

INPATIENT MEDICATIONS

TECHNICAL MANUAL/ SECURITY GUIDE

Version 5.0 December 1997

(Revised September 2012)

Department of Veterans Affairs ———
Product Development

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
09/2012	i-ii, 21-23, 69, 94a	PSJ*5*267	Added new Routine Added new API Added new Integration Agreement (R. Singer, PM; B. Thomas, Tech Writer)
01/2012	i-ii, v-viii	PSJ*5*254	Updated Table of Contents
	22, 23		Updated Routines
	69		Added API
	94		Added 5653 and 5654 Inpatient Medications Integration Agreements
			(R. Singer PM, C Bernier Tech Writer)
04/2011	i, v, vi, vii, vii, 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
02/11	i, 53, 62, 64, 65	PSJ*5*226	(Tech Writer) 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)

Date	Revised Pages	Patch Number	Description	
06/10	i, 22-23	PSJ*5*113	Added routine PSGSICH1.	
			(R. Singer, DM; B. Thomas, Tech. Writer)	
02/10	<u>i,</u> 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)	
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 66-68b	PSJ*5*154	In Section 2.2.2 Added "PRIORITIES FOR NOTIFICATION" field. 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)	

4. 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.

4.1. 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	PSGSICH
PSGSICH1	PSGSICH2	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	PSJBCMA5	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	PSJORRN	PSJORRN1
PSJORUT2	PSJORUTL	PSJORRO	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.

10. Inpatient Medications and BCMA

Inpatient Medications is designed for use with the Bar Code Medication Administration (BCMA) package.

10.1. API Exchange

Patient and order information is exchanged between Inpatient Medications and BCMA. This exchange is possible through Application Program Interfaces (APIs).

APIs provided to BCMA

PSJBCMA - The entry point EN^PSJBCMA is provided by the Inpatient Medications package to return patient active orders to BCMA to be used in administering medications at patient's bedside. The SEND TO BCMA field (#3) in the CLINIC DEFINITION file (#53.46) allows the user to specify, by clinic, whether or not Inpatient Medication Orders for Outpatients will be sent to BCMA.

PSJBCMA1 - The entry point EN^PSJBCMA1 is provided by the Inpatient Medications package to return the detail information on a patient's order for BCMA to use.

PSJBCMA2 - The entry point EN^PSJBCMA2 is provided by Inpatient Medications package to return a patient order's activity logs for BCMA to use.

PSJBCMA3 - The purpose of this API is to get information from BCMA to put in the PHARMACY PATIENT FILE (#55). It also updates the BCMA status information for the bag associated with a Unique Bar Code ID label.

PSJBCMA4- The purpose of this API is to allow BCMA to expire/reinstate Inpatient Medications orders based on an administration event.

PSJBCMA5 – The entry point GETSIOPI is provided by the Inpatient Medications package to return the Special Instructions or the Other Print Info associated with a specific Inpatient Medications order. The returned values will be retrieved from the word processing SPECIAL INSTRUCTIONS (LONG) field (#135) in the UNIT DOSE multiple (#62) in the PHARMACY PATIENT file (#55) for Unit Dose orders, or the OTHER PRINT INFO (LONG) – field (#154) in the IV multiple (#100) in the PHARMACY PATIENT file (#55).

PSGSICH1 - The entry point GETPROVL^PSGSICH1 is provided by the Inpatient Medications package to return CPRS Provider Overrides associated with a specific Inpatient Medications order. Entry point INTRDIC^PSGSICH1 is provided by the Inpatient Medications package to return Pharmacist Interventions associated with a specific Inpatient Medications order.

APIs provided to Inpatient Medications

EN^PSBIPM - The entry point EN^PSBIPM is provided by the BCMA package to provide information to Inpatient Medications to be used in determining the start date for a renewed order. [Database Integration Agreement (DBIA) # 3174].

MOB^PSBIPM - The entry point MOB^PSBIPM is provided by the BCMA package to provide Inpatient Medications with an array of data returned by the BCMA/CPRS Med Order function.

MOBR^PSBIPM - The entry point MOBR^PSBIPM is provided by the BCMA package to provide Inpatient Medications a way to notify BCMA that the BCMA/CPRS Med Order Button order has been processed or rejected. There is no return from this entry point.

5763 NAME: GETSIOPI

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

ROUTINE: GETSIOPI^PSJBCMA5

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 Birmingham
SUBSCRIBING PACKAGE: OUTPATIENT PHARMACY Birmingham
                                                      Birmingham
             USAGE: Private APPROVED: APPROVED
STATUS: Active EXPIRES:
           DURATION: Till Otherwise Agr VERSION:
               FILE: 50.8 ROOT: PS(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 \text{ (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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