a controlled substance is part of a kit, the NDC of the kit should be reported as long as it is a legitimate manufacturer's NDC. If not, the NDC of the controlled substance within the kit should be reported. Also, if multiple controlled substances are in the kit, use the CDI segment to report it as a compound.
		$$DSP08^PSOASAP()	Retrieved from one of the following locations in respective order:
			Void
			RETURN TO STOCK subfile (52.07)
			NDC field (#16)
			If not at 52.07,16 then
			DRUG file (#50)
			NDC field (#31)
			If not at 50,31 then
			REFILL:
			REFILL subfile (#52.1)
			NDC field (#11)
			ORIGINAL:
			PRESCRIPTION file (#52)
			NDC field (#27)
				Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP09 - Quantity Dispensed	Number of metric units dispensed in metric decimal format. Example: 2.5. **NOTE:** Note: For compounds show the first quantity in CDI04. Appendix B in ASAP version 4.2b Standard contains specific instructions.	$$DSP09^PSOASAP()	Retrieved from one of the following locations in respective order: Void RETURN TO STOCK LOG subfile (#52.07) QTY field (#3) Original Fill PRESCRIPTION file (#52) QTY field (#7) Refill REFILL subfile (#52.1) QTY field (#1) Partial PARTIAL subfile (#52.2) QTY field (#.04)	Required
DSP10 - Days Supply	The calculated or estimated number of days the medication will cover.	$$DSP10^PSOASAP()	Retrieved from one of the following locations in respective order: Void RETURN TO STOCK LOG subfile (#52.07) DAYS SUPPLY field (#4) Original Fill PRESCRIPTION file (#52) DAYS SUPPLY field (#8) Refill REFILL subfile (#52.1) DAYS SUPPLY field (#1.1) Partial PARTIAL subfile (#52.2) QTY field (#.041)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP11 - Drug Dosage Units Code	Identifies the unit of measure for the quantity dispensed in DSP09, if required by the PDMP. Appendix B in ASAP version 4.2b Standard contains specific instructions. 01 Each (used to report solid dosage 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)	$$DSP11^PSOASAP()	Retrieved from the NCPDP DISPENSE UNIT field (#50,82) of the DRUG file. Coded data: 01-EA 02-ML 03-GM BLANK	Optional
DSP12 - Transmission Form of Rx Origin Code	Code indicating how the pharmacy received the prescription, if required by the PDMP. 01 Written Prescription 02 Telephone Prescription 03 Telephone Emergency Prescription 04 Fax Prescription 05 Electronic Prescription 06 Transferred/Forwarded Rx 99 Other	$$DSP12^PSOASAP()	The ORDER ENTRY/RESULTS REPORTING API $$NATURE^ORUTL3 provides the Nature of Order, which is translated the following way: 01 W 02 V or T 05 E 99 Other ICR# 5890	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP13 - Partial Fill Indicator	This field is used when the quantity in DSP09 is less than the metric 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. So the second partial fill would be reported as 02, up to a maximum of 99	$$DSP13^PSOASAP()	Codes indicating partial or non-partial fill: 00 Non-Partial Fill 01 Partial 1 02 Partial 2	Optional
DSP14 - Pharmacist National Provider Identifier (NPI)	Identifier assigned to the pharmacist by CMS. This number can be used to identify the pharmacist dispensing the medication.	$$DSP14^PSOASAP()	Retrieved via the Kernel API $$NPI^XUSNPI using the prescription fill pharmacist. ICR# 4532	Optional
DSP15 - Pharmacist State License Number	Assigned to the pharmacist by the State Licensing Board. This data element can be used to identify the pharmacist dispensing the medication.	$$DSP15^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP16 - Classification Code for Payment Type	Code identifying the type of payment, i.e. how it was paid for, if required by the PDMP. 01 Private Pay (Cash, Charge, Credit Card) 02 Medicaid 03 Medicare 04 Commercial Insurance 05 Military Installations and VA 06 Workers' Compensation 07 Indian Nations 99 Other	$$DSP16^PSOASAP()	VistA sends '05'	Optional
DSP17 - Date Sold	This field is used to determine the date the prescription was dispensed (sold to, picked up by, or otherwise left the pharmacy), not the date it was prepared. This date could be captured from the point-of-sale (POS) system, if the pharmacy has a POS system, and there is a bidirectional flow with the pharmacy management system in order to capture and report this date. Or it could be captured and reported from a will-call management system, integrated with the pharmacy management system.	$$DSP17^PSOASAP()	Retrieved from one of the following locations in respective order via $$DSP05^PSOASAP(): Void RETURN TO STOCK LOG subfile (#52.07) RELEASED DATE/TIME field (#21) Original Fill PRESCRIPTION file (#52) RELEASED DATE/TIME field (#31) Refill REFILL subfile (#52.1) RELEASED DATE/TIME field (#17) Partial PARTIAL subfile (#52.2) RELEASED DATE/TIME (#8)	Not Used

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP18 - RxNorm Product Qualifier	01 Semantic Clinical Drug (SCD) 02 Semantic Branded Drug (SBD) 03 Generic Package (GPCK) 04 Branded Package (BPCK) RxNorm code that is populated in the DRU-010-09 field in the SCRIPT transaction. **NOTE:** DSP18 and DSP19 are placeholder fields pending RxNorm becoming an industry standard. These fields should not be required until such time.	$$DSP18^PSOASAP()	VistA sends "" (null)	Optional
DSP19 - RxNorm Code	Used for electronic prescriptions to capture the prescribed drug product identification.	$$DSP19^PSOASAP()	VistA sends "" (null)	Optional
DSP20 - Electronic Prescription Reference Number	This field should be populated with the Initiator Reference Number from field UIB-030-01 in the SCRIPT transaction.	$$DSP20^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP21 - Electronic Prescription Order Number	This field will be populated with the Initiator Control Reference from field UIH-030-01 in the SCRIPT standard. **NOTE:** DSP20 and DSP21 should be reported as a pair to the PDMP and the PDMP will decide which one, if not both, it decides to capture. By requiring the reporting of both, this avoids specification variations that would require custom programming to accommodate a PDMP. Also, the information reported by the pharmacy management system will depend on the information received at the pharmacy with an electronic prescription.	$$DSP21^PSOASAP()	VistA sends "" (null)	Optional
DSP22 - Quantity Prescribed	This field has been added in order to add clarity to the value reported in DSP13 Partial Fill Indicator. (Revised 08/17/2020)	$$DSP22^PSOASAP()	VistA sends "" (null)	Not used
DSP23 - Rx SIG	This field would capture the actual directions printed on the prescription vial label. If the directions exceed 200 characters, truncation would be allowed.	$$DSP23^PSOASAP()	Concatenate the SIG1 multiple (#52.04,.01) into a single string	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP24 - Treatment Type	This field is used to explain the reason for an opioid prescription. If the prescription is not for an opioid, then this field would not be used. 01 = Not Used for Opioid Dependency Treatment 02 = Used for Opioid Dependency Treatment 03 = Pain Associated with Active and Aftercare Cancer Treatment 04 = Palliative Care in Conjunction with a Serious Illness 05 = End-of-Life and Hospice Care 06 = A Pregnant Individual with a Pre-existing Prescription for Opioids 07 = Acute Pain for an Individual with an Existing Opioid Prescription for Chronic Pain 08 = Individuals Pursuing an Active Taper of Opioid Medications 09 = Patient is Participating in a Pain Management Contract 10 = Acute Opioid Therapy 11 = Chronic Opioid Therapy 99 = Other (trading partner agreed upon reason or not indicated) The definitions of Codes 03 to 11 can only be reported if mandated by the state to be provided by the prescriber on the prescription order.	$$DSP24^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP25 - Diagnosis Code	This field is used to report the ICD-10 code. If required by a PDMP, this field would be populated only when the ICD-10 code is included with the prescription. Exclude the decimal point.	$$DSP25^PSOASAP()	VistA sends "" (null)	Optional

Table 48: Prescriber Information (PRE) 4.2B

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE – Prescriber Information Segment	**Purpose: To identify the prescriber of the prescription.** **Level: Detail** **Requirement: Required**			
PRE01 - National Provider Identifier (NPI)	Identifier assigned to the prescriber by CMS. **NOTE:** If the prescriber does not have a DEA number, and prescribed a noncontrolled substance that is a reportable drug to the PDMP, this field should be used as the identifier.	$$PRE01^PSOASAP()	Retrieved via the Kernel API $$NPI^XUSNPI using the prescription fill provider ICR# 4532	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE02 - DEA Number	Identifying number assigned to a prescriber or an institution by the Drug Enforcement Administration (DEA). Required when the prescription is for a DEA-defined controlled substance.	$$PRE02^PSOASAP()	Retrieved from one of the following locations in respective order: Provider DEA# associated with the CPRS order The ORDER ENTRY/RESULTS REPORTING procedure ARCHIVE^ORDEA retrieves the value at the DEA # field (#101.52,10) of the ORDER DEA ARCHIVE INFO file. The first piece by "-" is returned. ICR# 5709 Prescription fill provider or facility DEA# The Kernel API $$DEA^XUSER retrieves the value at the DEA NUMBER field (#200.5321,.01) of the NEW PERSON file. The first piece by "-" is returned. ICR# 2343 Pharmacy DEA# The Kernel API $$WHAT^XUAF4 is called to return the FACILITY DEA NUMBER field (#4,52) of the INSTITUTION file. ICR# 2171	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE03 - DEA Number Suffix	Identifying number assigned to a prescriber by an institution when the institution's DEA number is used, if required by the PDMP.	$$PRE03^PSOASAP()	Retrieved from one of the following locations in respective order: Provider DEA# suffix associated with the CPRS order The ORDER ENTRY/RESULTS REPORTING procedure ARCHIVE^ORDEA retrieves the value at the DEA # field (#101.52,10) of the ORDER DEA ARCHIVE INFO file. The 2nd piece by "-" is returned. ICR# 5709 Prescription fill provider or facility DEA# suffix The Kernel API $$DEA^XUSER retrieves the value at the DEA NUMBER field (#200.5321,.01) from the NEW DEA #'S multiple of the NEW PERSON file. The 2nd piece by "-" is returned. ICR# 2343 VA# If DEA# from PHA03 is equal to the DEA# from PHA02, then The Kernel API $$DEA^XUSER retrieves the value at the VA# field (#200,53.3) of the NEW PERSON file. ICR# 2171	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE04 - Prescriber License Number	Identification assigned to the prescriber by the State Licensing Board of a state or jurisdiction. This field can be used for veterinarian prescriptions. Used if required by the PDMP.	$$PRE04^PSOASAP()	VistA sends "" (null)	Optional
PRE05 - Last Name	Prescriber's last name. Used if required by the PDMP.	$$PRE05^PSOASAP()	NAME field (#200,.01) from the NEW PERSON file. ICR# 10061	Optional
PRE06 - First Name	Prescriber's first name. Used if required by the PDMP.	$$PRE06^PSOASAP()	NAME field (#200,.01) from the NEW PERSON file. ICR# 10061	Optional
PRE07 - Middle Name	Prescriber's middle name or initial. Used if required and is available in the pharmacy system.	$$PRE07^PSOASAP()	NAME field (#200,.01) from the NEW PERSON file. ICR# 10061	Optional
PRE08 - Phone Number	The prescriber's primary phone number.	$$PRE08^PSOASAP()	Retrieved from the PHONE NUMBER # field (#200,.132) of the NEW PERSON file. ICR# 10061	Optional
PRE09 - XDEA Number	This field gives a PDMP the option of requiring the XDEA Number (NADEAN) in the PRE Segment when the prescription is for opioid dependency.	$$PRE09^PSOASAP()	VistA sends "" (null)	Not Used
PRE10 - Jurisdiction or State Issuing Prescriber License Number	This field can be used to further identify the information in PRE04 depending on PDMP's need for this information.	$$PRE10^PSOASAP()	VistA sends "" (null)	Optional

Table 49: Compound Drug Ingredient (CDI) 4.2B

Data Element	Name Description	Data Source	Data Source Notes	Requirement
CDI – Compound Drug Ingredient Detail Segment	**Purpose: To identify the individual ingredients that make up a compound. To identify the individual ingredients that make up a compound.** **Level: Detail** **Requirement: Not Used**			
CDI01 - Compound Drug Ingredient Sequence Number	The first reportable ingredient is 1. Each additional reportable ingredient is incremented by 1.	$$CDI01^PSOASAP()	VistA sends "" (null)	Required
CDI02 - Product ID Qualifier	Code to identify the type of product ID contained in CDI03. 01 NDC 02 UPC 03 HRI 04 UPN 05 DIN 06 Compound (This code is not used in this segment.)	$$CDI02^PSOASAP()	VistA sends "" (null)	Required
CDI03 - Product ID	Full product identification as indicated in CDI02, including leading zeros without punctuation.	$$CDI03^PSOASAP()	VistA sends "" (null)	Required
CDI04 - Component Ingredient Quantity	Metric decimal quantity of the ingredient identified in CDI03. Example: 2.5. Appendix B in ASAP version 4.2b Standard contains specific instructions.	$$CDI04^PSOASAP()	VistA sends "" (null)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
CDI05 - Compound Drug Dosage Units Code	Identifies the unit of measure for the quantity dispensed in CDI04, if required by the prescription-monitoring program. Appendix B in ASAP version 4.2b Standard contains specific instructions. 01 Each (used to report solid dosage units or indivisible package) 02 Milliliters (ml) (for liters adjust to the decimal milliliter equivalent) 03 Grams (gm) (for milligrams adjust to the decimal gram equivalent)	$$CDI05^PSOASAP()	VistA sends "" (null)	Optional

