



BAR CODE MEDICATION ADMINISTRATION (BCMA)

GUI USER MANUAL

Version 3.0
February 2004

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Revision History

Each time this manual is updated, the Title Page lists the new revised date and this page describes the changes. Either update your existing manual with the Change Pages document, or replace it with the updated manual.

Note: The Change Pages document may include unedited pages needed for two-sided copying. Only edited pages display the patch number and revision date in the page footer.

Date	Revised Pages	Patch Number	Description
07/2004	7-18, 7-20	PSB*3*5	– Updated the second paragraph to include the “Allergies” information. (p. 7-18) – Updated the “Example: MAH Report by Patient” to show the removal of the Reactions header and the inclusion of the ADRs header and the Allergies header. (p. 7-20)
02/2004			Original Released BCMA V. 3.0 GUI User Manual.

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Read Me First!

Before Using this Software



IMPORTANT:

Take a few minutes to review this chapter *before* using this new version of BCMA.

Don't like to read manuals? Join the club. We designed this chapter for users, like you, in mind. It will quickly acquaint you with this new Graphical User Interface (GUI) version of Bar Code Medication Administration, also called Bar Code Med Admin (or BCMA) and its many new features — including system conventions, and help systems. Use it to familiarize yourself with this new version of BCMA, and refer to it later as needed.

Then you will be ready to take a quick tour of this product and learn how to successfully administer active medication orders, i.e., Unit Dose, IV Push (IVP), IV Piggyback (IVPB), and large-volume IVs, electronically to patients at your medical center.

Our Target Audience

We have developed this guide for clinicians who are responsible for administering active medication orders to “inpatients” at Veterans Affairs Medical Centers (VAMCs).

Thanks to Our Many Partners!

The BCMA Development Team would like to extend their sincere appreciation, and special thanks, to the multitude of individuals comprising the various teams so crucial to the development of BCMA V. 3.0. All were key to this version's success. Without the coordinated efforts of these groups, BCMA would not be the dynamic product that it has become.

We are also extremely grateful to the many test sites listed below that have spent numerous hours testing and retesting the new capabilities within this version of BCMA. Thanks to their help and dedication, VA medical centers will benefit from the multi-faceted functionality that this new version has to offer.

- | | |
|-----------------------------|----------------------------|
| ➤ Durham, North Carolina | ➤ Martinez, California |
| ➤ Fargo, North Dakota | ➤ Minneapolis, Minnesota |
| ➤ Dublin, Georgia | ➤ Mountain Home, Tennessee |
| ➤ Hampton, Virginia | ➤ North Chicago, Chicago |
| ➤ Indianapolis, Indiana | ➤ Palo Alto, California |
| ➤ Iowa City, Iowa | ➤ Phoenix, Arizona |
| ➤ Loma Linda, California | ➤ Pittsburgh, Pennsylvania |
| ➤ Manchester, New Hampshire | ➤ Washington, D.C. |

Read Me First!

Discover Benefits of BCMA V. 3.0



TIP:

BCMA is equipped to document the administrations of Unit Dose, IV Push, IV Piggyback, and large-volume IV medication orders for your patients.



TIP:

You can double click on the PRN Effectiveness Activity in the BCMA Clinical Reminders marquee to document ALL PRN medication orders needing effectiveness documentation.

Take a few minutes to discover the many exciting new features included in BCMA V. 3.0 *before* using the software. These enhancements are a direct result of feedback from our many users.

Patient Transfer Notification Message

The Patient Transfer Notification Information message displays when you open a patient's record, or view the Unit Dose or the IVP/IVPB Medication Tab for the first time. It indicates that the patient has had a movement type (usually a transfer) within the Patient Transfer Notification Timeframe site-definable parameter, and the last action for the medication occurred before the movement, but still within the defined timeframe.

You can define this site parameter, by division, with a minimum value of 2 and a maximum value of 99. The default is 72 hours.

Note: The display of the message is dependent on the last action displayed in the "Last Action" column of the Virtual Due List (VDL). BCMA evaluates the last action performed on a medication each time the Unit Dose or the IVP/IVPB Medication Tabs are refreshed.

Documenting Fractional Dose Orders

You can document Fractional Dose medication orders on the Unit Dose and the IVP/IVPB Medication Tabs. This functionality is designed to alert you when dispensed drug dosages need to be administered to a patient in "fractional" doses so you can provide comments about this order type once administered. The Fractional Dose dialog box displays when the units per dose is fractional and *less than* 1.0. The Multiple/Fractional Dose dialog box displays when the units per dose is *greater than* 1.0.

Note: If you do not scan once for each unit listed in the Multiple/Fractional Dose dialog box, the Confirmation dialog box displays requesting that you confirm the actual total units administered to the patient.

BCMA Clinical Reminders Marquee

Located in the lower, right-hand corner of the BCMA VDL, this "marquee" identifies Pro Re Nata (PRN) medication orders needing effectiveness documentation. The setting is based on the PRN Documentation site-definable parameter, and applies to current admissions or to the site parameter timeframe (whichever is greater). Values can be set from 1-999, with 72 hours the default setting. A "mouse-over" list displays when you place the pointer over the PRN Effectiveness Activity in the marquee. It provides the four most recent PRN orders that need comments.

