



PHARMACY DATA MANAGEMENT

TECHNICAL MANUAL/ SECURITY GUIDE

Version 1.0
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Revision History

Each time this manual is updated, the Title Page lists the new revised date and this page describes the changes. If the Revised Pages column lists “All,” replace the existing manual with the reissued manual. If the Revised Pages column lists individual entries (e.g., 25, 32), either update the existing manual with the Change Pages Document or print the entire new manual.

Date	Revised Pages	Patch Number	Description
02/10	i-iii, 5, 8, 24f, 25, 29-30, 31b- 32, 32a-32h, 45-50	PSS*1*147	Updated patch references to include PSS*1*147. Described files, fields, options and routines added/modified as part of this patch. (J. Freese, DM; K. Lowry, Tech. Writer)
10/09	<u>i-ii</u> , <u>5</u> , <u>8</u>	PSS*1*141	Updated patch references to include PSS*1*141. Added ASSOCIATED IMMUNIZATION field (#9) to the PHARMACY ORDERABLE ITEM file (#50.7). (R. Singer, DM; D. Dertien/R. Silverman, Tech Writer)
08/09	24f	PSS*1*140	Added new option <i>Default Med Route OI Rpt</i> [PSS DEF MED ROUTE OI RPT]. (E. Wright, PM; S. B. Scudder, Tech. Writer)
02/09	i-ii, 24b-f, 25, 29-31b, 48-52, 55-58	PSS*1*129	Pharmacy Re-Engineering (PRE) V.0.5 Pre-Release. Restructured main PSS MGR menu and added new <i>Enhanced Order Checks Setup Menu</i> . Described files, fields, options and routines added/modified as part of this project. (G.Tucker, PM; V.Howell, Tech.Writer)
08/08	iii, 25, 33-34	PSS*1*94	Added Medication Routes and Administration Scheduling sections. Added PSSSCHD routine. (S. Templeton, PM; G. O’Connor, Tech. Writer)
10/06	i, ii, 25	PSS*1*112	Pharmacy Re-Engineering (PRE) Encapsulation Cycle II project. Added routines PSS55MIS and PSS50TMP to the Routine List. (J. Caudullo, PM; J. Nemetz, Tech. Writer)
09/06	i, ii, 25	PSS*1*108	Pharmacy Re-Engineering (PRE) Encapsulation Cycle II project. Added routine PSS551 to the Routine List. (H. Whitley, PM; J. Nemetz, Tech. Writer)
04/06	i, 25	PSS*1*90	HIPAA NCPDP Global project. Added routines PSSDAWUT and PSSNDCUT to the Routine List. (S. Spence, PM; M. Newman, Tech. Writer)
04/06	i, ii, 25	PSS*1*106	Pharmacy Re-Engineering (PRE) Encapsulation Cycle II project. Added routine PSS781 to the Routine List. (H. Whitley, PM; L. Woodson, Tech. Writer)

Date	Revised Pages	Patch Number	Description
11/05	i, ii, 25	PSS*1*101	Pharmacy Re-Engineering (PRE) Encapsulation Cycle II project. Added routines PSS55 and PSS59P7 to the Routine List. (H. Whitley, PM; L. Woodson, Tech. Writer)
03/05	i, ii, 24a, 25, 29-31, 48	PSS*1*87	Laser Labels Phase II project. Added <i>Warning Builder</i> and <i>Warning Mapping</i> options descriptions and updated the menu options. Added four new routines to the routine list. Cleaned up misspelled words and such on many pages. (H. Whitley, PM; L. Woodson, Tech. Writer)
10/04	i., 25, 33	PSS*1*85	Added routines and a reference to the <i>Pharmacy Re-Engineering (PRE) Application Program Interface (API) Manual</i> created for the Pharmacy Re-Engineering (PRE) project Encapsulation cycle 1.
10/04	i, 24a, 25, 29-31, 32d-h, 48, 53	PSS*1*82	Updated the option description to include <i>Send Entire Drug File to External Interface</i> [PSS MASTER FILE ALL] option. Added new master file update information to the "HL7 Messaging with an External System" section. Updated routine list to include PSSMSTR. Updated the web address for the VistA Documentation Library (VDL).
07/03	i, 25, 31, 48	PSS*1*61	Updated routine list to four new add PKI routines. Added new <i>Controlled Substances/PKI Reports</i> [PSS/PKI REPORTS] menu and four associated report options to the <i>Pharmacy Data Management</i> [PSS MGR] menu.
04/03	i, 5, 8, 29, 35, 48	PSS*1*68	Updated patch references to include PSS*1*68. Added NON-VA MED field (#8) to the PHARMACY ORDERABLE ITEM file (#50.7).
03/03	i., 5, 8, 24a, 29, 31, 35, 48	PSS*1*47	Updated patch references to include PSS*1*47. Added new field OTHER LANGUAGE INSTRUCTIONS (#7.1) to the PHARMACY ORDERABLE ITEM file (#50.7) list and <i>Other Language Translation Setup</i> option description.
11/02	i, ii 5, (6) 23 - 25, (26) 29-30,(47), 48	PSS*1*55	Renumbered front matter starting from this Revision History page. Updated Patch number. Updated Option descriptions to include <i>Drug Text File Report</i> option. Added routine PSSDTR in the Routines section. Added the <i>Drug Text File Report</i> option to the current PDM Menu in the Exported Options section.
10/02	Title, i-iv, 32a-32d	PSS*1*57	Updated Title Page, Revision Page and Table of Contents. A section was added for the new HL7 Messaging with an External System.
09/01	All	PSS*1*38	Added this Revision History Page. Added Patch Release changes and Pharmacy Ordering Enhancements (POE) edits. Updated manual to comply with current documentation standards.
09/97	N/A	N/A	Original Release of Technical Manual.

