



# **BAR CODE MEDICATION ADMINISTRATION (BCMA)**

## **PHARMACY CHUI USER MANUAL**

Version 3.0  
February 2004

(Revised December 2016)



# Revision History

Date	Revised Pages	Patch Number	Description
11/2016	<a href="#">21</a>	PSB*3*83	Removed <i>Missing Dose Request</i> option. (D. Connolly, PM, E. Phelps, Tech Writer)
03/2008	iii-iv 5, 31-32, 34 a-b, 41	PSB*3*2	Section 3.1 – Exhibit 1 screen updated (p. 5). Section 3.10 - References to Zebra printers restored (p. 31); sample barcode screens deleted (p. 32). Section 3.12 added, references to “Dosage” changed to “Dose” and space between colon and dose measurement deleted (pp. 34 a-b). (E. Williamson, PM; G. O’Connor, S.B. Scudder, Tech Writer)
08/2006	iv, 31- 32	PSB*3*2	<b>Note:</b> The functionality listed below will be activated with the release of PSB*3*2. – Updated Table of Exhibits to include Exhibits 22a and 22b. (p. iv) – Updated Section 3.10, Label Print. Removed specific references to the Zebra printer to accommodate new feature to support multiple bar code printers, and updated instructions for creating a bar code label. Included new sample bar code label samples for Unit Dose and Ward Stock labels. (p. 31-32) (R. Singer, PM; M. Newman, Tech Writer)
07/2004	19, 20	PSB*3*5	– Updated the second paragraph to include the “Allergies” information. (p. 19) – Updated the “Exhibit 12: Medication Administration History Report by Patient” to show the removal of the Reactions header and the inclusion of the ADRs header and the Allergies header. (p. 20)
02/2004			Original Released BCMA V. 3.0 Pharmacy CHUI User Manual.



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# 1 INTRODUCTION

## 1.1 What is BCMA?

The Bar Code Medication Administration (BCMA) V. 3.0 software includes routines and files, Phase Release changes for BCMA V. 2.0, maintenance fixes, and enhancements. The enhancements are a direct result of feedback from the BCMA Workgroup and our many end users.

BCMA software is designed to improve the accuracy of the medication administration process. By automating this process, Department of Veterans Affairs Medical Centers (VAMCS) can expect enhanced patient safety and patient care.

As each patient wristband and medication is scanned with a bar code scanner, BCMA validates that the medication is ordered, timely, and in the correct dosage — as well as electronically updates the patient's Medication Administration History (MAH) Report.

The electronic information provided by BCMA V. 3.0 improves the clinician's ability to administer medications safely and effectively to patients on wards during their medication passes. It also helps to improve the daily communication that occurs between Nursing and Pharmacy staffs.

## 1.2 Features of BCMA

BCMA V. 3.0 provides the following features:

- Increases medication administration accuracy.
- Improves the efficiency of the medication administration process by capturing drug accountability data.
- Records Unit Dose, IV Push (IVP), IV Piggyback (IVPB), and large-volume IVs administered to patients.
- Provides the CPRS Med Order Button, a “link” to the Computerized Patient Record System (CPRS) for electronically ordering, documenting, reviewing, and signing verbal- and phone-type STAT and NOW (One-Time) orders for Unit Dose and IV medications already administered to patients.
- Increases the information available to nursing staff at the patient point of care.
- Reduces wasted medications.
- Improves communication between Nursing and Pharmacy staffs.
- Provides a real-time Virtual Due List (VDL) of orders for medication administration.
- Records missing doses and sends the requests electronically to the Pharmacy.
- Provides a point-of-care data entry/retrieval system.
- Provides full compatibility with the existing VistA system.
- Identifies Pro Re Nata (PRN) entries that require Effectiveness comments.
- Replaces the manual Medication Administration Record (MAR) with a Medication Administration History (MAH) to provide an automatic record of a patient's medication administration information.
- Provides a list of variances that identify Early or Late medication administrations and late PRN Effectiveness entries.
- Provides the ability to document the patient's pain score in BCMA and store it in the Vitals package.





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## 2 ABOUT THIS MANUAL

This manual contains a description of the Character-based User Interface (CHUI) BCMA options for the Pharmacy user. It is organized around the Medication Administration Menu Pharmacy Options. It explains how to access and use each option, and provides sample screen captures and reports. An Index and a Glossary are available at the back of this manual.

### 2.1 Special Notations—Documentation Conventions

Responses in **boldface** type indicate what you should type at your computer screen. Example: At the “Patient/Ward:” prompt, type **P** for Patient or **W** for Ward.

Text centered between arrows represents a keyboard key that needs to be pressed for the system to capture a user response or move the cursor to another prompt. <**Enter**> indicates that the Enter key (or Return key on some keyboards) must be pressed. <**Tab**> indicates that the Tab key must be pressed. Example: Press <**Tab**> to move the cursor to the next prompt. Enter **Y** for Yes or **N** for No, and then press <**Enter**>.

☐ Indicates especially important or helpful information.

### 2.2 Package Conventions

**Up-arrow** (caret or a circumflex)

In CHUI BCMA, you can move back to a previous screen by entering a ^ and then pressing <**Enter**>. Repeat this process until you locate the desired screen.

### 2.3 Intranet Documentation

You can locate this and other BCMA-related documentation on the Intranet, from the VistA Documentation Library (VDL), at the following address. It provides background, technical information, and important user documentation.

<http://www.va.gov/vdl>

☐ Remember to bookmark this site for future reference.

### 2.4 On-line Help

?, ??, ???

On-line help is available by entering one, two, or three question marks at a prompt. One question mark elicits a brief statement of what information is appropriate for the prompt; two question marks elicits more help, plus the hidden actions shown above; and three question marks will provide more detailed help, including a list of possible answers, if appropriate.



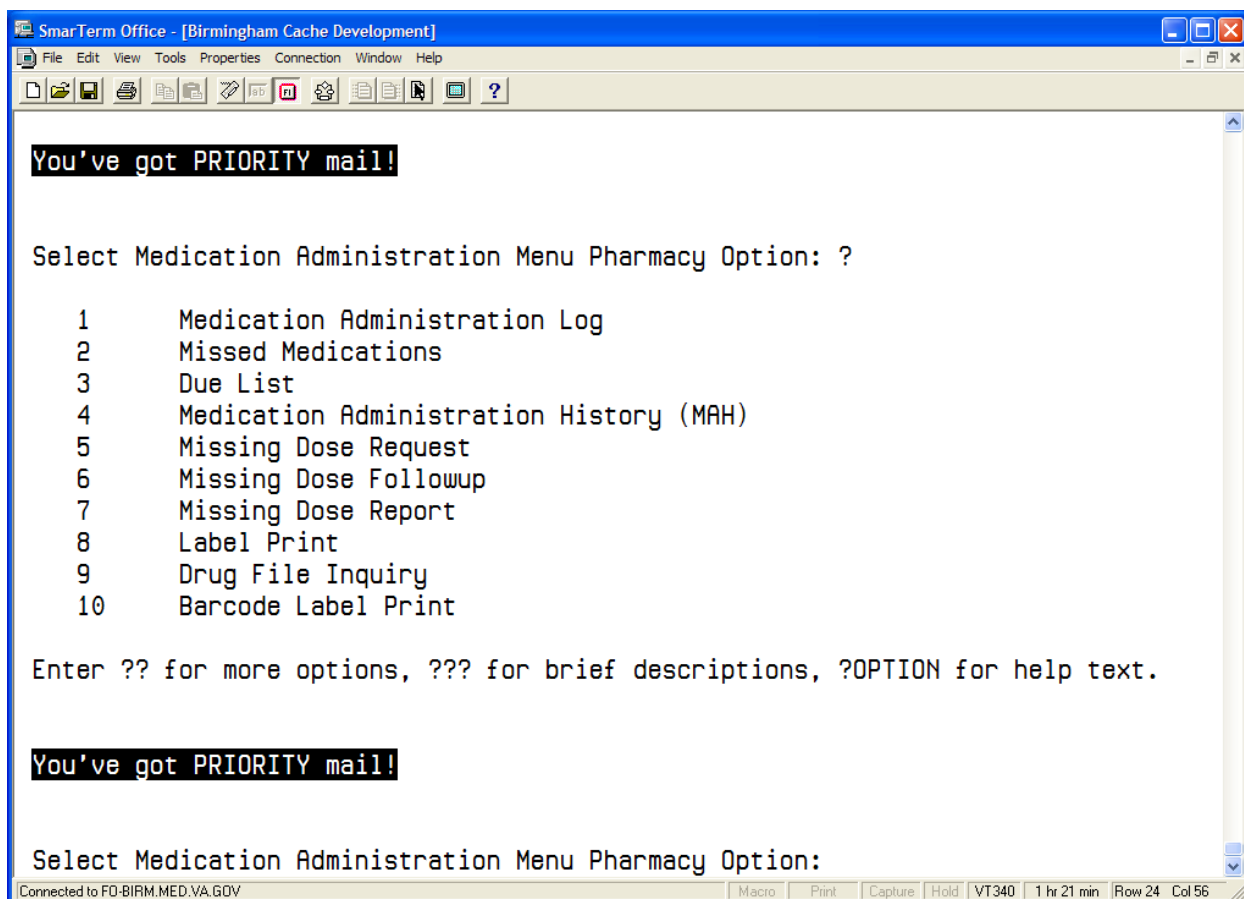
## 3 BCMA MENU—PHARMACY OPTION

### 3.1 Using the Medication Administration Menu Pharmacy Option

The BCMA Pharmacy Option Menu, as illustrated in Exhibit 1, lets Pharmacy personnel access information that has been entered via the BCMA Graphical User Interface (GUI) VDL. Because BCMA operates in real time, scanned information is available as soon as the scan is successfully completed. You can access the Pharmacy Option Menu from any VistA-enabled terminal within the VAMC.