Discover Benefits of BCMA V. 3.0 (cont.)

PRN Documentation Site Parameter

The PRN Documentation site parameter lets you define the minimum number of hours from NOW that BCMA will search for PRN medication orders needing effectiveness comments. The four most recent PRN orders that need documentation display within the PRN Effectiveness mouse-over list in the “BCMA Clinical Reminders” marquee, located in the lower, right-hand corner of the BCMA VDL.

The allowable entry for this parameter, definable by division, is a minimum value of 1 and a maximum value of 999. The default is 72 hours.

Include Schedule Types Site Parameter

You can automatically display PRN medication orders when the BCMA VDL is first opened by selecting the PRN check box in the “Include Schedule Types” area of the GUI BCMA Site Parameters application. This parameter controls the default display of PRN medications on the BCMA Character-based User Interface (CHUI) Due List and the BCMA VDL — even if you change the Schedule Types or Medication Tab during a medication pass.

Your medical center can choose to have the PRN Schedule Types display on the BCMA VDL by default, or to display PRN medications once a clinician selects the PRN Schedule Type check box on the BCMA VDL. All other Schedule Types will display by default and cannot be changed.

Accessing PRN Effectiveness Log

You can quickly access the PRN Effectiveness Log dialog box by selecting a medication on the BCMA VDL, and then selecting the PRN Effectiveness command from the Right Click drop-down menu.

The PRN Effectiveness Log displays the patient’s medication information at the top of the box, under the Selected Administration area, and all PRN medication administrations in the PRN List table. Once a medication is selected, the “Selected Administration” area of the dialog box populates with administration information. The Med History button on the dialog box displays the Medication History Report for the orderable item listed in the “Selected Administration” area of the dialog box.

Discover Benefits of BCMA V. 3.0 (cont.)



TIP:

Discontinued and expired orders, with a Stop date/time greater than 72 hours from NOW, will not display on the VDL even if an infusing or stopped bag exists on the order.

Schedule Type Indicator Alert Lights

In the Schedule Type area of the BCMA VDL, a **GREEN** “alert light” indicates that a medication order exists for the Schedule Type selected within the respective start/stop date and time selected on the BCMA VDL. If grayed out, then none exist.

Medication Log Dialog Box

The Medication Log dialog box includes the Vitals area, which displays the four previous vitals entries for each of the Vital signs listed in the area. The “+” (plus) sign, to the left of a Vital sign, expands the row to reveal additional entries. The “-” (minus) sign collapses the row to hide all, but the most recent entry.

PRN Effectiveness Dialog Box

The PRN Effectiveness dialog box includes the Vitals area, which displays the four previous vitals entries for each of the Vital signs listed in the area. The “+” (plus) sign, to the left of a Vital sign, expands the row to reveal additional entries. The “-” (minus) sign collapses the row to hide all, but the most recent entry.

Scan IV Dialog Box

The “Bag Information” title/area at the top of the Scan IV dialog box has been replaced with “IV Bag #.” BCMA populates this area with pertinent information about the IV bag selected on the BCMA VDL. The “Other Print Info” title has been replaced with “Order Changes,” which now displays changes to an IV order, which have an Infusing or Stopped IV bag.

Bag Information Column on VDL

This new column on the BCMA VDL identifies an IV order that currently has an IV bag with a status of Infusing or Stopped. It also identifies orders that have changed since the Infusing or Stopped IV bag was first infused.

Discover Benefits of BCMA V. 3.0 (cont.)

Report Printing

Here's the changes to the report printing functionality in BCMA V. 3.0:

- **Medication Administration History (MAH) Report:** The Date column lists three asterisks (***) to indicate that a medication is not due. This information is also noted in the Legend at the bottom of the MAH Report.

The report 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.

- **Medication Variance Report:** Provides “exceptions” (variances) to the medication administration process. It also lists “event” information within a selected date range, such as the type and number of events, and the total percentage of events that occurred. A variance preceded by a minus sign (such as -24) indicates the number of minutes that a medication was given before the administration time.
- **Cumulative Vitals/Measurement Report:** Lists a patient's vitals from the Vitals package, along with their demographics and hospital location information. You cannot print this report by ward.
- **Ward-Specific Reports:** Simply click **CANCEL** at the Patient Lookup dialog box to access the Menu Bar — without opening a patient record — and print ward-specific reports only, except for the Cumulative Vitals/Measurement Report. A patient's file must be opened to access patient-specific reports.
- **Missed Medications Report:** Indicates when a medication order is placed “On Hold” and taken “Off Hold” in the Computerized Patient Record System (CPRS) or Inpatient Medications V. 5.0. The Hold information is provided below the medication information on the report, and only applies to administrations due within the Hold timeframe.

The “Order Num” column on the report lists the actual order number and order type (i.e., Unit Dose or IV). This information is quite helpful when troubleshooting problems with BCMA.
- **CHUI Missing Dose Report:** Changed the line item “Dosage Schedule” on the BCMA CHUI Missing Dose Report to “Schedule” to coincide with the Missing Dose E-mail Notification change described on the next page.