Table 50: Additional Information Reporting (AIR) 4.2B

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR – Additional Information Reporting Segment	**Purpose: To report a prescription blank serial number, information on person dropping off or picking up the prescription, or information regarding the prescription not included in the other detail segments. Note: If this segment is used, at least one of the data elements (fields) will be required.** **Level: Detail** **Requirement: Optional**			
AIR01 - State Issuing Rx Serial Number	U.S.P.S. state code of state that issued serialized prescription blank. This is required if AIR02 is used. ASAP version 4.2b Standard Appendix A lists jurisdictions.	$$AIR01^PSOASAP()	VistA sends "" (null)	Optional
AIR02 - State Issued Rx Serial Number	Number assigned to state issued serialized prescription blank. Required if state issues serialized prescription pads for prescribers to use.	$$AIR02^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR03 - ID Issuing Jurisdiction	Code identifying the jurisdiction that issues the ID contained in AIR05. Used if required by the PDMP. ASAP version 4.2b Standard Appendix A lists jurisdictions.	$$AIR03^PSOASAP()	VistA sends "" (null)	Optional
AIR04 - ID Qualifier of Person Dropping Off or Picking Up Rx	Code indicating the type of ID in AIR05 if required by the PDMP. 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 09 Vendor Specific (such as Appriss Health, Experian, LexisNexis) 10 Veterinary Patient Microchip Number 99 Other (trading partner agreed upon ID such as cardholder ID)	$$AIR04^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR05 - ID of Person Dropping Off or Picking Up Rx	ID number of the person dropping off or picking up the prescription, if required by the PDMP. **NOTE:** Because historically there has been a noticeable amount of extraneous information entered in this field, which has interfered with data analysis, it is important that every effort be made to ensure that only the unadorned customer ID and no additional information be entered into this field.	$$AIR05^PSOASAP()	VistA sends "" (null)	Optional
AIR06 - Relationship of Person Dropping Off or Picking Up Rx	Code indicating the relationship to the person, dropping off or picking up Rx, if required by the PDMP. 01 Patient 02 Parent/Legal Guardian 03 Spouse 04 Caregiver 99 Other	$$AIR06^PSOASAP()	VistA sends "" (null)	Optional
AIR07 - Last Name of Person Dropping Off or Picking Up Rx	Last name of the person dropping off or picking up Rx, if required by the PDMP.	$$AIR07^PSOASAP()	VistA sends "" (null)	Optional
AIR08 - First Name of Person Dropping Off or Picking Up Rx	First name of the person dropping off or picking up the Rx, if required by the PDMP.	$$AIR08^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR09 - Last Name or Initials of Pharmacist	Last name or initials of the pharmacist dispensing the medication, if required by the PDMP.	$$AIR09^PSOASAP()	VistA sends "" (null)	Optional
AIR10 - First Name of Pharmacist	First name of the pharmacist dispensing the medication, if required by the PDMP.	$$AIR10^PSOASAP()	VistA sends "" (null)	Optional
AIR11 - Dropping Off/Picking Up Identifier Qualifier	Additional qualifier for the ID contained in AIR05. 01 Person Dropping Off 02 Person Picking Up 98 Unknown/Not Applicable (An example of Unknown: Where the pharmacist does not know which person it is. Or there is no ID to collect at drop-off, such as when a prescription is phoned in. An example of Not Applicable: When the prescription is delivered.) **NOTE:** Both 01 and 02 cannot be required by a PDMP. Usage of this field depends on whether a PDMP has interest in knowing whether the information supplied in fields AIR04–AIR08 is for the person dropping off or picking up the prescription.	$$AIR11^PSOASAP()	VistA sends "" (null)	Optional

Table 51: Pharmacy Trailer (TP) 4.2B

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TP – Pharmacy Trailer Segment	**Purpose: To identify the end of data for a given pharmacy and provide the count of the total number of detail segments included for the pharmacy, including the pharmacy header (PHA) and the pharmacy trailer (TP) segments.** **Level: Summary** **Requirement: Required**			
TP01 - Detail Segment Count	Number of detail segments included for the pharmacy including the pharmacy header (PHA) and the pharmacy trailer (TP) segments.	$$TP01^PSOASAP()	Calculates the number of detail segments included (PAT, DSP, PRE, CDI, AIR) in addition to the pharmacy header (PHA) and pharmacy trailer (TP)	Required

Table 52: Transaction Trailer (TT) 4.2B

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TT – Transaction Trailer Segment	**Purpose: To indicate the end of the transaction and provide the count of the total number of segments included in the transaction.** **Level: Summary** **Requirement: Required**			
TT01 - Transaction Control Number	Identifying control number that must be unique. Assigned by the originator of the transaction. Must match the number in TH02 sent by the pharmacy.	$$TT01^PSOASAP()	VA site number (via Registration API $$SITE^VASITE()) and BATCH NUMBER field (#58.42,.01) of the SPMP EXPORT BATCH file. (ex: 500-182)	Required
TT02 - Segment Count	Total number of segments included in the transaction including the header (TH) and trailer (TT) segments.	$$TT02^PSOASAP()	Calculated for each transmission.	Required

23.5.3 ASAP Standard Version 5.0 Implementation

Table 53: ASAP 5.0 Baseline Dataset - Transaction Header (TH) 5.0

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TH – Transaction Header Segment	**Purpose: To indicate the start of a transaction. It also assigns the segment terminator, data element separator, and control number.** **Level: Header** **Requirement: Required**			
TH01 - Version / Release Number	Used to identify the transaction Version/Release. Format = x.x (5.0) ASAP Version 5 Release 0	$$TH01^PSOASAP()	ASAP VERSION field (#1) retrieved from the SPMP STATE PARAMETERS file (#58.41)	Required
TH02 - Transaction Control Number	Sender assigned code uniquely identifying a transaction. This number must be used in TT01. Recommendation: Use a Globally Unique Identifier (GUID) or other nonrepeating alphanumeric combination to populate this field.	$$TH02^PSOASAP()	VA site number (via Registration API $$SITE^VASITE()) and BATCH NUMBER field (#58.42,.01) of the SPMP EXPORT BATCH file. (ex: 500-182)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TH03 - Transaction Type	Identifies the purpose of initiating the transaction. 01 Send/Request Transaction 02 Acknowledgment (Used in Response only.) 03 Error Receiving (Used in Response only.) 04 Void (Used to void a specific Rx in a real-time transmission, or an entire batch file that has been transmitted. When 04 is used the appropriate transaction control number in TH02 for the specific prescription or batch file must be included. When 04 is used only the TH Header Segment and the Transaction Trailer Segment are used.)	$$TH03^PSOASAP()	VistA sends '01'	Optional
TH04 - Response ID	Contains the Transaction Control Number of a transaction that initiated the transaction. Required in response transaction only.	$$TH04^PSOASAP()	VistA sends "" (null)	Optional
TH05 - Creation Date	Date the file was created. Format: CCYYMMDD.	$$TH05^PSOASAP()	Kernel API - $$FMTHL7^XLFDT($$HTFM^XLFDT($H) Example: 20240904	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TH06 - Creation Time	Time expressed in 24-hour clock time HHMMSS or HHMM). Time range: 000000 through 235959. The time zone should be reported in Coordinated Universal Time (UTC) as HHMMSSZ (e.g., 235959Z). Do not include colons or non-numeric characters other than Z for Zulu time.	$$TH06^PSOASAP()	1) Call Kernel API - $$HTFM^XLFDT($H)which returns back UTC date/time Example: 091522 2) Take the TIME value of the returned date/time stamp and set that data to be exactly 6 in length and append a "Z" to the end.	Required
TH07 - File Type	Code specifying the type of transaction. P Production T Test	$$THO7^PSOASAP()	Retrieved via the Kernel API - $$PROD^XUPROD(1)	Required
TH08 - Routing Number/BIN	This field can be used for real-time transmissions that go through an intermediary or network switch to indicate, if necessary, the specific state that the transactions should be routed to.	$$TH08^PSOASAP()	VistA sends "" (null)	Optional
TH09 - Segment Terminator Character	This terminates the TH segment and sets the actual value of the data segment terminator for the entire transaction. **NOTE:** The ASAP 5.0 Standard document uses the "~" in all examples. See the "Data Element Separators and Segment Terminators" in the standard's introduction for more information.	$$TH09^PSOASAP()	Retrieved from the SEGMENT TERMINATOR CHAR field (#58.4001,.03) of the SPMP ASAP RECORD DEFINITION file. Tilde character "~"	Required

Table 54: Information Source (IS) 5.0

Data Element	Name Description	Data Source	Data Source Notes	Requirement
IS – Information Source Segment	**Purpose: To convey the name and identification number of the entity supplying the information.** **Level: Header** **Requirement: Required**			
IS01 - Unique Information Source ID	Reference number or identification number as defined by the business partners. (Example: Phone number. However, if a phone number is used to populate this field, do not include hyphens.)	$$IS01^PSOASAP()	1) Call REGISTRATION's $$SITE^VASITE to get the 3-digit VA SITE CODE (e.g.,500) 2) Use the VA SITE CODE to find the first valid OUTPATIENT SITE entry at the SITE NUMBER (59,.06) x-ref. 3) If there isn't a match at the SITE NUMBER x-ref then populate IS01 with the VA SITE CODE retrieved at step 1 concatenated with the ZIP (4, 1.04) W/0 any hyphen and quit 4) Call $$NPI^XUSNPI passing in file 59 ien retrieved at the SITE NUMBER x-ref and the ""Organizational_ID"" 5) If the NPI is not returned at step 4, then populate IS01 with the VA SITE CODE retrieved at step 1 concatenated with the ZIP (4, 1.04) W/0 any hyphen and quit 6) Return NPI that was returned at step 4	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
IS02 - Information Source Entity Name	Entity name of the Information Source.	$$IS02^PSOASAP()	OFFICIAL VA NAME field (#100) retrieved from the INSTITUTION file (#4) Example: OKLAHOMA CITY VA MEDICAL CENTER	Required
IS03 - Message	Freetext message. Use of this field is defined by the PDMP. PDMPs may designate this field to hold the submission period date range of the file transmitted. When used to indicate the date range, it must be the first data text in the field and must be inserted using the following layout (where "#" and "-" are those literal characters): #CCYYMMDD#-#CCYYMMDD# For example, a pharmacy may be submitting records for the reporting period of February 5, 2023 through February 11, 2023 but only filled reportable prescriptions on February 5 and February 7. The full submission period date range would be reported in IS03 as #20230205#-#20230211#. It is up to the PDMP to further define how to enter the submission date range for exceptional cases, such as for late submission records. **NOTE:** IS03 can also be used to show the date range for Zero Reports.	$$IS03^PSOASAP()	VistA sends "" (null)	Optional
IS04 - Pharmacy Dispensing Software Vendor	Name of software vendor the pharmacy is using.	$$IS04^PSOASAP()	VistA sends DEPT OF VET AFFAIRS - OFFICE OF INFORMATION AND TECHNOLOGY	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
IS05 - Phone Number of Software Vendor	No description provided in standard.	$$IS05^PSOASAP()	VistA sends "" (null)	Optional

Table 55: Pharmacy Header (PHA) 5.0

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PHA – Pharmacy Header Segment	**Purpose: To identify the pharmacy or the dispensing prescriber. It is required that information be provided in at least one of the following fields: PHA01, PHA02, or PH03. (Note: PHA04 through PHA13 can be used if needed by the state to further identify the sending entity.)** **Level: Header** **Requirement: Required**			
PHA01 - National Provider Identifier (NPI)	Identifier assigned to the pharmacy by CMS. Used if required by the PDMP.	$$PHA01^PSOASAP()	NPI INSTITUTION field (#101) retrieved via the Kernel API $$NPI^XUSNPI (ICR# 4532) from OUTPATIENT SITE file (#59)	Optional
PHA02 - NCPDP Provider ID	Identifier assigned to pharmacy by the National Council for Prescription Drug Programs. Used if required by the PDMP.	$$PHA02^PSOASAP()	NCPDP NUMBER field (#1008) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA03 - DEA Number	Identifier assigned to the pharmacy by the Drug Enforcement Administration. Used if required by the PDMP.	$$PHA03^PSOASAP()	FACILITY DEA NUMBER (#4,52) retrieved via the Kernel API $$WHAT^XUAF4 (ICR# 2171) using the RELATED INSTITUTION field (#100) in the OUTPATIENT SITE file (#59)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PHA04 - Pharmacy or Dispensing Prescriber Name	Freetext name of the pharmacy. **NOTE:** If a dispensing prescriber, the prescriber's name and professional degree should be entered, such as John Doe MD.	$$PHA04^PSOASAP()	NAME field (#.01) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA05 - Address Information – 1	Freetext for address information. Recommendation: Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specifications for Patient Addresses.	$$PHA05^PSOASAP()	MAILING FRANK STREET ADDRESS field (#.02) retrieved from OUTPATIENT SITE file (#59)	Optional
PHA06 - Address Information - 2	Freetext for address additional information. Recommendation: Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specifications for Patient Addresses.	$$PHA06^PSOASAP()	VistA sends "" (null)	Optional
PHA07 - City Address	Freetext for city name.	$$PHA07^PSOASAP()	MAILING FRANK CITY field (#.07) retrieved from OUTPATIENT SITE file (#59)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PHA08 - State Address	Two-letter jurisdiction/state and possession abbreviation as described in United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses.	$$PHA08^PSOASAP()	ABBREVIATION field (#1) retrieved from the STATE file (#5) via pointer MAILING FRANK STATE field (#.08) in the OUTPATIENT SITE file (#59) Example: OK	Optional
PHA09 - ZIP Code Address	United States Postal Service ZIP Code or ZIP+4 as described in United States Postal Service Publication 28 Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses. Do not include white spaces or special characters. Include hyphens in ZIP+4.	$$PHA09^PSOASAP()	MAILING FRANK ZIP+4 CODE field (#.05) retrieved from OUTPATIENT SITE file (#59) **NOTE:** hyphen included Example: 73104-5028	Optional
PHA10 - Phone Number	Complete phone number including area code. Exclude hyphens.	$$PHA10^PSOASAP()	AREA CODE (#.03) and PHONE NUMBER (#.04) fields retrieved from OUTPATIENT SITE file (#59) **NOTE:** hyphens excluded Example: 4056948387	Optional
PHA11 - Contact Name	Freetext name of vendor contact.	$$PHA11^PSOASAP()	VistA sends "" (null)	Optional
PHA12 - Chain Site ID	Store number assigned by the chain to the pharmacy location. Used when PDMP needs to identify the specific pharmacy from which information is required.	$$PHA12^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PHA13 - Pharmacy's Permit Number/License Number	Used to help identify the sending pharmacy.	$$PHA13^PSOASAP()	VistA sends "" (null)	Optional
PHA14 - Pharmacy/Dispenser Type	01 Independent Pharmacy 02 Chain Pharmacy 03 Long-term Care Pharmacy 04 Hospital Pharmacy 05 Opioid Treatment Program 06 Cannabis Dispensary 07 Veterinary/ Vet Patient Only Dispenser 08 Dispensing Prescriber 09 Specialty Pharmacy 10 Federal 11 Tribal 99 Other	$$PHA14^PSOASAP()	VistA sends '10'	Optional
PHA15 - Mail Order Pharmacy	01 Yes 02 No	$$PHA15^PSOASAP()	VistA sends "" (null)	Optional

