

INPATIENT MEDICATIONS

TECHNICAL MANUAL/ SECURITY GUIDE

Version 5.0 December 1997

(Revised April 2011)

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
04/2011	i, v, vi, vii, viii, 5- 8b (changed flow), 22, 23, 24, removed 25-26, changed 53, 85, 86, 93- 94;94a-b, 121130	PSJ*5*181	Changes to <i>Revision History</i> , <i>Table of Contents</i> ; added new field to PHARMACY SYSTEM File (#59.7), added new field to the INPATIENT WARD PARAMETERS File (#59.6). Added information re: the Pharmacy Reengineering (PRE) API Manual under "Callable Routines"; removed entire section 5.3, Routine Mapping, and all its sub-sections; added Health Level Seven (HL7) data field under segment { RXC}. Added the following "Inpatient Medications Custodial Integration Agreements": 4074, 4264, 4580, 5001, 5057; 5058, 5306, 5385. Added two packages, HWSC and VistaLink, to External Relationships, under Packages Needed to Run Inpatient Medications. Added the following call routines and their entry points: OROCAPI, PSSDSAPD, PSSDSAPI, PSSFDBRT, PSODDPR4, PSODRDU2. Added the items DATUP, MOCHA, PECS, and PEPS in Glossary, which shifted all subsequent glossary items. Added routines PSJMISC2 &PSJOCVAR to the routines table and removed Section 5.3 Jim Pollard (PM), Bill Tatum (developer), Marella Colyvas (Tech Writer)
02/11	i, 53, 62, 64, 65	PSJ*5*226	Added to RXC section Field 5, "Additive Frequency" in HL7 Ordering Fields; updated Front Door – IV Fluids table with Field 5; updated Back Door – IV Fluids table with Field 5; updated example. (M. Vo/B. Tatum, Developers; M. Colyvas, Technical Writer)
06/10	i, 22-23	PSJ*5*113	Added routine PSGSICH1.
00/10	1, 22 23	150 5 115	(R. Singer, DM; B. Thomas, Tech. Writer)
02/10	i, 23	PSJ*5*214	Added PSJQUTIL to the routine list in Section 5.1 for Patients on Specific Drug(s) Multidivisional Enhancements Project. (C. Willette, DM; R. Silverman/D. Dertien, Tech Writer)
12/09	22-23	PSJ*5*222	Added routine PSGOEF2. (E. Wright, PM; S. B. Gilbert, Tech Writer)

Date	Revised Pages	Patch Number	Description
08/08	vi, 23, 51- 53, 57-58, 60-61, 63, 65, 65a- 65b	PSJ*5*134	Parameters for escaping special characters added. New HL7 messages added. New routines added. HL7 order fields table contains an asterisk for each field that has special escaping characters. (S. Templeton, PM; G. O'Connor, Tech. Writer)
02/07	74-76	PSJ*5*178	MED ROUTE now appears in larger font on IV labels from the Zebra bar code printer. Med ROUTE now prints on the IV labels for bar-code enabled printers, and it prints in larger font than surrounding text. (R. Singer, PM; E. Phelps, Tech. Writer)
09/06	23, 94	PSJ*5*172	Encapsulation Cycle II project: Added PSJ53P1 to the Routine List in Section 5.1. Added DBIA 4537 to DBIA list. Changed the date on the Title Page to December 1997.
			(H. Whitley, PM; L. Woodson, TW)
05/06	v-viii 8a-8b	PSJ*5*154	In Section 2.2.2 Added "PRIORITIES FOR NOTIFICATION" field.
	66-68b		In Section 9.5, made correction to include the priority of ASAP in notifications. Added information regarding the three notifications parameters.
			(C. Greening, PM; T. Dawson, Tech. Writer)
12/2005	23	PSJ*5*146	Remote Data Interoperability (RDI) Project: Added PSJLMUT2 to the Routine List in Section 5.1.
			(E. Williamson, PM; M. Newman, Tech. Writer)
11/2005	All	PSJ*5*163	Encapsulation Cycle II project: Added PSJ59P5 to the Routine List in Section 5.1. Added DBIA 4819 to DBIA list. Deleted DBIAs 172, 634, and 1882 from the DBIA list.
			Reissued entire document due to a page numbering issue.
			(H. Whitley, PM; L. Woodson, TW)

Preface

This technical manual is written for the Information Resources Management Service (IRMS) Chief/Site Manager and the Automated Data Processing Application Coordinator (ADPAC) for implementation and installation of the Inpatient Medications package. The main text of the manual outlines routine descriptions, file list, site configuration issues, variables, resource requirements, and package security.

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- **NON-FORMULARY MESSAGE** This is a message that will be shown to non-pharmacists when they order drugs not currently stocked by the pharmacy. This is typically a warning, and describes a procedure the non-pharmacist must follow before the pharmacy will dispense the non-formulary drug.
 - **EDIT Option -** This option is used to edit the NON-FORMULARY MESSAGE above.
- **PRINT 6 BLOCKS FOR THE PRN MAR -** This field is used to indicate if 4 or 6 blocks are to be used for ONE-TIME/PRN (pro re nata Latin for "as needed") orders on the 7/14 DAY MAR ONE-TIME/PRN SHEET. The 7/14 DAY MAR ONE-TIME/PRN SHEET will print 4 blocks if this field is <u>not</u> set to **YES**.
- **PRINT DIET ABBR LABEL ON MAR** If this field contains a 1 or YES, the Dietetics Abbreviated Label will be printed on the MAR.
- MAR SORT If this field contains a 0, the MAR will be sorted by the order's Schedule Type* and then by Medication Names. When this field contains a 1, the MAR will be sorted by the order's Medication Names.
 - * Schedule Type is sorted based on the following orders:

Continuous MAR One-Time/PRN MAR

Unit Dose Orders: Unit Dose Orders:

Continuous One-time
Fill on Request PRN
IV Orders: IV Orders:
Piggyback or Syringe type
Admixture type PRN

Hyperal type Acknowledged Pending PRN orders

Chemo type

Acknowledged Pending Orders:

Inpatient Meds

IV fluids

- **ATC SORT PARAMETER** This parameter allows sending of the Pick List to the Automated Tablet Counter (ATC) machine by ATC mnemonic or admin time within patient.
- CALC UNITS NEEDED PRN ORDERS This field controls whether or not the units needed will be calculated for the orders with PRN in the SCHEDULE field (#26) of the UNIT DOSE sub- file (#55.06) of the PHARMACY PATIENT file (#55) on the Pick List. This information will show on the Pick List if this field is set to 1.
- **DAYS UNTIL STOP FOR ONE-TIME** This field indicates the number of days a one-time order should last. This field is only used if the ward parameter, DAYS UNTIL STOP FOR ONE-TIME, is not defined. This number can be between 1 and 30.

- **ROUND ATC PICK LIST UNITS** This field allows the site to decide whether or not fractional units per dose will be rounded to the next whole number before the pick list is sent to the ATC.
- HOURS OF RECENTLY DC/EXPIRED— This field allows the INPATIENT MEDICATIONS profiles to display the recently discontinued/expired orders that fall within the number of hours specified. The value of this field is a number between 1 and 120. If no value is found for this parameter, a default value of 24 hours will be assumed by the software. The SYSTEMS PARAMETERS EDIT [PSJ SYS EDIT] option should be used to enter/edit values for this parameter.
- **EXPIRED IV TIME LIMIT** This is the maximum number of hours after a continuous IV order expires that it may still be renewed. The value of the parameter is a number between 0 and 24, inclusive.

Note: The "AUTO-DC IMO ORDERS:" field has been moved from the PHARMACY SYSTEM file (#59.7) to the CLINIC DEFINITION file (#53.46). To access this field, use the *Clinic Definition* [PSJ CD] option under the *PARameters Edit Menu* [PSJ PARAM EDIT MENU] option.

2.2.2 Fields from the INPATIENT WARD PARAMETERS File (#59.6)

Note: Fields from the Inpatient WARD PARAMETERS file (#59.6) are still edited through the Inpatient Medications package.