Discover Benefits of BCMA V. 3.0 (cont.)

HL7 Messaging

BCMA V. 3.0 supports “Health Level Seven (HL7),” a standard package (*VISTA* Messaging) used with M-based applications for conducting HL7 transactions. This package provides facilities the ability to create, transmit, and receive HL7 messages over a variety of transport layers. BCMA only exports HL7 messages.

Missing Dose E-Mail Notification

The e-mail notification that is sent from BCMA to the Pharmacy, when you submit a Missing Dose Request, now includes “Schedule” information.

Documenting PRN Pain Scores

With BCMA V. 3.0, you can perform the following tasks with regards to documenting PRN pain scores:

- **Define Items:** In the “Reason Medication Given PRN” default Answer Lists of the GUI BCMA Site Parameters application you can identify those items that will require the documentation of a pain score within BCMA. The pain score will be documented and stored in the Vitals package.
- **Select a Pain Score:** When documenting an administration for a PRN medication, you can select a pain score from a pre-defined list.
- **Access a Pain Score:** When documenting the effectiveness for a PRN medication, you can access pain score information for the patient.

Read Me First!

Discover Benefits of BCMA V. 3.0 (cont.)

Administering a Multiple Dose Order

If you do not scan once for each Unit Dose or IVP medication listed in the Multiple Dose dialog box, BCMA displays the Confirmation dialog box informing you to scan additional units. The Multiple Dose dialog box retains the data that you entered before receiving the message.

Administering a PRN Order

In the Medication Log dialog box, you can select the patient's pain score, between 0 and 10 or 99, with "0" being No Pain, "10" the Worst Imaginable, and "99" for "Unable to Respond."

Recording the Effectiveness of a PRN Medication

In the PRN Effectiveness Log dialog box, you can select the patient's pain score, between 0 and 10 or 99, with "0" being No Pain, "10" the Worst Imaginable, and "99" for "Unable to Respond."

Creating Default Answers Lists

In the BCMA GUI Site Parameters application, the Attribute column is available only when you choose the Default Answer Lists Tab and select the "Reason Medication Given PRN" list. This column identifies that a Pain Score is required from the patient when a clinician administers a specific medication.

When you select the "Requires Pain Score" check box when adding or renaming a "Reason Medication Given PRN" item, you must choose a pain score in the BCMA Medication Log and PRN Effectiveness dialog boxes when administering a medication.

Using this Manual

Assumptions that We Made About You

We admit it. We made several assumptions about you *before* developing this User Manual. This process was necessary to help us keep this manual to a reasonable size, containing only information related to BCMA. For example, we assume that you have the following knowledge or skills:

- Can use and navigate around a PC or a Laptop computer
- Experienced using a keyboard, mouse, touch screen, or touch pen
- Experienced using Windows-based software
- Understand how to open menus and choose commands, close dialog boxes and windows, minimize and maximize windows, and print from a software program
- Understand the medication administration process

Benefits of this Manual

This User Manual is a valuable resource for learning about this new version of BCMA, particularly if you know how to navigate around it. You can use it to discover the many features of this system, and later as a reference tool in your daily work.

After acquainting yourself with this chapter, you will be ready to take a quick tour of the BCMA main window and its many features — and learn BCMA “lingo” using the Glossary in Chapter 8 of this User Guide. With this knowledge, you will then be ready to use the BCMA VDL for viewing, documenting, and printing patient medication administration information.

Using this Manual

How this Manual is Organized



TIP:

This Manual includes navigational tools such as chapter Table of Contents, and an Index, to help you locate information quickly.

You will find that this User Manual is divided into two sections: an introductory section and a learning section. We believe that this organization will help you gain the most understanding of BCMA in the shortest time possible.

Each section is divided into chapters, and briefly described below.

- **Introductory Section:** Provided in chapters 1 and 2 of this User Manual, includes information that will help you get acquainted and better understand the features and benefits of this new version of BCMA.
- **Learning Section:** Provided in chapters 3-8 of this User Manual, includes tips and tricks, task-oriented material in the form of hands-on exercises, and BCMA terminology. These chapters are a great source of information when you need answers about a particular feature, option, or command. Here are other resources within this guide.
 - **Glossary:** Provided in Chapter 8, this alphabetical listing is designed to familiarize you with the many acronyms and terms used within this manual and the BCMA software.
 - **FAQ Section:** Provided in Appendix A, includes the most Frequently Asked Questions (FAQs) of our Customer Service Team, plus tips for troubleshooting your system when you run into a problem. Check out this Appendix first — *before* contacting Customer Service for assistance.

Using this Manual

Conventions Used in this Manual



TIP:

Use this column to jot notes and important information.

Throughout this manual, you will find a variety of elements designed to help you work more efficiently with BCMA. They include the special conventions listed below.