Table 56: Patient Information (PAT) 5.0

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT – Patient Information Segment	**Purpose: Used to report the patient's name and basic information as contained in the pharmacy record.** **Level: Detail** **Requirement: Required**			
PAT01 - ID Qualifier of Patient Identifier	Code identifying the jurisdiction that issues the ID in PAT03. Used if the PDMP requires such identification. If PAT01 is populated, then PAT02 and PAT03 must be populated as well. ASAP version 5.0 Standard Appendix A lists jurisdictions.	$$PAT01^PSOASAP()	VistA sends 'US'	Optional
PAT02 - ID Qualifier	Code to identify the type of ID in PAT03. If PAT02 is used, PAT03 is required. 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 09 Vendor Specific (such as Bamboo Health, Experian, LexisNexis) 10 Veterinary Patient Microchip Number 11 Medicaid Recipient ID Number 99 Other (Trading partner agreed upon ID, such as cardholder ID)	$$PAT02^PSOASAP()	VistA sends '07'	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT03 - ID of Patient	Identification number for the patient as indicated in PAT02. An example would be the driver's license number. **NOTE:** This field can only be populated with code 10 when provided on the prescription.	$$PAT03^PSOASAP()	Retrieved from the SOCIAL SECURITY NUMBER field (#2,.09) of the PATIENT file via the REGISTRATION DEM^VADPT API ICR #10061	Optional
PAT04 - ID Qualifier of Additional Patient Identifier	Code identifying the jurisdiction that issues the ID in PAT06. Used if the PDMP requires such identification. ASAP version 5.0 Standard Appendix A lists jurisdictions.	$$PAT04^PSOASAP()	VistA sends "" (null)	Optional
PAT05 - Additional Patient ID Qualifier	01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 09 Vendor Specific (such as Bamboo Health, Experian, LexisNexis) 10 Veterinary Patient Microchip Number 11 Medicaid Recipient ID Number 99 Other (Trading partner agreed upon ID, such as cardholder ID.)	$$PAT05^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT06 - Additional ID	Identification that might be required by the PDMP to further identify the individual. An example might be in that PAT03 driver's license is required and in PAT06 Social Security number is also required.	$$PAT06^PSOASAP()	VistA sends "" (null)	Optional
PAT07 - Last Name	Patient's last name. Recommended way to report: Report the patient's complete legal last name ONLY as listed on a government-issued identification Do NOT report extraneous information or notes in this field Do NOT enter Prefix or Suffix in Last Name field Do NOT report special characters (e.g., parentheses, asterisk) other than a hyphen or apostrophe. If for a veterinary patient, enter information of PERSON responsible for the care of the animal or who arranges for the animal's veterinary care	$$PAT07^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), PAT07 is assigned the value at the FAMILY (LAST) NAME field (#1) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, PAT07 is assigned the value before the first comma of the NAME field (#.01) in the PATIENT file (#2). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT08 - First Name	Patient's first name. Recommended way to report: Report the patient's complete legal first name ONLY as listed on a government-issued identification Do NOT report extraneous information or notes in this field Do NOT enter Prefix or Suffix in First Name field Do NOT report special characters (e.g., parentheses, asterisk) other than a hyphen or apostrophe. If for a veterinary patient, enter information of PERSON responsible for the care of the animal or who arranges for the animal's veterinary care	$$PAT08^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), PAT08 is assigned the value at the GIVEN (FIRST) NAME field (#2) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, PAT08 is assigned the value before the first space and after the first comma of the NAME field (#.01) in the PATIENT file (#2). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT09 - Middle Name	Patient's middle name or initial if available. Used if available in pharmacy system and required by the PDMP.	$$PAT09^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), PAT09 is assigned to the value at the MIDDLE NAME field (#3) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, PAT09 is assigned the value after the first comma and after the first space of the NAME field (#.01) in the PATIENT file (#2). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Optional
PAT10 - Name Prefix	Patient's name prefix such as Mr. or Dr. Used if available in pharmacy system and required by the PDMP. Do not report special characters other than a hyphen or a period.	$$PAT10^PSOASAP()	Retrieved using the following logic: 1) If the patient DFN exists in the NAME COMPONENTS file (#20), the PREFIX field (#4) in the NAME COMPONENTS file (#20). 2) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, VistA sends "" (null). Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT11 - Name Suffix	Patient's name suffix such as Jr. or the III. Used if available in pharmacy system and if required by the PDMP. Do not report special characters other than a hyphen or a period.	$$PAT11^PSOASAP()	Retrieved using the following logic: 3) If the patient DFN exists in the NAME COMPONENTS file (#20), the SUFFIX field (#5) in the NAME COMPONENTS file (#20). 4) If no entry exists in the NAME COMPONENTS file (#20) for the patient DFN, VistA sends "" (null). Retrieved using the REGISTRATION API, ADD^VADPT ICR #10061	Optional
PAT12 - Address Information – 1	If the pharmacy management system stores 35 bytes or less for the address, no programming change is necessary. If the address stored in the system is a P.O. box number, defer to the specifications of the PDMP as to whether this should be reported in PAT12 or PAT13. Recommendation: Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specifications for Patient Addresses.	$$PAT12^PSOASAP()	Retrieved from the STREET ADDRESS [LINE 1] field (#.111) in the PATIENT file (#2). Retrieved using the REGISTRATION API, ADD^VADPT ICR #10061	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT13 - Address Information – 2	Freetext for additional address information, if required by the PDMP and is available in pharmacy system. Recommendation: Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specifications for Patient Addresses.	$$PAT13^PSOASAP()	Retrieved from the STREET ADDRESS [LINE 2] field (#.112) in the PATIENT file (#2) Retrieved using the REGISTRATION API, ADD^VADPT ICR #10061	Optional
PAT14 - City Address	Freetext for city name.	$$PAT14^PSOASAP()	Retrieved from the CITY field (#.114) in the PATIENT file (#2). Retrieved using the REGISTRATION API, ADD^VADPT ICR #10061	Required
PAT15 - Jurisdiction/State Address	Jurisdiction / state and possession abbreviation as described in United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses.	$$PAT15^PSOASAP()	Retrieved using the following logic: If the COUNTRY field (#.1173) in the PATIENT file (#2) is the United States, retrieved from the ABBREVATION field (#1) in the STATE file (#5) pointed to by the STATE field (#.115) in the PATIENT file (#2). If the COUNTRY field (#.1173) in the PATIENT file (#2) is not the United States, retrieved from the PROVINCE field (#.1171) in the PATIENT file (#2). API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061).	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT16 - ZIP Code Address	United States Postal Service ZIP Code or ZIP+4 as described in United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses. Do not include white spaces or special characters. Include hyphens in ZIP+4. Postal code will be reported for non-U.S. addresses.	$$PAT16^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061). Retrieved using the following logic: If the COUNTRY field (#.1173) in the PATIENT file (#2) is the United States, retrieved from the ZIP CODE field (#.116) in the PATIENT file (#2). If the COUNTRY field (#.1173) in the PATIENT file (#2) is not the United States, retrieved from the POSTAL CODE (#.1172) in the PATIENT file (#2).	Required
PAT17 - Phone Number	Complete phone number including area code when a state PDMP requires and is available in the pharmacy system. **NOTE:** Exclude hyphens.	$$PAT17^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061). Retrieved using the following logic: Use PHONE NUMBER [RESIDENCE] field (#.131) in the PATIENT file (#2) if not null Else use PHONE NUMBER [CELLULAR] field (#.134) in the PATIENT file (#2) if not null Else PHONE NUMBER [WORK] field (#.132) in the PATIENT file (#2) if not null Else use K-WORK PHONE NUMBER field (#.21011) in the PATIENT file (#2) if not null	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
			Else use K2-WORK PHONE NUMBER field (#.2199) in the PATIENT file (#2) if not null Else use E-WORK PHONE NUMBER field (#.33011) in the PATIENT file (#2) if not null Else use E2-WORK PHONE NUMBER field (#.331011) in the PATIENT file (#2) if not null Else use AREA CODE field (#.03) in the OUTPATIENT SITE file (#59) concatenated to the PHONE NUMBER field (#.04) in the OUTPATIENT SITE file (#59)	
PAT18 - Date of Birth	Owner's date of birth as listed on a government-issued identification. If for a veterinary patient Date of Birth should be listed as directed by applicable state/jurisdiction PDMP laws and regulations. Format: CCYYMMDD.	$$PAT18^PSOASAP()	Retrieved from the DATE OF BIRTH field (#.03) in the PATIENT file (#2) Retrieved using the REGISTRATION API, DEM^VADPT ICR #10061	Required
PAT19 - Gender Code	Codes indicating the sex of the patient if required by the PDMP. F Female M Male N Non-Binary U Unknown / Undisclosed X Unspecified/Other	$$PAT19^PSOASAP()	Retrieved using the Registration API $$DEM^VADPT (ICR #10061) and return variable VADM(5). If no value is found, VistA sends 'U'	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT20 - Species Code	Used if required by the PDMP to differentiate a prescription for an individual from one prescribed for an animal. 01 Human 02 Veterinary Patient	$$PAT20^PSOASAP()	VistA sends '01'	Optional
PAT21 - Patient Location Code	Code indicating where patient is located when receiving services, if required by PDMP. 01 Home 02 Intermediary Care 03 Nursing Home 04 Long-Term/Extended Care 05 Rest Home 06 Boarding Home 07 Skilled-Care Facility 08 Sub-Acute Care Facility 09 Acute-Care Facility 10 Outpatient 11 Hospice 12 Homeless/Unhoused 13 Transient Care 98 Unknown 99 Other	$$PAT21^PSOASAP()	VistA sends '10'	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT22 - Country of Non-U.S. Resident	Used when the patient's address is a foreign country. This is a freetext field. ASAP does not provide a list of countries for this field. PDMPs may permit some of the other address fields to not be used if this field is populated.	$$PAT22^PSOASAP()	API ADD^VADPT is called and it is a supported reference to the REGISTRATION API. (ICR# 10061). Retrieved If COUNTRY field (#.1173) in the PATIENT file (#2) points to the US in the COUNTRY CODE file (#779.004), VistA returns "" (null). Else VistA returns the FIPS CODE field (#1.2) in the COUNTRY CODE file (#779.004) pointed to by the COUNTRY field (#.1173) in the PATIENT file (#2).	Optional
PAT23 - Name of Animal	Used if required by the PDMP for prescriptions written by a veterinarian. An unnamed animal could be described as COWSmith or as COW1Smith.	$$PAT23^PSOASAP()	VistA sends "" (null)	Not Used
PAT24 - Patient Preferred or Alias Last Name	May be used for a preferred name, previous name, nickname, alias, or name used on insurance card if different than legal last name.	$$PAT24^PSOASAP1()	If available, returns the value in the first piece by "," from the ALIAS field (#.01) of the PATIENT file (#2). ICR# 5708	Optional
PAT25 - Patient Preferred or Alias First Name	Maybe used for a preferred name, previous name, nickname, alias, or name used on insurance card if different than legal first name.	$$PAT25^PSOASAP1()	If available, returns the value in the second piece by "," from the ALIAS field (#.01) of the PATIENT file (#2). ICR# 5708	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT26 - Patient Race Category	Code used for general race category. 01 American Indian or Alaskan Native 02 Asian 03 Black or African American 04 Native Hawaiian or Other Pacific Islander 05 White 06 Multiracial 99 Other/Unknown	$$PAT26^PSOASAP1()	Retrieved using the supported call to DEM^VADPT API including the array element for the RACE related field VADM(12). The RACE INFORMATION (#2.02,.01) is evaluated and the proper RACE category is applied. For multi-racial, if the PATIENT has more than one race then apply code 06. ICR# 10061	Optional
PAT27 - Patient Ethnicity	Code used to describe general ethnicity group of the patient. 01 Hispanic or Latino 02 Not Hispanic or Latino 99 Undisclosed/Unknown	$$PAT27^PSOASAP1()	Retrieval of the ETHINICITY data from the DEM^VADPT call including the array element for ETHNICITY related field VADM(11). ICR# 10061	Optional
PAT28 - Veterinary Species Code	Code used to describe animal species. 01 Cat/Feline 02 Dog/Canine 03 Small Animal (Hamster, Rabbit, Other Rodent) 04 Reptile 05 Bird 06 Livestock, Large Animal 99 Other	$$PAT28^PSOASAP1()	VistA sends "" (null)	Not Used

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PAT29 - Animal Location Code	Animal Location Code. 01 Home 02 Animal Shelter 03 Foster 04 Farm 05 Zoo 06 Circus/Traveling Show 99 Other	$$PAT29^PSOASAP1()	VistA sends "" (null)	Not Used
PAT07 – PAT09 Note: The NAME field is a delimited value in which the last name and first name are separated by a comma; the middle name and/or suffix are after the first name separated by a space "LAST,FIRST MIDDLE SUFFIX". **PAT07 – PAT11 Note:** The REGISTRATION package does not allow special characters in the PATIENT name during the registration process, with the exception of spaces, apostrophes, hyphens, and one comma. Since other characters are not permitted via end-user options, the probability of special characters in the PATIENT name fields that would cause a data transmission failure is unlikely.				