- ☐ Several of these options are available under both the Nursing and the Pharmacy menu options. The options that are unique to Pharmacy include Missing Dose Followup, Missing Dose Report, Label Print, and Barcode Label Print.

**EXHIBIT 1: BCMA PHARMACY OPTION MENU SCREEN**



#### To select a Pharmacy option:

1. At the "Select Medication Administration Menu Pharmacy Option:" prompt, enter the number of the desired option.
2. Press <Enter> to display the Sort Screen for the option chosen.

### 3.2 Using ScreenMan Format to Request a Report

Many of the Pharmacy options use a common screen to define selection criteria for reports, as illustrated in Exhibit 2, Report Request Using ScreenMan Format Screen. Other options use specific screens. This section explains the screen prompts for all reports using the Report Information Sort Screen and gives instructions for entering information. Following this section are sample reports that you can run from each of the Medication Administration Menu Pharmacy options.

#### EXHIBIT 2: REPORT REQUEST USING SCREENMAN FORMAT SCREEN

MNTUS - KEAI 420

File Edit View Tools Options Help

Request #: HL-20011116-142725 Medication Log

Start Date: NOV 16, 2001 At: 10:00a Stop Date: NOV 16, 2001 At: 2:27p

Run by Patient or Ward: Patient

Patient Name: BCMAPATIENT, SEVEN

Ward Location:

Sort by Pt or Room-Bed:

Include Comments: Yes

Include Audits: YES

Print to DEVICE: BROWSER (CIRN)

Queue To Run At: NOV 16, 2001@14:27

Instructions: PF1-E Submit PF1-Q Cancel PF1-R Refresh <Ret> Re-Edit:

COMMAND: Press <PF1>H for help Insert

Many of the reports can be sorted and printed in the following ways:

- By patient. The information will display chronologically.
- By ward. The system can sort the information by patient or room/bed, and display it chronologically within each patient.

To request a report using ScreenMan:

1. At the “Start Date:” prompt, type the **start date of the report**, and then press <Enter>. **Note:** The cursor moves to the next prompt each time that you press <Enter>.

☐ To display a list or a standard date and time format, enter a ? in any date or time prompt, and then press <Enter>.

2. At the first “At:” prompt, type the **start time of the report** (in HHMM format), and then press <Enter>.
3. At the “Stop Date:” prompt, type the **stop date**, and then press <Enter>.
4. At the second “At:” prompt, type the **stop time** (in HHMM format), and then press <Enter>.

- 
5. At the “Run by Patient or Ward:” prompt, type **P** for Patient or **W** for Ward, and then press <Enter>.
    - If you are sorting the report by ward, at the “Ward Location:” prompt, type the **ward designation**, and then press <Enter>. At the “Sort by Pt or Room-Bed:” prompt, type **P** for Patient or **R** for Room, and then press <Enter>.
    - If you are sorting the report by patient, at the “Patient Name:” prompt, type the **patient’s name or Social Security Number (SSN)**, and then press <Enter>.
  - ☐ To display a list or a standard format, enter a **?** at any “Patient Name:” prompt, and then press <Enter>.
  6. At the “Include Comments:” prompt, enter **Y** for Yes or **N** for No, and then press <Enter>.
  - ☐ If a “Yes/No” prompt is blank, press <Enter> to respond No.
  7. At the “Include Audits:” prompt, enter **Y** for Yes or **N** for No, and then press <Enter>.
  8. At the “Print to Device:” prompt, type a **valid printer**, and then press <Enter>.
  9. At the “Queue to Run At:” prompt, press <Enter> to accept the date displayed, or enter a **date and time**, and then press <Enter>. The report will print at the time and date entered.
  10. At the “<RET> Re-Edit:” prompt, press **PF1** (or Num Lock), followed by **E**, to submit this report for printing. (Other available actions at this prompt are **PF1-Q** to Quit or **PF1-R** to refresh the screen.)

The screen clears and the following message displays:

Submitting Your Report Request to Taskman...Submitted!  
Your Task Number Is: XXXX

- ☐ Depending on how your division is configured, either the PF1 key or Num Lock will be active. For consistency, this manual refers to the PF1 convention, but users are advised that PF1 is the same as Num Lock, if that is the active function at your VAMC.

### 3.3 Medication Administration Log Report

The *Medication Administration Log* [PSBO ML] option lets Pharmacy personnel print the Medication Administration Log Report, which displays detailed administration information for a specified date/time range. The report can be sorted and printed by patient or by ward, as illustrated in Exhibit 3. When printed by ward, you may sort the view by patient or room/bed. With this sort, the drug administration information will be printed chronologically within each patient.

The Medication Administration Log Report prints in a 132-column output. Exhibit 4, Medication Administration Log Report by Patient, and Exhibit 5, Medication Administration Log Report by Ward, show examples of both Medication Administration Log Reports.

☐ Throughout this manual, the reports shown are provided for illustrative purposes only. Actual reports may be longer.

#### To print a Medication Administration Log Report:

1. At the “Select Medication Administration Menu Pharmacy Option:” prompt, type **1**, and then press **<Enter>** to access the *Medication Administration Log* [PSBO ML] option.
2. See Section 3.2, “Using ScreenMan Format to Request a Report,” for instructions about requesting a Medication Administration Log Report.

#### EXHIBIT 3: MEDICATION ADMINISTRATION LOG REPORT SCREEN

The screenshot shows a terminal window titled "SmarTerm Office - [Birmingham.stw]". The menu bar includes File, Edit, View, Tools, Properties, Connection, Window, and Help. The toolbar contains icons for file operations and help. The main screen displays the following information:

Request #: ML-20020503-103141 Medication Log

---

Start Date: MAY 3,2002 At: 0:01a Stop Date: MAY 3,2002 At: 11:00p

Run by Patient or Ward: Patient  
Patient Name: BCMAPATIENT.TWO  
Ward Location: Sort by Pt or Room-Bed:

Include Comments: Yes  
Include Audits: YES

Print to DEVICE: BROWSER  
Queue To Run At: MAY 3,2002@10:31

Instructions: PF1-E Submit PF1-Q Cancel PF1-R Refresh <Ret> Re-Edit:

---

COMMAND: Press <PF1>H for help Insert

Connected to 10.4.21.2 Macro Print Capture Hold VT340 2 hr 59 min Row 15 Col 59

## EXHIBIT 4: MEDICATION ADMINISTRATION LOG REPORT BY PATIENT

Continuing/PRN/Stat/One Time Medication/Treatment Record (Detailed Log) (VAF 10-2970 B, C, D)

Run Date: NOV 16, 2001@14:35

Log Type: INDIVIDUAL PATIENT

Page: 1

Patient: BCMAPATIENT,SEVEN	SSN: 000-00-1001	DOB: JAN 1,1949 (52)
Sex: MALE	Ht/Wt: 182cm/83kg	Ward: BCMA Rm 401-4
Dx: COPD	Last Mvmt: NOV 27,2000@11:33:30	Type: ADMISSION

Reactions: STRAWBERRIES

Activity Date Start Date> Stop Date<	Orderable Item [Dose/Sched/Route/Inj Site]	Action By	Action Date/Time	Drug/Additive/Solution	U/Ord	U/Gvn Unit
11/16/01 13:44	BENZTROPINE [3MG Q6H PO]	DD	11/16/01 11:00 Given			
11/14/01 12:42>				BENZTROPINE 1MG TAB	3.00	3.00 TAB
	Comments:	11/16/01 13:44 DD	Actually given at 11am computer down during med pass			
		11/16/01 13:45 DD	computer down during 11am med pass			
2/22/02 24:00<						
	Audits:	11/16/01 13:45 DD	Field: ACTION DATE/TIME 'NOV 16, 2001@13:44:58' deleted.			
		11/16/01 13:45 DD	Field: ACTION DATE/TIME Set to 'NOV 16, 2001@11:00'.			
11/16/01 12:25	PROCHLORPERAZINE [10MG Q6H PRN IM Inj Site: Right Arm]	DD	11/16/01 12:25 Given			
11/16/01 12:19>				PROCHLORPERAZINE 5MG/ML INJ 2ML	1.00	1.00 10MG
	PRN Reason: VOMITING					
	PRN Effectiveness: Patient's N/V relieved by 10mg of compazine					
	Entered By: DENVER,DONNA Date/Time: NOV 16, 2001@13:22:55 Minutes: 57					
	Comments: <No Comments>					
2/24/02 24:00<						
	Audits:	11/16/01 13:22 DD	Field: PRN EFFECTIVENESS Set to 'Patient's N/V relieved by 10mg of compazine'.			
11/16/01 12:46	WARFARIN [2MG MO-WE-FR@1300 PO]	DD	11/16/01 12:46 Given			
11/14/01 12:49>				WARFARIN 2MG TABS	1.00	1.00 TAB
	Comments:	11/16/01 13:43 DD	SELECTED IN ERROR			
2/22/02 24:00<						
	Audits:	11/16/01 13:43 DD	Field: ACTION STATUS 'Given' deleted.			
		11/16/01 13:43 DD	Field: ACTION STATUS Set to 'Given'.			
11/16/01 12:46	AMOXICILLIN [250MG Q8H PO]	DD	11/16/01 12:46 Given			
11/14/01 12:44>				AMOXICILLIN 250MG CAP	1.00	1.00 CAP,ORAL
	Comments:	<No Comments>				
11/28/01 24:00<						
	Audits:	<No Audits>				
1/16/01 13:20	MEPERIDINE [50MG ON CALL IM Inj Site: Right Arm]	DD	11/16/01 13:20 Given			
11/16/01 12:22>				MEPERIDINE 50MG SYRINGE	1.00	1.00 50MG
	Comments:	11/16/01 13:20 DD	Surgery called for pre op to be administered			
2/24/02 24:00<						
	Audits:	<No Audits>				