- **WARD** This is a ward for which the site wants to tailor specific aspects of the Inpatient Medications package.
- **DAYS UNTIL STOP DATE/TIME** This is the number of days a standard order should last. The first order entered for a patient uses this number to calculate a default value for the order's STOP DATE/TIME field (#34) of the UNIT DOSE sub-file (#55.06) of the PHARMACY PATIENT file (#55). This number is also used if SAME STOP DATE ON ALL ORDERS parameter has no entry, or an entry of **NO**.
- DAYS UNTIL STOP FOR ONE-TIME This is the number of days a one-time order should last. The number can be from 1-100; however, it cannot exceed the number of days that standard orders last (DAYS UNTIL STOP DATE/TIME). When this parameter is not available, the system parameter, DAYS UNTIL STOP FOR ONE-TIME, will be used to determine the stop date. When neither parameter has been set, one-time orders will use the ward parameter, DAYS UNTIL STOP DATE/TIME, to determine the stop date instead of the start and stop date being equal.
- **SAME STOP DATE ON ALL ORDERS** This flag, if set to **YES**, uses the STOP DATE/TIME field (#34) of the UNIT DOSE sub-file (#55.06) of the PHARMACY

- PATIENT file (#55) from the patient's first order as a default value for these fields on all of the patient's following orders.
- **TIME OF DAY THAT ORDERS STOP** This is a time of day that, if found, is used in calculating the default value for the STOP DATE/TIME field (#34) of the UNIT DOSE subfile (#55.06) of the PHARMACY PATIENT file (#55) of patients' orders. This time is in military time format with leading and trailing zeros (0001 means 1 minute after midnight).
- **DEFAULT START DATE CALCULATION** When an order originates in CPRS and a duration accompanies the order, this field is used to calculate the Calc Start Date/Time. Otherwise, this field allows the ward to determine how the default Start date for orders should be calculated. The default may use the NEXT ADMIN TIME, the CLOSEST ADMIN TIME, or the login date/time of the order (NOW) as the default Start Date for Unit Dose and IV orders.
- START TIME FOR 24-HOUR MAR This is the start time for the 24-hour MAR. It is used whenever a user enters a start date without a time when running the 24-hour MAR. This time is in military time format with leading and trailing zeros (0001 means 1 minute after midnight).
- **LABEL FOR WARD STAFF** The following codes are used to select when labels will print for ward staff:
 - **NO LABELS** Labels are not created when ward staff (nurses, clerks, physicians, etc.) take action on an order. Labels are always created for actions taken on orders after they are verified, unless NO LABELS is selected.
 - FIRST LABEL ON ORDER ENTRY/EDIT Labels are created whenever ward staff enter an order or edit a non-verified order, but not when the nurse verifies an order.
 - **FIRST LABEL ON NURSE VERIFICATION** Labels are not created for ward staff until a nurse has verified the order.
 - LABEL ON ENTRY/EDIT AND VERIFICATION Labels are created whenever the order is entered or edited and verified.
- WARD LABEL PRINTER If a device name is entered here, labels created by ward staff, due to actions taken on orders, will print automatically to the device.
- **LABEL FOR PHARMACY** The following codes are used to select when labels will print for the pharmacy staff:
 - **NO LABELS** Labels will not be created when the pharmacy staff (pharmacists and pharmacy technicians) takes action on an order.

- **FIRST LABEL ON ORDER ENTRY/EDIT** Labels will be created whenever the pharmacy staff enters an order or edits a non-verified order, but not when the pharmacist verifies an order.
- LABEL ON ENTRY/EDIT AND VERIFICATION Labels are created whenever the order is entered or edited and verified.
- **FIRST LABEL ON PHARMACIST VERIFICATION** Labels will not be created for the pharmacy staff until a pharmacist has verified the order.
- **PHARMACY LABEL PRINTER** If a device name is entered here, labels created by the pharmacy staff, due to actions taken on orders, will print automatically to the device.
- LABEL ON AUTO-DISCONTINUE This is used to determine if labels should be created when orders for a patient from this ward are auto-discontinued (d/c) due to a patient movement. Patient movements include discharges and transfers. Labels are created for the ward on which the patient resided before the move took place.
- MAR HEADER LABELS This is used to determine if MAR header labels should be generated when orders are processed for patients.
- **DAYS NEW LABELS LAST** The Unit Dose Medications module runs a background job once a day that deletes all unprinted new labels older than the number of days specified here. If no days are specified for this field, any unprinted new labels for this site will be purged at the end of the day.

Note: A label can still be printed for an order even though its new label record has been purged.

- MAR ORDER SELECTION DEFAULT This identifies the default for the type of orders to be included on MARs printed for this ward. All Medication, Non-IV medications only, IV piggybacks, admixtures, hyperals, and/or IV chemotherapy medication types may be selected. Multiple types may be specified.
- PRINT PENDING ORDERS ON MAR This is used to determine if pending orders, that
 were acknowledged by a nurse, should be included on the MARs and the Medication Due
 Worksheet.
- **'SELF MED' IN ORDER ENTRY** If the word **YES** (or a **1**) is entered here, the regular order entry process will prompt the user for SELF MED and HOSPITAL SUPPLIED SELF MED for each order entered. The abbreviated processes, ward order entry, and order sets are not affected in any way by this site parameter.

- **PRE-EXCHANGE REPORT DEVICE** This is the device that is used as a default for the Pre-Exchange Report. If the value is null, the user will not be prompted for a device, which will disable the printing of this report for that ward. At the time the report is run, if the user enters an output device that is different from the device in this file, the option to override this parameter and define a temporary device for the remainder of this session is displayed.
- **STAT NOW MAIL GROUP** This is the name of the mail group to be used for STAT/NOW active order notifications for this ward.
- **PRIORITIES FOR NOTIFICATION** This is the priorities /schedules for notification for this ward. The value may be selected for the priorities / schedules for notifications to be sent to the mail group defined in the STAT NOW MAIL GROUP field (#5) mentioned above. This parameter may be empty / not defined, or it may be set via this option: INPATIENT WARD PARAMETERS EDIT [PSJ IWP EDIT].
- HOURS OF RECENTLY DC/EXPIRED This field allows the Inpatient Medications profiles to display the recently discontinued/expired orders that fall within the number of hours specified. The value of this field is a number between 1 and 120. No default will be provided; the parameter may be empty or not defined, and it may be set via the INPATIENT WARD PARAMETERS EDIT [PSJ IWP EDIT] option. The value defined in this field will take precedence over the Inpatient System parameter.

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5. Routines

** IMPORTANT **

A routine name followed by an asterisk (such as PSJ*) is used to designate the complete set of the routines that start with those characters.

5.1 Descriptions

The following routines are exported by the Inpatient Medications package. Routine names starting with the letters PSG designate routines used mainly by the Unit Dose Medications module. Routine names starting with the letters PSIV designate routines used mainly by the IV Medications module. Routine names starting with the letters PSJ designate Inpatient Medications routines - utilities used by IV, Unit Dose, and other packages.

PSGAL5	PSGAMS	PSGAMS0	PSGAMSA
PSGAP	PSGAP0	PSGAPH	PSGAPIV
PSGAPP	PSGAXR	PSGBRJ	PSGCAP
PSGCAP0	PSGCAPIV	PSGCAPP	PSGCAPP0
PSGCT	PSGDCC	PSGDCCM	PSGDCR0
PSGDCT	PSGDCT1	PSGDCTP	PSGDL
PSGDS	PSGDS0	PSGDSP	PSGDSP0
PSGDSP1	PSGDSPN	PSGEUD	PSGEUDD
PSGEUDP	PSGFILD0	PSGFILD1	PSGFILD2
PSGFILD3	PSGFILED	PSGGAO	PSGIU
PSGL	PSGL0	PSGLBA	PSGLH
PSGLOI	PSGLPI	PSGLW	PSGMAR
PSGMAR0	PSGMAR1	PSGMAR2	PSGMAR3
PSGMI	PSGMIV	PSGMMAR	PSGMMAR0
PSGMMAR1	PSGMMAR2	PSGMMAR3	PSGMMAR4
PSGMMAR5	PSGMMARH	PSGMMIV	PSGMMIVC
PSGMUTL	PSGNE3	PSGO	PSGOD
PSGOE	PSGOE0	PSGOE1	PSGOE2
PSGOE3	PSGOE31	PSGOE4	PSGOE41
PSGOE42	PSGOE5	PSGOE6	PSGOE7
PSGOE8	PSGOE81	PSGOE82	PSGOE9