Table 57: Dispensing Record (DSP) 5.0

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP – Dispensing Record Segment	**Purpose: To identify the basic components of a dispensing of a given prescription order including the date and quantity.** **Level: Detail** **Requirement: Required**			
DSP01 - Reporting Status	00 New Record 01 Revise 02 Void DSP01 requires one of the codes below. An empty or blank field no longer	$$DSP01^PSOASAP()	Derived by retrieving the RECORD TYPE field (#2) in the PRESCRIPTIONS subfile (58.42001) of the SPMP EXPORT BATCH file (#58.42) for the prescription being exported and assigning a code based on the value where:	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
	indicates a new prescription dispensing transaction. A PDMP may elect to require a subset of the codes below, specifically 00 and 02, but not 01. 00 This code indicates a new prescription dispensing transaction. 01 This code indicates that one or more data element values in a previously submitted transaction are being revised. Examples of when a revision may be necessary include corrections to typographical errors in original data submissions; or change occurred to the prescription between the time the record was submitted and the time the patient picked it up, such as dispensing a smaller metric quantity, adding or correcting patient information, correcting prescriber DEA number, or payment type. When receiving a transaction with a DSP01 value of 01, the PDMP will override all of the detail segments' data of the original prescription transaction with all of the detail segments' data from the revised prescription transaction. It is essential to submit all of the data elements in all of the detail segments populated with the identical data as it appeared in the original record, with only the changed data element(s) content being different (and DSP01 with a value of 01). Do not use 01 in combination with a zero metric		N = NEW Rx and VistA sends '00' for New Record R = REFILL and VistA sends '01' for Revise V = VOID and VistA sends '02' for Void	

Data Element	Name Description	Data Source	Data Source Notes	Requirement
	quantity to indicate that the prescription was not picked up. Use the value 02 instead as described below. If the PDMP receives a prescription transaction with DSP01 as 01 and a separate prescription transaction with DSP01 as 02, the PDMP will only void the original prescription transaction and will not attempt to apply a revision. Because the PAT segment loops at a higher level than the other detail segments, the only ways to submit revisions to PAT data elements are either: 1) to not loop the DSP segment within the PAT segment or 2) to loop the DSP segment within PAT segment and have every DSP01 record element within the loop have a DSP01 of 01. 02 This code is a message to the PDMP to remove the original prescription transaction from its database (or to mark the record as invalid and to be ignored). There can be several reasons for sending a void transaction. One example would be when the prescription was never picked up and the medication was returned to stock. Another example would be when the prescription was reported in error. A DSP01 value of 02 can also be used as an alternative to the DSP01 value of 01 in order to send PDMP corrections. When submitting corrections in this manner; first submit a record with a DSP01 of 02 to indicate to the PDMP to			

Data Element	Name Description	Data Source	Data Source Notes	Requirement
	void the original prescription transaction; then submit a brand-new prescription transaction with a DSP01 value of 00 with the correct information. **NOTE:** Examples of the correct use of codes in DSP01 **are** shown in Appendix D **in the ASAP version 5.0 Standard**, as well as the limited data set to void a prescription that PDMPs can elect to use.			
DSP02 - Prescription Number	Serial number assigned to the prescription by the pharmacy.	$$DSP02^PSOASAP()	Retrieved from the RX # field (#52,.01) of the PRESCRIPTION file	Required
DSP03 - Date Written	Date the prescription was written (authorized). Format: CCYYMMDD	$$DSP03^PSOASAP()	ISSUE DATE field (#1) retrieved from the PRESCRIPTION file (#52)	Required
DSP04 - Refills Authorized	The number of refills authorized by the prescriber.	$$DSP04^PSOASAP()	Retrieved from the # OF REFILLS field (#52,9) of the PRESCRIPTION file	Required
DSP05 - Date Filled	Date prescription was prepared. Format: CCYYMMDD.	$$DSP05^PSOASAP()	Retrieved from one of three locations depending on the type of fill. Original Fill: RELEASED DATE/TIME field (#31) of the PRESCRIPTION file (#52) Refill: RELEASED DATE/TIME field (#17) of the REFILL subfile (#52.1) Partial: RELEASED DATE/TIME field (#8) of the PARTIAL subfile (#52.2)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP06 - Fill Number	Number of the fill of the prescription. 0 indicates original dispensing, 01-99 is the refill number.	$$DSP06^PSOASAP()	Retrieved from the AL and AM cross-references of the PRESCRIPTION file (#52) and PARTIAL DATE subfile (#52.2) respectively.	Required
DSP07 - Product ID Qualifier	Used to identify the type of product ID contained in DSP08. 01 NDC 02 UPC 03 HRI 04 UPN 05 DIN 06 Compound (Used to indicate it is a compound. The CDI segment then becomes a required segment. Also, see instructions for DSP08.) 07 Cannabis	$$DSP07^PSOASAP()	VistA sends '01'	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement

DSP08 - Product ID	Full product identification as indicated in DSP07, including zeros without punctuation. If DSP07 = 01, then DSP08 should contain the 11-digit NDC code without hyphens. If the product is a compound, use 99999 as the first five characters of the product code. The remaining six characters are assigned by the pharmacy. The CDI then becomes a required segment.
	
	NOTE: If a controlled substance is part of a kit, the NDC of the kit should be reported if it is a legitimate manufacturer's NDC. If not, the NDC of the controlled substance within the kit should be reported. Also, if multiple controlled substances are in the kit, use the CDI segment to report it as a compound.
		$$DSP08^PSOASAP()	Retrieved from one of the following locations in respective order:
			VOID:
			RETURN TO STOCK subfile (52.07)
			NDC field (#16)
			If not at 52.07,16 then
			DRUG file (#50)
			NDC field (#31)
			If not at 50,31 then
			REFILL:
			REFILL subfile (#52.1)
			NDC field (#11)
			ORIGINAL:
			PRESCRIPTION file (#52)
			NDC field (#27)
				Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP09 - Quantity Dispensed	Number of metric units dispensed in metric decimal format. Example: 2.5. **NOTE:** For compounds show the first quantity in CDI04. Appendix B in ASAP version 5.0 Standard contains specific instructions.	$$DSP09^PSOASAP()	Retrieved from one of the following locations in respective order: Void RETURN TO STOCK LOG subfile (#52.07) QTY field (#3) Original Fill PRESCRIPTION file (#52) QTY field (#7) Refill REFILL subfile (#52.1) QTY field (#1) Partial PARTIAL subfile (#52.2) QTY field (#.04)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP10 - Days Supply	The calculated or estimated number of days the medication will cover.	$$DSP10^PSOASAP()	Retrieved from one of the following locations in respective order: Void RETURN TO STOCK LOG subfile (#52.07) DAYS SUPPLY field (#4) Original Fill PRESCRIPTION file (#52) DAYS SUPPLY field (#8) Refill REFILL subfile (#52.1) DAYS SUPPLY field (#1.1) Partial PARTIAL subfile (#52.2) QTY field (#.041)	Required
DSP11 - Drug Dosage Units Code	Identifies the unit of measure for the quantity dispensed in DSP09, if required by the PDMP. Appendix B in ASAP version 5.0 Standard contains specific instructions. 01 Each (used to report solid dosage or indivisible package) 02 Milliliters (ml) (for liters adjust to the decimal milliliter equivalent) 03 Grams (gm) (for milligrams adjust to the decimal gram equivalent)	$$DSP11^PSOASAP()	Retrieved from the NCPDP DISPENSE UNIT field (#50,82) of the DRUG file. Coded data: 01-EA 02-ML 03-GM BLANK	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP12 - Transmission Form of Rx Origin Code	Code indicating how the pharmacy received the prescription, if required by the PDMP. 01 Written Prescription 02 Telephone Prescription 03 Telephone Emergency Prescription 04 Fax Prescription 05 Electronic Prescription 06 Transferred/Forwarded Rx 07 Order (Administered at Prescriber Location) 08 Dispensed from a Prescriber Location 09 Standing Order/Protocol 99 Other	$$DSP12^PSOASAP()	The ORDER ENTRY/RESULTS REPORTING API $$NATURE^ORUTL3 provides the Nature of Order, which is translated the following way: 01 W 02 V or T 05 E 99 Other ICR# 5890	Optional
DSP13 - Partial Fill Indicator	This field is used when the quantity in DSP09 is less than the metric 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 would be reported as 02, up to a maximum of 99.	$$DSP13^PSOASAP()	Codes indicating partial or non-partial fill: 00 Non-Partial Fill 01 Partial 1 02 Partial 2	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP14 - Pharmacist National Provider Identifier (NPI)	Identifier assigned to the pharmacist by CMS. This number can be used to identify the pharmacist dispensing the medication.	$$DSP14^PSOASAP()	Retrieved via the Kernel API $$NPI^XUSNPI using the prescription fill pharmacist. ICR# 4532	Optional
DSP15 - Pharmacist State License Number	Assigned to the pharmacist by the State Licensing Board. This data element can be used to identify the pharmacist dispensing the medication.	$$DSP15^PSOASAP()	VistA sends "" (null)	Optional
DSP16 - Classification Code for Payment Type	Code identifying the type of payment, i.e. how it was paid for, if required by the PDMP. 01 Private Pay (Cash, Charge, Credit Card) 02 Medicaid 03 Medicare 04 Commercial Insurance 05 Military Installations and VA 06 Workers' Compensation 07 Indian Nations 99 Other	$$DSP16^PSOASAP()	VistA sends '05'	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP17 - Date Sold	This field is used to determine the date the prescription was dispensed (sold to, picked up by, or otherwise left the pharmacy), not the date it was prepared. This date could be captured from the point-of-sale (POS) system, if the pharmacy has a POS system, and there is a bidirectional flow with the pharmacy management system in order to capture and report this date. Or it could be captured and reported from a will-call management system, integrated with the pharmacy management system.	$$DSP17^PSOASAP()	Retrieved from one of the following locations in respective order via $$DSP05^PSOASAP(): Void RETURN TO STOCK LOG subfile (#52.07) RELEASED DATE/TIME field (#21) Original Fill PRESCRIPTION file (#52) RELEASED DATE/TIME field (#31) Refill REFILL subfile (#52.1) RELEASED DATE/TIME field (#17) Partial PARTIAL subfile (#52.2) RELEASED DATE/TIME (#8)	Not Used

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP18 - RxNorm Product Qualifier	01 Semantic Clinical Drug (SCD) 02 Semantic Branded Drug (SBD) 03 Generic Package (GPCK) 04 Branded Package (BPCK) RxNorm code that is populated in the DRU-010-09 field in the SCRIPT transaction. **NOTE:** DSP18 and DSP19 are placeholder fields pending RxNorm becoming an industry standard. These fields should not be required until such time.	$$DSP18^PSOASAP()	VistA sends "" (null)	Optional
DSP19 - RxNorm Code	Used for electronic prescriptions to capture the prescribed drug product identification, if required by the PDMP.	$$DSP19^PSOASAP()	VistA sends "" (null)	Optional
DSP20 - Electronic Prescription Reference Number	This field should be populated with the appropriate field in the SCRIPT transaction.	$$DSP20^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP21 - Electronic Prescription Order Number	This field will be populated with appropriate field in the SCRIPT standard. **NOTE:** DSP20 and DSP21 should be reported as a pair to the PDMP and the PDMP will decide which one, if not both, it decides to capture. By requiring the reporting of both, this avoids specification variations that would require custom programming to accommodate a PDMP. Also, the information reported by the pharmacy management system will depend on the information received at the pharmacy with an electronic prescription.	$$DSP21^PSOASAP()	VistA sends "" (null)	Optional
DSP22 - Quantity Prescribed	This field can clarify the value reported in DSP13 Partial Fill Indicator.	$$DSP22^PSOASAP()	VistA sends "" (null)	Optional
DSP23 - Rx SIG	This field would capture the actual directions printed on the prescription vial label. If the directions exceed 200 characters, truncation would be allowed.	$$DSP23^PSOASAP()	Concatenate the SIG1 multiple (#52.04,.01) into a single string	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP24 - Opioid Treatment Type	This field is used to explain the reason for an opioid prescription. If the prescription is not for an opioid, then this field would not be used. 01 Not Used for Opioid Dependency Treatment 02 Used for Opioid Dependency Treatment 03 Pain Associated with Active and Aftercare Cancer Treatment 04 Palliative Care in Conjunction with a Serious Illness 05 End-of-Life and Hospice Care 06 A Pregnant Individual with a Pre-existing Prescription for Opioids 07 Acute Pain for an Individual with an Existing Opioid Prescription for Chronic Pain 08 Individuals Pursuing an Active Taper of Opioid Medications 09 Patient is Participating in a Pain Management Contract 10 Acute Opioid Therapy 11 Chronic Opioid Therapy 99 Other (trading partner agreed upon reason or not indicated) The definitions of Codes 03 to 11 can only be reported if required by the state to be provided by the prescriber on the prescription order.	$$DSP24^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP25 - Diagnosis Code	This field is used to report the ICD-10 code. If required by a PDMP, this field would be populated only when the ICD-10 code is included with the prescription. Exclude the decimal point.	$$DSP25^PSOASAP()	VistA sends "" (null)	Optional
DSP26 - Time Written	Time expressed in 24-hour clock time HMMSS or HHMM). Time range: 000000 through 235959. The time zone should be reported in Coordinated Universal Time (UTC) as HHMMSSZ (e.g., 235959Z). Do not include colons or non-numeric characters other than Z for Zulu time.	$$DSP26^PSOASAP()	VistA sends "" (null)	Optional
DSP27 - Time Filled	The time the prescription record was prepared. Time expressed in 24-hour clock time HMMSS or HHMM). Time range: 000000 through 235959. The time zone should be reported in Coordinated Universal Time (UTC) as HHMMSSZ (e.g.,235959Z). Do not include colons or non-numeric characters other than Z for Zulu time.	$$DSP27^PSOASAP():	Retrieves from one of the following locations in respective order: Void RETURN TO STOCK LOG subfile (#52.07) RELEASED DATE/TIME field (#21) Original Fill PRESCRIPTION file (#52) RELEASED DATE/TIME field (#31) Refill REFILL subfile (#52.1) RELEASED DATE/TIME field (#17) Partial PARTIAL subfile (#52.2) RELEASED DATE/TIME (#8)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP28 - Time Sold	The time the prescription record was sold to, picked up by, or otherwise left the pharmacy for the patient. Time expressed in 24-hour clock time HMMSS or HHMM). Time range: 000000 through 235959. The time zone should be reported in Coordinated Universal Time (UTC) as HHMMSSZ (e.g., 235959Z). Do not include colons or non-numeric characters other than Z for Zulu time.	$$DSP28^PSOASAP()	Retrieved from one of the following locations in respective order via $$DSP27^PSOASAP(): Void RETURN TO STOCK LOG subfile (#52.07) RELEASED DATE/TIME field (#21) Original Fill PRESCRIPTION file (#52) RELEASED DATE/TIME field (#31) Refill REFILL subfile (#52.1) RELEASED DATE/TIME field (#17) Partial PARTIAL subfile (#52.2) RELEASED DATE/TIME (#8)	Not Used