BCMAPATIENT,SEVEN

000-00-1001

Ward: BCMA Room-Bed: 401-4

## EXHIBIT 5: MEDICATION ADMINISTRATION LOG REPORT BY WARD

BCMAPATIENT,SEVEN (000001001)  
Ward: BCMA Rm-Bed: 401-4

11/16/01 12:25	PROCHLORPERAZINE [10MG Q6H PRN IM Inj Site: Right Arm]	DD	11/16/01 12:25 Given	
11/16/01 12:19>				PROCHLORPERAZINE 5MG/ML INJ 2ML
				1.00 1.00 10MG
	PRN Reason: VOMITING			
	PRN Effectiveness: Patient's N/V relieved by 10mg of compazine			
	Entered By: DENVER,DONNA Date/Time: NOV 16, 2001@13:22:55 Minutes: 57			

2/24/02 24:00<

11/16/01 12:46	WARFARIN [2MG MO-WE-FR@1300 PO]	DD	11/16/01 12:46 Given	
				WARFARIN 2MG TABS
				1.00 1.00 TAB

11/14/01 12:49>  
2/22/02 24:00<

11/16/01 12:46	AMOXICILLIN [250MG Q8H PO]	DD	11/16/01 12:46 Given	
				AMOXICILLIN 250MG CAP
				1.00 1.00 CAP,ORAL

11/14/01 12:44>  
11/28/01 24:00<

11/16/01 13:20	MEPERIDINE [50MG ON CALL IM Inj Site: Right Arm]	DD	11/16/01 13:20 Given	
				MEPERIDINE 50MG SYRINGE
				1.00 1.00 50MG

11/16/01 12:22>  
2/24/02 24:00<

BCMAPATIENT,ONE (000009678)  
Ward: BCMA Rm-Bed: 422-2

<<<< NO MEDICATIONS FOUND FOR THIS TIME FRAME >>>>

BCMAPATIENT,FOUR (000001002)  
Ward: BCMA Rm-Bed: 404-1

<<<< NO MEDICATIONS FOUND FOR THIS TIME FRAME >>>>

BCMAPATIENT,FIVE (000001084)  
Ward: BCMA Rm-Bed: 420-2

<<<< NO MEDICATIONS FOUND FOR THIS TIME FRAME >>>>

BCMAPATIENT,EIGHT (000001055)  
Ward: BCMA Rm-Bed: 420-4

<<<< NO MEDICATIONS FOUND FOR THIS TIME FRAME >>>>

BCMAPATIENT,NINE (000001013)  
Ward: BCMA Rm-Bed: 421-1

<<<< NO MEDICATIONS FOUND FOR THIS TIME FRAME >>>>



---

### 3.4 Missed Medications Report

The *Missed Medication* [PSBO MM] option lets Pharmacy personnel print the Missed Medications Report, which includes Continuous and One-Time Unit Dose and IV Piggyback medications that were *not* administered to a patient during a medication pass. This report also includes patient demographics data, adverse drug reaction (ADR) information, ward/bed location, administration date/time, order number from Inpatient Medications V. 5.0, and the medication type of the missed medication. (Self-medications do *not* display on the report.) The report can be sorted and printed by ward or patient, and you can specify the date and time that the report covers, as illustrated in Exhibit 6.

- ☐ Information that may display on this report includes medications that were scheduled to be administered, but were *not* marked as Given, Held, or Refused. It may also include medications that have been renewed or expired shortly after the scheduled administration time, and medications requested from the Pharmacy as Missing Dose Requests. Medications placed “On Hold” and taken “Off Hold” via the Computerized Patient Record System (CPRS) or Inpatient Medications V. 5.0 will display on this report with the Hold information below the medication. The Hold information applies only to administrations due within the Hold timeframe.

The “Order Num” column on the report, shown in Exhibit 7, lists the actual order number and order type (i.e., Unit Dose or IV). This information is quite helpful when troubleshooting problem with BCMA.

#### To print a Missed Medications Report:

1. At the “Select Medication Administration Menu Pharmacy Option:” prompt, type **2**, and then press **<Enter>** to access the *Missed Medications* [PSBO MM] option.
2. See Section 3.2, “Using ScreenMan Format to Request a Report,” for instructions about requesting a Missed Medications Report.

The reports will print in a 132-column output. Exhibit 7, Missed Medications Report by Patient, and Exhibit 8, Missed Medications Report by Ward, show examples of both Missed Medications Reports.

- ☐ You should run the Missed Medications Report by Ward after each scheduled admin time to ensure that all entries listed on this report are resolved.

## EXHIBIT 6: MISSED MEDICATIONS REPORT SCREEN

SmarTerm Office - [Birmingham.stw]

File Edit View Tools Properties Connection Window Help

Request #: MM-20020503-103302 Missed Medications

-----

Date for Report: MAY 3, 2002 Start Time: 0:01a Stop Time: 11:00p

Run by Patient or Ward: Patient

Patient Name: BCMAPATIENT, TWO

Ward Location: Sort by Pt or Room-Bed:

Print to DEVICE: BROWSER

Queue To Run At: MAY 3, 2002@10:33

Instructions: PF1-E Submit PF1-Q Cancel PF1-R Refresh <Ret> Re-Edit:

-----

COMMAND: Press <PF1>H for help Insert

Connected to 10.4.21.2 Macro Print Capture Hold VT340 3 hr 0 min Row 15 Col 59

## EXHIBIT 7: MISSED MEDICATIONS REPORT BY PATIENT

MISSED MEDICATIONS from Jan 30, 2004@00:01 thru Jan 30, 2004@23:59  
Run Date: JAN 30, 2004@08:02

Page: 1

Patient:	BCMAPATIENT,ONE	SSN:	000-00-9678	DOB:	SEP 2,1947 (56)
Sex:	MALE	Ht/Wt:	*/*	Ward:	7A GEN MED Rm 724-A
Dx:	CHF	Last Mvmt:	DEC 2,2003@07:30:35	Type:	ADMISSION

Reactions: No ADRs on file.

Order Num	Administration Date/Time	Medication
2IV	Jan 30, 2004@09:00	AMPICILLIN INJ
4UD	Jan 30, 2004@09:00	HALOPERIDOL TAB (On Hold) Dec 08, 2003@12:50
10UD	Jan 30, 2004@09:00	SODIUM BICARBONATE TAB

BCMAPATIENT,ONE	000-00-9678	Ward: 7A GEN MED	Room-Bed:
724-A			

## EXHIBIT 8: MISSED MEDICATIONS REPORT BY WARD

MISSED MEDICATIONS from Jan 30, 2004@00:01 thru Jan 30, 2004@23:59  
Run Date: JAN 30, 2004@08:14

Page: 1

Ward Location: 7A GEN MED  
Division: ALBANY

Ord Num	Room-Bed	Patient		Admin Date/Time	Medication
2IV	724-A	BCMAPATIENT,ONE	(9678)	1/30/04@01:00	AMPICILLIN INJ
4UD	724-A	BCMAPATIENT,ONE	(9678)	1/30/04@01:00	HALOPERIDOL TAB (On Hold) Dec 08, 2003@12:50
10UD	724-A	BCMAPATIENT,ONE	(9678)	1/30/04@01:00	SODIUM BICARBONATE TAB
2IV	724-A	BCMAPATIENT,ONE	(9678)	1/30/04@05:00	AMPICILLIN INJ
4UD	724-A	BCMAPATIENT,ONE	(9678)	1/30/04@05:00	HALOPERIDOL TAB (On Hold) Dec 08, 2003@12:50
10UD	724-A	BCMAPATIENT,ONE	(9678)	1/30/04@05:00	SODIUM BICARBONATE TAB
2IV	724-A	BCMAPATIENT,ONE	(9678)	1/30/04@09:00	AMPICILLIN INJ
4UD	724-A	BCMAPATIENT,ONE	(9678)	1/30/04@09:00	HALOPERIDOL TAB (On Hold) Dec 08, 2003@12:50

=====

### 3.5 Due List Report

The *Due List* [PSBO DL] option lets Pharmacy personnel display the Due List Report in CHUI BCMA, which displays the information available from the VDL within GUI BCMA. It provides detailed information about active and future Unit Dose and IV medication orders that are “due” for administering to a patient — during a timeframe that you specify — within a 24-hour period. Within the date/time range, the report may be printed by patient or by ward, and include the following:

- Continuous, PRN, On-Call, and One-Time Schedule Types
- Unit-Dose or IV medications
- Addendums

The Due List Report includes patient demographics data, ADR information, plus detailed information about an order, such as whether (or *not*) the medication is a self-med; the medication type, schedule, dose, and route; Special Instructions; administration times; Last Given date and time; Start/Stop date and time; and the individual(s) who verified the order.