PSGOE91	PSGOE92	PSGOEC	PSGOECA
PSGOECS	PSGOEE	PSGOEE0	PSGOEEW
PSGOEF	PSGOEF1	PSGOEF2	PSGOEH0
PSGOEH1	PSGOEHA	PSGOEI	PSGOEL
PSGOEM	PSGOEM1	PSGOENG	PSGOEPO
PSGOER	PSGOER0	PSGOER1	PSGOERI
PSGOERS	PSGOES	PSGOESF	PSGOETO
PSGOETO1	PSGOEV	PSGOEVS	PSGON
PSGORS0	PSGORVW	PSGOT	PSGOTR
PSGOU	PSGP	PSGPEN	PSGPER
PSGPER0	PSGPER1	PSGPER2	PSGPL
PSGPL0	PSGPL1	PSGPLD	PSGPLDP
PSGPLDP0	PSGPLDPH	PSGPLF	PSGPLFM
PSGPLG	PSGPLPRG	PSGPLR	PSGPLR0
PSGPLRP	PSGPLUP	PSGPLUP0	PSGPLUTL
PSGPLXR	PSGPO	PSGPOR	PSGPR
PSGPRVR	PSGPRVR0	PSGRET	PSGRPNT
PSGS0	PSGSCT	PSGSCT0	PSGSEL
PSGSET	PSGSETU	PSGSH	PSGSICH1
PSGSICHK	PSGSSP	PSGTAP	PSGTAP0
PSGTAP1	PSGTCTD	PSGTCTD0	PSGTI
PSGVBW	PSGVBW0	PSGVBW1	PSGVBWP
PSGVBWU	PSGVDS	PSGVW	PSGVW0
PSGVWP	PSIV	PSIVACT	PSIVAL
PSIVALN	PSIVALNC	PSIVAMIS	PSIVAOR
PSIVAOR1	PSIVBCID	PSIVCAL	PSIVCHK
PSIVCHK1	PSIVCSED	PSIVDCR	PSIVDCR1
PSIVDCR2	PSIVDRG	PSIVEDRG	PSIVEDT
PSIVEDT1	PSIVHIS	PSIVHLD	PSIVHLP
PSIVHLP1	PSIVHLP2	PSIVHLP3	PSIVHYP
PSIVHYPL	PSIVHYPR	PSIVLABL	PSIVLABR
PSIVLB	PSIVLBDL	PSIVLBL1	PSIVLBRP
PSIVLTR	PSIVLTR1	PSIVMAN	PSIVMAN1
PSIVOC	PSIVOCDS	PSIVOE	PSIVOPT
PSIVOPT1	PSIVOPT2	PSIVORA	PSIVORA1
PSIVORAL	PSIVORC	PSIVORC1	PSIVORC2
PSIVORE	PSIVORE1	PSIVORE2	PSIVOREN
PSIVORFA	PSIVORFB	PSIVORFE	PSIVORH
PSIVORLB	PSIVORV1	PSIVORV2	PSIVPAT
PSIVPCR	PSIVPCR1	PSIVPGE	PSIVPR
PSIVPRO	PSIVQUI	PSIVRD	PSIVRDC
PSIVREC	PSIVRNL	PSIVRP	PSIVRP1
PSIVRQ	PSIVRQ1	PSIVSET	PSIVSP

PSIVSPDC	PSIVUDL	PSIVUTL	PSIVUTL1
PSIVUWL	PSIVVW1	PSIVWCR	PSIVWCR1
PSIVWL	PSIVWL1	PSIVWRP	PSIVXREF
PSIVXU	PSJ53P1	PSJ59P5	PSJAC
PSJADT	PSJADT0	PSJADT1	PSJADT2
PSJALG	PSJAPIDS	PSJBCMA	PSJBCMA1
PSJBCMA2	PSJBCMA3	PSJBCMA4	PSJBLDOC
PSJCOM	PSJCOM1	PSJCOMR	PSJCOMV
PSJDCHK	PSJDCU	PSJDDUT	PSJDDUT2
PSJDDUT3	PSJDEA	PSJDGAL	PSJDIN
PSJDOSE	PSJDPT	PSJEEU	PSJEEU0
PSJENV	PSJEXP	PSJEXP0	PSJFTR
PSJGMRA	PSJH1	PSJHEAD	PSJHEH
PSJHIS	PSJHL10	PSJHL11	PSJHL2
PSJHL3	PSJHL4	PSJHL5	PSJHL6
PSJHL7	PSJHL9	PSJHLERR	PSJHLU
PSJHLV	PSJHVARS	PSJLIACT	PSJLIFN
PSJLIFNI	PSJLIORD	PSJLIPRF	PSJLIUTL
PSJLIVFD	PSJLIVMD	PSJLMAL	PSJLMDA
PSJLMGUD	PSJLMHED	PSJLMPRI	PSJLMPRU
PSJLMUDE	PSJLMUT1	PSJLMUT2	PSJLMUTL
PSJLOAD	PSJLOI	PSJMAI	PSJMAI1
PSJMDIR	PSJMDIR1	PSJMDWS	PSJMEDS
PSJMISC	PSJMISC2	PSJMIV	PSJMON
PSJMP	PSJMPEND	PSJMPRT	PSJMPRTU
PSJMUTL	PSJNTEG	PSJNTEG0	PSJNTEG1
PSJO	PSJO1	PSJO2	PSJO3
PSJOC	PSJOCDC	PSJOCDI	PSJOCDS
PSJOCDSD	PSJOCDT	PSJOCERR	PSJOCOR
PSJOCVAR	PSJOE	PSJOE0	PSJOE1
PSJOEA	PSJOEA1	PSJOEEW	PSJOERI
PSJORAPI	PSJORDA	PSJOREN	PSJORMA1
PSJORMA2	PSJORMAR	PSJORP2	PSJORPOE
PSJORRE	PSJORRE1	PSJORREN	PSJORRO
PSJORRN	PSJORRN1	PSJORUT2	PSJORUTL
PSJP	PSJPATMR	PSJPDIR	PSJPDV
PSJPDV0	PSJPDV1	PSJPL0	PSJPR
PSJPR0	PSJPST50	PSJPXRM1	PSJQPR
PSJQUTIL	PSJRXI	PSJSPU	

The following routines are not used in this version of Inpatient Medications. They were exported in the initial Kernel Installation and Distribution System (KIDS) build as Delete at Site.

PSGDCR	PSGDCT0	PSGEXP	PSGEXP0
PSGMMPST	PSGOROE0	PSGORU	PSGQOS
PSIVNVO	PSIVOEDO	PSIVOENT	PSIVOEPT
PSIVRD0	PSIVRD0	PSJMAN	PSJOAC
PSJOAC0	PSJOE8	PSJOE81	PSJOEE
PSJOER	PSJOER0	PSJORA	PSJORIN
PSJUTL	PSJUTL1	PSJUTL2	PSJUTL3

5.2 Callable Routines

Entry points provided by the Inpatient Medications package to other packages can be found in the External Relationships section of this manual. No other routines are designated as callable from outside of this package. Additional information on other external calls and their entry points can be found on the VA Software Document Library (VDL). Under the Clinical Section select the Pharm: Inpatient Medications page and then select the "API Manual - Pharmacy Reengineering (PRE)".

5.2.1 Deleting Inpatient Routines

- Since this initial version is distributed using KIDS, the transport global is automatically deleted after the install. If the plan is to delete existing Inpatient Medications routines before loading V. 5.0, be sure not to delete PSGW* (Ward Stock) routines. These routines are not included as part of Inpatient Medications.
- The following Inpatient Medications routines were sent with a past version of the Kernel, and are no longer needed. They can be deleted.
 - PSGZ1TSK
 - PSGZ2TSK
 - PSIVZTSK

Note: It is okay if any of these routines are missing, because they are no longer used.

Pages 25 & 26 have been removed from	n the manual because mapping is no longer required now that all routines reside in ROU.

(This page included for two-sided copying.)