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP29 - Total Quantity Remaining on Prescription	Identifies the unit of measure for the total quantity remaining for the prescription after the current dispense in metric decimal format. Example: 2.5. **NOTE:** For compounding show the first quantity in CDI04. ASAP version 5.0 Standard Appendix B has specific instructions.	$$DSP29^PSOASAP():	1) If TITRATION RX FLAG field (#52,45.3) is YES, send zero and quit 2) If TITRATION RX FLAG field (#52,45.3) is NO, then send {[DSP04 minus DSP06] multiplied by DSP09} where: DSP04 = the # OF REFILLS field (#52,9) of the PRESCRIPTION file DSP06 = the fill number which will be retrieved from the AL and AM cross-references of the PRESCRIPTION file (#52) and PARTIAL DATE subfile (#52.2) respectively DSP09 = the data from one of the following locations in respective order: Void: RETURN TO STOCK LOG subfile (#52.07), QTY field (#3) Original Fill: PRESCRIPTION file (#52),QTY field (#7) Refill: REFILL subfile (#52.1), QTY field (#1) Partial: PARTIAL subfile (#52.2), QTY field (#.04)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP30 - Total Quantity Remaining Drug Dosage Units Code	Identifies the unit of measure for the quantity remaining in DSP29. ASAP version 5.0 Standard has specific instructions. 01 Each (used to report solid dosage units or indivisible package) 02 Milliliters (ml) (for liters adjust to the decimal milliliter equivalent) 03 Grams (gm) (for milligrams adjust to the decimal gram equivalent)	$$DSP30^PSOASAP()	Data is retrieved from the NCPDP DISPENSE UNIT field (#50,82) of the DRUG file. Coded data: 01-EA 02-ML 03-GM BLANK""	Optional
DSP31 - Discount Card	Identifies whether the type of payment occurred using a local or national discount card if the PDMP requires payment DSP16. Required if classification payment code is 01 (Private Pay) or 04 (Commercial Insurance) used in DSP16. 01 Yes 02 No	$$DSP31^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP32 - Classification Code for Additional Payment Type	Code identifying the type of payment, i.e., how it was paid for, if required by the PDMP. 01 Private Pay (Cash, Charge, Credit Card) 02 Medicaid 03 Medicare 04 Commercial Insurance 05 Military Installations and VA 06 Workers' Compensation 07 Indian Nations 99 Other	$$DSP32^PSOASAP()	VistA sends "" (null)	Not Used
DSP33 - Discount Card for Additional Payment Type	Required if classification payment code is 01 (Private Pay) or 04 (Commercial Insurance) used in DSP32. 01 Yes 02 No	$$DSP33^PSOASAP()	VistA sends "" (null)	Not Used

Data Element	Name Description	Data Source	Data Source Notes	Requirement
DSP34 - DEA Schedule/State Designation	State or Federal control Level or other reporting designation. 01 Cannabis and Cannabis Extract 02 State or DEA Schedule 2 03 State or DEA Schedule 3 04 State or DEA Schedule 4 05 State or DEA Schedule 5 06 State Designated Other Controlled Substance or Drug of Concern 07 CBD 99 Legend or Non-controlled Substances	$$DSP34^PSOASAP()	Assigns a zero to first character of the value that is populated at the DEA, SPECIAL HDLG field (#50,3) of the DRUG file. (example: 04)	Optional
DSP35 - Last Name or Initials of Pharmacist Filling the Prescription	Last Name or Initials of the pharmacist dispensing the medication.	$$DSP35^PSOASAP()	VistA sends "" (null)	Optional
DSP36 - First Name of Pharmacist Filling the Prescription	First Name of the pharmacist dispensing the medication.	$$DSP36^PSOASAP()	VistA sends "" (null)	Optional

Table 58: Prescriber Information (PRE) 5.0

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE – Prescriber information Segment	**Purpose: To identify the prescriber of the prescription.** **Level: Detail** **Requirement: Required**			
PRE01 - National Provider Identifier (NPI)	Identifier assigned to the prescriber by CMS. **NOTE:** If the prescriber does not have a DEA number and prescribed a noncontrolled substance that is a reportable drug to the PDMP, this field should be used as the identifier.	$$PRE01^PSOASAP()	Retrieved via the Kernel API $$NPI^XUSNPI using the prescription fill provider ICR# 4532	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE02 - DEA Number	Identifying number assigned to a prescriber or an institution by the Drug Enforcement Administration (DEA). Required when the prescription is for a DEA-defined controlled substance.	$$PRE02^PSOASAP()	Retrieved from one of the following locations in respective order: Provider DEA# associated with the CPRS order The ORDER ENTRY/RESULTS REPORTING procedure ARCHIVE^ORDEA retrieves the value at the DEA # field (#101.52,10) of the ORDER DEA ARCHIVE INFO file. The first piece by "-" is returned. ICR# 5709 Prescription fill provider or facility DEA# The Kernel API $$DEA^XUSER retrieves the value at the DEA NUMBER field (#200.5321,.01) of the NEW PERSON file. The first piece by "-" is returned. ICR# 2343 Pharmacy DEA# the Kernel API $$WHAT^XUAF4 is called to return the FACILITY DEA NUMBER field (#4,52) of the INSTITUTION file. ICR# 2171	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE03 - DEA Number Suffix	Identifying number assigned to a prescriber by an institution when the institution's DEA number is used, if required by the PDMP.	$$PRE03^PSOASAP()	Retrieved from one of the following locations in respective order: Provider DEA# suffix associated with the CPRS order The ORDER ENTRY/RESULTS REPORTING procedure ARCHIVE^ORDEA retrieves the value at the DEA # field (#101.52,10) of the ORDER DEA ARCHIVE INFO file. The 2nd piece by "-" is returned. ICR# 5709 Prescription fill provider or facility DEA# suffix The Kernel API $$DEA^XUSER retrieves the value at the DEA NUMBER field (#200.5321,.01) from the NEW DEA #'S multiple of the NEW PERSON file. The 2nd piece by "-" is returned. ICR# 2343 VA# If DEA# from PHA03 is equal to the DEA# from PHA02, then The Kernel API $$DEA^XUSER retrieves the value at the VA# field (#200,53.3) of the NEW PERSON file. ICR# 2171	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE04 - Prescriber License Number	Identification assigned to the prescriber by the Licensing Board of a state or jurisdiction. This field can be used for veterinarian prescriptions. Used if required by the PDMP.	$$PRE04^PSOASAP()	VistA sends "" (null)	Optional
PRE05 - Last Name	Prescriber's last name. Used if required by the PDMP.	$$PRE05^PSOASAP()	NAME field (#200,.01) from the NEW PERSON file. ICR# 10061	Optional
PRE06 - First Name	Prescriber's first name. Used if required by the PDMP.	$$PRE06^PSOASAP()	NAME field (#200,.01) from the NEW PERSON file. ICR# 10061	Optional
PRE07 - Middle Name	Prescriber's middle name or initial. Used if required and is available in the pharmacy system.	$$PRE07^PSOASAP()	NAME field (#200,.01) from the NEW PERSON file. ICR# 10061	Optional
PRE08 - Phone Number	The prescriber's primary phone number.	$$PRE08^PSOASAP()	Retrieved from the PHONE NUMBER # field (#200,.132) of the NEW PERSON file. ICR# 10061	Optional
PRE09 - XDEA Number	This field has been decommissioned since DEA no longer issues XDEA numbers. This field is not to be used.	$$PRE09^PSOASAP()	VistA sends "" (null)	Not Used
PRE10 - Jurisdiction or State of Issuing Prescriber License Number	This field can be used to further identify the information in PRE04, depending on the PDMP's need for this information.	$$PRE10^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE11 - Prescriber Address Information – 1	Freetext for address information. Recommendation: Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specifications for Patient Address.	PRE11^PSOASAP1()	1) Retrieve the PLACER ORDER NUMBER pointer at (#52, 39.3) using the available RX# IEN 2) Get the DEA# (#101.52,10) from the ORDER DEA ARCHIVE INFO file using PLACER ORDER NUMBER IEN 3) Get the STREET ADDRESS 1 (#8991.9,1.3) from the DEA NUMBERS file using the DEA# 4) If the address isn't populated at STREET ADDRESS 1 (#8991.9, 1.3) then retrieve the address from the ORDER DEA ARCHIVE INFO file (#101.52, 13)	Optional
PRE12 - Prescriber Address Information – 2	Freetext for additional address information. Recommendation: Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specifications for Patient Addresses.	PRE12^PSOASAP1()	1) Retrieve the PLACER ORDER NUMBER pointer at (#52, 39.3) using the available RX# IEN 2) Get the DEA# (#101.52,10) from the ORDER DEA ARCHIVE INFO file using PLACER ORDER NUMBER IEN 3) Get the STREET ADDRESS 2 (#8991.9,1.4) from the DEA NUMBERS file using the DEA# 4) If the address isn't populated at STREET ADDRESS 1 (#8991.9, 1.4) then retrieve the address from the ORDER DEA ARCHIVE INFO file (#101.52, 14)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE13 - Prescriber City Address	Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses.	PRE13^PSOASAP1()	1) Retrieve the PLACER ORDER NUMBER pointer at (#52, 39.3) using the available RX# IEN 2) Get the DEA# (#101.52,10) from the ORDER DEA ARCHIVE INFO file using PLACER ORDER NUMBER IEN 3) Get the CITY (#8991.9,1.5) from the DEA NUMBERS file using the DEA# 4) If there is no data at (#8991.9, 1.5) then retrieve the address data from the ORDER DEA ARCHIVE INFO file (#101.52, 16)	Optional
PRE14 - Prescriber State Address	Two-letter jurisdiction/state and possession abbreviation as described in United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses.	PRE14^PSOASAP1()	1) Retrieve the PLACER ORDER NUMBER pointer at (#52, 39.3) using the available RX# IEN 2) Get the DEA# (#101.52,10) from the ORDER DEA ARCHIVE INFO file using PLACER ORDER NUMBER IEN 3) Get the STATE (#8991.9,1.6) from the DEA NUMBERS file using the DEA# 4) If the address isn't populated at (#8991.9, 1.6) then retrieve the address data from the ORDER DEA ARCHIVE INFO file (#101.52, 17)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
PRE15 - Zip Code Address	United States Postal Service ZIP Code or ZIP+4 as described in United States Postal Service Publication 28 Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses. Do not include white spaces or special characters. Include hyphens in ZIP+4.	PRE15^PSOASAP1()	1) Retrieve the PLACER ORDER NUMBER pointer at (#52, 39.3) using the available RX# IEN 2) Get the DEA# (#101.52,10) from the ORDER DEA ARCHIVE INFO file using PLACER ORDER NUMBER IEN 3) Get the ZIP CODE (#8991.9,1.7) from the DEA NUMBERS file using the DEA# 4) If the address data isn't populated at (#8991.9, 1.7) then retrieve the address data from the ORDER DEA ARCHIVE INFO file (#101.52, 17.5)	Optional

Table 59: Compound Drug Ingredient (CDI) 5.0

Data Element	Name Description	Data Source	Data Source Notes	Requirement
CDI – Compound Drug Ingredient Detail Segment	**Purpose: To identify the individual ingredients that make up a compound.** **Level: Detail** **Requirement: Not Used**			
CDI01 - Compound Drug Ingredient Sequence Number	The first reportable ingredient is 1. Each additional reportable ingredient is incremented by 1.	$$CDI01^PSOASAP()	VistA sends "" (null)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
CDI02 - Product ID Qualifier	Code to identify the type of product ID contained in CDI03. 01 NDC 02 UPC 03 HRI 04 UPN 05 DIN 06 CPD (This code is not used in this segment.)	$$CDI02^PSOASAP()	VistA sends "" (null)	Required
CDI03 - Product ID	Full product identification as indicated in CDI02, including leading zeros without punctuation. If DSP07 = 01, then DSP08 should contain the 11-digit NDC code without hyphens. If the product is a compound, use 99999 as the first five characters of the product code. The remaining six characters are assigned by the pharmacy. The CDI then becomes a required segment.	$$CDI03^PSOASAP()	VistA sends "" (null)	Required
CDI04 - Component Ingredient Quantity	Metric decimal quantity of the ingredient identified in CDI03. Example: 2.5. Appendix B in ASAP version 5.0 Standard contains specific instructions.	$$CDI04^PSOASAP()	VistA sends "" (null)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
CDI05 - Compound Drug Dosage Units Code	Identifies the unit of measure for the quantity dispensed in CDI04, if required by the prescription-monitoring program. Appendix B in ASAP version 5.0 Standard contains specific instructions. 01 Each (used to report solid dosage units or indivisible package) 02 Milliliters (ml) (for liters adjust to the decimal milliliter equivalent) 03 Grams (gm) (for milligrams adjust to the decimal gram equivalent)	$$CDI05^PSOASAP()	VistA sends "" (null)	Optional
CDI06 - DEA Schedule/State Designation of Each Ingredient	01 Cannabis and Cannabis Extract 02 State or DEA Schedule 2 03 State or DEA Schedule 3 04 State or DEA Schedule 4 05 State or DEA Schedule 5 06 State Designated Other Controlled Substance or Drug of Concern 07 CBD 99 Legend or Non-Controlled Substances	$$CDI06^PSOASAP()	VistA sends "" (null)	Optional