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Implementation and Maintenance

The PHARMACY ORDERABLE ITEM file (#50.7) must be built prior to the installation of Outpatient Pharmacy V. 7.0 and Inpatient Medications V. 5.0. The PHARMACY ORDERABLE ITEM file (#50.7) will be similar to the PRIMARY DRUG file (#50.3) used by Inpatient Medications V. 4.5. The main difference is that each entry in the PHARMACY ORDERABLE ITEM file (#50.7) has an associated Dosage Form that will always print next to the name. The PHARMACY ORDERABLE ITEM file (#50.7) will be duplicated in the ORDERABLE ITEM file (#101.43) that will reside in CPRS V. 1.0. Any update to the PHARMACY ORDERABLE ITEM file (#50.7) will automatically update the corresponding entry in the ORDERABLE ITEM file (#101.43). The NAME field (#.01) and the DOSAGE FORM field (#.02) values in the PHARMACY ORDERABLE ITEM file (#50.7) will print on Outpatient Pharmacy reports, profiles, Inpatient Medication reports, MAR labels etc., in place of the Primary Drug Name.

The PHARMACY ORDERABLE ITEM file (#50.7) includes the following fields. These fields reflect the package content up to and including the release of patch PSS*1*147.

These fields were necessary for the initial installation but were deleted following later patches.

* These fields were not exported with the initial installation but were added with later patches.

Field Number	Field Name	Description
.01	NAME	This is the name of the Pharmacy Orderable Item. It is a free text field that can be up to 40 characters in length.
.02	DOSAGE FORM	This is a pointer to the DOSAGE FORM file (#50.606). This is a required field and will always print next to the Pharmacy Orderable Item name.
.03	IV FLAG	This field will be set to 1 to indicate that the Pharmacy Orderable Item entry is pointed to by either the IV ADDITIVES file (#52.6), or the IV SOLUTIONS file (#52.7). If this field is not set to 1, it indicates that the entry is pointed to from the DRUG file (#50).
.04	INACTIVE DATE	This will contain the date the entry had been made inactive.
.05	DAY (nD) or DOSE (nL) LIMIT	This is a free text field used to calculate a default value for the "STOP DATE" prompt of the order.

Field Number	Field Name	Description
.06	MED ROUTE	This is a pointer to the MEDICATION ROUTES file (#51.2). If a MED ROUTE is entered here, it will be used as the default value during order entry when this drug is selected.
.07	SCHEDULE TYPE	This field is a set of codes and will be used as a default value when selecting this drug in order entry.
.08	SCHEDULE	This is a free text field and will be used as a default value during order entry when this drug is selected.
.09	SUPPLY	This is a set of codes with 1 (one) indicating that the Orderable Item is a supply.
2	SYNONYM (multiple)	This multiple will contain all the associated synonyms for the Pharmacy Orderable Item.
	.01	SYNONYM A free text synonym name up to 30 characters long.
<input checked="" type="checkbox"/> 3	CORRESPONDING UD ITEM	If CHANGE TYPE OF ORDER FROM OERR field (#20.412) in the PHARMACY SYSTEM file (#59.7) parameter in Inpatient Mediations package is set, this field will be asked to user. This field will indicate corresponding Orderable Items to choose from and which package (UD or IV) to finish the order.
<input checked="" type="checkbox"/> 4	CORRESPONDING IV ITEM	If CHANGE TYPE OF ORDER FROM OERR field (#20.412) in the PHARMACY SYSTEM file (#59.7) parameter in Inpatient Mediations package is set, this field will be asked to user. This field will indicate corresponding Orderable Items to choose from and which package (UD or IV) to finish the order.

Field Number	Field Name	Description
*5	FORMULARY STATUS	This field will designate the formulary status of the Orderable Item. The non-formulary status will be displayed to the provider next to the selectable list of Orderable Item(s) during CPRS order entry (List Manager and GUI). This field is not editable. The software controls it. An Orderable Item will only be marked as non-formulary if there are no active Dispense Drugs that are formulary drugs matched to the item.
*6	OI-DRUG TEXT ENTRY (multiple)	
	*01 OI-DRUG TEXT ENTRY	This is a pointer to the DRUG TEXT file (#51.7). This file contains such information as drug restrictions, guidelines and protocols to help assure that medications are being used according to formulary specifications. This information will be seen in CPRS and Pharmacy when a medication order is placed for the Pharmacy Orderable Item. New entries to the DRUG TEXT file (#51.7) must be made through the <i>Drug Text Enter/Edit</i> option.
*7	PATIENT INSTRUCTIONS	The text in this field shall be presented as a default for the Patient Instructions prompt in the Outpatient Pharmacy package when entering orders, if the Dispense Drug selected is matched to this Pharmacy Orderable Item. This text will also be presented during the Outpatient Medication order entry process through CPRS, and the CPRS user can then determine whether or not these Instructions should be part of the order. For all words entered in this field, the software will check for expansions for each word in the MEDICATION INSTRUCTION file (#51) and expand the word accordingly.

Field Number	Field Name	Description
7.1	OTHER LANGUAGE INSTRUCTIONS	The text in this field shall be presented as a default for the OTHER PATIENT INSTRUCTIONS prompt in the Outpatient Pharmacy package when entering orders, if the order being entered is for a patient who has designated a preference for another language.
8	NON-VA MED	This field indicates whether the Pharmacy Orderable Item is selectable as a Non-VA Med (either an herbal supplement, an over-the-counter (OTC) medication, or a prescription drug not dispensed by the VA). This field is not editable.
9	ASSOCIATED IMMUNIZATION	This field is added by the Immunizations Documentation by BCMA application. A mapping relationship is created between the PHARMACY ORDERABLE ITEM file (#50.7) and the pointed-to immunization so that a record can be created in the V IMMUNIZATION file (#9000010.11) corresponding to the BCMA administration of an immunization.

NAME: PSS LOCAL POSSIBLE DOSAGES

MENU TEXT: Local Possible Dosages Report

TYPE: run routine

DESCRIPTION: This option provides a report that displays entries from the LOCAL POSSIBLE DOSAGE (#50.0904) Subfile of the DRUG (#50) File with missing data in DOSE UNIT (#4) Field and the NUMERIC DOSE (#5) Field. This data needs to be populated if Dosage checks are to be performed, when that Local Possible Dosage is selected for an order.