- **Mouse/Stylus Responses:** Buttons provided in boldface, within the steps, indicate what you should select on your touch screen with the stylus, or click on your computer screen using the mouse. For example, when you see NEXT, YES/NO, or OK in the steps, click or select the appropriate button on your touch or computer screen.
- **Keyboard Responses:** Keys provided in boldface, within the steps, help you quickly identify what to press on your keyboard to perform an action. For example, when you see ENTER or TAB in the steps, press this key on your keyboard.
- **User Responses:** Information presented in boldface, within steps, indicate what you should “type” (enter) onto your computer screen. For example, “Type the medication quantity and units that you are administering to the patient, and then press ENTER.”
- **Screen Captures:** Provided throughout this manual to show you examples of what you will see on your computer or touch screen after performing a step or an action.
- **Notes:** Provided within the steps to describe exceptions or special cases about the information presented. They reflect the experience of our Staff, Developers, and Test Partners.
- **Tips:** Located in the left margin, these helpful hints are designed to help you work more efficiently with BCMA.
- **Keyboard Shortcut:** Includes shortcuts (“hot keys”) for using this version of BCMA with a keyboard, instead of a mouse or a stylus. For example, “Press ALT+V to display the View menu, and then press P to display the Patient Inquiry dialog box.”

Using this Manual

Windows Terminology Used in this Manual

Use this section to quickly acquaint yourself with the terminology used throughout this User Manual for this Graphical User Interface (GUI) version of BCMA.

Example: Windows Terminology Used in this Manual

Perform This Action:	To Make This Occur:
Choose	To pick an item (i.e., a command from a menu) to perform an action.
Click	To perform an action by pressing and releasing the mouse button quickly.
Ctrl+Click	To individually select several medication orders, on the VDL, so you can mark them with the same administration status.
Double-click	To press and release the mouse button twice in quick succession.
Enter	To accept and save changes.
OK	To accept and save changes.
Press	To hold down a key on the keyboard to perform an action.
Right Click	To display the Right Click drop-down menu on the VDL.
Select	To choose (or highlight) an item by clicking on it.
Shift+Click	To select a range of medication orders, on the VDL, so you can mark them with the same administration status.
Tab	To move from one text box or field to another in a dialog box.
Tap	To perform an action by pressing and releasing the stylus quickly.
Type	To enter information in a text box or a field in a dialog box or the VDL.

Using this Manual

Other Sources of Information



TIP:

Bookmark these sites for future reference.

Refer to the Web sites listed below when you want to receive more background/technical or training information about BCMA, or to download this manual and related documentation.

Background/Technical Information

From your Intranet, enter <http://vista.med.va.gov/bcma> in the Address field to access the BCMA Main Web page.

Training Information

From your Intranet, enter the following in the Address field to access the National Training and Education Office BCMA Web site (via the *VISTA* University):

<http://vaww.vistau.med.va.gov/VistaU/>

This Manual and Related Documentation

From your Intranet, enter <http://www.va.gov/vdl> in the Address field to access this manual, and those listed below, from the *VISTA* Documentation Library (VDL).

- Nursing CHUI User Manual
- Pharmacy CHUI User Manual
- Manager's User Manual
- Installation Guide
- Technical Manual/Security Guide

BCMA: In a Nutshell

Benefits of BCMA

BCMA software is designed to improve the accuracy of the medication administration process. Consequently, you can expect enhanced patient safety and patient care at your medical center.

Improved Patient Safety and Patient Care

The greatest measure of improvement can be seen in patient safety and patient care. The Department of Veterans Affairs (VA) also expects to save approximately \$14.5 to \$25.4 million dollars each year by avoiding costs associated with the following:

- Medication errors and waste
- Time spent gathering patient charts, running reports, and manually documenting medications given to patients

Note: These figures are documented in the “*VHA Office of Information Newsletter*,” Volume 4, Number 6, dated June 2000.

Improved Communication Among Medical Center Staff

The electronic information that BCMA provides clinicians (i.e., nurses) improves their ability to administer medications safely and effectively to patients on wards during their medication passes. The results reporting data available from BCMA is currently being used nationally by many Veterans Health Administration (VHA) medical centers. Not only does it improve the accuracy of the medication administration process, but also the daily communication that occurs between Nursing and Pharmacy staffs.

Commitment to Putting Veterans First

BCMA software is just one more example of the VHA’s commitment to “Putting Veterans First.” In the year 2000, this software earned the BCMA Development Team the “Hammer Award,” a Federal Technology Leadership Award from (then) Vice President Al Gore. During the same year, it was also a finalist in the “USA Today – Rochester Institute of Technology Quality Cup Award” competition.

BCMA: In a Nutshell

Features Unique to BCMA

Here's a summary of the many recording and reporting features that you will find in this version of BCMA.