- ☐ Only medications active at the time the Due List is printed will display on the report. The printed Due List and the VDL within GUI BCMA may *not* match if orders have been added, discontinued, or renewed after printing.

Complete the steps on the next page to enter information on the screen illustrated in Exhibit 9, Due List Report Request Screen.

#### EXHIBIT 9: DUE LIST REPORT REQUEST SCREEN

The screenshot shows a software window titled "SmartForm Office - [Birmingham.stw]". The interface is a text-based form with various fields and options. At the top, it displays "Request #: DL-20040130-081643" and "DL". Below this, it shows "Start Date: JAN 30, 2004", "Start Time: 08:01a", and "Stop Time: 11:59p". The "Run by Patient or Ward:" section is set to "Patient", with "Patient Name: BCMAPATIENT ONE" and "Ward Location:" followed by a blank field. There are checkboxes for "Include Schedule - Continuous: Yes", "Include Order Types - IV: Yes", "PRN: Yes", "Unit Dose: Yes", "On Call: Yes", "One-Time: Yes", and "Include Addendums: Yes". The "Print to DEVICE:" is set to "HOME", and "Queue To Run At:" is "JAN 30, 2004/08:16". Instructions at the bottom include "PF1-E Submit", "PF1-Q Cancel", "PF1-R Refresh", and "<Ret> Re-Edit:". At the very bottom, there is a "COMMAND:" field and a note "Press <PF1>H for help". The status bar at the bottom indicates "Connected to 10.4.21.2" and shows system metrics like "Macro", "Print", "Capture", "Hold", "V1340", "0 hr 19 min", "Row 24", and "Col 10".

---

### To Print a Due List Report:

1. At the “Select Medication Administration Menu Pharmacy Option:” prompt, type **3**, and then press **<Enter>** to access the *Due List* [PSBO DL] option.
2. At the “Start Date:” prompt, type the **date**, and then press **<Enter>**.
3. At the “Start Time:” prompt, type the **time**, and then press **<Enter>**.
4. At the “Stop Time:” prompt, type a **date**, and then press **<Enter>**.
5. At the “Run by Patient or Ward:” prompt, type **P** for Patient or **W** for Ward, and then press **<Enter>**.
  - If you are sorting the report by patient, at the “Patient Name:” prompt, type the **patient's name or SSN**, and then press **<Enter>**.
  - If you are sorting the report by ward, in the ward location, type the **ward designation**, and then press **<Enter>**. At the “Sort by Pt or Room-Bed:” prompt, type **P** for Patient or **R** for Room/Bed, and then press **<Enter>**.
6. At the “Include Schedule:” prompts, enter **Y** for Yes for the desired Schedule Type(s) and **N** for No the others and, then press **<Enter>**.
7. At the “Include Order Types:” prompts, enter **Y** for Yes or **N** for No at the “IV:” prompt and “Unit Dose:” prompt, and then press **<Enter>**. If you enter **N** for No at both prompts, no orders will print on the report.
8. At the “Include Addendums:” prompt, enter **Y** for Yes or **N** for No, and then press **<Enter>**. When **Y** is entered, an additional section called Changes/Addendums to Orders will print at the bottom of the report. You can use this section of the report to manually record information about a medication administration.
9. At the “Print to Device:” prompt, type the **desired printer**, and then press **<Enter>**.
10. At the “Queue to Run At:” prompt, type the **date you want** to run a report, and then press **<Enter>**. If you press **<Enter>**, the system defaults to the current date and time.
11. At the “<Ret> Re-Edit:” prompt, press the **PF1** key followed by **E** (Exit) to submit the request for printing. (Other available actions at this prompt are **PF1 - Q** to Quit, or **PF1-R** to refresh the screen.)

The screen clears and the following message displays:

Submitting Your Report Request to Taskman...Submitted!  
Your Task Number Is: XXXX

The reports will print in a 132-column output. Exhibit 10, Due List Report by Patient, and Exhibit 11 Due List Report by Ward, show examples of both Due List Reports.

### EXHIBIT 10: DUE LIST REPORT BY PATIENT

MEDICATION DUE LIST for JAN 30, 2004 0001-2400 Run Date: JAN 30, 2004@08:56  
Order Type(s): IV & Unit Dose -- Continuous PRN On-Call One-Time Page: 1

Patient:	BCMAPATIENT,ONE	SSN:	000-00-9678	DOB:	SEP 2,1947 (56)
Sex:	MALE	Ht/Wt:	*/*	Ward:	7A GEN MED Rm 724-A
Dx:	CHF	Last Mvmt:	DEC 2,2003@07:30:35	Type:	ADMISSION

Reactions: No ADRs on file.

Self Med	Sched	Medication	Dose	Route	Last Given	Start Date @Time	Stop Date @Time	Verifying Rph/Rn
	IV-C	AMPICILLIN INJ	Give: Q4H	IV	01/16/04@1003	12/8/03 @13:30	6/21/04 @12:00	A12/**
		*AMPICILLIN (50 GM) *DEXTROSE 5% IN N. SALINE (1000 ML) Admin Times: 0100-0500-0900-1300-1700-2100 Spec Inst: <None Entered>						
	IV-C	DEXTROSE/SALINE INJ,SOLN	Give:	IV		12/8/03 @14:12	6/21/04 @12:00	A12/**
		*DEXTROSE 5% IN N. SALINE (1000 ML) Admin Times: 0000 Spec Inst: Bolus one bag.						
	UD-C	SODIUM BICARBONATE TAB	Give: 325MG Q4H	PO	01/16/04@1002	1/16/04 @10:00	4/25/04 @12:00	PI/**
		*SODIUM BICARBONATE 325MG TABS(2664) Admin Times: 0100-0500-0900-1300-1700-2100 Spec Inst: <None Entered>						
	UD-P	ACETAMINOPHEN TAB	Give: 650MG Q6H PRN	PO	01/16/04@0945	12/8/03 @12:35	6/21/04 @12:00	A12/**
		*ACETAMINOPHEN 325MG TAB (263) Spec Inst: <None Entered>						
	UD-P	FUROSEMIDE INJ,SOLN	Give: 20MG/2ML BID	IVP		1/16/04 @10:28	4/25/04 @12:00	***/DD
		*FUROSEMIDE 10MG/ML 10ML INJ(651) Spec Inst: For congestion						

BCMAPATIENT, ONE 000-00-9678 Ward: 7A GEN MED Room-Bed: 724-A

MEDICATION DUE LIST for JAN 30, 2004 0001-2400 Run Date: JAN 30, 2004@08:56  
Order Type(s): IV & Unit Dose -- Continuous PRN On-Call One-Time Page: 2

Order types: iv & ent dose -- Continuous PRN-on-call One-time  
Patient: BCMAPATIENT,ONE SSN: 000-00-9678 DOB: SEP 2,1947 (56)  
Sex: MALE Ht/Wt: /\* Ward: 7A GEN MED Rm 724-A  
Dx: CHF Last Mvmt: DEC 2, 2003@07:30:35 Type: ADMISSION

Reactions: No ADRs on file.

\*\*\*\*\* FUTURE ORDERS \*\*\*\*\*

Self Med	Sched	Medication	Dose	Route	Last Given	Start Date @Time	Stop Date @Time	Verifying Rph/Rn
	UD-C	METHYLDOPATE INJ	Give: 50MG/1ML Q6H	PO		1/30/04 @18:00	2/6/04 @24:00	*** /DD
		*METHYLDOPATE 250MG/5ML INJ (208)	Admin Times: 0300-0900-1500-2100					
		Spec Inst: <None Entered>						

BCMAPATIENT, ONE 000-00-9678 Ward: 7A GEN MED Room-Bed: 724-A

## EXHIBIT 11: DUE LIST REPORT BY WARD

```

=====
MEDICATION DUE LIST for FEB 25, 2004 0001-2400                                Run Date: FEB 25, 2004@11:22
Order Type(s): IV & Unit Dose -- Continuous PRN On-Call One-Time                                Page: 1

Patient: BCMAPATIENT,ONE                      SSN: 000-00-9678                      DOB: SEP 2,1947 (56)
Sex:      MALE                                Ht/Wt: */*                                Ward: 7A GEN MED Rm 724-A
Dx:       CHF                                Last Mvmt: DEC 2,2003@07:30:35          Type: ADMISSION

Reactions: STRAWBERRIES
=====
Self Med  Sched  Medication                                Dose                                Route  Last Given  Start Date @Time  Stop Date @Time  Verifying Rph/Rn
-----
      IV-C  AMPICILLIN INJ                                Give: Q4H                                IV      01/16/04@1003  12/8/03 @13:30  6/21/04 @12:00  ***/DD
      *AMPICILLIN (50 GM)
      *DEXTROSE 5% IN N. SALINE (1000ML)
      Admin Times:
      0100-0500-0900-1300-1700
      -2100
      Spec Inst: <None Entered>
-----
      IV-C  DEXTROSE/SALINE INJ,SOLN                      Give:                                IV      12/8/03 @14:12  6/21/04 @12:00  ***/DD
      *DEXTROSE 5% IN N. SALINE (1000 ML)
      Admin Times: 0000
      Spec Inst: Bolus one bag.
-----
      UD-C  SODIUM BICARBONATE TAB                      Give: 325MG Q4H                                PO      02/13/04@1100  1/16/04 @10:00  4/25/04 @12:00  ***/DD
      *SODIUM BICARBONATE 325MG TABS
      (2664)
      Admin Times:
      0100-0500-0900-1300-1700
      -2100
      Spec Inst: <None Entered>
-----
      UD-P  ACETAMINOPHEN TAB                      Give: 650MG Q6H PRN                                PO      02/13/04@1059  12/8/03 @12:35  6/21/04 @12:00  ***/DD
      *ACETAMINOPHEN 325MG TAB (263)
      Spec Inst: <None Entered>
-----
      UD-P  FUROSEMIDE INJ,SOLN                      Give: 20MG/2ML BID                                IVP      1/16/04 @10:28  4/25/04 @12:00  ***/DD
      *FUROSEMIDE 10MG/ML 10ML INJ
      (651)
      Spec Inst: For congestion
-----
=====
BCMAPATIENT,ONE                                000-00-9678                                Ward: 7A GEN MED Room-
Bed: 724-A