ROUTINE: EN^PSSLDDOSE

UPPERCASE MENU TEXT: LOCAL POSSIBLE DOSAGES REPORT

NAME: PSS STRENGTH MISMATCH

MENU TEXT: Strength Mismatch Report

TYPE: run routine

DESCRIPTION: This option provides a report that shows all entries from the DRUG (#50) File that have data in the STRENGTH (#901) Field that does not match the data in the STRENGTH (#2) Field from the match in the VA PRODUCT (#50.68) File.

ROUTINE: EN^PSSSTRENG

UPPERCASE MENU TEXT: STRENGTH MISMATCH REPORT

NAME: PSS DOSE UNIT REQUEST

MENU TEXT: Request Change to Dose Unit

TYPE: run routine

DESCRIPTION: This option enables a request to be made to have a new entry added, or a current entry changed in the DOSE UNITS (#51.24) File.

ROUTINE: DOSE^PSSMEDRQ

UPPERCASE MENU TEXT: REQUEST CHANGE TO DOSE UNIT

NAME: PSS MARK PREMIX SOLUTIONS

MENU TEXT: Mark PreMix Solutions

TYPE: run routine

DESCRIPTION: This option will be used to mark entries from the IV SOLUTIONS (#52.7) File as PreMixes, by allowing editing of the PREMIX (#18) Field.

ROUTINE: EDIT^PSSPRUTL

UPPERCASE MENU TEXT: MARK PREMIX SOLUTIONS

NAME: PSS IV SOLUTION REPORT

MENU TEXT: IV Solution Report

TYPE: run routine

DESCRIPTION: This report will display all entries from the IV SOLUTIONS (#52.7) File, or just those entries marked as PreMixes in the PREMIX (#18) Field.

ROUTINE: REP^PSSPRMIX

UPPERCASE MENU TEXT: IV SOLUTION REPORT

NAME: PSS SCHEDULE REPORT

MENU TEXT: Administration Schedule File Report

TYPE: run routine

DESCRIPTION: This option provides a report of entries from the ADMINISTRATION SCHEDULE (#51.1) File that shows whether or not data has been entered in the FREQUENCY (IN MINUTES) (#2) Field for the entries. To perform Dosage checks on medication orders, a frequency must be derived from the Schedule of the order.

ROUTINE: EN^PSSSCHRP

UPPERCASE MENU TEXT: ADMINISTRATION SCHEDULE FILE R

NAME: PSS MED INSTRUCTION REPORT

MENU TEXT: Medication Instruction File Report

TYPE: run routine

DESCRIPTION: This option provides a report of entries from the MEDICATION INSTRUCTION (#51) File that shows whether or not data has been entered in the FREQUENCY (IN MINUTES) (#31) Field. To perform Dosage checks on medication orders, a frequency must be derived from the Schedule of the order.

ROUTINE: EN^PSSMIRPT

UPPERCASE MENU TEXT: MEDICATION INSTRUCTION FILE RE

The following option was retrieved from VA FileMan and reflects the new option added to PDM following the installation of PSS*1*140.

```
-----  
NAME: PSS MEDICATION ROUTES MGMT  
MENU TEXT: Medication Routes Management  
TYPE: menu  
DESCRIPTION: This Sub-Menu contains options related to Medication Routes in  
both the MEDICATION ROUTES (#51.2) File and the STANDARD MEDICATION ROUTES  
(#51.23) File.  
ITEM: PSS MEDICATION ROUTES EDIT  
ITEM: PSS MED ROUTE MAPPING REPORT  
ITEM: PSS MED ROUTE MAPPING CHANGES  
ITEM: PSS MEDICATION ROUTE REQUEST  
ITEM: PSS DEF MED ROUTE OI RPT
```

This option introduced with PSS*1*140.

```
-----  
NAME: PSS DEF MED ROUTE OI RPT  
MENU TEXT: Default Med Route For OI Report  
TYPE: print  
DIC {DIP}: PS(50.7, L.: 0  
FLDS: [PSS DEF MED ROUTE FOR OI] BY: [PSS DEF MED ROUTE FOR OI]  
DHD: [PSS HDR DEF MED ROUTE]  
UPPERCASE MENU TEXT: DEFAULT MED ROUTE FOR OI REPOR  
-----
```

The following options were retrieved from VA FileMan and reflect the new options added to PDM following the installation of patch PSS*1*147.

```
NAME: PSS IV ADDITIVE REPORT  
MENU TEXT: IV Additive Report  
TYPE: run routine  
DESCRIPTION: This report will display entries from the IV ADDITIVES (#52.6)  
File. The display selection choices will be for all IV Additives, only IV  
Additives whose ADDITIVE FREQUENCY (#18) Field is set to '1 BAG/DAY', or only  
those IV Additives whose ADDITIVE FREQUENCY (#18) Field is null.  
ROUTINE: REP^PSSADRPT  
UPPERCASE MENU TEXT: IV ADDITIVE REPORT  
-----  
NAME: PSS ADDITIVE/SOLUTION REPORTS  
MENU TEXT: IV Additive/Solution Reports  
TYPE: menu  
DESCRIPTION: This Sub-Menu contains options that can be used to run reports  
from the IV ADDITIVES (#52.6) File and the IV SOLUTIONS (#52.7) File.  
ITEM: PSS IV ADDITIVE REPORT DISPLAY ORDER: 1  
ITEM: PSS IV SOLUTION REPORT DISPLAY ORDER: 2  
UPPERCASE MENU TEXT: IV ADDITIVE/SOLUTION REPORTS
```


Routines

The following routines are used by the Pharmacy Data Management package.