- **Virtual Due List (VDL):** Records medications that need to be administered to a patient within the specific time parameters established by your medical center. These include active Continuous, PRN, On-Call and One-Time medication orders.
- **Due List Report:** Provides detailed information about active *and* future Unit Dose and IV medication orders that are “due” for administering to a patient, within a specific timeframe, during a 24-hour period.
- **Medication Administration History (MAH) Report:** Lists the patient's Unit Dose and IV medication orders and any actions taken on the order — in a conventional Medication Administration Record (MAR) format — for a specific date range. You can access and use this Log to review your patient's medication needs.
- **Medication Log Report:** Displays a detailed history of actions taken on a patient's medication orders.
- **Missing Dose Requests:** Automatically “alerts” Pharmacy personnel of a Missing Dose order by printing requests for re-issuing on a designated printer in the Pharmacy. This method minimizes the nurses's workload and disruption to the Pharmacy and Nursing workflow. An e-mail notification is also sent from BCMA to the Pharmacy when a Missing Dose Request is submitted by a clinician.
- **Missed Medications Report:** Includes Continuous and One-Time Unit Dose and IV Piggyback medications that were not administered to a patient during a medication pass, within a specific timeframe, during a 24-hour period. This Report also includes Missing Dose Requests submitted to the Pharmacy.
- **PRN Effectiveness List:** Identifies PRN or “as needed” medication doses that require Effectiveness comments after they are given.
- **Medication Variance Log:** Logs medications given outside the medication administration window as “Early” or “Late” (depending on the site parameter settings), including the time it was scanned, and the reason it was administered early or late, any comments from the nurse, late PRN Effectiveness documentation, and event totals and percentages.

BCMA: In a Nutshell

What is BCMA?



TIP:

See the “Administering ...” chapters to learn specifics about the validation processes for Unit Dose and IV medication orders.



IMPORTANT:

The chances for errors increase when the “scanning” process is circumvented (bar code # or IV bag number entered manually) during the medication administration process.

BCMA software is an innovative, automated system that uses wireless, point-of-care technology with an integrated bar code scanner to record the administration of patient medications.

Reduces Medication Administration Errors

When used as intended, BCMA can dramatically reduce medication administration errors by letting nurses perform the following functions:

- Electronically verify a patient’s identity
- Validate the patient’s medications against their active orders from the Pharmacy
- Record the patient’s medication information once administered

Each time a nurse scans the bar code on an ordered medication, BCMA ensures that a patient receives their medication in the correct dosage, on time, as well as electronically document the medication status and route.

Provides a System of “Checks and Balances”

The system of “checks and balances” that BCMA provides, visually reminds nurses when medications need to be administered, and when they need to assess the effectiveness of doses scheduled for administration. No longer must they rely on their short-term memory.

For example, if a nurse attempts to administer a medication outside the scheduled time, BCMA provides a Warning message indicating that this administration is ‘X’ number of minutes from the scheduled administration time. (This time is based on a site parameter determined by your medical center.) The nurse then reviews and documents the medication administration, as “Early” or “Late,” which BCMA then stores in the Medication Variance Log.

BCMA: In a Nutshell

What is BCMA? (cont.)

Augments Nurse's Clinical Judgment

Because BCMA was designed to augment, not replace the nurse's clinical judgment, they alone can determine whether (or not) to administer the medication to the patient. If they so choose to administer the medication, BCMA requires documentation as to their clinical decision. By displaying only active medication orders, BCMA can altogether eliminate the potential for a nurse to administer a discontinued or expired order to a patient.

And, by replacing the manually created 24-hour Medication Administration Record (MAR) with an on-line MAH Report, nurses reap the benefits of having more sophisticated audit capabilities. The software is flexible enough that a nurse can even record medications refused by a patient, including the refusal reason; request Missing Doses electronically from the Pharmacy; and record Early or Late medications outside the regular administration window.

BCMA: In a Nutshell

Background Information About BCMA

Built on Workgroup's Findings

The standard GUI version of BCMA, currently being used nationwide by the VHA, was built based on the results of the BCMA Workgroup's findings. This includes functionality replicated with a Microsoft® Windows-based GUI Client/Server architecture.

This interface was chosen only after the BCMA Workgroup concluded that their users were more familiar with the GUI aspect of computer systems than any other proprietary system — and that Windows-based computer hardware could be used for other purposes. Plus, BCMA was fully compatible with the existing *VISTA* System.

Provides Immediate Access to Information

Such an automated system, they determined, would enable nurses administering medications to be extremely mobile — without the need to carry heavy, bulky paperwork and patient charts. With their new battery-powered laptop computers and handheld bar code scanners, nurses could quickly and easily move from patient to patient or from ward to ward and electronically complete the medication administration process. (In areas of the medical center that do not require nurse mobility, wired networking can be used.)

Uses a Wireless Network Infrastructure

By using a Wireless Local Area Network (WLAN) technology, the VA could place real-time information into the hands of nurses, thereby decreasing the possibility of medication errors. To achieve this real-time capability, the software required a continuous Ethernet connection to the VA hospital information system database.

Wireless LAN technology creates a network that operates much like a wired Ethernet network, but without the wire. Wireless LAN devices communicate network traffic via radio frequency (RF) transmissions. The personal computers (PCs) connected by wireless LAN technology can communicate using Telnet Communication Protocol/Internet Protocol (TCP/IP) anywhere in the RF coverage area.

BCMA: In a Nutshell

Background Information About BCMA (cont.)

These devices avoid interference with other RF devices by using spread spectrum technology. Interference is greatly reduced by spreading the transmissions out over a wide band of frequencies. This technology, when combined with data encryption, creates a secure network infrastructure for many applications.