Example: How to Print the Exported Protocols Using VA FileMan

```
VA FileMan 22.0
Select OPTION: INQUIRE TO FILE ENTRIES
OUTPUT FROM WHAT FILE: PROTOCOL// PROTOCOL
                                              (742 entries)
Select PROTOCOL NAME: PSJ LM 14D MAR
                                             14 Day MAR
ANOTHER ONE: <Enter>
STANDARD CAPTIONED OUTPUT? Yes// <Enter> (Yes)
Include COMPUTED fields: (N/Y/R/B): NO// <Enter> - No record number (IEN), no Computed Fields
NAME: PSJ LM 14D MAR
                                       ITEM TEXT: 14 Day MAR
 TYPE: action
                                       CREATOR: POSTMASTER
 PACKAGE: INPATIENT MEDICATIONS
DESCRIPTION: This allows the user to print a selected patient's medication
orders on a Medication Administration Record (MAR) for the charting of the
administration of the orders over a 14 day period. It is designed to replace
 the manual Continuing Medication Record (CMR). This protocol assumes that a
patient has already been selected.
  EXIT ACTION: S VALMBCK="R"
  ENTRY ACTION: N VADM, VAIN S PSGMARDF=14 D FULL^VALM1, ENLM^PSGMMAR
 TIMESTAMP: 56693,43648
```

9.4 Health Level Seven (HL7) Messaging

9.4.1 HL7 Ordering Fields

The following is a list of HL7 data fields that will be used in transactions between Order Entry/Results Reporting (OE/RR) V. 3.0 and the Pharmacy packages. Not every data field will be used in every message.

SEG	SEQ	FIELD NAME	EXAMPLE	HL7 TYPE
MSH	1	Field Separator		string
	2	Encoding Characters*	^~\&	string
	3	Sending Application	ORDER ENTRY	string
	4	Sending Facility	660	string
	5	Receiving Application	PHARMACY	string
	6	Receiving Facility	660	string
	7	D/T of Message	199409151010	timestamp
	9	Message Type	ORM	ID
PID	3	Patient ID	5340747	composite ID
	5	Patient Name	PSJPATIENT1,ONE	patient name
PV1	2	Patient Class	I	table 4
	3	Patient Location*	32^234-4	user table
	45	Appointment Date/Time	200308040800-0600	timestamp
{ ORC	1	Order Control	NW	table 119
	2	Placer Order Number*	234123;1^OR	number^application

SEG	SEQ	FIELD NAME	EXAMPLE	HL7 TYPE
	3	Filler Order Number*	870745^PS	number^application
	5	Order Status	CM	table 38
	7	Quantity/Timing*	325&MG&1&TABLET& 325MG&638^Q1D^D14^1 99409151010^^R^^325M G^	dose^schedule^duration^star t^^priority^^text^ conjunction
	9	D/T of Transaction	199409151010	timestamp
	10	Entered by	10	composite ID
	11	Verified by	23	composite ID
	12	Ordering Provider	97378	composite ID
	15	Order Effective D/T	199409151010	timestamp
	16	Order Control Reason*	E^ELECTRONICALLY ENTERED^99ORN^12^ Requesting Physician Cancelled^99ORR	coded element: NoO Code^NoO Name^99ORN ^#^Reason for Action^ 99ORR
RXO	1	Requested Give Code*	^^^8^DIGOXIN TAB^99PSP	coded element
	2	Requested Give Amt	125	numeric
	10	Requested Dispense Code*	576.4°DIGOXIN 0.5MG TAB°99NDF°4213°DIGO XIN 0.5MG TAB°99PSD	coded element
	11	Requested Disp Amt	30	numeric
	13	Number of Refills	5	numeric
	17	Requested Give Per	D30	string
RXE	1	Quantity/Timing*	325&MG&1&TABLET^Q D^^ 199409150600^19940925 0600^^325MG^	dose^schedule^duration^ start^stop^priority^^ text^conjunction
	2	Give Code*	576.4^^99NDF^21^^99PS D	coded element
	10	Dispense Amount	100	numeric
	12	Number of Refills	11	numeric
	22	Give Per Time	D30	string
	23	Give Rate Amount	125	string
	24	Give Rate Units*	^^^ml/hr99PSU	coded element
	25	Give Strength	325	numeric
	26	Give Strength Units*	^^^20^MG^99PSU	coded element
{ NTE }	1	Set ID	7	set ID
	2	Source of Comment	P	table 105
	3	Comment	take with food	formatted text

SEG	SEQ	FIELD NAME	EXAMPLE	HL7 TYPE
{ RXR }	1	Route*	^^^23^ORAL^99PSR	coded element
{ RXC }	1	RX Component Type	В	table 166
	2	Component Code*	^^^4132^D5 W	coded element
			NS^99PSD	
	3	Component Amount	1	numeric
	4	Component Units*	^^PSIV-1^ML^99OTH	coded element
	5	Additive Frequency**		
{ OBX }	1	Set ID	1	set ID
	2	Value Type	TX	table 125
	3	Observation ID	^^^38^Critical Drug-Drug	coded element
			interaction^99OCX	
	5	Observation Value	Critical drug-drug	string
			interaction Aspirin-	
			Warfarin	
	14	Date/time of Observation		timestamp
	16	Observer	10	composite ID
NTE	1	Set ID	1	set ID
	2	Source of Comment	P	table 105
	3	Comment	Worth the risk	formatted text
ZDV	1	D : 0.1 "	2255	
ZRX	1	Previous Order #	2355	numeric
	2	Nature of Order	W	set of codes
	3	Reason Order Created	N W	set of codes
	4	Routing Current User*	W DUZANA MEAOOND	set of codes
	5		DUZ^NAME^99NP	composite ID
	6	IV Identifier	IV	string
ZSC	1	Service Connected	SC	coded element
}				

^{*-} Fields marked with an asterisk require special escaping characters in order to send and receive the correct data contained in an HL7 message. See **Special Escaping Characters** for details.

Note: The following are definitions of some of the data fields under the FIELD NAME column.

^{**-}RXC Segment Field 5 "Additive Frequency" applies only to additives used to specify IV bag information.

SENDING APPLICATION is the name of the VistA package generating the message; RECEIVING APPLICATION is the name of the VistA package that is the intended recipient of the message. SENDING FACILITY and RECEIVING FACILITY are the station numbers.

PATIENT ID is the patient IEN in the PATIENT file (#2).

PATIENT LOCATION, for an inpatient, is Hospital Location IEN^Room^Bed. For an outpatient, it is the Hospital Location IEN. In both cases, this is the location from which the order is being placed.

APPOINTMENT DATE/TIME is for Inpatient Medication orders for Outpatients. This is the appointment date/time that this order is associated with.

PLACER ORDER NUMBER is the OE/RR order number.

FILLER ORDER NUMBER is the Pharmacy order number.

ORDERING PROVIDER is the IEN in the NEW PERSON file (#200).

ORDER STATUS identifies the current status of the order. Codes from table 38, located in HL7 V. 2.3, that will be used, and those added, include:

IP = pending

CM = finished/verified by pharmacist (active)

DC = discontinued

RP = replaced

HD = on hold

ZE = expired

ZS = suspended (active)

ZU = un-suspended (active)

ZX = unreleased

ZZ = renewed

QUANTITY/TIMING contains the give amount, schedule, duration, start and stop times, and priority for the order, as well as the actual text of the dose ordered. The quantity field is delimited with '&' as:

Total Dose & Unit & Give Amount & Unit & Text & Dispense Drug

By using the quantity and conjunction fields, orders with multiple schedules may be sent. For outpatient orders, multiple schedules will be sent delimited by '~' and combined into a single signature (SIG); an inpatient order with multiple schedules will be sent as separate orders for each schedule. The conjunction will be S (then), A (and), or X (except).

REQUESTED GIVE CODE identifies a combination of the drug and dosage form in the format of a universal service ID. The last three pieces (alternate components) are used to identify an entry in the PHARMACY ORDERABLE ITEM file (#50.7).

PROVIDER'S PHARMACY INSTRUCTIONS are text instructions from the provider to the pharmacist; these are passed in an NTE segment following a RXO segment with an ID of 6.

PROVIDER'S ADMINISTRATION INSTRUCTIONS are Outpatient Pharmacy's "Patient Instructions" if the provider wishes to include them with the order; these are passed in an NTE segment following a RXO or RXE segment with an ID of 7.

REQUESTED DISPENSE CODE identifies the drug ordered as it maps to the National Drug File (NDF) and to the local drug file. The first three pieces identify a VA Product Name entry in the NDF, the last three pieces (alternate components) are used to identify an entry in the DRUG file (#50). The 'code' field (piece 1) of the NDF portion uses two numbers, separated by a period, to identify VA Generic Name and VA Product Name. The fourth piece uses the IEN of the DRUG file (#50) to identify a dispensed drug. This field will be blank if a pharmacy orderable item, but no dispensed drug, was selected.