Table 60: Additional Information Reporting (AIR) 5.0

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR – Additional Information Reporting Segment	**Purpose: To report a prescription blank serial number and information on person picking up or dropping off the prescription, if other than the patient. Note: If this segment is used, at least one of the data elements (fields) will be required.** **Level: Detail** **Requirement: Optional**			
AIR01 - Jurisdiction Issuing Rx Serial Number	U.S.P.S. code of jurisdiction that issued serialized prescription blank. This is required if AIR02 is used. ASAP version 5.0 Standard Appendix A lists jurisdictions.	$$AIR01^PSOASAP()	VistA sends "" (null)	Optional
AIR02 - Jurisdiction Issued Rx Serial Number	Number assigned to state issued serialized prescription blank.	$$AIR02^PSOASAP()	VistA sends "" (null)	Optional
AIR03 - Jurisdiction Issuing ID of Person Picking Up Rx	Code identifying the jurisdiction that assigned the ID for the person picking up in AIR05. ASAP version 5.0 Standard Appendix A lists jurisdictions.	$$AIR03^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR04 - ID Qualifier of Person Picking Up Rx	Code to identify the type of ID in AIR05. If AIR03 is used, AIR04 is required. 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 09 Vendor Specific (such as Bamboo Health, Experian, LexisNexis) 10 Veterinary Patient Microchip Number 11 Medicaid Recipient ID Number 99 Other (Trading partner agreed upon ID, such as cardholder ID.)	$$AIR04^PSOASAP()	VistA sends "" (null)	Optional
AIR05 - ID of Person Picking Up Rx	Identification number for the person picking up the prescription as indicated in AIR 04. An example would be the driver's license number. **NOTE:** This field can only be populated with code 10 when provided on the prescription.	$$AIR05^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR06 - Relationship of Person Picking Up Rx	Code indicating the relationship of the person picking up Rx to the patient, if required by the PDMP. **NOTE:** Code 01 is now Parent / Legal Guardian, not Patient. 01 Parent/Legal Guardian 02 Spouse 03 Caregiver 99 Other	$$AIR06^PSOASAP()	VistA sends "" (null)	Optional
AIR07 - Last Name of Person Picking Up Rx	Person picking up last name. An apostrophe or period are acceptable characters to include.	$$AIR07^PSOASAP()	VistA sends "" (null)	Required
AIR08 - First Name of Person Picking Up Rx	Person picking up first name. An apostrophe or period are acceptable characters to include.	$$AIR08^PSOASAP()	VistA sends "" (null)	Required
AIR09 - Last Name or Initials of Pharmacist	Field Decommissioned and Moved to DSP Segment.	$$AIR09^PSOASAP()	VistA sends "" (null)	Not Used
AIR10 - First Name of Pharmacist	Field Decommissioned and Moved to DSP Segment.	$$AIR10^PSOASAP()	VistA sends "" (null)	Not Used
AIR11 - Dropping Off/Picking Up Identifier Qualifier	(Field Decommissioned: Picking Up and Dropping Off now being handled separately.)	$$AIR11^PSOASAP()	VistA sends "" (null)	Not Used
AIR12 - Date of Birth of Person Picking Rx	Date person was born. Format: CCYYMMDD.	$$AIR12^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR13 - Address Information - 1 of Person Picking Up Rx	Recommendation: Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specifications for Patient Addresses.	$$AIR13^PSOASAP()	VistA sends "" (null)	Optional
AIR14 - Address Information - 2 of Person Picking Up Rx	Recommendation: Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specifications for Patient Addresses.	$$AIR14^PSOASAP()	VistA sends "" (null)	Optional
AIR15 - Person Picking Up City Address	Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses.	$$AIR15^PSOASAP()	VistA sends "" (null)	Optional
AIR16 - Person Picking Up State Address	Jurisdiction/state and possession abbreviation as described in United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses.	$$AIR16^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR17 - Person Picking Up Zip Code Address	United States Postal Service ZIP Code or ZIP+4 as described in United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses. Do not include white spaces or special characters. Include hyphens in ZIP+4.	$$AIR17^PSOASAP()	VistA sends "" (null)	Optional
AIR18 - Phone Number of Person Picking Up Rx	Complete 10-digit phone number. Do not include hyphens or other special characters.	$$AIR18^PSOASAP()	VistA sends "" (null)	Optional
AIR19 - Picking Up Method of Delivery	01 Person Picked Up 02 Mailed/Shipped	$$AIR19^PSOASAP()	VistA sends "" (null)	Optional
AIR20 - Jurisdiction Issuing ID of Person Dropping Off Rx	Code identifying the jurisdiction that issues the ID contained in AIR22. Used if required by the PDMP. ASAP version 5.0 Standard Appendix A lists jurisdictions.	$$AIR20^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR21 - ID Qualifier of Person Dropping Off Rx	Code to identify the type of ID in AIR22. If AIR20 is used, AIR21 is required. 01 Military ID 02 State Issued ID 03 Unique System ID 04 Permanent Resident Card (Green Card) 05 Passport ID 06 Driver's License ID 07 Social Security Number 08 Tribal ID 09 Vendor Specific (such as Bamboo Health, Experian, LexisNexis) 10 Veterinary Patient Microchip Number 11 Medicaid Recipient ID Number 99 Other (Trading partner agreed upon ID, such as cardholder ID.)	$$AIR21^PSOASAP()	VistA sends "" (null)	Optional
AIR22 - ID of Person Dropping Off Rx	Identification number for the person dropping off the prescription as indicated in AIR 21. An example would be the driver's license number. **NOTE:** This field can only be populated with code 10 when provided on the prescription.	$$AIR22^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR23 - Relationship of Person Dropping Off Rx	Code indicating the relationship of the person dropping off Rx to the patient, if required by the PDMP. **NOTE:** Code 01 is now Parent / Legal Guardian, not Patient. 01 Parent/Legal Guardian 02 Spouse 03 Caregiver 04 Other	$$AIR23^PSOASAP()	VistA sends "" (null)	Optional
AIR24 - Last Name of Person Dropping Off Rx	Last name of the person dropping off Rx, if required by the PDMP.	$$AIR24^PSOASAP()	VistA sends "" (null)	Optional
AIR25 First Name of Person Dropping Off Rx	First name of the person dropping off Rx, if required by the PDMP.	$$AIR25^PSOASAP()	VistA sends "" (null)	Optional
AIR26 - Date of Birth of Person Dropping Off Rx	Date of birth of the person dropping off Rx the prescription as listed on a government-issued identification.	$$AIR26^PSOASAP()	VistA sends "" (null)	Optional
AIR27 - Address Information - 1 of Person Dropping Off Rx	Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses.	$$AIR27^PSOASAP()	VistA sends "" (null)	Optional

Data Element	Name Description	Data Source	Data Source Notes	Requirement
AIR28 - Address Information - 2 of Person Dropping Off Rx	Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses.	$$AIR28^PSOASAP()	VistA sends "" (null)	Optional
AIR29 - Person Dropping Off City Address	Information should be reported according to United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses.	$$AIR29^PSOASAP()	VistA sends "" (null)	Optional
AIR30 - Person Dropping Off State Address	Jurisdiction/state and possession abbreviation as described in United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses.	$$AIR30^PSOASAP()	VistA sends "" (null)	Optional
AIR31 - Person Dropping Off ZIP Code Address	United States Postal Service ZIP Code or ZIP+4 as described in United States Postal Service Publication 28-Postal Addressing Standards or the most recently published version of the ONC Project US@ Technical Specification for Patient Addresses. Do not include white spaces or special characters. Include hyphens in ZIP+4.	$$AIR31^PSOASAP()	VistA sends "" (null)	Optional
AIR32 - Phone Number of Person Dropping Off Rx	Complete 10-digit phone number. Do not include hyphens or other special characters.	$$AIR32^PSOASAP()	VistA sends "" (null)	Optional

Table 61: Pharmacy Trailer (TP) 5.0

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TP – Pharmacy Trailer Segment	**Purpose: To identify the end of data for the entity submitting data and provide the count of the total number of detail segments, including the pharmacy header (PHA) and the pharmacy trailer (TP) segments.** **Level: Summary** **Requirement: Required**			
TP01 - Detail Segment Count	Number of detail segments included for the pharmacy including the pharmacy header (PHA) including the pharmacy trailer (TP) segments.	$$TP01^PSOASAP()	Calculates the number of detail segments included (PAT, DSP, PRE, CDI, AIR) in addition to the pharmacy header (PHA) and pharmacy trailer (TP)	Required

Table 62: Transaction Trailer (TT) 5.0

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TT – Transaction Trailer Segment		**Purpose: To indicate the end of the transaction and provide the count of the total number of segments included in the transaction.** **Level: Summary** **Requirement: Required**		
TT01 - Transaction Control Number	Identifying control number that must be unique. Assigned by the originator of the transaction. Must match the number in TH02.	$$TT01^PSOASAP()	VA site number (via Registration API $$SITE^VASITE()) and BATCH NUMBER field (#58.42,.01) of the SPMP EXPORT BATCH file. (ex: 500-182)	Required

Data Element	Name Description	Data Source	Data Source Notes	Requirement
TT02 - Segment Count	Total number of segments included in the transaction including the header and trailer segments.	$$TT02^PSOASAP()	Calculated for each transmission.	Required

23.5.4 Zero Report Implementation for ASAP Standard versions 4.2A, 4.2B, 5.0

Table 63: ASAP 4.2AZ, 4.2BZ, 5.0 Zero Reports

Segment / Element	Requirement	Value or Example if different from regular transmissions
TH: Transaction Header (Required)		
TH01 – TH09	Variable*	
IS: Information Source (Required)		
IS01 – IS02	Required	
IS03	Optional	#20230205#-#220230228# For Zero Reporting this element represents the Date Range of Report.
PHA: Pharmacy Header (Required)		
PHA01	Optional	
PHA02	Not Used	Null is sent by default because element is set to Not Used. If changed to Required or Optional, the output generates from $$PHA02^PSOASAP().
PHA03	Optional	
PAT: Patient Information (Required)		
PAT01 – PAT06	Optional	""
PAT07	Required	REPORT

Segment / Element	Requirement	Value or Example if different from regular transmissions
PAT08	Required	ZERO
PAT09 – PAT23	Variable*	"" **NOTE:** 4.2AZ **have** the data elements up to and including PAT19. 4.2BZ and 5.0z have the data elements up to and including PAT23.
DSP: Dispensing Record (Required)		
DSP01 – DSP04	Required	""
DSP05 – Date Filled	Required	
DSP06 – DSP25	Variable*	"" **NOTE:** 4.2AZ **have** the data elements up to and including DSP17. 4.2BZ and 5.0Z have the data elements up to and including DSP25.
PRE: Prescriber Information (Required)		
PRE01	Optional	""
PRE02	Required	""
CDI: Compound Drug Ingredient Detail (Required)		
CDI01 - CDI04	Required	""
AIR: Additional Information Reporting (Required)		
AIR01 - AIR02	Optional	""
TP: Pharmacy Trailer (Required)		
TP01	Required	
TT: Transaction Trailer (Required)		

Segment / Element	Requirement	Value or Example if different from regular transmissions
TT01 – TT02	Required	

*Variable denotes a mix of Required, Optional and Not used.

Sample Zero Report

```
TH*4.2B*133-2961*01**20250501*133200*T**~~
IS*VA133*PHARMACY NAME*#20250501#-#20250501#~
   PHA*1234567890**ZZ1234567~
      PAT*******REPORT*ZERO***************~
         DSP*****20250501********************~
         PRE**~
         CDI****~
         AIR**~
   TP*7~
TT*133-2961*10~
```

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

24.1 OneVA Pharmacy General Information

The overall OneVA Pharmacy software design has several components; they are:

1. Veterans Health Information Systems and Technology Architecture (VistA)
2. Health Level 7 (HL7) Messaging
3. National HL7 Health Connect (an Intersystems HealthShare service).
4. Veterans Data Information Exchange (VDIF)

Patch PSO*7*497 fixed 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 uses Health Level 7 (HL7) messaging to query and receive remote prescription details to and from VDIF.

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 software sends an HL7 message to VDIF National Health Connect to an existing TCP Service to request patient medications.

NOTE: The OneVA HL7 Listener Service is using an existing connection that all 130+ VistAs have with the National HL7 Health Connect.

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.

Using existing functionality detailed above, patch PSO*7*774 introduces the following enhancements:

1. Prescriptions originating on the 'host' VistA instance which have been PARKED are designated as "AP" or "ACT/PK" (Active/Parked) on the 'dispensing' VistA instance's 'Medication Profile' screen and upon selection of one of these prescriptions.

2. For prescriptions originating on the 'host' VistA instance which have no original fill (e.g. PARKED prescriptions), an original fill will be done and the label printed on the 'dispensing' VistA instance as with refills.

3. Original fills, refills, and partial fills PARKED on the 'host' VistA instance will be UNPARKED there as a result of fill requests on the 'dispensing' VistA instance.

4. Original fills, refills, and partial fills going through OPAI automated dispensing device (ADD) on the 'dispensing' VistA instance will be auto-released on the 'host' VistA instance. Furthermore, if an original fill or refill is being auto-released, then ECME and copay transaction will be triggered, where applicable.

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 (re)filled 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

*****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 VDIF National Health Connect is not queried for external prescriptions and other VistA instances will not be able to (re)fill 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, original fills, 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)

Also, with the introduction of Patch PSO*7*774, the SCREEN field of Protocol PSO LM REMOTE PARTIAL was changed to call into PSORPH2 Tag of PSORRX2 Routine so that it could screen not to allow partial fills for remote mediations which are both Parked and never been filled.

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).

Patch PSO*7*774 adds new fields to the PRESCRIPTION (#52) top-file level. They are:

REMOTE FILL SITE (#52,91)
REMOTE PHARMACMIST (#52,92)
REMOTE PHARMACIST PHONE (#52,93)
REMOTE FILLING PERSON (#52,96)
REMOTE CHECKING PHARMACIST (#52,97)

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)

RELEASED DATE/TIME (.16)

REMOTE DRUG NAME (1)

LOCAL (MATCHED) DRUG (1.1)

TOTAL REFILL/PARTIAL FILL COST (1.2

VA PRODUCT ID (1.3)

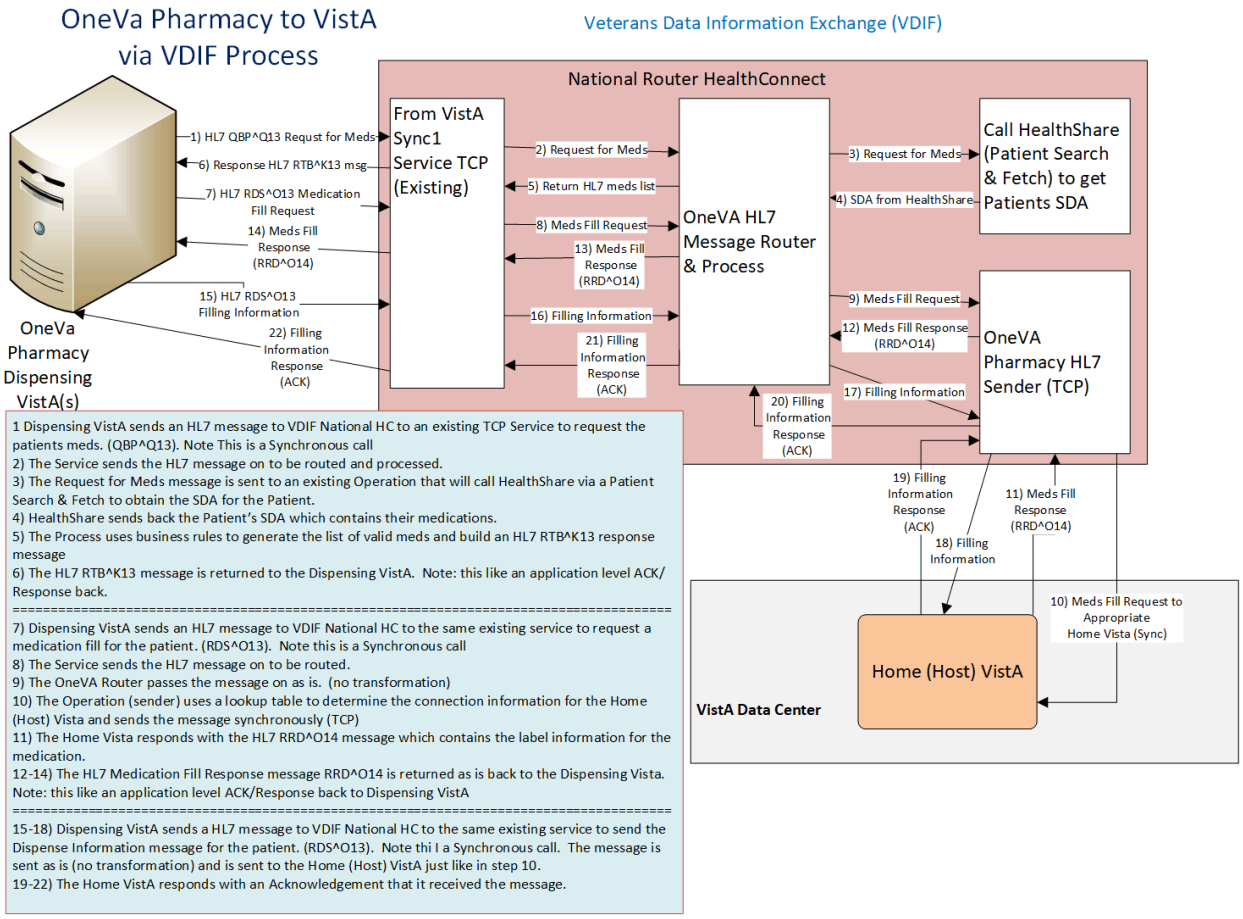
MESSAGE DETAILS (2)

LABEL DATA (3)

24.10 OneVA Pharmacy Component Diagram

Version 2.5.1 of the HL7 specification will be used for the message format. VDIF will accept HL7 messages on the National HL7 HealthConnect. This will use an existing HealthConnect Service that already has a connection to all 130+ VistAs.