When selecting the wireless LAN System, BCMA planners considered the coverage areas, supported applications, point-of-care devices, infrastructure, and interference with other RF devices in the hospital. A site survey by experienced technical personnel averted problems in these areas *before* implementing the BCMA application.

Patient Safety Comes First . . .

Today the BCMA Workgroup continues to work closely with the BCMA Development Team to enhance the functionality available to VA nursing staffs — always keeping in mind that “Patient Safety Comes First ... Because Second is Too Late!”

Getting Help — In a Hurry

Offering Superior Customer Service, Technical Support



TIP:

Use this checklist to help your medical center quickly (and efficiently) resolve problems with this version of BCMA.

The BCMA team takes pride in offering the best in customer service and technical support. Our staff of experienced technical advisers specializes in the critical areas, applications, and systems important to you. These individuals are dedicated, responsive, helpful, and professional — and ready to assist you when you need help.

We realize that your medical center also possesses many individuals qualified to troubleshoot your less complex BCMA problems and issues. We have designed the following checklist with these individuals in mind.

Your Checklist for Solving Problems

Using this checklist, your medical center can resolve many BCMA problems quickly and efficiently — eliminating the need for our immediate intervention.

- **First Solution:** Use the On-line Help System.
 - **Context-Sensitive Help:** Access context-sensitive, on-line help by selecting a command in the Menu bar or Right Click drop-down menu, and then pressing **F1**. You can also receive help for a feature, option, or button by placing your “focus” on it (tabbing to the area on the BCMA VDL), and then pressing **F1**.
 - **Help Menu:** Use to receive detailed information about the many features within BCMA. You can search by a keyword or by using the Index.
 - **Pop-up Windows:** Also called “mouse-overs,” provides less detailed help than mentioned above. Access by placing the pointer over an area of the BCMA VDL to display information in a pop-up window.
- **Second Solution:** Locate Answers in this User Manual.
 - Use the “Main Contents,” “Chapter Contents,” “Index,” or “Glossary” within this manual to quickly locate answers to your problems.
 - Review Appendix A in this manual, which provides answers for FAQs asked most often by our many BCMA users.

Getting Help — In a Hurry

Offering Superior Customer Service, Technical Support (cont.)

Your Checklist for Solving Problems (cont.)

- **Third Solution:** Refer to our other BCMA manuals and the BCMA Web page.
 - Check out the [other manuals](#) that we provide with this software to find solutions. They teach you how to install, manage, and troubleshoot BCMA — even how to use the Nursing and Pharmacy CHUI versions of this software for printing reports.
 - Locate BCMA manuals and our main BCMA Web page at <http://vista.med.va.gov/bcma>.
- **Final Destination:** Contact Your BCMA Focus Team.
 - Contact your BCMA Focus Team about the specific type of problem that you are experiencing with BCMA. This Team is responsible for assisting you initially, then contacting Customer Service for technical assistance should the need arise.
 - You may be required to document the problem, that you are having, by logging a National On-line Information Sharing (NOIS) ticket.

Note: If you have arrived at this “final” step, we apologize that the other solutions in this section were not helpful to you and your medical center.

Taking a Quick Tour of BCMA

Benefits of this Chapter

This chapter will acquaint you with the BCMA Main Screen — the VDL — and its many features. As you have already learned, you can access the menus, options (commands), and many other features of the VDL using a mouse, a stylus, or a keyboard.

The VDL: In a Nutshell

The BCMA VDL is truly the “command center” of BCMA. The information that you need to administer active Unit Dose and IV medications to your patients is directly accessible from this location. This includes all of the features and options that you will need to scan patient wristbands and medication bar codes, plus record, view, and print patient- and medication-specific information.

A Look at the VDL

The next page provides an Example of the VDL, or Main Screen in BCMA, and its many features and options. It shows the active window that displays the *first* time that you open BCMA.

Each time that you open a VDL (i.e., patient record), BCMA defaults to the Unit Dose Medication Tab and the Schedule Types of Continuous, One-Time, and On-Call already selected. This occurs even if you change the Schedule Types or Medication Tab during a medication pass.

Note: The PRN Schedule Type controls the default display of PRN medications on the BCMA VDL, and is based on the GUI BCMA Site Parameters entry for “Include Schedule Types.”

Taking a Quick Tour of BCMA

The VDL: In a Nutshell (cont.)

Starting at the top of the BCMA VDL, take a few minutes to get better acquainted with it. Then review the next section, which describes each feature and option.

Note: The Example provided below displays active medication orders for the Unit Dose Medication Tab. This is the default window that displays each time that you open BCMA.