PSS129EN	PSS147EN	PSS147PO	PSS32P3	PSS32P5	PSS50
PSS50A	PSS50A1	PSS50AQM	PSS50ATC	PSS50B	PSS50B1
PSS50B2	PSS50C	PSS50C1	PSS50CMP	PSS50D	PSS50DAT
PSS50DOS	PSS50E	PSS50F	PSS50F1	PSS50LAB	PSS50NDF
PSS50P4	PSS50P66	PSS50P7	PSS50P7A	PSS50TMP	PSS50WS
PSS51	PSS51P1	PSS51P15	PSS51P1A	PSS51P1B	PSS51P1C
PSS51P2	PSS51P5	PSS52P6	PSS52P6A	PSS52P6B	PSS52P7
PSS52P7A	PSS54	PSS55	PSS551	PSS55MIS	PSS59P7
PSS781	PSSADDIT	PSSADRPT	PSSAUTL	PSSCHENV	PSSCHPRE
PSSCHPST	PSSCLDRG	PSSCOMMN	PSSCPRS	PSSCPRS1	PSSCREAT
PSSCSPD	PSSDAWUT	PSSDDUT	PSSDDUT2	PSSDDUT3	PSSDEE
PSSDEE1	PSSDEE2	PSSDELOI	PSSDENT	PSSDFEE	PSSDGPDP
PSSDI	PSSDIN	PSSDOS	PSSDOSCR	PSSDOSCX	PSSDOSED
PSSDOSER	PSSDOSRP	PSSDSDAT	PSSDSPON	PSSDSPOP	PSSDTR
PSSENV	PSSENVN	PSSFIL	PSSFILED	PSSFILES	PSSGENM
PSSGIU	PSSGMI	PSSGS0	PSSGSH	PSSHLP	PSSHL1
PSSHLSCH	PSSHLU	PSSJEEU	PSSJORDF	PSSJSPU	PSSJSPU0
PSSJSV	PSSJSV0	PSSJXR	PSSJXR1	PSSJXR10	PSSJXR11
PSSJXR12	PSSJXR13	PSSJXR14	PSSJXR15	PSSJXR16	PSSJXR17
PSSJXR18	PSSJXR19	PSSJXR2	PSSJXR20	PSSJXR21	PSSJXR22
PSSJXR4	PSSJXR5	PSSJXR6	PSSJXR7	PSSJXR8	PSSJXR9
PSSLAB	PSSLDALL	PSSLDEDT	PSSLDOSE	PSSLDOSE	PSSLOOK
PSSMARK	PSSMATCH	PSSMEDCH	PSSMEDRQ	PSSMEDRT	PSSMEDX
PSSMIRPT	PSSMRTUP	PSSMRTUX	PSSMSTR	PSSNDCUT	PSSNOUNR
PSSNTEG	PSSOICT	PSSOICT1	PSSOPKI	PSSOPKI1	PSSORPH
PSSORPH1	PSSORUTL	PSSOUTSC	PSSPKIPI	PSSPKIPR	PSSPNSRP
PSSPO129	PSSPOI	PSSPOIC	PSSPOID1	PSSPOID2	PSSPOID3
PSSPOIDT	PSSPOIKA	PSSPOIM	PSSPOIM1	PSSPOIM2	PSSPOIM3
PSSPOIMN	PSSPOIMO	PSSPOST	PSSPOST1	PSSPOST2	PSSPOST5
PSSPRE	PSSPRETR	PSSPRMIX	PSSPRUTL	PSSQORD	PSSREF
PSSREMCH	PSSSCHD	PSSSCHRP	PSSSOLI1	PSSSOLIT	PSSSPD
PSSSUTIL	PSSSYN	PSSTRENG	PSSUTIL	PSSUTLA1	PSSUTLPR
PSSVIDRG	PSSVX6	PSSVX61	PSSVX62	PSSVX63	PSSVX64
PSSVX65	PSSVX66	PSSWMAP	PSSWRNA	PSSWRNB	PSSWRNE
PSSYSP					

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The PDM menu that was exported with the original PDM package has been modified to include subsequent changes and patches.

The PDM menu up to and including PSS*1*147 appears below. PSS*1*147 was the last patch to affect a change to the PDM menu.

Pharmacy Data Management [PSS MGR]

CMOP Mark/Unmark (Single drug) ←
[PSSXX MARK] 

When using the *CMOP Mark/Unmark (Single drug)* [PSSXX MARK] option to mark a drug for CMOP the user **must** update the cost information in the DRUG file (#50) to ensure the cost data for each prescription fill will be correct.

Dosages...
[PSS DOSAGES MANAGEMENT]

Auto Create Dosages
[PSS DOSAGE CONVERSION]

Dosage Form File Enter/Edit
[PSS DOSAGE FORM EDIT]

Enter/Edit Dosages
[PSS EDIT DOSAGES]

Most Common Dosages Report
[PSS COMMON DOSAGES]

Noun/Dosage Form Report
[PSS DOSE FORM/ NOUN REPORT]

Review Dosages Report
[PSS DOSAGE REVIEW REPORT]

Local Possible Dosages Report
[PSS LOCAL POSSIBLE DOSAGES]

Request Change to Dose Unit
[PSS DOSE UNIT REQUEST]

Drug Enter/Edit
[PSS DRUG ENTER/ EDIT]

Drug Interaction Management...
[PSS DRG INTER MANAGEMENT]

Enter/Edit Local Drug Interaction
[PSS INTERACTION LOCAL ADD]

Report of Locally Entered Interactions
[PSS REPORT LOCAL INTERACTIONS]

Electrolyte File (IV)
[PSSJI ELECTROLYTE FILE]

Lookup into Dispense Drug File
[PSS LOOK]

Medication Instruction Management ...
[PSS MED INSTRUCTION MANAGEMENT]

Medication Instruction File Add/Edit <<*Moved from main PSS MGR menu*
[PSSJU MI]

Medication Instruction File Report
[PSS MED INSTRUCTION REPORT]

Medication Routes Management ...
[PSS MEDICATION ROUTES MGMT]

Medication Route File Enter/Edit <<*Moved from main PSS MGR menu*
[PSS MEDICATION ROUTES EDIT]

Medication Route Mapping Report
[PSS MED ROUTE MAPPING REPORT]

Medication Route Mapping History Report
[PSS MED ROUTE MAPPING CHANGES]

Request Change to Standard Medication Route
[PSS MEDICATION ROUTE REQUEST]

Default Med Route for OI Report
[PSS DEF MED ROUTE OI RPT]

Orderable Item Management
[PSS ORDERABLE ITEM MANAGEMENT]

Edit Orderable Items
[PSS EDIT ORDERABLE ITEMS]

Dispense Drug/Orderable Item Maintenance
[PSS MAINTAIN ORDERABLE ITEMS]