REQUESTED DISPENSE AMOUNT is used to pass the amount that was entered in the QUANTITY field (#7) for an outpatient order.

REQUESTED GIVE PER is used to pass the amount that was entered in the DAYS SUPPLY field (#8) for an outpatient order.

ROUTE uses the IEN of the MEDICATION ROUTES file (#51.1) to identify a route. To truly be HL7 compatible, the MEDICATION ROUTES file (#51.1) should be mapped to the four route fields identified in HL7 V. 2.3 Section 4.8.3.

In the case of an order for IV Fluids, the REQUESTED GIVE CODE will be PS-1^IV^99OTH. This will indicate that the order is for IV fluids and the solutions and additives will be found in the RXC segment.

The RXC segment may repeat, once for each solution and additive in an IV order. The RX COMPONENT TYPE is B for a solution and A for an additive.

The COMPONENT CODE identifies additives and solutions by their IEN in the PHARMACY ORDERABLE ITEM file (#50.7).

COMPONENT UNITS uses 990TH codes to map the IV Additive units.

The OBX segment is used if there was a positive order check that the physician chose to override.

The special code, 38^Critical Drug-drug interaction^99OCX, is used to identify this OBX segment in the OBSERVATION ID data field, and the OBSERVATION VALUE data field contains the actual order check message displayed to the provider; the OBX segment will be followed by a NTE segment, if an override reason was entered.

A Z-segment (ZRX) is used to pass additional data on new orders:

PREVIOUS ORDER NUMBER identifies the order being edited or renewed by the current order; for front-door orders this will be the Pharmacy order number, and for back-door orders it will be the Order Entry order number.

NATURE OF ORDER may be (W)ritten, (V)erbal, (P)honed, (S)ervice Correction, (X) Rejected, (D)uplicate, Pol(I)cy, (A)uto, or (E)lectronically entered.

REASON the order was created may be (N)ew, (E)dit, or (R)enew.

ROUTING may be (W)indow, (M)ail, or (C)linic.

CURRENT USER identifies the user currently on the system performing the actions on the order.

IV IDENTIFIER will indicate a fluid (IV), Total Parenteral Nutrition (TPN), or IV med ("").

A Z-segment (ZSC) is used for service connection, as this must be at the individual order level; values may be either SC or NSC.

9.4.2 Order Event Messages

The following tables identify the HL7 data fields that are passed in each kind of event associated with OE/RR. For each event there is an order control code and a set of data fields listed. For any given event; however, some of the data fields may be empty (provider instructions, for example). Pharmacy may wish to send additional data fields in a RXE segment.

The protocols identified in the tables use OE/RR name spacing conventions. The messages sent by OE/RR will use the OR name spaced protocols indicated. Individual packages may use whatever protocol names they wish.

Front Door - Inpatient Medications

Action	Request from OE/RR	Pharmacy accepts	Pharmacy rejects
Protocol	OR EVSEND PS	PS EVSEND OR	PS EVSEND OR
Order Control	NW (new order) XO (change)	OK (accepted) XR (new order)	UA (unable to accept) UX (unable to change)
HL7 Fields	MSH: 1,2,3,4,5,6,7,9 PID: 3,5 PV1: 2,3 ORC: 1,2,7,9,10,12,15,16 RXO: 1,10 NTE: 1,2,3 RXR: 1 OBX: 1,2,3,5,14,16 ZRX: 1,2,3	MSH: 1,2,3,4,9 PID: 3,5 PV1: 2,3 ORC: 1,2,3,5	MSH: 1,2,3,4,9 PID: 3,5 PV1: 2,3 ORC: 1,2,3,12,15,16 RXE: 2
Protocol	OR EVSEND PS		
Order Control	ZV (verified)		

Action	Request from OE/RR	Pharmacy accepts	Pharmacy rejects
HL7 Fields	MSH: 1,2,3,4,5,6,7,9 PID: 3,5	There is no return event.	
	PV1: 2,3,19 ORC: 1,2,3,11,15		
	, , , ,		
Protocol	OR EVSEND PS	PS EVSEND OR	PS EVSEND OR
Order Control	CA (cancel)	CR (cancelled)	UC (unable to cancel)
	DC (discontinue)	DR (discontinued)	UD (unable to dc)
	HD (hold)	HR (held)	UH (unable to hold)
	RL (release)	OR (released)	UR (unable to release)
	SS (send status)	SC (status update)	DE (data errors)
HL7 Fields	MSH: 1,2,3,4,5,6,7,9	MSH: 1,2,3,4,9	MSH: 1,2,3,4,9
	PID: 3,5	PID: 3,5	PID: 3,5
	PV1: 2,3,19	PV1: 2,3	PV1: 2,3
	ORC: 1,2,3,10,12,15,16	ORC: 1,2,3,5	ORC: 1,2,3,16
		RXE: 1	

OE/RR will use CA to cancel orders, which have not been finished by Pharmacy; DC will be used for orders that have been finished.

Example: Digoxin .125 mg QAM

New Order

Verified by Nursing staff

MSH ^~\& ORDER ENTRY 13000 PHARMACY 13000 20080304165
253-0600 ORM
PID 750 PSJPATIENT,TESTPAT-FIVE
PV1
ORC ZV 12613^OR 2929P^PS 11884 200803041652
53-0600

Discontinue Order

MSH ^~\& ORDER ENTRY 13000 PHARMACY 13000 20080304165
754-0600 ORM
PID 750 PSJPATIENT,TESTPAT-FIVE
PV1
ORC DC 12614; 2^OR 54U^PS 11884 11884 2008030
4165754-0600 I^POLICY^99ORN^14^Requesting Physician
Cancelled^99ORR

14 External Relationships

14.1 Packages Needed to Run Inpatient Medications

The Inpatient Medications package requires the minimum version, stated on the following external packages, to run effectively:

<u>PACKAGE</u>	MINIMUM VERSION NEEDED
Kernel	8.0
VA FileMan	22.0
MailMan	8.0
PIMS	5.3
CPRS	1.0
Outpatient Pharmacy	7.0
PDM	1.0
Dietetics	5.0
Bar Code Medication Adn	ninistration 3.0
HealtheVet Web Services	Client (HWSC) 1.0
VistaLink	1.5

14.2 Unit Dose Medications and Ward Stock

The Inpatient Medications package also has a tie to the Automatic Replenishment/Ward Stock package so that if the site is running the Automatic Replenishment/Ward Stock package, the Inpatient Medications package will know which items in the DRUG file (#50) are ward stock items for each ward. The tie is a cross-reference under the PHARMACY AOU STOCK file (#58.1).

14.3 Unit Dose Medications and Drug Accountability

The Inpatient Medications package also has a tie to the Drug Accountability package so that if the site is running the Drug Accountability package, the Inpatient Medications package will know which items in the DRUG file (#50) are ward stock items for each ward. This cross-reference is the link between the Controlled Substances package and the Unit Dose package for determining ward-stocked drugs.

14.4 Calls Made by Inpatient Medications

The following external calls are supported via inter-package agreements:

ROUTINE	ENTRY POINTS USED
ECXUD1	^ECXUD1
ECXPIV1	^ECXPIV1
GMRVUTL	EN6
GMRADPT	EN1
GMRAOR	\$\$ORCHK
GMRAOR2	EN1
GMRAPEM0	EN2
OR3CONV	OTF
ORCONV3	PSJQOS
ORERR	EN
OROCAPI	\$\$AOC, \$\$DOC, \$\$GOC
ORUTL	READ
ORX1	NA
ORX2	LK,ULK
PSAPSI5	EN
PSBIPM	EN, MOB, MOBR
PSSDSAPD	\$\$DOSE, \$\$DRT
PSSDSAPI	\$\$BSA, \$\$DS, \$\$EXMT, \$\$FRQ, \$\$MRT,
	\$\$UNIT, \$\$SUP
PSSFDBRT	GROUTE
PSSHLSCH	EN
PSODDPR4	BLD
PSODRDU2	EN
SDROUT2	DIS
SDAMA203	SDIMO
VADPT	IN5, INP, PID, SDA

14.5 Introduction to Integration Agreements and Entry Points

The following integration agreements and entry points are provided for the associated packages; only those packages listed can use these integration agreements and entry points. If there are any questions, please contact the Birmingham Health System Design & Development (HSD&D) Field Office.