Example: BCMA VDL (or Main Screen)

Minimize Button **Maximize Button**

Title Bar → Bar Code Medication Administration

Menu Bar → File View Reports Due List Tools Help

Patient Demographics Button → Missing Dose Medication Log Medication Admin History Allergies CPRS Med Order

Allergies/ADRs Bar → ALLERGIES: no allergy assessment ADRs: No ADRs on file

Medication Order Display Area

Stat...	Ver	Hsm	Ty...	Active Medication	Dosage	Route	Admin Time	Last Action
****			P	ACETAMINOPHEN TAB	650MG, Q6H PRN	PO		
****			O	ACETAMINOPHEN 325MG TAB				
****			DC	DIGOXIN ELIXIR DIGOXIN 0.05MG/ML ELIX (60CC)	0.05MG/1ML, STAT	PO		
****			DC	FUROSEMIDE TAB FUROSEMIDE 40MG TAB 30 Minutes Prior to Cisplatin	20MG, ON CALL	PO		
****			C	HALOPERIDOL TAB HALOPERIDOL 1MG S.T.	2MG, Q4H	PO	12/31@0900	
****			O	LORAZEPAM INJ LORAZEPAM 4MG/ML 1ML TUBEX	4MG/1ML, NOW	IMP		
****			C	SODIUM BICARBONATE TAB SODIUM BICARBONATE 325MG TABS	325MG, Q4H	PO	12/31@0900	

Order on "Hold" (grayed out on VDL) →

Medication Tabs with "alert light" → Unit Dose IVP/IVPB IV

Scanner Status Indicator → Scanner Status: Ready

Scanner Status Indicator → Scan Medication Bar Code:

BCMA Clinical Reminders Marquee → BCMA Clinical Reminders
Count: 0 Activity: PRN Effectiveness

Status Bar → DENVER, DONNA ALBANY Server Time: 12/31/2003 08:57

Drug Bar Code or Unique Identifier Number displays here when medication bar code scanned.

BCMA Clinical Reminders Marquee identifies PRN medication orders needing effectiveness documentation.

Taking a Quick Tour of BCMA

The VDL: In a Nutshell (cont.)



TIP:

Check out the “Reports” and “Administering ...” chapters to learn how the features listed here work in BCMA.

Features of the VDL

Review this section to discover the many features (and benefits) that the BCMA VDL has to offer.

- **Title Bar:** Lists the name of the software application.
- **Menu Bar:** Provides options (commands) for accessing features and options within the BCMA VDL.
- **Minimize Button:** Shrinks the BCMA VDL to half its normal size.
- **Maximize Button:** Expands the BCMA VDL to its maximum size.
- **Missing Dose Button:** Requests a Missing Dose replacement from the Pharmacy.
- **Allergies Button:** Describes food, drug, and “other” allergy and Adverse Drug Reaction (ADR) information about the patient, including whether the allergy or ADR was verified and observed. If this button is grayed out, no allergies or reactions were documented for the patient in the Allergy/Adverse Reaction Tracking (ART) package.
- **CPRS Med Order Button:** Also called the “Hot Button,” provides a link to the Computerized Patient Record System (CPRS) package for electronically ordering, documenting, reviewing and signing verbal- and phone-type STAT and (One-Time) medication orders that you have already administered to patients.
- **Tool Bar:** Provides access to frequently used options within the BCMA VDL. (You can also access many of these options within the Menu Bar or by using the Right Click drop-down menu.)
- **Patient Demographics Button:** Displays personal, admission, eligibility, and appointment information about the patient whose orders are displayed on the BCMA VDL. This information was electronically documented when the patient was admitted to your medical center.
- **Virtual Due List Parameters Area:** Reflects the “Administration Time Window” defined as a site parameter for your site. This area of the BCMA VDL displays medications that need to be given within that Time Window. It corresponds to the Schedule Types selected on the BCMA VDL.

Taking a Quick Tour of BCMA

The VDL: In a Nutshell (cont.)



TIP:

You can automatically display PRN medication orders when the VDL is first opened by selecting the PRN check box in the “Include Schedule Types” area of the GUI BCMA Site Parameters application.



TIP:

Check out the “Reports” and “Administering ...” chapters to learn how the features listed here work in BCMA.

Features of the VDL (cont.)

- **Schedule Types:** Indicates when active medication orders exist for the selected timeframe, for each Schedule Type on the Unit Dose and IVP/IVPB Medication Tabs. These include Continuous, PRN, On-Call, and One-Time.
 - **Default in BCMA:** The Schedule Types of Continuous, One-Time, and On-Call are already selected (checked) when you open a patient’s record. The PRN Schedule Type controls the default display of PRN medications on the BCMA VDL, and is based on the GUI BCMA Site Parameters entry for “Include Schedule Types.”
 - **Schedule Type Indicator:** A **GREEN** “alert light” indicates that a medication order exists for the Schedule Type selected within the respective start/stop date and time selected on the BCMA VDL. If grayed out, then none exist.
- **Allergies/ADRs Bar:** Alphabetically displays all food, drug, and “other” allergies and adverse drug reactions, in **RED**, that were documented for the patient in the ART package.
- **Column Headers:** Separates pertinent information about an active medication order. You can sort information alphabetically within each column by ascending or descending order.
 - **Order in Columns:** Numeric information displays before alphabetic information. “Blank” columns display at the top of the BCMA VDL.
- **Medication Order Display Area:** Displays active medication orders for the VDL Parameters (Start and Stop Times), Schedule Types, and Medication Tab selected.
 - **Hold Orders:** Includes orders placed “On Hold” (grayed out) by a provider using CPRS, or by Pharmacy using the Inpatient Medications V. 5 0 package.
- **Scroll Bar:** Available (not grayed out) when the number of medications that need displayed is greater than the Medication Order Display Area.