Enter/Edit Dosages
[PSS EDIT DOSAGES]

Request Change to Dose Unit
[PSS DOSE UNIT REQUEST]

Mark PreMix Solutions
[PSS MARK PREMIX SOLUTIONS]

IV Solution Report
[PSS IV SOLUTION REPORT]

Administration Schedule File Report
[PSS SCHEDULE REPORT]

Medication Instruction File Report
[PSS MED INSTRUCTION REPORT]

IV Additive/Solution Reports...
[PSS ADDITIVE/SOLUTION REPORTS]

IV Additive Report
[PSS IV ADDITIVE REPORT]

IV Solution Report
[PSS IV SOLUTION REPORT]

Warning Builder
[PSS WARNING BUILDER]

Warning Mapping
[PSS WARNING MAPPING]



Locked: PSXCMOPMGR
Without the PSXCMOPMGR key, the *CMOP Mark/Unmark (Single drug)* option will not appear on your menu.



A post-installation routine for patch PSS*1*61 identifies those drugs with discrepancies between the CS FEDERAL SCHEDULE field (#19) of the VA PRODUCT file (#50.68) and DEA, SPECIAL HDLG field (#3) of the DRUG file (#50). Four mail messages are generated and sent to the installer and to holders of the PSNMGR keys: These mail messages can be re-generated on demand using the Controlled Substances/PKI Reports [PSS CS/PKI REPORTS] menu added with this patch.

The post-install also checks to see if the DEA, SPECIAL HDLG field (#3) of the DRUG file (#50) is null and if the drug is matched to an entry in the VA PRODUCT file (#50.68), and the CS FEDERAL SCHEDULE field (#19) of the VA PRODUCT file (#50.68) has data, then it updates the DEA, SPECIAL HDLG field (#3) of the DRUG file (#50) with the DEA, SPECIAL HDLG code mapped to corresponding CS FEDERAL SCHEDULE code.

Protocols

NAME: PSS EXT MFU CLIENT

DESCRIPTION: This protocol will be used as the ACK from the external interface for a MFN_M01 message.

NAME: PSS EXT MFU SERVER

DESCRIPTION: This protocol will be used to send even notification and data when new drugs are added to the DRUG file (#50) and when certain fields are updated in the same file. This information will be sent to the automated dispensing machines through HL7 V.2.4 formatted messages.

NAME: PSS HUI DRUG UPDATE

DESCRIPTION: This protocol will be used to send event notification and data when new drugs are added to the Drug file (#50) and when certain fields are updated in same file.

NAME: PSS MED ROUTE RECEIVE

DESCRIPTION: This protocol processes updates to the Standard Medication Routes (#51.23) File.

HL7 Messaging with an External System

New Protocol

A new protocol, PSS HUI DRUG UPDATE, is exported and has been created to generate HL7 messages when new drugs are added to the DRUG file (#50) and existing entries are updated. This protocol is exported with the text “DELETE ONLY TO SEND DRUG UPDATE MESSAGES” in the DISABLE field (#2) of the PROTOCOL file (#101). To activate the sending of these HL7 messages, the text from the DISABLE field (#2) of the PROTOCOL file (#101) must be deleted and at least one receiving protocol added as a subscriber. The drug data elements included in the HL7 message are defined in the table below.

HL7 Drug Message Segment Definition Table

When the PSS HUI DRUG UPDATE protocol is enabled, the following table defines the data elements sent in each segment of the HL7 drug message.

Segment	Piece	Field Name	HL7 TBL # or Data Type	Description
MSH	1		ST	Field Separator
	2	^~\&	ST	Encoding Characters
	3	Pharmacy	No suggested value	Sending Application
	9	MFN	0076	Message Type
MFI	1	50^DRUG^99PSD	0175	Master File ID
	3	UPD	0178	File-Level Event Code
	6	NE	0179	Response Level Code
MFA	1	MUP/MAD	0180	UPDATE/ADD
MFE	1	MUP/MAD	0180	UPDATE/ADD
	4	IEN^DRUG NAME^99PSD		File 50 Entry
ZPA	1	NDC	ST	National Drug Code
	2	LOCAL NON-FORMULARY	CE	If "1" true
	3	INACTIVE DATE	DT	HL7 Format (YYYYMMDD)
	4	APPLICATION PACKAGE USE	ST	Used by what packages
	5	MESSAGE	ST	Info on drug
	6	VA CLASSIFICATION	ST	VA Class
	7	DEA SPECIAL HDLG	ST	How drug is dispense based on DEA codes
	8	FSN	ST	Federal Stock #
	9	WARNING LABEL	ST	Drug Warnings for patient
	10	VISN NON-FORMULAR	CE	If '1' true

Segment	Piece	Field Name	HL7 TBL # or Data Type	Description
ZPB	1	PHARMACY ORDERABLE ITEM	CE	IEN^OI tied to dispense drug^PSD50.7
	2	DOSAGE FORM	ST	IEN^Dosage Form associated with OI^PSD50.606
	3	MEDICATION ROUTE	ST	IEN^Med Route associated with OI^PSD51.2
	4	PSNDF VA PRODUCT NAME ENTRY	CE	IEN^VA PRODUCT NAMES^PSD50.68
	5	DISPENSE UNIT	ST	Dispense Unit for a drug
	6	CMOP DISPENSE	CE	1 or 0
	7	OP EXTERNAL DISPENSE	CE	1 or 0
	8	EXPIRATION DATE	DT	HL7 Format (YYYYMMDD)
	9	LAB TEST MONITOR	CE	IEN^Lab Test^LAB60
ZPC	1	SPECIMEN TYPE	CE	IEN^ SPECIMEN TYPE^LAB61
	2	MONITOR ROUTINE	ST	Program that runs to find lab test and results
	3	LAB MONITOR MARK	CE	If '1' true
	4	STRENGTH	NM	Dose of drug
	5	UNIT	CE	IEN^Unit of measure^PSD50.607
	6	PRICE PER ORDER UNIT	NM	
	7	PRICE PER DISPENSE UNIT	NM	
{{ZPD}}	1	SYNONYM	ST	Trade Name
	2	NDC CODE	ST	National Drug Code
	3	INTENDED USE	CE	CE^INTENDED USE
	4	VSN	ST	Vendor Stock Number
	5	ORDER UNIT	CE	IEN^ABBREVIATION^EXPANSION ^PSD51.5
	6	PRICE PER ORDER UNIT	NM	
	7	DISPENSE UNITS PER ORDER UNIT	NM	