```



---

### 3.6 Medication Administration History (MAH) Report

The *Medication Administration History* (MAH) [PSBO MH] option lets Pharmacy personnel print an MAH Report for Unit Dose and IV medication orders. This report lists a clinician's name and initials, and the exact time that an action was taken on an order (in a conventional MAR format). Each order is listed alphabetically by the orderable item. The Date column lists three asterisks (\*\*\*) to indicate that a medication was not due. This information is also noted in the Legend at the bottom of the MAH Report.

An MAH Report also includes patient demographics data, allergies and ADR information, plus detailed information about the order, such as the drug/additive/solution; the medication schedule, dose, route, and injection site; the actual administration times; the name and initials of the clinician who administered the medication; and the individuals who verified the order. It also includes information about when an order is placed "On Hold" and taken "Off Hold" by a provider, and the order Start and Stop Date/Time for the medication.

- ☐ If no parameter is defined in CPRS, the maximum date range defaults to a seven-date range. For example, a report would list the Sunday proceeding, and the Saturday following, the date that you selected for the report.
- ☐ When a student nurse is administering medications under the supervision of an instructor, and both individuals hold the appropriate security keys (i.e., PSB STUDENT and PSB INSTRUCTOR), an asterisk prints next to the student's initials on the MAH. A legend prints at the bottom of the MAH to indicate the date/time the medication was given, along with the names of the student and the instructor.

#### To print an MAH Report:

1. At the "Select Medication Administration Menu Pharmacy Option:" prompt, type **4**, and then press **<Enter>** to access the *Medication Administration History* (MAH) [PSBO MH] option.
2. See Section 3.2, "Using ScreenMan Format to Request a Report," for instructions about requesting an MAH Report. Exhibit 12, MAH Report by Patient, shows an example of the MAH Report.

## EXHIBIT 12: MEDICATION ADMINISTRATION HISTORY REPORT BY PATIENT

=====									
Continuing/PRN/Stat/One Time Medication/Treatment Record (VAF 10-2970 B, C, D)					Run Date: FEB 12, 2004@13:48				
Page: 1									
Patient: BCMAPATIENT,ONE		SSN: 000-00-9678		DOB: SEP 2, 1947 (56)					
Sex: MALE		Ht/Wt: */*		Ward: 7A GEN MED Rm 724-A					
Dx: CHF		Last Mvmt: DEC 2, 2003@07:30:35		Type: ADMISSION					
ADRs: No ADRs on file.									
Allergies: LATEX, STRAWBERRIES									
=====									
Start Date and Time	Stop Date and Time	Admin Times	02/06/2004	02/07/2004	02/08/2004	02/09/2004	02/10/2004	02/11/2004	
-----									
12/08/2003 @13:30	06/21/2004 @12:00	0100 0500 0900 1300 1700 2100							
AMPICILLIN INJ AMPICILLIN 50 GM, DEXTROSE 5% IN N. SALINE 1000 ML Give: IV Q4H INFUSE OVER 20 MIN.									
RPH: A12 RN:									
-----									
12/08/2003 @14:12	06/21/2004 @12:00	0000							
DEXTROSE/SALINE INJ,SOLN DEXTROSE 5% IN N. SALINE 1000 ML Give: IV 100 ml/hr Spec Inst: Bolus one bag.									
RPH: A12 RN:									
-----									
12/08/2003 @12:50	06/21/2004 @12:00	0100 0500 0900 1300 1700 2100							
HALOPERIDOL TAB HALOPERIDOL 1MG S.T. Give: 2MG PO Q4H ENTERED AS ACTIVE BY PHARMACIST A12 DEC 08, 2003@12:50:05 PLACED ON HOLD BY PHARMACIST A12 DEC 08, 2003@12:50:16									
RPH: A12 RN:			HOLD	HOLD	HOLD	HOLD	HOLD	HOLD	
-----									
01/30/2004 @18:00	02/06/2004 @24:00	0300 0900 1500 2100							
METHYLDOPATE INJ METHYLDOPATE 250MG/5ML INJ Give: 50MG/1ML PO Q6H									
RPH: RN: DD			***	***	***	***	***	***	
-----									
01/16/2004 @10:00	04/25/2004 @12:00	0100 0500 0900 1300 1700 2100							
SODIUM BICARBONATE TAB SODIUM BICARBONATE 325MG TABS Give: 325MG PO Q4H									
RPH: PI RN:									
-----									
Initial - Name Legend									
Status Codes									
C - Completed									
G - Given									
H - Held									
I - Infusing									
M - Missing Dose Requested									
R - Refused									
RM - Removed									
S - Stopped									
*** - Medication Not Due									

### 3.7 Missing Dose Request

The *Missing Dose Request* [PSB MISING DOSE REQUEST] option was removed by patch PSB\*3\*70.

### 3.8 Missing Dose Followup

The *Missing Dose Followup* [PSB MISSING DOSE FOLLOWUP] option lets Pharmacy personnel electronically respond to a Missing Dose Request submitted by nursing using the VDL in GUI BCMA. Pharmacy can enter a reason that the dose was missing, the time the dose was delivered, and the name of the individual who delivered the dose.

#### To create a Missing Dose follow-up message:

1. At the “Select Medication Administration Menu Pharmacy Option:” prompt, type **6**, and then press **<Enter>** to access the *Missing Dose Followup* [PSB MISSING DOSE FOLLOWUP] option. The Missing Dose Request Screen, and the prompts you will complete, is shown in Exhibit 16.
2. At the “Select Missing Dose Request # (<RET> to continue, ‘^’ to quit): (1-7):” prompt, type the **number** opposite the Missing Dose that you want to create a follow-up message for, and then press **<Enter>**. The Missing Dose Request Pharmacy Follow-up Information Screen, shown in Exhibit 17, then displays.

**EXHIBIT 16: MISSING DOSE FOLLOWUP REQUEST SCREEN**

SmartTerm Office - [Birmingham.stw]

File Edit View Tools Properties Connection Window Help

Currently Unresolved Missing Dose Requests

1. MD-20020425-112903	BCMAPATIENT,FIVE	BCMA
FUROSEMIDE 40MG TAB		
2. MD-20020425-112850	BCMAPATIENT,FIVE	BCMA
INSULIN NPH (HUMAN) U-100		
3. MD-20020425-112831	BCMAPATIENT,FIVE	BCMA
UNIQUE ID:		
4. MD-20020425-112655	BCMAPATIENT,TWO	BCMA
VINCRIStINE 1MG INJ		
5. MD-20020425-112552	BCMAPATIENT,TWO	BCMA
ACETAMINOPHEN 325MG C.T.		
6. MD-20020425-112534	BCMAPATIENT,TWO	BCMA
INSULIN NPH (HUMAN) U-100		
7. MD-20020424-150957	BCMAPATIENT,TWO	BCMA
UNIQUE ID: 746V447		
ADDITIVES: POTASSIUM CHLORIDE		
ADDITIVES: CEFOXITIN		
ADDITIVES: SODIUM CHLORIDE		
ADDITIVES: AMPICILLIN SULBACTAM		
SOLUTIONS: KCL 20MEQ/D5/NACL 0.9%		
SOLUTIONS: DEX 5% /NaCl 0.9% /KCl 20mEq		

Select Missing Dose Request # (<RET> to continue, '^' to quit): (1-7):

Connected to 10.4.21.2 Macro Print Capture Hold VT340 0 hr 4 min Row 23 Col 73

## EXHIBIT 17: MISSING DOSE REQUEST PHARMACY FOLLOW-UP INFORMATION SCREEN

MNTUS - KEA! 420

File Edit View Tools Options Help

Request #: MD-20011120-131954 Missing Dose Request

-----

Requesting User: BCMANURSE.ONE Division: ISC REGION 3  
Request Date/Time: NOV 20,2001@13:19

Patient Name: BCMAPATIENT.SEVEN Ward: BCMA  
Drug Requested: ISOSORBIDE 10MG TAB Room/Bed: 401-4

\*\*\*\*\* Pharmacy Followup Information \*\*\*\*\*

Dose Delivered: YES  
Delivered By: BCMANURSE.ONE  
Delivery Date/Time: NOV 20,2001@18:00  
Pharmacy Reason Needed: ON PRE-EXCHANGE/PICK LIST

Exit Save Refresh

Enter a command or '^' followed by a caption to jump to a specific field.

