

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  REDACTED |
| 01/2012 | i-ii, v-viii 22, 23  69  94 | PSJ\*5\*254 | Updated Table of Contents Updated Routines  Added API  Added 5653 and 5654 Inpatient Medications Integration Agreements  REDACTED |
| 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,  121--130 | PSJ\*5\*181 | Changes to *Revision History*, *Table of Contents*; 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  REDACTED |
| 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.  REDACTED |

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| --- | --- | --- | --- |
| **Date** | **Revised Pages** | **Patch Number** | **Description** |
| 06/10 | i, 22-23 | PSJ\*5\*113 | Added routine PSGSICH1.  REDACTED |
| 02/10 | [i,](#_bookmark0) 23 | PSJ\*5\*214 | Added PSJQUTIL to the routine list in Section 5.1 for Patients on Specific Drug(s) Multidivisional Enhancements Project.  REDACTED |
| 12/09 | 22-23 | PSJ\*5\*222 | Added routine PSGOEF2.  REDACTED |
| 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.  REDACTED |
| 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.  REDACTED |
| 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.  REDACTED |
| 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.  REDACTED |
| 12/2005 | 23 | PSJ\*5\*146 | Remote Data Interoperability (RDI) Project: Added PSJLMUT2 to the Routine List in Section 5.1.  REDACTED |
| 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. REDACTED |

# 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.

### 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 |

### 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)”.

#### 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.



# Inpatient Medications and BCMA

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

### 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].

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**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: **INTEGRATI**on Agreements Menu Select Integration Agreements Menu Option: **INQUIR**e

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

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 (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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