Segment	Piece	Field Name	HL7 TBL # or Data Type	Description
	8	PRICE PER DISPENSE UNIT	NM	
	9	VENDOR	ST	Vendor
{{ZPE}}	1	ACTIVITY LOG	DT	HL7 Format YYYYMMDDHHMM[SS]-ZZZZ
	2	REASON	CE	E^EDIT
	3	INITIATOR OF ACTIVITY	CE	IEN^NEW PERSON^VA200
	4	FIELD EDITED	ST	
	5	NEW VALUE	ST	
	6	NDF UPDATE	ST	
{{ZPF}}	1	DISPENSE UNITS PER DOSE	NM	
	2	DOSE	NM	
	3	PACKAGE	CE	CE^PACKAGE(S)
	4	BCMA UNITS PER DOSE	NM	
{{ZPG}}	1	CLOZAPINE LAB TEST	CE	IEN^LAB TEST^LAB60
	2	MONITOR MAX DAYS	NM	
	3	SPECIMEN TYPE	CE	IEN^ SPECIMEN TYPE^LAB61
	4	TYPE OF TEST	CE	1^WBC or 2^ANC
{{ZPH}}	1	LOCAL POSSIBLE DOSAGE	ST	FREE TEXT
	2	PACKAGE	CE	CE^PACKAGE(S)
	3	BCMA UNITS PER DOSE	NM	

New Protocol

Two new protocols, PSS EXT MFU CLIENT and PSS EXT MFU SERVER, are exported and have been created to generate HL7 messages when new drugs are added to the DRUG file (#50) and existing entries are updated. These protocols can only be activated by setting the following parameters in the OUTPATIENT SITE file (#59):

- AUTOMATED DISPENSE field (#105) needs to be set to **2.4**.
- ENABLE MASTER FILE UPDATE field (#105.2) needs to be set to **YES**.
- LOGICAL LINK field (#2005) needs to be set to **PSO DISP**.
- DISPENSE DNS NAME field (#2006) needs to be set to the dispensing system DNS name (for example, **dispensemachine1.vha.med.va.gov**).
- DISPENSE DNS PORT field (#2007) needs to be set to the dispensing system port number.

Specific Transaction

The Pharmacy/Treatment Encoded Order Message is as follows:

<u>MFN</u>	<u>Master File Notification Message</u>
MSH	Message Header
MFI	Master File Identifier
{MFE	Master File Entry
{ZPA}	Drug File Information
{RXD}	Pharmacy/Treatment Dispense
{OBR}}	Observation Request
}	

Example:

```
MSH|^~^&|PSS VISTA|521~FO~BIRM.VHA.MED.VA.GOV~DNS|PSS
DISPENSE|^~DISPENSE1.VHA.MED.VA.GOV:9300~DNS|20030701||MFN~M01~MFN_M01|10001|P|2.4|||AL|AL
MFI|50~DRUG~99PSD||UPD|||NE
MFE|MUP|||PROPANTHELINE 15MG TAB
ZPA|PROPANTHELINE 15MG TAB|N|LFN~Local Non-Formulary~Pharm Formulary Listing|20031226|Take with
food|DE200|6|P|50~6505~00~960~8383~LPS50|8~NO
ALCOHOL~LPS54|229~Bacitracin~LPSD50.7|3~CAP,ORAL~LPSD50.606|15~IV PUSH~LPSD51.2|3643~ATROPINE SO4
0.4MG TAB~LPSD50.68|OP~OP Dispense~99OP|20030830|9~Rubella~LLAB60|72~Hair of
Scalp~LLAB61|PSOCL01|N|100|20~MG~LPSD50.607|4.28&USD~UP|15.64&USD~UP|TAB|2|BLUE HOUSE
VENDOR|0010~0501~33|TRADENAME
RXD|||1|||1|||~P&200&LPSD50.0903|||o
OBR|||1102~ACETAZOLAMIDE~LLAB60|||70&NECK&LLAB61|||WBC|||7
```

HL7 Drug Message Segment Definition Table

When the PSS EXT MFU SERVER protocol is enabled, the following table defines the data elements sent in each segment of the HL7 drug message.

Segments used in the Master File Update message:

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	PSS VISTA	
	4	180	HD	R		0362	Sending Facility – station ID and station DNS name	521~FO-BIRM.MED.VA.GOV~DNS	
	5	180	HD	R		0361	Receiving Application	PSS DISPENSE	
	6	180	HD	R		0362	Receiving Facility – DNS name and port of dispensing machine	~DISPENSE.VH A.MED.VA.GOV :9300~DNS	
	7	26	TS				Date/Time of Message	20040405152416	
	9	15	CM	R	0076		Message Type	MFN_M01	
	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	
	MFI	1	250	CE	R		0175	Master File Identifier	50^DRUG^99PS D
		3	3	ID	R		0178	File-Level Event Code	UPD
		6	2	ID	R		0179	Response Level Code	NE
MFE	1	3	ID	R		0180	Record-Level Event Code	MUP	
	4	200	Varies	R			Primary Key Value – MFE	PROPANTHELI NE 15MG TAB	
ZPA	1	200	Varies	R			Primary Key Value – ZPA	PROPANTHELI NE 15MG TAB	
	2	1	ID	R		0136	Is Synonym	N	
	3	200	CE	R			Formulary Listing	LFN~Local Non-Formulary~Pharm Formulary Listing	
	4	10	DT	O			Inactive Date	20031226	
	5	200	ST	O			Drug Message	Take with Food	
	6	30	ST	O			Drug Classification	DE200	
	7	10	ST	O			DEA-Schedule Code	6	
	8	1	ST	O			DEA-Drug Type	P	
	9	100	CE	R			Stock Number	50~6505-00-960-8383~LPS50	
	10	100	CE	O			Warning Label	8~NO ALCOHOL~LPS 54	