Figure 1: Dispensing VistA Instance to National HL7 Health Connect



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 VDIF National Health Connect to an existing TCP Service to request patient medications.

NOTE: The OneVA HL7 Listener Service is using an existing connection that all 130+ VistAs have with the National HL7 Health Connect. The patient's prescription data is returned to the dispensing VistA instance and displayed on the Medication Profile screen.

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.

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 (Re)fill/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

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 64: Segment

Segment	Piece	Description/Field Name	Data Type
MSH	1	Field Separator	ST
	2	Encoding Characters	ST
	3	Sending Application	HD

Segment	Piece	Description/Field Name	Data Type
	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

Segment	Piece	Description/Field Name	Data Type
	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

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 65: 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

Segment	Piece	Description/Field Name	Data Type/Description
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 IEN	The VA Product IEN of the drug
	15	FQDN/Port (Unused)	The fully qualified domain name of the host where the prescription originated and its port
	16	PARKED Indicator	Indicates if the prescription is PARKED on 'host'

Segment	Piece	Description/Field Name	Data Type/Description
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 IEN	The VA Product IEN of the drug
	15	FQDN/Port	The fully qualified domain name of the host where the prescription originated and its port

Figure 2: Example RTB^K13 Prescription Query Service Response

Message Type: RTB **Event Type: K13**
MESSAGE HEADER:
MSH^~|\&^PSO EMI PHARM^200OneVA-HCHS-PSF^PSO VISTA PHARM^984~DAYTSHR.FO-BAYPINES.MED.VA.GOV~DNS^20250512103530-0500^^RTB~K13^20250512093530502507^T^2.5.1
MESSAGE TEXT:
MSA^CA^98487008525

QAK^166864664^OK^Q13~Active Prescriptions~HL70471^53

QPD^Q13~Active Prescriptions~HL70471^166864664

RDT^983^10004224^ACEBUTOLOL HCL 400MG CAP^30^10^D30^20260322^20250321^20260322^20250422^TAKE ONE CAPSULE BY MOUTH EVERY DAY^ACEBUTOLOL HCL 400MG CAP TAKE ORAL (BY MOUTH) QD-(EVERY DAY) Qty: 30^ACTIVE^2823^^0

RDT^983^10004553^ACETAMINOPHEN 325MG TAB^30^10^D30^20260323^20250322^20260323^20250421^TAKE ONE TABLET BY MOUTH EVERY FOUR HOURS AS NEEDED^ACETAMINOPHEN 325MG TAB TAKE ORAL (BY MOUTH) Q4H PRN Qty: 30^ACTIVE^6642^^0

RDT^983^10004226^ACETAZOLAMIDE 500MG INJ^30^10^D30^20250430^20240429^20250430^20250429^INJECT 500MG INTRAVENOUSLY AS NEEDED ^ACETAZOLAMIDE 500MG INJ INJECT INTRAVENOUS as needed Qty: 30^EXPIRED^2138^^0

RDT^983^10004266^ALBUTEROL 0.5% INHL SOLN^1^11^D30^20260328^20250327^20260328^20250327^INHALE 1MG IN NEBULIZER BY MOUTH EVERY MORNING PAIN TESTING^ALBUTEROL 0.5% INHL SOLN INHALE INHALATION QAM Qty: 1^ACTIVE^^^1

RDT^983^10004227^AMLODIPINE BESYLATE 10MG TAB^30^10^D30^20260223^20250222^20260223^20250505^TAKE ONE TABLET BY MOUTH EVERY DAY^AMLODIPINE BESYLATE 10MG TAB TAKE ORAL (BY MOUTH) QD-(EVERY DAY) Qty: 30^ACTIVE^9876^^0

RDT^983^10004237^ASCORBIC ACID 250MG TAB^30^10^D30^20260223^20250222^20260223^20250421^TAKE ONE TABLET BY MOUTH EVERY DAY^ASCORBIC ACID 250MG TAB TAKE ORAL (BY MOUTH) QD-(EVERY DAY) Qty: 30^ACTIVE^409^^0

RDT^983^10004240^ASPIRIN 325MG TAB^30^10^D30^20260228^20250227^20260228^20250421^TAKE ONE TABLET BY MOUTH EVERY DAY^ASPIRIN 325MG TAB TAKE ORAL (BY MOUTH) QD-(EVERY DAY) Qty: 30^ACTIVE^5194^^0

RDT^983^10004597^ASPIRIN 81MG CHEW TAB^30^11^D30^20260430^20250429^20260430^20250501^CHEW AND SWALLOW ONE TABLET BY MOUTH EVERY DAY^ASPIRIN 81MG CHEW TAB CHEW ORAL (BY MOUTH) QD-(EVERY DAY) Qty: 30^ACTIVE^5210^^0

RDT^983^10004243^ATROPINE SULFATE 1% OPH SOLN^30^9^D30^20260224^20250223^20260224^20250414^INSTILL 1 DROP IN EYE(S) AS DIRECTED THREE TIMES A DAY^ATROPINE SULFATE 1% OPH SOLN INSTILL OPHTHALMIC TID Qty: 30^SUSPENDED^6^^0

RDT^983^10004230^AZITHROMYCIN 500MG TAB^30^10^D30^20260124^20250123^20260124^20250324^TAKE ONE TABLET BY MOUTH EVERY DAY^AZITHROMYCIN 500MG TAB TAKE ORAL (BY MOUTH) QD-(EVERY DAY) Qty: 30^ACTIVE^16022^^0

RDT^983^10004256^BACLOFEN 10MG TAB^45^10^D30^20260224^20250223^20260224^20250326^TAKE ONE-HALF TABLET BY MOUTH THREE TIMES A DAY^BACLOFEN 10MG TAB TAKE ORAL (BY MOUTH) TID Qty: 45^ACTIVE^4041^^0

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 3: Example RTB^K13 HL7 RDF Segment

RDF^15^Site Number|Rx Number|Drug Name|Quantity|Refills|Days Supply|ExpONEtion Date|Issue Date|Stop Date|Last Fill Date|Sig|Detail|Status|VA Product IEN|FQDN

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.

NOTE: With the introduction of patch PSO*7*774, a 'Refill' request on the 'dispensing' VistA instance can create an original fill on the 'host' VistA instance if a prescription was created there but never filled (e.g. PARKED prescription situation). Also, the ability to run a "Partial Fill Rx from Another VA Pharmacy" may not be selected for a remote medication that is both Parked and never been filled.

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

The MUMPS code uses BLDPID^PSOTPHL2(DFN,"",.PSORRDAT,.HL,.ERR)' to create the Patient Identification (PID) segment.

Common Order (ORC) segment
Pharmacy/Treatment Prescription Order (RXO)
Notes and Comments (NTE) segment

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

Table 66: 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

Segment	Piece	Description / Field Name	Data Type
	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

Segment	Piece	Description / Field Name	Data Type
	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 4: Example RDS^O13 Pharmacy/Treatment Dispense Message Request Refill

```
Message Type: RDS          Event Type: O13
MESSAGE HEADER:
MSH^~|\&^PSO VISTA PHARM^983~DISPSHR.FO-DISPENSINGSITE.XXX.XX.COM~DNS^PSO EMI PHARM^984
~HOSTSHR.FO-HOSTSITE.XXX.XX.COM~DNS^20160825082857-0500^^RDS~O13^98321356516^T^2
.5.1^^^^^USA
MESSAGE TEXT:
PID^^^1012874629V320036~~~USVHA&&HL70363~NI~VA FACILITY ID&983&L|666019258~~~USS
SA&&HL70363~SS~VA FACILITY ID&983&L|7214233~~~USVHA&&HL70363~PI~VA FACILITY ID&9
83&L^^PSOPATIENT~ONE~OOO~~~~L^INGLE~~~~~~M^19480925^M^^^1624 N Park Ave~"""~INDIANAP
OLIS~IN~46202-2702~~P~"""|~~INDIANAPOLIS~IN~~~N^097^(317)555-5678^(463)555-2256^^
""^""^^666019258^^^^INDIANAPOLIS IN^^^^^^""^^
ORC^RF^2718907~984~HOSTSHR.FO-HOSTSITE.XXX.XX.COM^^^^^^^3160825^520647065~COUPLA
ND~KATHLEEN~M^^^~~~983^
RXO^^^^^^^^W~~~983
```

Figure 5: Example RDS^O13 Pharmacy/Treatment Dispense Message Request Partial Fill

```
Message Type: RDS          Event Type: O13
MESSAGE HEADER:
MSH^~|\&^PSO VISTA PHARM^983~DISPSHR.FO-DISPENSINGSITE.XXX.XX.COM~DNS^PSO EMI PHARM^984
~HOSTSHR.FO-HOSTSITE.XXX.XX.COM~DNS^20160831184209-0500^^RDS~O13^98321390788^T^2
.5.1^^^^^USA
MESSAGE TEXT:
PID^^^1012874783V687896~~~USVHA&&HL70363~NI~VA FACILITY ID&983&L|456011181~~~USS
SA&&HL70363~SS~VA FACILITY ID&983&L|7214285~~~USVHA&&HL70363~PI~VA FACILITY ID&9
83&L^^PSOPATIENT~TWO~OOO~~~~L^LEWIS~~~~~~M^19511118^F^^^""~""~""~""~~P~""|~~L
INCOLN~NE~~~N^""^""^""^^""^""^^456011181^^^^LINCOLN NE^^^^^^""^^
ORC^PF^2718916~984~HOSTTSHR.FO-HOSTSITE.XXX.XX.XXX^^^^^^^3160831^520647065~COUPLA
ND~KATHLEEN~M^^^~~~983^
RXO^1^100^^^^^^W~~~983^^^29
NTE^1^L^WAITING
```

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

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

Table 67: 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

Segment	Piece	Description / Field Name	Data Type
	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

Segment	Piece	Description / Field Name	Data Type
	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	Pharmacy/Treatment Dispense	
	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

Segment	Piece	Description / Field Name	Data Type
	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

- 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 Ref83216428 below.

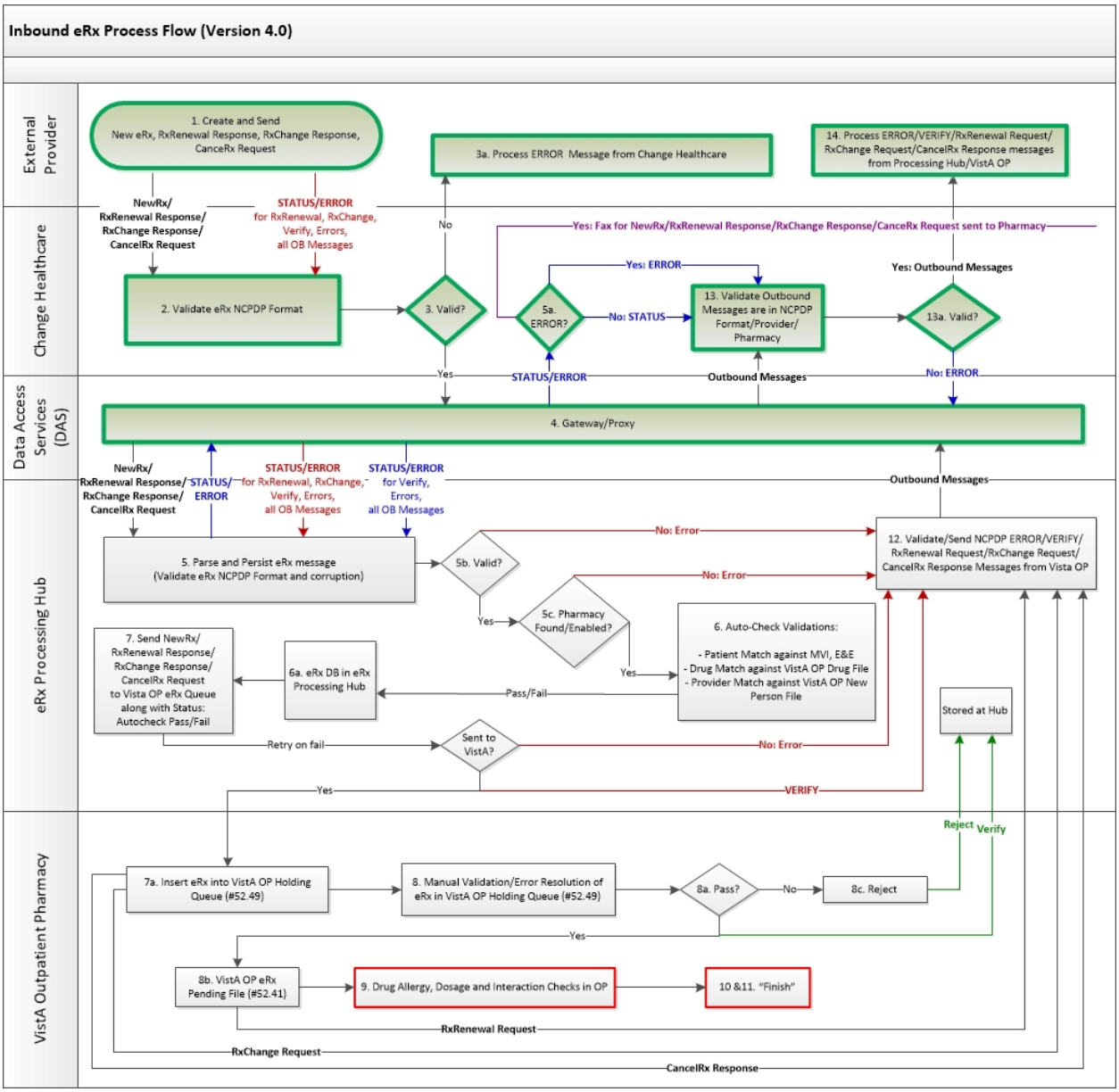
The IEP process flow depicts five (5) swim-lanes – one external to IEP (External Provider) and four (4) Inbound eR_x processing tiers (Change Healthcare, Data Access Service (DAS), eR_x Processing Hub and VistA Outpatient Pharmacy [OP]):