COMMAND: S Press <PF1>H for help Insert

- At the “Dose Delivered:” prompt, enter **Y** for Yes, and then press **<Enter>**. If a medication is no longer active or will *not* be delivered, enter **N** for No at this prompt.

☐ There may be instances where a missing dose is requested for an item that is no longer active. If the medication is no longer an active order or will *not* be delivered, enter **N** for No at this prompt.

- At the “Delivery Date/Time:” prompt, enter **N** (for Now) or the **date and time** that the dose was delivered, and then press **<Enter>**.

- 
5. At the “Pharmacy Reason Needed:” prompt, type the **number that corresponds to your selection** in Exhibit 18, Pharmacy Reasons Needed Selection Table.

**EXHIBIT 18: PHARMACY REASONS NEEDED SELECTION TABLE**

1	WS/FILL ON REQUEST
2	FOUND IN DRAWER
3	PHARMACIST ERROR
4	EXPIRED/NO ORDER
5	ATC ERROR
6	NOT ENOUGH PRNS
7	TECHNICIAN ERROR
8	ON PRE-EXCHANGE/PICK LIST
9	PATIENT TRANSFERRED
10	NURSE ADMIN ERROR

6. At the “COMMAND:” prompt, perform one of the following actions:
- Type **S**, and then press **<Enter>** to save the information that you entered for the Missing Dose Request selected.
  - Type **E**, and then press **<Enter>** to exit the Followup Information Screen.
  - Type **R**, and then press **<Enter>** to refresh the Followup Information Screen.
- ☐ If you try to exit the screen without saving the data, the system displays the “Save changes before leaving form (Y/N)?” prompt. Enter **N** for No, or **Y** for Yes, and then press **<Enter>**. The system confirms that the data has been saved, and returns you to the “Select Bar Code Medication Administration Manager Option:” prompt.

### 3.9 Missing Dose Report

The *Missing Dose Report* [PSBO MD] option provides information about Missing Doses that were submitted by a ward or for all wards. This report displays the total number of Missing Doses submitted for each ward location selected, the dispense drug requested, and the total number of Missing Dose Requests submitted for the dispensed drug within the selected date range.

#### To print a Missing Dose Report:

1. At the “Select Medication Administration Menu Pharmacy Option:” prompt, type **7**, and then press **<Enter>** to access the *Missing Dose Report* [PSBO MD] option. The Missing Dose Report Request Screen will display, as shown in Exhibit 19.
2. At the “Start Date:” prompt, type the **start date of the report**, and then press **<Enter>**. The Missing Dose Request Pharmacy Follow-up Information Screen then displays. **Note:** The cursor moves to the next prompt each time that you press **<Enter>**.

- ☐ To display a list or a standard date and time format, enter a **?** in any date or time prompt, and then press **<Enter>**.

#### EXHIBIT 19: MISSING DOSE REPORT REQUEST SCREEN

The screenshot shows a terminal window titled "MNTUS - KEAI 420" with a menu bar (File, Edit, View, Tools, Options, Help) and a toolbar. The main display area contains the following text:

Request #: MD-20011121-084051 Missing Dose By Ward ▾

---

Start Date: NOV 20, 2001 At: 0:01a

Stop Date: NOV 20, 2001 At: 12:00m

Ward (Return for All): BCMA

Print to DEVICE: BROWSER (CIRN)  
Queue To Run At: NOV 21, 2001@08:40

Instructions: PF1-E Submit   PF1-Q Cancel   PF1-R Refresh   <Ret> Re-Edit: █

---

COMMAND: Press <PF1>H for help   **Insert** ▾

- 
3. At the first “At:” prompt, type the **start time of the report** (in HHMM format), and then press **<Enter>**.
  4. At the “Stop Date:” prompt, type the **stop date**, and then press **<Enter>**.
  5. At the second “At:” prompt, type the **stop time** (in HHMM format), and then press **<Enter>**.
  6. At the “Ward (Return for ALL):” prompt, press **<Enter>** to display a list of all wards, or enter the ward for which you want to run a report.
  7. At the “Print to DEVICE:” prompt, type a **valid printer**, and then press **<Enter>**.
  8. At the “Queue to Run At:” prompt, press **<Enter>** to accept the date displayed, or enter a **date and time**, and then press **<Enter>**. The report will print at the time and date entered.
  9. At the “<RET> Re-Edit:” prompt, press **PF1** (or Num Lock), followed by **E**, to submit this report for printing. (Other available actions at this prompt are **PF1-Q** to Quit or **PF1-R** to refresh the screen.)

☐ Depending on how your division is configured, either the PF1 key or Num Lock will be active. For consistency, this manual refers to the PF1 convention, but users are advised that PF1 is the same as Num Lock, if that is the active function at their VAMC.

The screen clears and the following message displays:

Submitting Your Report Request to Taskman...Submitted!  
Your Task Number Is: XXXX

A sample report is shown in Exhibit 20, Missing Dose Report.

## EXHIBIT 20: MISSING DOSE REPORT

MISSING DOSE REPORT FROM SEP 24, 2003@01:00 thru SEP 26, 2003@23:00		Run Date: OCT 01, 2003@15:31
ALL WARDS		Page: 1
=====		
Ward Location	Medication	Total
-----		
7B POST OPERATIVE	ACETAMINOPHEN 650MG SUPPOS. Schedule: Q4H	1
		-----
	Ward 7B POST OPERATIVE Total:	1
BCMA	PAPAVERINE 30MG/ML 10ML Schedule: Q3H	1
		-----
	Ward BCMA Total	1
		=====
	Report Total:	2



### 3.10 Label Print

BCMA V. 3.0 includes the *Label Print* [PSBO BL] option for printing individual or batch Unit Dose bar code labels. It is specifically coded to the Zebra-brand printers using the Zebra Programming Language (ZPL). Model 105SE was used in the development of the labels. Routine [PSBOBL] uses site-specific printers or terminals to produce labels.

**EXHIBIT 21: BAR CODE LABEL SCREEN**

BCMA CHUI - KEA! 420  
File Edit View Tools Options Help

Request #: BL-19990802-095832 Bar Code Label

-----

Drug Name: [REDACTED]  
Lot #:  
Expiration Date:  
Manufacturer:  
  
Quantity:  
Filled By:  
Checked By:  
# Labels: 1  
Patient Name:  
Dosage:

Print to DEVICE:  
Queue To Run At: AUG 2, 1999@09:58

Instructions: PF1-E Submit PF1-Q Cancel PF1-R Refresh <Ret> Re-Edit:

COMMAND: Press <PF1>H for help Insert

1(004,013)

Show Buttons

#### To create bar code labels:

1. At the “Select Medication Administration Menu Pharmacy Option:” prompt, type **8**, and then press **<Enter>** to access the *Label Print* [PSBO BL] option. The Bar Code Label Screen will display, as shown in Exhibit 21.
  2. At the “Drug Name:” prompt, enter the **drug name** and then press **<Enter>**.
  3. At the “Lot #:” prompt, enter the **Lot #**, and then press **<Enter>**.
  4. At the “Expiration Date:” prompt, enter a **date**, and then press **<Enter>**.
  5. At the “Manufacturer:” prompt, enter the **manufacturer's name**, and then press **<Enter>**.
  6. At the “Quantity:” prompt, enter a **quantity** between 0.25 and 9999 (up to two decimal places), and then press **<Enter>**.
  7. At the “Filled By:” prompt, type the **initials of the person who filled the order**, and then press **<Enter>**.
- ☐ If it is unknown, leave the field blank by pressing **<Enter>**. This will provide space for another individual to initial the label at a later time.
8. At the “Checked By:” prompt, type the **initials of the person who will check the order**, and then press **<Enter>**.

- 
- ☐ If it is unknown, leave the field blank by pressing <Enter>. This will provide space for another individual to initial the label at a later time.
9. At the “# Labels:” prompt, type the **number of labels** needed between 1 and 999, and then press <Enter>.
10. At the “Patient Name:” prompt, type the **patient’s name**, and then press <Enter>.
- ☐ If preparing a Ward Stock label, leave the field blank by pressing <Enter>.
11. At the “Dosage:” prompt, enter a **dosage** and then press <Enter>.
- ☐ The “Dosage:” prompt will accept entries from two to 30 alpha/numeric characters.
12. At the “Print to Device:” prompt, type the **bar code printer** assigned to the ward, and then press <Enter>.
13. At the “Queue to Run:” prompt, enter a **date and time**, and then press <Enter>.
14. At the “<RET> Re-Edit:” prompt, press **PF1 - E** to print the label, **PF1 - Q** to Quit or **PF1 - R** to refresh the screen.

---

### 3.11 Drug File Inquiry

The *Drug File Inquiry* [PSB DRUG INQUIRY] option lets Pharmacy personnel check the bar-coded Internal Entry Number (IEN) Code listed on dispensed Unit Dose medications. This is particularly useful in helping resolve discrepancies when the incorrect bar code is affixed to a medication.