Segments used in the Master File Update message: (continued)

SEGMENT	SEQ#	LEN	DT	R/O	RP/#	TBL#	ELEMENT NAME	EXAMPLE
	11	100	CE	O			Pharmacy Orderable Item	229~Bacitracin~L PSD50.7
	12	100	CE	O			Dosage Form	3~CAP,ORAL~L PSD50.606
	13	100	CE	O			Medication Route	15~IV PUSH~LPSD51.2
	14	100	CE	O			Drug Name Identifiers	3643~ATROPIN E SO4 0.4MG TAB~LPSD50.68
	15	100	CE	O			Dispense Flags	OP~OP Dispense~99OP
	16	15	DT	O			Drug Expiration Date	20030830
	17	100	CE	O			Lab Test Monitor	9~Rubella~LLAB 60
	18	100	CE	O			Specimen Type	72~Hair of Scalp~LLAB61
	19	10	CE	O			Monitor Routine	PSOCLO1
	20	1	ID	O			Lab Monitor Mark	N
	21	50	NM	O			Strength	100
	22	250	CE	R			Unit	20~MG~LPSD50. 607
	23	50	CP	R			Price Per Order Unit	4.28&USD~UP
	24	50	CP	R			Price Per Dispense Unit	15.64&USD~UP
	25	25	ST	O			Dispense Unit	TAB
	26	50	NM	O			Dispense Units Per Order Unit	2
	27	50	ST	O			Vendor	BLUE HOUSE VENDOR
	28	12	ST	O			NDC Code	0010-0501-33
	29	25	ST	O			Intended Use	TRADE NAME
RXD	4	20	NM	R			Actual Dispense Amount	1
	8	20	NM	R			Dispense Notes	1
	12	10	CQ	O			Total Daily Dose	~P&200&LPSD5 0.0903
	24	2	ID	R			Dispense Package Method	O
OBR	4	250	CE	O			Universal Service Identifier	1102~ACETAZO LAMIDE~LLAB 60
	15	300	CM	O			Specimen Source	70&NECK&LLA B61
	24	3	ID	R			Diagnostic Serv Sect ID	WBC
	27	200	TQ	O			Quantity/Timing	7

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.

[MFI-1] Master File Identifier is hard-coded to 50~DRUG~99PSD.

[MFE-1] Record-Level Event Code can be either MUP for Update or MAD for Add.

[MFE-4] Primary Key Value – MFE is the GENERIC NAME field (#.01) from the DRUG file (#50).

[ZPA-1] Primary Key Value – ZPA will be the generic name of the drug first and then all synonyms will follow in consecutive ZPA segments.

[ZPA-2] Is Synonym is set to Y or N depending on whether the primary key is a synonym.

[ZPA-3] Formulary Listing will contain LFN and/or VISN is the formulary is not to appear on the Local or VISN formulary.

[ZPA-9] Stock Number is the FSN field (#6) from the DRUG file (#50) or the VSN field (#400) from the SYNONYM subfile (#50.1) of the PRESCRIPTION file (#50).

[ZPA-15] Dispense Flags will indicate if this drug may be dispensed to an external interface and if it is marked to be dispensed at a Consolidated Outpatient Pharmacy (CMOP). If both are yes, the answer would be OP~OP Dispense~Pharm dispense^CMOP~CMOP dispense~Pharm dispense flag.

[ZPA-29] Intended User will be TRADE NAME, QUICK CODE, DRUG ACCOUNTABILITY or CONTROLLED SUBSTANCES.

[RXD-4] Actual Dispense Amount is the BCMA UNITS PER DOSE field (#3) from the POSSIBLE DOSAGES file (#50.0903).

[RXD-9] Dispense Notes is the DISPENSE UNITS PER DOSE field (#.01) from the POSSIBLE DOSAGES file (#50.0903).

[RXD-12] Total Daily Dose will be either P for Possible Dosages or LP for Local Possible Dosages.

[OBR-4] Universal Service Identifier is used for Clozapine Lab Test.

[OBR-15] Specimen Source is used for Clozapine Specimen Type.

[OBR-24] Diagnostic Serv Sect ID is used for Clozapine Type of Test.

[OBR-27] Quantity/Timing is used to encode Monitor Max days from the CLOZAPINE LAB TEST file (#50.02).

Security Management

The PDM package does not contain any VA FileMan security codes except for programmer security (@) on the data dictionaries for the PDM files. Security with respect to standard options in the module is implemented by carefully assigning options to users and by the use of security keys.

Mail Groups

Patch PSS*1*147 creates a new mail group called PSS ORDER CHECKS. The mail group description below was retrieved from VA FileMan. The IRM Pharmacy support and Pharmacy ADPACs (and backups) should at a minimum be added to this mail group.

```
NAME: PSS ORDER CHECKS
TYPE: public
DESCRIPTION: Members of this mail group will receive various notifications
that impact Enhanced Order Checks (drug-drug interactions, duplicate therapy
and dosing checks) introduced with PRE V. 0.5 utilizing a COTS database.
```

Alerts

There are no alerts in the PDM package.

Remote Systems

PDM does not transmit data to any remote system or facility.

Archiving/Purging

There are no archiving and purging functions necessary with the PDM package.

Contingency Planning

Sites utilizing the PDM package should develop a local contingency plan to be used in the event of product problems in a live environment. The facility contingency plan must identify the procedure for maintaining functionality provided by this package in the event of system outage. Field station Information Security Officers (ISOs) may obtain assistance from their Regional Information Security Officer (RISO).

Interfacing

There are no specialized products embedded within or required by the PDM package.

Electronic Signatures

No electronic signatures are utilized in the PDM package.

Menus

The *Pharmacy Data Management* menu that is exported with the initial release of the PDM package is as follows.

**Primary/VA Generic Orderable Item Report*

**VA Generic Orderable Item Report*

**Create Pharmacy Orderable Items*

**Manually Match Dispense Drugs*

**Orderable Item Matching Status*

CMOP Mark/Unmark (Single drug)

Locked with PSXCMOPMGR

Drug Enter/Edit

IMPORTANT: Once Pharmacy Data Management is installed, the *Outpatient Drug Enter/Edit* and the *Inpatient Medications Dispense Drug Fields* options will be disabled and the *PDM Drug Enter/Edit* option should be used.