2945 NAME: Use of calls in PSIVSP

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham
SUBSCRIBING PACKAGE: ORDER ENTRY/RESULTS REPORTING Salt Lake City

ROUTINE: PSIVSP

3143 NAME: **DBIA3143**

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham
SUBSCRIBING PACKAGE: CLINICAL REMINDERS Salt Lake City

ROUTINE: PSJORAPI

3167 NAME: **3167**

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: ORDER ENTRY/RESULTS REPORTING Salt Lake City

ROUTINE: PSJORPOE

3243 NAME: Active Flag

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: ORDER ENTRY/RESULTS REPORTING Salt Lake City

ROUTINE: PSJORREN

3320 NAME: UPDATE BCMA STATUS INFORMATION

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: BAR CODE MED ADMIN Birmingham

ROUTINE: PSJBCMA3

3416 NAME: **DBIA3416**

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: BAR CODE MED ADMIN Birmingham

ROUTINE: PSJBCMA4

3598 NAME: **DBIA3598**

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: ORDER ENTRY/RESULTS REPORTING Salt Lake City

ROUTINE: PSJOERI

3836 NAME: **PSJPXRM1**

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham
SUBSCRIBING PACKAGE: CLINICAL REMINDERS Salt Lake City

ROUTINE: PSJPXRM1

3876 NAME: **PSJBCBU**

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: BAR CODE MED ADMIN Birmingham

ROUTINE: PSJBCBU

4074 NAME: OR Call to PSJORUT2

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham

SUBSCRIBING PACKAGE: ORDER ENTRY/RESULTS REPORTING Salt Lake City

ROUTINE: PSJORUT2

4264 NAME: PDM ACCESS TO PSJXRFS

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: PHARMACY DATA MANAGEMENT Birmingham

ROUTINE: PSJXRFS

4265 NAME: PDM ACCESS TO PSJXRFK

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: PHARMACY DATA MANAGEMENT Birmingham

ROUTINE: PSJXRFK

4537 NAME: **PSJ53P1**

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham

SUBSCRIBING PACKAGE:

ROUTINE: PSJ53P1

4580 NAME: **VALIDATE DOW SCHEDULES**

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: PHARMACY DATA MANAGEMENT Birmingham

ROUTINE: PSIVUTL

4819 NAME: **PSJ59P5**

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham

SUBSCRIBING PACKAGE:

ROUTINE: PSJ59P5

5001 NAME: Pointing to the PHARMACY QUICK ORDER (#57.1) File

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham

SUBSCRIBING PACKAGE:

USUAGE: Supported

5057 NAME: BCMA LAST ACTION

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: OUTPATIENT PHARMACY Birmingham

DRUG ACCOUNTABILITY

ROUTINE: PSJUTL2

5058 NAME: ALLERIES ARRAY

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: OUTPATIENT PHARMACY Birmingham

ROUTINE: PSJMUTL

5306 NAME: **PSJBLDOC**

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: OUTPATIENT PHARMACY Birmingham

ROUTINE: PSJBLDOC

5385 NAME: Dosing Checks for IVs

CUSTODIAL PACKAGE: INPATIENT MEDICATIONS Birmingham SUBSCRIBING PACKAGE: ORDER ENTRY/RESULTS REPORTING Salt Lake City

ROUTINE: PSJAPIDS

Example: How to Print DBIA Information from FORUM

```
Select FORUM Primary Menu Option: DBA
Select DBA Option: INTEGRATIon Agreements Menu
Select Integration Agreements Menu Option: INQUIRe
Select INTEGRATION REFERENCES: DBIA296 296 INPATIENT MEDICATIONS DBIA296 PS(50.8,
DEVICE: [Select Print Device]
INTEGRATION REFERENCE INQUIRY #296
                                          OCT 1,1996 10:24 PAGE 1
_____
      296
             NAME: DBIA296
 CUSTODIAL PACKAGE: INPATIENT MEDICATIONS
SUBSCRIBING PACKAGE: OUTPATIENT PHARMACY Birmingham
            USAGE: Private APPROVED: APPROVED
            STATUS: Active
                                      EXPIRES:
          DURATION: Till Otherwise Agr VERSION:
                                      ROOT: PS(50.8,
             FILE: 50.8
       DESCRIPTION:
                                        TYPE: File
  Outpatient Pharmacy 6.0v will be printing a management report. In order
  to complete the report, we need to read ^PS(50.8 (IV STATS FILE). We are
  reporting the outpatient ward's number of dispensed units, average cost of
  the dispensed units, and the total costs of the dispensed units.
  To obtain this data, we need to read the 0 node in subfile 50.804, the
  Average Drug Cost Per Unit field (#4) on the 0 node piece 5 in subfile
  50.805, the Dispensed Units (Ward) field (#2) on the 0 node piece 2 in the
  subfile 50.808, and the B cross-reference in subfile 50.808.
  GLOBAL MAP DATA DICTIONARY #50.8 -- IV STATS FILE STORED IN ^PS(50.8,
         SITE: BIRMINGHAM ISC
  ^PS(50.8 D0,2,D1,1,0)=^50.804P^^ (#1) WARD ^PS(50.8,D0,2,D1,2,D2,0)=^^^^
   (#4) AVERAGE DRUG COST PER UNIT [5N] ^PS(50.8,D0,2,D1,2,D2,3,D3,0)=^ (#2)
  DISPENSED UNITS (WARD) [2N] ^
```

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19 Glossary

Action Prompts

There are three types of Inpatient Medications "Action" prompts that occur during order entry: ListMan, Patient/Order, and Hidden action prompts.

ListMan Action Prompts

+ Next Screen

- Previous Screen

UP Up a Line

DN Down a Line

Shift View to Right
Shift View to Left

FS First screen
LS Last Screen
GO Go to Page

RD Re Display Screen

PS Print Screen
PT Print List
SL Search List

Q Quit

ADPL Auto Display (on/off)

Patient/Order Action Prompts

PU Patient Record Updates

DA Detailed Allergy/ADR List

VP View Profile

NO New Orders Entry
IN Intervention Menu
PI Patient Information

SO Select Order DC Discontinue

ED Edit
FL Flag
VF Verify
HD Hold

Patient/Order Action Prompts

(continued) RN	Renew
(Communacu	, iti	IXCIICV

AL Activity Logs

OC On Call

NL Print New IV LabelsRL Reprint IV Labels

RC Recycled IV
DT Destroyed IV
CA Cancelled IV

Hidden Action Prompts

LBL Label Patient/Report

JP Jump to a Patient

OTH Other Pharmacy Options

MAR MAR Menu

DC Speed Discontinue

RN Speed Renew SF Speed Finish SV Speed Verify

CO Copy

N Mark Not to be Given

I Mark IncompleteDIN Drug Restr/Guide

Active Order

Any order which has not expired or been discontinued. Active orders also include any orders that are on hold or on call.

Activity Reason Log

The complete list of all activity related to a patient order. The log contains the action taken, the date of the action, and the user who took the action.

Activity Ruler

The activity ruler provides a visual representation of the relationship between manufacturing times, doses due and order start times. The intent is to provide the onthe-floor user with a means of tracking activity in the IV room and determining when to call for doses before the normal delivery. The activity ruler can be enabled or disabled under the *SIte Parameters (IV)* [PSJI SITE PARAMETERS] option.

Additive

A drug that is added to an IV solution for the purpose of parenteral administration. An additive can be an electrolyte, a vitamin or other nutrient, or an antibiotic. Only electrolyte or multivitamin type additives can be entered as IV fluid additives in CPRS.

ADMINISTRATION SCHEDULE File

File #51.1. This file contains administration schedule names and standard dosage administration times. The name is a common abbreviation for an administration schedule type (e.g., QID, Q4H, PRN). The administration time entered is in military time, with each time separated from the next by a dash, and times listed in ascending order.

Administering Teams

Nursing teams used in the administration of medication to the patients. There can be a number of teams assigned to take care of one ward, with specific rooms and beds assigned to each team.

Admixture

An admixture is a type of intravenously administered medication comprised of any number of additives (including zero) in one solution. It is given at a specified flow rate; when one bottle or bag is empty, another is hung.

APSP INTERVENTION File

File #9009032.4. This file is used to enter pharmacy interventions. Interventions in this file are records of occurrences where the pharmacist had to take some sort of action involving a particular prescription or order. A record would record the provider involved, why an intervention was necessary, what action was taken by the pharmacists, etc.