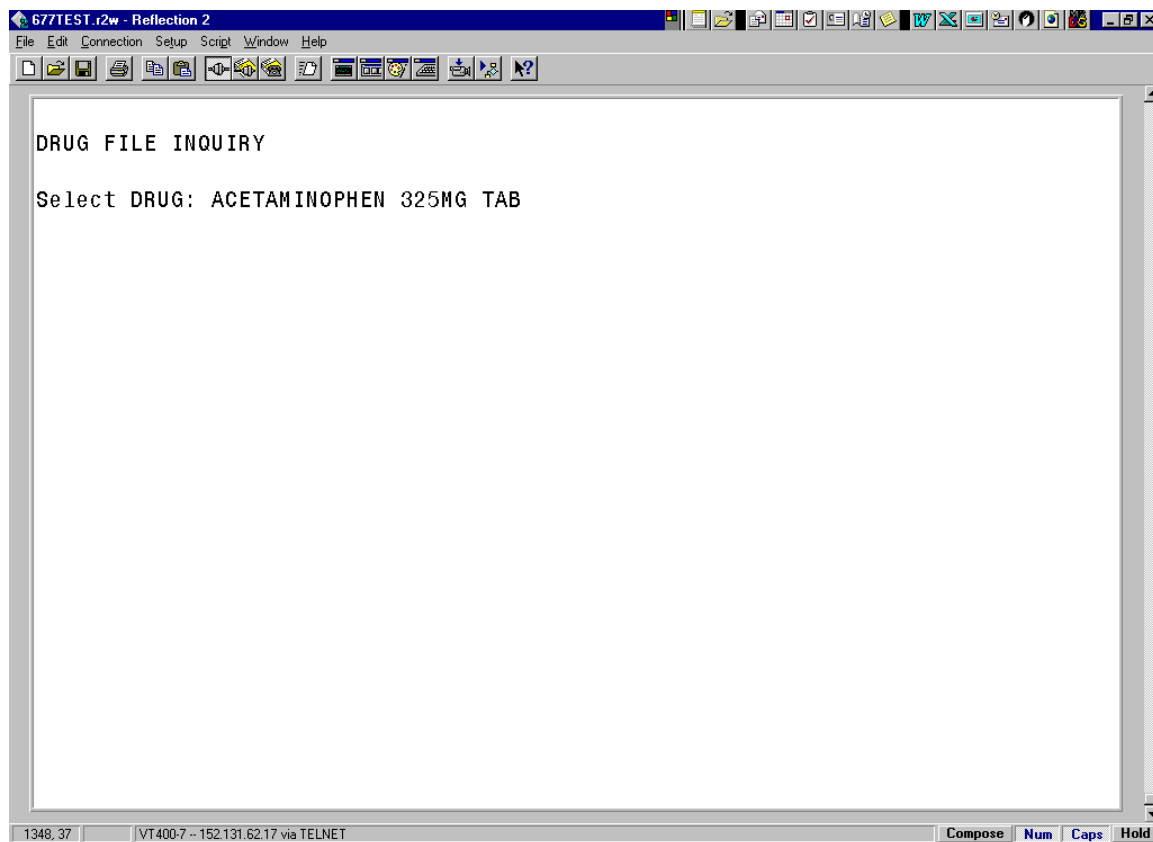
On a medication bar code, the IEN appears on the first line next to the Drug name. Any additional synonyms loaded into Pharmacy Data Management V. 1.0 also appear under the Synonym heading of this option.

#### To run a drug file inquiry:

1. At the “Select Medication Administration Menu Pharmacy Option:” prompt, type **9**, and then press **<Enter>** to access the *Drug File Inquiry* [PSB DRUG INQUIRY] option.
2. At the “Select DRUG:” prompt, as shown in Exhibit 23, Drug File Inquiry Screen 1, type the **name and dosage of the drug**, and then press **<Enter>**.

- ☐ You can display a list or a standard format by entering a **?** at the “Select DRUG:” prompt, and then pressing **<Enter>**. The Drug File information will display, as illustrated in Exhibit 24, Drug File Inquiry Screen 2.

#### EXHIBIT 23: DRUG FILE INQUIRY SCREEN 1



## EXHIBIT 24: DRUG FILE INQUIRY SCREEN 2

The screenshot shows a terminal window titled "dhcp.i2w - Reflection 2". The window contains the following text:

```
DRUG NAME: ACETAMINOPHEN 325MG TAB (IEN: 263)
-----
PRICE PER DISPENSE UNIT:      0.005
NATIONAL DRUG CLASS:          CN103
LOCAL NON-FORMULARY:
QUANTITY DISPENSE MESSAGE:    Enter quantity as number of TABS in multiples of
                               100 TABS
CHOP DISPENSE:                NO
MESSAGE:                       ** OK 90 DAY SUPPLY **

SYNONYMS:
      APAP                      TYLENOL
      A325                      333333333333
      1111111111                ACETAMINOPHEN 325MG TAB
      000173013555              666666444422

Enter RETURN to continue or '^' to exit:
```

At the bottom of the window, there is a status bar with the text "14032, 42" and "VT400-7 - BIRMINGHAM CIO". On the right side of the status bar, there are buttons for "Compose", "Num", "Caps", and "Hold".

- ☐ The IEN displays on the first line, to the right of the Drug Name. The IEN is unique to this drug file entry. In most cases, it is the bar-coded number on the Unit Dose packages that are created in the Pharmacy. Manufacturers' National Drug Code (NDC) bar codes may display at the "SYNONYMS:" prompt of this display. If the drug is Non-Formulary (N/F), the "Non-Formulary:" prompt will be set to N/F.

### 3.12 Bar Code Label Print

BCMA V. 3.0 includes the *Barcode Label Print* [PSBO BZ] option for printing individual or batch Unit Dose bar code labels. This option allows the user to have the flexibility to use any printer that has bar code printing capabilities to produce BCMA bar code labels. Routine PSBOBZ uses site-specific printers or terminals to produce labels.

**EXHIBIT 25: BAR CODE LABEL PRINT SCREEN**

Request #: BZ-20080311-115134 BZ

-----

Drug Name:  
Lot #:  
Expiration Date:  
Manufacturer:  
  
Quantity:  
Filled By:  
Checked By:  
# Labels: 1  
Patient Name:  
Dosage:

Print to DEVICE:  
Queue To Run At: MAR 11, 2008@11:51

Instructions: PF1-E Submit PF1-Q Cancel PF1-R Refresh <Ret> Re-Edit:

-----

COMMAND:

Press <PF1>H for help Insert


Connected to FD-BIRM.MED.VA.GOV Macro Print Capture Hold VT340 1 hr 20 min Row 16 Col 59

#### To print bar code labels:


1. At the “Select Medication Administration Menu Pharmacy Option:” prompt, type **10**, and then press **<Enter>** to access the *Barcode Label Print* [PSBO BZ] option. The Bar Code Label Print Screen will display, as shown in Exhibit 25.
2. At the “Drug Name:” prompt, enter the **drug name** and then press **<Enter>**.
3. At the “Lot #:” prompt, enter the **Lot #**, and then press **<Enter>**.
4. At the “Expiration Date:” prompt, enter a **date**, and then press **<Enter>**.
5. At the “Manufacturer:” prompt, enter the **manufacturer's name**, and then press **<Enter>**.
6. At the “Quantity:” prompt, enter a **quantity** between 0.25 and 9999 (up to two decimal places), and then press **<Enter>**.
7. At the “Filled By:” prompt, type the **initials of the person who filled the order**, and then press **<Enter>**.
- ☐ If it is unknown, leave the field blank by pressing **<Enter>**. This will provide space for another individual to initial the label at a later time.
8. At the “Checked By:” prompt, type the **initials of the person who will check the order**, and then press **<Enter>**.

9. If it is unknown, leave the field blank by pressing <Enter>. This will provide space for another individual to initial the label at a later time.
10. At the “# Labels:” prompt, type the **number of labels** needed between 1 and 999, and then press <Enter>.
11. At the “Patient Name:” prompt, type the **patient’s name**, and then press <Enter>.
- ☐ If preparing a Ward Stock label, leave the field blank by pressing <Enter>.
12. At the “Dosage:” prompt, enter a **dosage** and then press <Enter>.
- ☐ The “Dosage” prompt will accept entries between 1-22 alphanumeric characters.
13. At the “Print to Device:” prompt, type the name of the **bar code printer** assigned to the ward, and then press <Enter>.
- ☐ To view all available printers, type a question mark (?) and then press <Enter>. Type the number of the printer and then press <Enter>. The printer name populates the field
14. At the “Queue to Run At:” prompt, enter a **date and time**, and then press <Enter>.
15. At the “<RET> Re-Edit:” prompt, press **PF1 - E** to print the label, **PF1 - Q** to Quit or **PF1 - R** to refresh the screen. Sample labels are shown in the Exhibits below.

#### EXHIBIT 26A: SAMPLE UNIT DOSE BAR CODE LABEL

Drug: BACLOFEN 10MG TABS (Qty: 1)	
Dose: 25MG	Patient: BCMAPATIENT, ONE
	Ward: GEN MED
	Lot: 123141
	Exp: 4/5/2006 Mfg: DRUGCO
	Filled/Checked By: XX/XX
*500-2564*	

#### EXHIBIT 26B: SAMPLE WARD STOCK BAR CODE LABEL

Drug: BACLOFEN 10MG TABS (Qty: 1)	
Dose: 25MG	Patient:
	Ward:
	Lot: 123141
	Exp: 4/5/2006 Mfg: DRUGCO
	Filled/Checked By: _____/_____
*500-2564*	

---

# GLOSSARY

This section contains definitions for acronyms and terms used throughout this manual.