Drug Interaction Management...

Enter/Edit Local Drug Interaction

Edit Drug Interaction Severity

Electrolyte File (IV)

Lookup into Dispense Drug File

Med. Route/Instructions Table Maintenance

Medication Instruction File Add/Edit

Orderable Item Management...

Edit Orderable Items

Dispense Drug/Orderable Item Maintenance

Additive/Solutions, Orderable Items

Orderable Item Report


**Primary Drug Edit*

Pharmacy System Parameters Edit

Standard Schedule Edit

* These items are for pre-release only and will be deleted with the installation Outpatient Pharmacy V. 7.0 and Inpatient Medications V. 5.0.

The PDM menu up to and including the release of PSS*1*147 appears below. PSS*1*147 was the last patch to affect a change to the PDM menu.

CMOP Mark/Unmark (Single drug) 
Dosages ...
 Auto Create Dosages
 Dosage Form File Enter/Edit
 Enter/Edit Dosages
 Most Common Dosages Report
 Noun/Dosage Form Report
 Review Dosages Report
 Local Possible Dosages Report
 Request Change to Dose Unit
Drug Enter/Edit
Drug Interaction Management ...
 Enter/Edit Local Drug Interaction
 Report of Locally Entered Interactions
Electrolyte File (IV)
Lookup into Dispense Drug File
Medication Instruction Management
 Medication Instruction File Add/Edit
 Medication Instruction File Report
Medication Routes Management
 Medication Route File Enter/Edit
 Medication Route Mapping Report
 Medication Route Mapping History Report
 Request Change to Standard Medication Route
 Default Med Route for OI Report
Orderable Item Management ...
 Edit Orderable Items
 Dispense Drug/Orderable Item Maintenance
 Orderable Item/Dosages Report
 Patient Instructions Report
 Orderable Item Report
Formulary Information Report
Drug Text Management
 Drug Text Enter/Edit
 Drug Text File Report
Pharmacy System Parameters Edit
Standard Schedule Management
 Standard Schedule Edit
 Administration Schedule File Report
Synonym Enter/Edit
Other Language Translation Setup

Controlled Substances/PKI Reports

DEA Spec Hdlg & CS Fed Sch Discrepancy

Controlled Substances Not Matched to NDF

CS (DRUGS) Inconsistent with DEA Spec Hdlg

CS (Ord. Item) Inconsistent with DEA Spec Hdlg

Send Entire Drug File to External Interface

****Enhanced Order Checks Setup Menu**

Find Unmapped Local Medication Routes

Map Local Medication Route to Standard

Medication Route Mapping Report

Medication Route File Enter/Edit

Medication Route Mapping History Report

Request Change to Standard Medication Route

Find Unmapped Local Possible Dosages

Map Local Possible Dosages

Local Possible Dosages Report

Strength Mismatch Report

Enter/Edit Dosages

Request Change to Dose Unit

Mark PreMix Solutions

IV Solution Report

Administration Schedule File Report

Medication Instruction File Report

IV Additive/Solution Reports

IV Additive Report

IV Solution Report

Warning Builder

Warning Mapping



Locked: PSXCMOPMGR

Without the PSXCMOPMGR key, the *CMOP Mark/Unmark (Single drug)* option will not appear on your menu.



Other Language Translation Setup [PSS OTHER LANGUAGE SETUP] option is a stand-alone option that must be assigned to the person(s) responsible for maintaining it.

** This menu is for the Pharmacy Reengineering (PRE) Version 0.5 Pre-Release only and will be deleted with the installation of PRE V. 0.5.

Security Keys

In order to mark or edit package specific fields in a DRUG file (#50) entry, the user must hold the corresponding package key. The keys are assigned for the individual packages. PDM does not export any of these keys.

<u>Package</u>	<u>Keys</u>
Outpatient Pharmacy	PSORPH
Inpatient Medications	PSJU MGR
Inpatient Medications	PSJI MGR
Automatic Replenishment/Ward Stock	PSGWMGR
Drug Accountability/Inventory Interface	PSAMGR
Drug Accountability/Inventory Interface	PSA ORDERS
Controlled Substances	PSDMGR
National Drug File	PSNMGR
Consolidated Mail Outpatient Pharmacy	PSXCMOPMGR

Patch PSS*1*147 exports the following four security keys, that will be used by the Pharmacy Enterprise Customization System (PECS) application. Only a few users who will be granted access to the PECS application will need one or more keys assigned based on their role. Assignment of these keys should be by request only. The security key descriptions were retrieved from VA FileMan.

NAME: PSS_CUSTOM_TABLES_ADMIN

DESCRIPTIVE NAME: ADMINISTRATOR

DESCRIPTION: This key is used by the Pharmacy Enterprise Customization System (PECS) web application. Holders of this key will have the ability to perform configuration and administrative tasks for the application. They will also have querying capabilities.

NAME: PSS_CUSTOM_TABLES_APPROVER

DESCRIPTIVE NAME: APPROVER

DESCRIPTION: This key is used by the Pharmacy Enterprise Customization System (PECS) web application. Holders of this key will have the same privileges as those with the PSS_CUSTOM_TABLES_REQUESTOR key. Additional capabilities will be to review, approve, delete or reject customization requests and to view and generate reports.

NAME: PSS_CUSTOM_TABLES_REL_MAN

DESCRIPTIVE NAME: RELEASE MANAGER

DESCRIPTION: This key is used by the Pharmacy Enterprise Customization System (PECS) web application. Holders of this key will have the ability to create file updates for FDB database tables to be applied at local facilities. They will also have querying capabilities.

NAME: PSS_CUSTOM_TABLES_REQUESTOR

DESCRIPTIVE NAME: REQUESTOR

DESCRIPTION: This key is used by the Pharmacy Enterprise Customization System (PECS) web application. Holders of this key will be allowed to enter customization requests, display and view the status of their own requests. They will also have limited querying capabilities