Average Unit Drug Cost

The total drug cost divided by the total number of units of measurement.

BCMA

A VistA computer software package named Bar Code Medication Administration. This package validates medications against active orders prior to being administered to the patient.

Chemotherapy

Chemotherapy is the treatment or prevention of cancer with chemical agents. The chemotherapy IV type administration can be a syringe, admixture, or a piggyback. Once the subtype (syringe, piggyback, etc.) is selected, the order entry follows the same procedure as the type that corresponds to the selected subtype (e.g., piggyback type of chemotherapy follows the same entry procedure as regular piggyback IV).

Chemotherapy "Admixture"

The Chemotherapy "Admixture" IV type follows the same order entry procedure as the regular admixture IV type. This type is in use when the level of toxicity of the chemotherapy drug is high and is to be administered continuously over an extended period of time (e.g., seven days).

Chemotherapy "Piggyback"

The Chemotherapy "Piggyback" IV type follows the same order entry procedure as the regular piggyback IV type. This type of chemotherapy is in use when the chemotherapy drug does not have time constraints on how fast it must be infused into the patient. These types are normally administered over a 30 - 60 minute interval.

Chemotherapy "Syringe"

The Chemotherapy "Syringe" IV type follows the same order entry procedure as the regular syringe IV type. Its administration may be continuous or intermittent. The pharmacist selects the type when the level of toxicity of the chemotherapy drug is low and needs to be infused directly into the patient within a short time interval (usually 1-2 minutes).

Clinic Group

A clinic group is a combination of outpatient clinics that have been defined as a group within Inpatient Medications to facilitate processing of orders.

CLINIC DEFINITION File

File #53.46. This file is used in conjunction with Inpatient Medications for Outpatients (IMO) to give the user the ability to define, by clinic, default stop dates, whether to auto-dc IMO orders, and whether to send IMO orders to BCMA.

CLINIC GROUP File

File #57.8. This file is used to provide grouping of clinics for the Non-Verified Pending option and miscellaneous reports.

Continuous Syringe

A syringe type of IV that is administered continuously to the patient, similar to a hyperal IV type. This type of syringe is commonly used on outpatients and administered automatically by an infusion pump.

Coverage Times

The start and end of coverage period designates administration times covered by a manufacturing run. There must be a coverage period for all IV types: admixtures and primaries, piggybacks, hyperals, syringes, and chemotherapy. For one type, admixtures for example, the user might define two coverage periods; one from 1200 to 0259 and another from 0300 to 1159 (this would mean that the user has two manufacturing times for admixtures).

CPRS

A VistA computer software package called Computerized Patient Record Systems. CPRS is an application in VistA that allows the user to enter all necessary orders for a patient in different packages from a single application. All pending orders that appear in the Unit Dose and IV Medications modules are initially entered through the CPRS package.

Cumulative Doses

The number of IV doses actually administered, which equals the total number of bags dispensed less any recycled, destroyed, or canceled bags.

DATUP

Functionality that allows the Pharmacy Enterprise Customization System (PECS) to send out custom and standard commercial-off-the-shelf (COTS) vendor database changes to update the two centralized databases at Austin and Martinsburg.

Default Answer

The most common answer, predefined by the system to save time and keystrokes for the user. The default

answer appears before the two slash marks (//) and can

be selected by the user by pressing **Enter**>.

Delivery Times The time(s) when IV orders are delivered to the wards.

Dispense DrugThe Dispense Drug name has the strength attached to it

(e.g., Acetaminophen 325 mg). The name alone without

strength attached is the Orderable Item name.

Dosage Ordered After the user has selected the drug during order entry,

the dosage ordered prompt is displayed.

DRUG ELECTROLYTES File File #50.4. This file contains the names of

anions/cations, and their concentration units.

DRUG File File #50. This file holds the information related to each

drug that can be used to fill a prescription.

Electrolyte An additive that disassociates into ions (charged

particles) when placed in solution.

Entry By The name of the user who entered the Unit Dose or IV

order into the computer.

Hospital Supplied Self MedSelf med which is to be supplied by the Medical

Center's pharmacy. Hospital supplied self med is only prompted for if the user answers Yes to the SELF MED

prompt during order entry.

Hyperalimentation (Hyperal) Long term feeding of a protein-carbohydrate solution.

Electrolytes, fats, trace elements, and vitamins can be

added. Since this solution generally provides all

necessary nutrients, it is commonly referred to as Total Parenteral Nutrition (TPN). A hyperal is composed of many additives in two or more solutions. When the labels print, they show the individual electrolytes in the

hyperal order.

Infusion Rate The designated rate of flow of IV fluids into the patient.

File #53.45. This file is used to tailor various aspects of the Inpatient Medications package with regards to specific users. This file also contains fields that are used as temporary storage of data during order entry/edit.

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INPATIENT USER

PARAMETERS File

INPATIENT WARD **PARAMETERS File**

File #59.6. This file is used to tailor various aspects of the Inpatient Medications package with regards to

specific wards.

Intermittent Syringe

A syringe type of IV that is administered periodically to the patient according to an administration schedule.

Internal Order Number

The number on the top left corner of the label of an IV bag in brackets ([]). This number can be used to speed up the entry of returns and destroyed IV bags.

IV ADDITIVES File

File #52.6. This file contains drugs that are used as additives in the IV room. Data entered includes drug generic name, print name, drug information, synonym(s), dispensing units, cost per unit, days for IV order, usual IV schedule, administration times, electrolytes, and quick code information.

IV CATEGORY File

File #50.2. This file allows the user to create categories of drugs in order to run "tailor-made" IV cost reports for specific user-defined categories of drugs. The user can group drugs into categories.

IV Duration

The duration of an order may be entered in CPRS at the IV DURATION OR TOTAL VOLUME field in the IV Fluids order dialog. The duration may be specified in terms of volume (liters or milliliters), or time (hours or days). Inpatient Medications uses this value to calculate a default stop date/time for the order at the time the order is finished.

IV Label Action

A prompt, requesting action on an IV label, in the form of "Action ()", where the valid codes are shown in the parentheses. The following codes are valid:

- P Print a specified number of labels now.
- B Bypass any more actions.
- S Suspend a specified number of labels for the IV room to print on demand.

IV Room Name

The name identifying an IV distribution area.

IV SOLUTIONS File

File #52.7. This file contains drugs that are used as primary solutions in the IV room. The solution must already exist in the DRUG file (#50) to be selected. Data in this file includes: drug generic name, print name, status, drug information, synonym(s), volume, and electrolytes.

IV STATS File

File #50.8. This file contains information concerning the IV workload of the pharmacy. This file is updated each time the *COmpile IV Statistics* option is run and the data stored is used as the basis for the AMIS (IV) report.

Label Device

The device, identified by the user, on which computergenerated labels will be printed.

Local Possible Dosages

Free-text dosages that are associated with drugs that do not meet all of the criteria for Possible Dosages.

LVP

Large Volume Parenteral — Admixture. A solution intended for continuous parenteral infusion, administered as a vehicle for additive(s) or for the pharmacological effect of the solution itself. It is comprised of any number of additives, including zero, in one solution. An LVP runs continuously, with another bag hung when one bottle or bag is empty.

Manufacturing Times

The time(s) that designate(s) the general time when the manufacturing list will be run and IV orders prepared. This field in the *SIte Parameters (IV)* [PSJI SITE PARAMETERS] option (IV ROOM file (#59.5)) is for documentation only and does not affect IV processing.

MEDICATION ADMINISTERING TEAM File

File #57.7. This file contains wards, the teams used in the administration of medication to that ward and the rooms/beds assigned to that team.

MEDICATION INSTRUCTION File File #51.2. This file is used by Unit Dose and

Outpatient Pharmacy. It contains the medication instruction name, expansion, and intended use.

MEDICATION ROUTES File

File #51.2. This file contains medication route names. The user can enter an abbreviation for each route to be used at their site. The abbreviation will most likely be the Latin abbreviation for the term.

Medication Routes/ Abbreviations

Route by which medication is administered (e.g., oral). The MEDICATION ROUTES file (#51.2) contains the routes and abbreviations, which are selected by each VAMC. The abbreviation cannot be longer than five characters to fit on labels and the MAR. The user can add new routes and abbreviations as appropriate.

MOCHA

Medication Order Check Healthcare Application.