## Acronyms

ADR	Adverse <b>D</b> rug <b>R</b> eaction.
BCMA	<b>B</b> ar <b>C</b> ode <b>M</b> edication <b>A</b> dministration.
CHUI	<b>C</b> haracter-based <b>U</b> ser <b>I</b> nterface.
CPRS	Computerized <b>P</b> atient <b>R</b> ecord <b>S</b> ystem.
GUI	<b>G</b> raphical <b>U</b> ser <b>I</b> nterface.
IEN	<b>I</b> nternal <b>E</b> ntry <b>N</b> umber.
IV	<b>I</b> ntravenous.
MAH	<b>M</b> edication <b>A</b> dministration <b>H</b> istory.
MAR	<b>M</b> edication <b>A</b> dministration <b>R</b> ecord.
N/F	<b>N</b> on-formulary
NDC	<b>N</b> ational <b>D</b> rug <b>C</b> ode.
PRN	<b>P</b> ro <b>R</b> e <b>N</b> ata, or “as needed.”
VDL	<b>V</b> irtual <b>D</b> ue <b>L</b> ist.
VistA	<b>V</b> eterans <b>H</b> ealth <b>I</b> nformation <b>S</b> ystems and <b>T</b> echnology <b>A</b> rchitecture.

---

## Terms

ADR	Adverse Drug Reaction. Any response to a drug which is noxious and unintended, and which occurs at doses normally used in humans for treatment, diagnosis, or therapy of a disease, or for modifying physiological functions, including toxicity caused by overdose, drug interaction, drug abuse, drug withdrawal, significant failure of expected action, food-drug interaction, or allergy.
Administration History Report	A report in CPRS that lists the date, time, and orderable item of a medication highlighted on the CPRS Meds Tab. This report is called “Medication History Report” in BCMA.
Audits	The process that tracks the activities of nurses administering medications, by recording selected types of events in the patient’s Medication Log.
BCMA	A VistA software application used in VAMCs for validating patient information and medications against active medication orders <i>before</i> being administered to a patient.
Clinician	VAMC personnel who administer active medication orders to patients on a ward. In a VAMC, a number of teams may be assigned to take care of one ward, with specific rooms and beds assigned to each team.
Completed	This status for an IV bag indicates that the infusion has been completed, and the bag is being taken down or replaced with a new bag. No additional actions may be taken on a bag marked as “Completed,” other than to enter comments.
Continuous Order	A medication given continuously to a patient for the life of the order, as defined by the order Start and Stop Date/Time.
CPRS	A VistA software application that allows users to enter patient orders into different software packages from a single application. All pending orders that appear in the Unit Dose and IV packages are initially entered through the CPRS package. Clinicians, managers, quality assurance staff, and researchers use this integrated record system.
Dispensed Drug	A drug whose name has the strength associated with it (e.g., Acetaminophen 325 mg). The name without the strength is called the “Orderable Item Name.”
Due List Report	A report that provides detailed information about active <i>and</i> future Unit Dose and IV medication orders that are “due” for administering to a patient during a time frame that you specify within a 24-hour period.
Given	When a medication is administered to a patient, it is considered to be “Given” and marked as such (with a “G”) in the Status column of the VDL.
GUI	Graphical User Interface. The type of interface chosen for BCMA.



---

Held	When a medication is not actually taken by a patient, it is considered to be “Held” and marked as such (with an “H”) in the Status column of the VDL. Reasons might include the patient being temporarily off the ward. You can select and mark multiple medications as Held on the VDL using the Right Click drop-down menu. In the case of IV bags, this status indicates that the dose was Held. The only actions available for this type of IV bag are to mark the bag as Infusing or Refused, or to submit a Missing Dose Request to the Pharmacy.
Hold	To display a medication order grayed out on the VDL until its Stop Date/Time or until it is Given. Some medical centers require that a nurse mark these order types as “Held,” although it is <i>not</i> necessary that they do so.
IEN Code	The internal entry drug number entered by Pharmacy personnel into the DRUG file (#50) to identify Unit Dose and IV medications.
IV	A medication given intravenously (within a vein) to a patient from an IV Bag. IV types include Admixture, Chemotherapy, Hyperal, Piggyback, and Syringe.
MAH	A patient report that lists a clinician’s name and initials, and the exact time that an action was taken on an order (in a conventional MAR format). Each order is listed alphabetically by the orderable item. The Date column lists three asterisks (***) to indicate that a medication is not due. The report also lists information about when an order is placed “On Hold” and taken “Off Hold” by a provider, and the order Start and Stop Date/Time for the medication.
Medication Administration History Report	Also called “MAH,” A patient report that lists a clinician’s name and initials, and the exact time that an action was taken on an order (in a conventional MAR format). Each order is listed alphabetically by the orderable item. The Date column lists three asterisks (***) to indicate that a medication is not due. The report also lists information about when an order is placed “On Hold” and taken “Off Hold” by a provider, and the order Start and Stop Date/Time for the medication.
Medication History Report	A report in BCMA that lists the date, time, and orderable item of a medication selected on the VDL. This report is called “Administration History Report” in CPRS.
Medication Log Report	Also called “Med Log,” a report that lists every action taken on a medication order within a specified 24-hour period. You can choose to include Comments and Audits performed on the patient’s medication orders.
Missing Dose	A medication considered “Missing.” BCMA automatically marks this order type (with an “M”) in the Status column of the VDL after you submit a Missing Dose Request to the Pharmacy. If an IV bag displayed in the IV Bag Chronology display area of the VDL is <i>not</i> available for administration, you may mark the IV bag as a “Missing Dose” using the Missing Dose button or by right clicking the IV bag and selecting the Missing Dose command in the Right Click drop-down menu.

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Missed Medications Report	A report that lists information about Continuous and One-Time Unit Dose and IV Piggyback medications that were <i>not</i> administered to a patient.
National Drug Code	Also called “NDC,” the number assigned by a manufacturer to each item/medication administered to a patient.
Not Given	The status that a scanned medication marked as “Given,” but <i>not</i> actually taken by a patient, is changed to on the VDL. The administration will display on the VDL as it appeared <i>before</i> it was marked as “Given.” BCMA notes the status change only in the Audit Trail section of the Medication Log ( <i>not</i> on the VDL).
NOW Order	A medication order given ASAP to a patient, entered as a One-Time order by Providers and Pharmacists. This order type displays for a fixed length of time on the VDL, as defined by the order Start and Stop Date/Time.
On-Call Order	A specific order or action dependent upon another order or action taking place <i>before</i> it is carried out. For example, “Cefazolin 1gm IVPB On Call to Operating Room.” Since it may be unkn when the patient will be taken to the operating room, the administration of the On-Call Cefazolin is dependent upon that event.
One-Time Order	A medication order given one time to a patient such as a STAT or NOW a order. This order type displays for a fixed length of time on the VDL, as defined by the order Start and Stop Date/Time or until it is Given.
Orderable Item	A drug whose name does NOT have the strength associated with it (e.g., Acetaminophen 325 mg). The name with a strength is called the “Dispensed Drug Name.”
PRN Effectiveness List Report	A report that lists PRN medications administered to a patient that needs Effectiveness comments.
Provider	Another name for the “Physician” involved in the prescription of a medication (i.e., Unit Dose or IV) to a patient.
PSB INSTRUCTOR	The name of the security “key” that must be assigned to nursing instructors, supervising nursing students, so they can access user options within BCMA V. 3.0.
PSB STUDENT	The name of the security “key” that must be assigned to nursing students, supervised by nursing instructors, so they can access user options with BCMA V. 3.0. This key requires that a nursing instructor sign on to BCMA V. 3.0.
Refused	The status for an IV bag or Unit Dose to indicate that the patient refused to take the dose.
Removed	The status for a patch (i.e., Nitroglycerin, Fentanyl, or Nicotine) to indicate that it has been removed from a patient. Once removed, the letters “RM” (for “Removed”) display in the Status column of the VDL.

---

Schedule	The frequency at which a medication is administered to a patient. For example, QID, QD, QAM, Q4H.
Schedule Type	Identifies the type of schedule (i.e., Continuous, PRN, On-Call, and One-Time) for the medication being administered to a patient.
Security Keys	Used to access specific options within BCMA that are otherwise “locked” without the security key. Only users designated as “Holders” may access these options.
Start Date/Time	The date and time that a medication is scheduled for administration to a patient.
STAT Order	A medication order given immediately to a patient, entered as a One-Time order by providers and pharmacists. This order type displays for a fixed length of time on the VDL, as defined by the order Start and Stop Date/Time.
Status	A code used to inform a clinician about the condition or progress of a medication order. For Unit Dose and IVP/IVPB orders, status codes include G=Given, H=Held, R=Refused, M=Missing, and RM=Removed (patch removal only). For IV orders, status codes include I=Infusing, H=Held, R=Refused, S=Stopped, C=Completed, and M=Missing.
Stop Date/Time	The date and time that a medication order will expire, and should no longer be administered to a patient.
Unit Dose	A medication given to a patient, such as tablets or capsules.
VDL	An on-line “list” used by clinicians when administering active medication orders (i.e., Unit Dose, IV Push, IV Piggyback, and large-volume IVs) to a patient. This is the Main Screen in BCMA.
Verify	When a nurse or a pharmacist confirms that a medication order is accurate and complete, according to the information supplied by the provider.
Virtual Due List	Also called “VDL,” an on-line list used by clinicians when administering active medication orders to a patient. This is the Main Screen in BCMA.



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