- 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, Change Healthcare, or both and is responsible for creating and sending the eR_x in NCPDP 2017071 XML format
  - The External Provider is registered with SureScripts, Change Healthcare, or both 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/eR_x 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 eR_x Processing Hub
- eR_x 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 eR_x 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 (eR_x) Holding Queue transactions. Once the eR_x is validated, it is processed into the PENDING OUTPATIENT ORDERS (#52.41) file

Figure 6: Inbound ePrescribing Process Flow (Version 4.0)



The Inbound eR$_x$ processing flow is sequential in nature as depicted in Figure 5 (above):

- Step 1: The Inbound eR$_x$ process flow begins with the External Provider, using their EMR system, creates and sends to Change Healthcare eR$_x$ 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 eR$_x$ 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 eR_x 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 eR_x Processing Hub.
- Step 5: The eR_x 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 eR_x 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 eR_x Processing Hub constructs the eR_x 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 eR_x.
- Step 8: In the respective VistA OP instance, pharmacy personnel perform manual validation of the eR_x (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 eR_x 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 or modifies 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 ALL PATIENTS CR DEFAULT TEXT EDIT

PSO ERX ALL PATIENTS QUEUE HIDDEN ACTIONS

PSO ERX ALL RXS INCLUDE ALL STATUSES

PSO ERX ALL RXS QUEUE HIDDEN ACTIONS MENU

PSO ERX ALL RXS REMOVE FILTERS

PSO ERX BATCH CHANGE REQUEST MENU

PSO ERX BATCH CHANGE REQUEST SELECT

PSO ERX BATCH CHANGE REQUEST SUBMISSION

PSO ERX BATCH INCLUDE ALL STATUSES

PSO ERX BATCH VISTA DRUG REPLACEMENT

PSO ERX CHANGE REQUEST

PSO ERX DISPLAY MENU

PSO ERX DRUG EDIT FROM SINGLE ERX VIEW

PSO ERX EDIT

PSO ERX ENTER PROGRESS NOTES

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 ERX

PSO ERX JUMP TO ERX PATIENT

PSO ERX JUMP TO OP

PSO ERX MESSAGE VIEW

PSO ERX OP PRINT

PSO ERX PATIENT ALLERGIES VIEW

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 REMOVE

PSO ERX RESEND CHANGE REQUEST

PSO ERX RX RENEWAL REQUEST

PSO ERX SELECT BY NUMBER

PSO ERX SINGLE PATIENT NEXT DRUG

PSO ERX SINGLE PATIENT QUEUE HIDDEN

PSO ERX SINGLE REFILL REQUEST

PSO ERX SINGLE RXRENEWAL REQUEST

PSO ERX STATUS HISTORY

PSO ERX UN-ACCEPT

PSO ERX UNHOLD

PSO ERX UN-PROCESS

PSO ERX UN-REMOVE

PSO ERX VALIDATE ALL AND ACCEPT

PSO ERX VALIDATE DRUG

PSO ERX VALIDATE PATIENT

PSO ERX VALIDATE PROVIDER

PSO ERX VALIDATION MENU

PSO ERX VIEW AUDIT LOG

PSO ERX VIEW DRUG SUGGESTIONS

PSO ERX VIEW HISTORY LOG

PSO ERX VIEW ORIGINAL ERX

PSO ERX VIEW PATIENT SUGGESTIONS

PSO ERX VIEW PROVIDER SUGGESTIONS

PSO ERX VIEW REQUEST ERX

PSO ERX VIEW RESPONSE ERX

PSO ERX VIEW SUGGESTED RX

PSO HIDDEN ACTIONS

PSO HIDDEN ACTIONS #2

PSO HIDDEN ACTIONS #3

PSO LM BACKDOOR PRTCL USRSCR VERIFY

PSO LM EXIT2

PSO LM HIDDEN OTHER

PSO LM HIDDEN OTHER #2

PSO LMOE MOVE TO NEXT PATIENT

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

PSOERXA0 PRVMTCH: Provider match logic

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

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 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
.15          SUGGESTED VISTA RX
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
6.7          FUTURE FILL HOLD DATE
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           SENDER'S MESSAGE ID
25.2         PENDING OUTPATIENT ORDER#
26           VA DISPENSING INSTRUCTIONS
27           VA PATIENT INSTRUCTIONS
28           DRUG COVERAGE STATUS
29           INDICATION FOR USE
29.1         INDICATION FOR USE FLAG
29.2         OTHER LANG INDICATION FOR USE
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
317           CHANGE REQUEST REASON
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
320.1         CH REQ PROGRESS NOTE REF #
320.2         CH REQ PROGRESS NOTE COMMENT
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
```

25.9 Inbound ePrescribing External Person (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
   1            FULL DESCRIPTION
   2.1          NCIT SUBTYPE
   20           CHANGE REQUEST REASON TEXT
   21           CH REQ REASON TEXT BY DIVISION

OUTPATIENT PHARMACY PRESCRIPTION FILE  (FILE #52)
PRESCRIPTION (#52)         ACTIVITY LOG SUB-FILE (#52.3)
                           REASON (#.02)


OUTPATIENT PHARMACY OUTPATIENT SITE (FILE #59)
OUTPATIENT SITE (#59)      ERX DEFAULT LOOKBACK DAYS
                           (#10.2)
```

25.10 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 Add New Providers [PSO PROVIDER ADD], Edit Provider [PSO PROVIDER EDIT], and View Provider [PSO PROVIDER INQUIRE] options have been updated to prompt for and display the DEA number information from the DEA NUMBERS file (#8991.9), and to allow an unlimited number of DEA numbers to be assigned to each provider.
    - Pharmacy Order Entry options have been updated to prompt the pharmacist to select the correct DEA number when there are multiple DEA numbers assigned to the ordering provider.

The initial 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 Menu and Options

A new menu option has been created to support VistA reports with PSO*7*667 and updated with PSO*7*545. This menu option is ePCS DEA Utility Functions [PSO EPCS UTILITY FUNCTIONS]. The Allocate/De-Allocate of PSDRPH Key (Audited) [PSO EPCS PSDRPH KEY] option was also created. Both ePCS DEA Utility Functions [PSO EPCS UTILITY FUNCTIONS] and Allocate/De-Allocate of PSDRPH Key (Audited) [PSO EPCS PSDRPH KEY] are stand-alone menus, not attached to any class 1 menus.

The ePCS DEA Utility Functions [PSO EPCS UTILITY FUNCTIONS] menu has the following menu option 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]
- Set Pharmacy Operating Mode [PSO VAMC MBM PHARMACY MODE]
- Print Setting Parameters Privileges [PSO EPCS SET PARMS]
- Print Prescribers with Privileges [PSO EPCS PRIVS]
- Edit Facility DEA# and Expiration Date [PSO EPCS EDIT DEA# AND XDATE]
- Print Audits for Prescriber Editing [PSO EPCS PRINT EDIT AUDIT]
- Print DISUSER Prescribers with Privileges [PSO EPCS DISUSER PRIVS]
- Allow VA Number if DEA Number Expired [PSO EPCS EXPIRED DEA FAILOVER]
- Manual DEA Number Entry [PSO EPCS DEA MANUAL ENTRY]

- Manually Entered DEA Number Report [PSO EPCS MANUAL DEA REPORT]
- DEA Number Integrity Check [PSO EPCS DEA INTEGRITY REPORT]

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 set up 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. 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.

26.3.6 Set Pharmacy Operating Mode [PSO VAMC MBM PHARMACY MODE]

This option will allow sites to turn off the warning message confirmation prompt associated with selecting a provider without a CPRS account for Meds by Mail sites running VistA as their pharmacy package.

26.3.7 Print Setting Parameters Privileges [PSO EPCS SET PARMS]

This option prints all active users holding the XUEPCSEDIT key. This report will identify individuals responsible for setting the parameters.

26.3.8 Print Prescribers with Privileges [PSO EPCS PRIVS]

This option prints all active users who have privileges to any of the SCHEDULEs II through V and who have a DEA# or VA#. This option prints the NAME, SCHEDULES, VA#, DUZ, and DEA#.

26.3.9 Edit Facility DEA# and Expiration Date [PSO EPCS EDIT DEA# AND XDATE]

This option is for the DEA ePCS project and will allow users to edit the facility DEA# and Expiration Date in Institution file (#4).

26.4 Print Audits for Prescriber Editing [PSO EPCS PRINT EDIT AUDIT]

This option provides the ability to print information related to the editing of prescriber information related to electronic Prescribing of Controlled Substances.

26.4.1 Print DISUSER Prescribers with Privileges [PSO EPCS DISUSER PRIVS]

This option is for the DEA ePCS project and will print all DISUSER users who have privileges to any of the SCHEDULEs II through V and who have a DEA# or VA#. This option prints the NAME, SCHEDULESs, VA#, DUZ, TERMINATION DATE, and DEA#.

26.4.2 Allow VA Number if DEA Number Expired [PSO EPCS EXPIRED DEA FAILOVER]

This option will allow the sites to turn off the expired DEA number "fail over" functionality so that the renewal of a provider's expired DEA number can be enforced.

26.4.3 Manual DEA Number Entry [PSO EPCS DEA MANUAL ENTRY]

This option allows the manual addition and edit of DEA numbers in the DEA NUMBERS file (#8991.9) when a connection to the DEA Web Service cannot be established.

26.4.4 Manually Entered DEA Number Report [PSO EPCS MANUAL DEA REPORT]

This option prints all DEA numbers that were last entered, edited, or both using the Manual DEA Number Entry [PSO EPCS DEA MANUAL ENTRY]. DEA numbers entered or edited with this option are not retrieved from the PSO DOJ/DEA WEB SERVICE.

26.4.5 DEA Number Integrity Check [PSO EPCS DEA INTEGRITY REPORT]

This option can be used to print the DEA Number Integrity Check report. The report displays the following errors:

- A DEA number in the provider's profile does not exist in file 8991.9.
- Provider name associated with the DEA number does not match the provider name on the provider profile.
- Institutional DEA numbers without a suffix.
- Providers with at least one Individual DEA number, but no DEA numbers flagged for Inpatient.
- An individual DEA number that is associated with more than one provider.

26.5 Allocate/De-Allocate of PSDRPH Key (Audited) [PSO EPCS PSDRPH Key Allocate/De-Allocate]

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). The option allows users to allocate or de-allocate the PSDRPH key while also logging an audit record of the transaction. This option was copied from existing option Allocate/De-Allocate of PSDRPH Key [XU EPCS PSDRPH KEY].

26.6 Remote Procedure

A new Remote Procedure has been created to support the Web Veteran's Health Information Systems and Technology Architecture (VistA) Remote Access Management (WebVRAM) application. The PSO EPCS PSDRPH FILER Remote Procedure Call (RPC) has been published to perform allocation and deallocation of the PSDRPH key, and logging of the event in the XUEPCS PSDRPH AUDIT file (#8991.7).

```
NAME:  PSO EPCS PSDRPH FILER
TAG:  PSDKEY                                                    ROUTINE:
PSOEPUT2                RETURN VALUE TYPE:  SINGLE VALUE     AVAILABILITY:  RESTRICTED
DESCRIPTION:
```

Allocates and deallocates the PSDRPH key to the specified user and logs the event in the XUEPCS PSDRPH AUDIT (#8991.7) file.

```
INPUT PARAMETER: PSOSUBJ              PARAMETER TYPE: LITERAL                MAXIMUM DATA
LENGTH: 30                              REQUIRED: YES
SEQUENCE NUMBER: 1
 DESCRIPTION:
```

The NEW PERSON (#200) file Internal Entry Number (IEN) of the user to whom the PSDRPH key is being allocated or deallocated.

```
INPUT PARAMETER: PSOACTOR           PARAMETER TYPE: LITERAL                MAXIMUM DATA
LENGTH: 30                               REQUIRED: YES
SEQUENCE NUMBER: 2
 DESCRIPTION:
```

The NEW PERSON (#200) file Internal Entry Number (IEN) of the user performing the allocation or deallocation of the PSDRPH key.

```
INPUT PARAMETER: PSOACTION          PARAMETER TYPE: LITERAL                MAXIMUM DATA
LENGTH: 1                                REQUIRED: YES
SEQUENCE NUMBER: 3
 DESCRIPTION:
```

A flag indicating the type of action to be taken, either "1" to allocate the PSDRPH key, or "0" to deallocate the PSDRPH key.

RETURN PARAMETER DESCRIPTION:

The return value is 1 if the allocation or deallocation was successful.

The return value is 0^Error Message Text if the allocation or deallocation was unsuccessful.

Table 68: Error Messages Returned by the PSO EPCS PSDRPH FILER RPC

Error Message Text	Description
Invalid Action Code	The PSOACTION input parameter is a value other than 0 (zero) or 1 (one).
PSDRPH key does not exist	The PSDRPH key does not exist in the SECURITY KEY (#19.1) file.
Missing or invalid key recipient input parameter	The PSOSUBJ input parameter is set to null or any non-numeric value. The PSOSUBJ input parameter represents the user to whom the PSDRPH key is being allocated.

Error Message Text	Description
Missing or invalid key allocator input parameter	The PSOACTOR input parameter is set to null or any non-numeric value. The PSOACTOR input parameter represents the user allocating the PSDRPH key.
Key recipient IEN #### does not exist in the NEW PERSON file	The value of the PSOSUBJ input parameter passed validation but does not point to a record that exists in the NEW PERSON file. The PSOSUBJ input parameter represents the user to whom the PSDRPH key is being allocated.
Allocator IEN #### does not exist in the NEW PERSON file	The PSOACTOR input parameter passed validation but does not point to a record that exists in the NEW PERSON file. The PSOACTOR input parameter represents the user allocating the PSDRPH key.