Non-Formulary Drugs

The medications that are defined as commercially available drug products not included in the VA National Formulary.

Non-Verified Orders

Any order that has been entered in the Unit Dose or IV Medications module that has not been verified (made active) by a nurse and/or pharmacist. Ward staff may not verify a non-verified order.

Orderable Item

An Orderable Item name has no strength attached to it (e.g., Acetaminophen). The name with a strength attached to it is the Dispense Drug name (e.g., Acetaminophen 325mg).

Order Sets

An Order Set is a set of N pre-written orders. (N indicates the number of orders in an Order Set is variable.) Order Sets are used to expedite order entry for drugs that are dispensed to all patients in certain medical practices and procedures.

Order View

Computer option that allows the user to view detailed information related to one specific order of a patient. The order view provides basic patient information and identification of the order variables.

Parenteral

Introduced by means other than by way of the digestive track.

Patient Profile

A listing of a patient's active and non-active Unit Dose and IV orders. The patient profile also includes basic patient information, including the patient's name, social security number, date of birth, diagnosis, ward location, date of admission, reactions, and any pertinent remarks.

PECS

Pharmacy Enterprise Customization System. A Graphical User Interface (GUI) web-based application used to research, update via DATUP, maintain, and report VA customizations of the commercial-off-the-shelf (COTS) vendor database used to perform Pharmacy order checks such as drug-drug interactions, duplicate therapy, and dosing.

Pending Order

A pending order is one that has been entered by a provider through CPRS without Pharmacy or Nursing finishing the order. Once Pharmacy or Nursing has finished and verified the order, it will become active.

PEPS

Pharmacy Enterprise Product Services. A suite of services that includes Outpatient and Inpatient services.

PHARMACY SYSTEM File

File #59.7. This file contains data that pertains to the entire Pharmacy system of a medical center, and not to any one site or division.

Piggyback

Small volume parenteral solution for intermittent infusion. A piggyback is comprised of any number of additives, including zero, and one solution; the mixture is made in a small bag. The piggyback is given on a schedule (e.g., Q6H). Once the medication flows in, the piggyback is removed; another is not hung until the administration schedule calls for it.

Possible Dosages

Dosages that have a numeric dosage and numeric dispense units per dose appropriate for administration. For a drug to have possible dosages, it must be a single ingredient product that is matched to the VA PRODUCT file (#50.68). The VA PRODUCT file (#50.68) entry must have a numeric strength and the dosage form/unit combination must be such that a numeric strength combined with the unit can be an appropriate dosage selection.

Pre-Exchange Units

The number of actual units required for this order until the next cart exchange.

Primary Solution

A solution, usually an LVP, administered as a vehicle for additive(s) or for the pharmacological effect of the solution itself. Infusion is generally continuous. An LVP or piggyback has only one solution (primary solution). A hyperal can have one or more solutions.

Print Name Drug generic name, as it is to appear on pertinent IV

output, such as labels and reports. Volume or Strength

is not part of the print name.

Print Name{2} Field used to record the additives contained in a

commercially purchased premixed solution.

Profile The patient profile shows a patient's orders. The Long

profile includes all the patient's orders, sorted by status: active, non-verified, pending, and non-active. The Short profile will exclude the patient's discontinued and

expired orders.

Prompt A point at which the system questions the user and

waits for a response.

Provider Another term for the physician involved in the

prescription of an IV or Unit Dose order for a patient.

PSJI MGR The name of the *key* that allows access to the supervisor

functions necessary to run the IV medications software. Usually given to the Inpatient package coordinator.

PSJI PHARM TECH The name of the *key* that must be assigned to pharmacy

technicians using the IV Medications module. This key allows the technician to finish IV orders, but not verify

them.

PSJI PURGE The key that must be assigned to individuals allowed to

purge expired IV orders. This person will most likely be

the IV application coordinator.

PSJI RNFINISH The name of the *key* that is given to a user to allow the

finishing of IV orders. This user must also be a holder

of the PSJ RNURSE key.

PSJI USR1 The primary menu option that may be assigned to

nurses.

PSJI USR2 The primary menu option that may be assigned to

technicians.

PSJU MGR The name of the *primary menu option* and of the *key*

that must be assigned to the pharmacy package coordinators and supervisors using the Unit Dose

Medications module.

PSJU PL The name of the *key* that must be assigned to anyone

using the *Pick List Menu* options.

PSJ PHARM TECH The name of the *key* that must be assigned to pharmacy

technicians using the Unit Dose Medications module.

PSJ RNFINISH The name of the *key* that is given to a user to allow the

finishing of a Unit Dose order. This user must also be a

holder of the PSJ RNURSE key.

PSJ RNURSE The name of the *key* that must be assigned to nurses

using the Unit Dose Medications module.

PSJ RPHARM The name of the *key* that must be assigned to a

pharmacist to use the Unit Dose Medications module. If

the package coordinator is also a pharmacist he/she

must also be given this key.

PSJ STAT NOW ACTIVE

ORDER Mail Group

A mail group that notifies subscribers when a pending

STAT or NOW order is made active.

PSJ STAT NOW PENDING

ORDER Mail Group

A mail group that notifies subscribers when a pending STAT or NOW order has been received from CPRS.

Ouick Code An abbreviated form of the drug generic name (from

one to ten characters) for IV orders. One of the three drug fields on which lookup is done to locate a drug. Print name and synonym are the other two. Use of

quick codes will speed up order entry, etc.

Report Device The device, identified by the user, on which computer-

generated reports selected by the user will be printed.

Schedule The frequency of administration of a medication (e.g.,

QID, QDAILY, QAM, STAT, Q4H).

Schedule Type Codes include: **O** - one time (i.e., STAT - only once), **P**

> - PRN (as needed; no set administration times). Ccontinuous (given continuously for the life of the order;

usually with set administration times). **R** - fill on

request (used for items that are not automatically put in the cart - but are filled on the nurse's request. These can be multidose items (e.g., eye wash, kept for use by one patient and is filled on request when the supply is exhausted). And **OC** - on call (one time with no

specific time to be given, i.e., 1/2 hour before surgery).

Self Med Medication that is to be administered by the patient to

himself.

Standard Schedule Standard medication administration schedules stored in

the ADMINISTRATION SCHEDULE file (#51.1).

Start Date/Time The date and time an order is to begin.

STAT and NOW Order Notification Sends a text message to subscribers of the PSJ STAT

> NOW mail groups when a pending STAT or NOW order has been received from CPRS or has been

verified and made active.

Status A - active, E - expired, R - renewed (or reinstated), D -

> discontinued, H - on hold, I - incomplete, or N - nonverified, U – unreleased, P – pending, O – on call, DE - discontinued edit. **RE** - reinstated. **DR** - discontinued

renewal.

Stop Date/Time The date and time an order is to expire.

Stop Order Notices A list of patient medications that are about to expire and

may require action.

Syringe Type of IV that uses a syringe rather than a bottle or

bag. The method of infusion for a syringe-type IV may

be continuous or intermittent.

Syringe Size The syringe size is the capacity or volume of a

> particular syringe. The size of a syringe is usually measured in number of cubic centimeters (ccs).

Total Parenteral Nutrition. The intravenous **TPN**

administration of the total nutrient requirements of the

patient. The term TPN is also used to mean the solution

compounded to provide those requirements.

Units per Dose The number of Units (tablets, capsules, etc.) to be

dispensed as a Dose for an order. Fractional numbers

will be accepted.

VA Drug Class Code A drug classification system used by VA that separates

drugs into different categories based upon their

characteristics. IV cost reports can be run for VA Drug

Class Codes.

VDL Virtual Due List. This is a Graphical User Interface

(GUI) application used by the nurses when

administering medications.

Ward Group A ward group indicates inpatient nursing units (wards)

that have been defined as a group within Inpatient Medications to facilitate processing of orders.

WARD GROUP File File #57.5. This file contains the name of the ward

group, and the wards included in that group. The grouping is necessary for the pick list to be run for

specific carts and ward groups.

Ward Group Name A field in the WARD GROUP File (#57.5) used to

assign an arbitrary name to a group of wards for the

pick list and medication cart.

WARD LOCATION File File #42. This file contains all of the facility ward

locations and their related data, i.e., Operating beds, Bedsection, etc. The wards are created/edited using the

Ward Definition option of the Automatic Data

Transmission (ADT) module.