Taking a Quick Tour of BCMA

The VDL: In a Nutshell (cont.)



TIP:

Check out the “Reports” and “Administering ...” chapters to learn how the features listed here work in BCMA.

Features of the VDL (cont.)

- **Medication Tabs:** Separates the different types of active medication orders that need to be administered to a patient. They include Unit Dose, IV Push, IV Piggyback, and large-volume IV orders. Medications that need to be administered will correspond to one of these Tabs. The Tab under which an order displays depends on how it was entered.
 - **Alert Light:** Each Medication Tab provides an “alert light,” which turns **GREEN** *only* when the patient has active medication orders associated to them and the admin time is within 12 hours before and 12 hours after NOW. When you click a “lit” Tab, BCMA displays the patient’s active medication orders on the BCMA VDL.
 - **Default in BCMA:** The Unit Dose Medication Tab is selected when you open a patient’s record.
- **Scanner Status Indicator:** Indicates the status of your scanner. If **RED**, click once in the Scan Medication Bar Code field to activate the (**GREEN**) Ready Light.
- **Scan Medication Bar Code Field:** Displays the Drug Bar Code or Unique Identifier Number when the medication bar code is scanned.
- **BCMA Clinical Reminders Marquee:** Identifies PRN medication orders needing effectiveness documentation. Based on the “PRN Documentation” site parameter, the setting applies to current admissions or to the site parameter timeframe (whichever is greater). Values can be set from 1-999, with 72 hours being the default setting.
 - **Partial List:** “Mouse-over” on PRN Effectiveness Activity provides the four most recent PRN orders that need comments. This list is updated each time a PRN Effectiveness is documented and the BCMA VDL is refreshed.
 - **Full List:** Double clicking on the PRN Effectiveness Activity lets you document ALL PRN medication orders needing effectiveness comments.
- **Status Bar:** Includes the name of the clinician(s) administering medications, plus the name of the hospital and division, and the Server time (system time).
 - **Student Nurse Information:** Will also include the name of a student nurse if logged on using the PSB STUDENT security key.

Getting Acquainted with the VDL

Accessing BCMA Features and Options



TIP:

Check out the “Introducing BCMA V. 3.0” chapter to learn other ways to use the mouse/stylus with BCMA.



TIP:

You can double click on the PRN Effectiveness Activity in the BCMA Clinical Reminders marquee to document ALL PRN medication orders needing effectiveness documentation.

BCMA provides several ways to access features and options within the VDL. They include those listed in this section.

Menu Bar

BCMA includes five menus for accessing features and options (commands), plus a Help menu. They include: File, View, Reports, Due List, and Tools. You can access an option using shortcut keys, the Menu Bar, or the Right Click drop-down menu.

Note: The Tools menu is quite helpful for troubleshooting problems with BCMA.

Tool Bar

The Tool Bar located at the top of the BCMA VDL provides buttons for accessing features in BCMA. They include: Missing Dose, Medication Log, Medication Admin History, Allergies, and CPRS Med Order. Several of these features can also be accessed from the Menu Bar.

Note: See the “Shortcut Keys” information on the next page to learn how to quickly access menu options on the BCMA VDL.

Mouse/Stylus

BCMA provides several ways to use the mouse and stylus with medication orders displayed on the BCMA VDL.

- **Click:** Use to select a medication order on the BCMA VDL, choose options (commands) from the Menu Bar, and select Buttons and Medication Tabs on the BCMA VDL.
- **Double-click:** When you double-click on a medication order on the VDL, the Display Order dialog box displays, with details of the order from Inpatient Medications V. 5.0.
- **Right-click:** With an active medication order selected on the BCMA VDL, click the right mouse button once to display a drop-down menu for accessing several BCMA options (commands). These options are also accessible from the Menu Bar or via the Buttons on the Tool Bar.
- **SHIFT+CLICK:** Use to select and mark a range of medication orders, on the BCMA VDL, with the same administration status.
- **CTRL+CLICK:** Use to individually select and mark several medication orders, on the BCMA VDL, with the same administration status.

Getting Acquainted with the VDL

Accessing BCMA Features and Options (cont.)

Keyboard

BCMA provides several ways to use the keyboard with medication orders displayed on the BCMA VDL.

- **Shortcut Keys:** Let you access a few Menu options with a keyboard, instead of a mouse. In some cases, you can access an option by pressing one key; in other cases, you must use a combination of keys. See the table provided below for shortcut keys available in BCMA.
 - You can also access options by pressing a letter on the keyboard that corresponds to the underlined “letter” in a menu name, directly with the **ALT** key. Once the corresponding drop-down menu displays, press a letter on the keyboard that corresponds to the underlined letter for the option name. For example, to close a patient record, press **ALT+F** [UNDERLINED LETTER OF THE MENU NAME] to display the File menu. Then, at the File menu, press **C** on the keyboard to access the Close Patient Record option.

Example: Shortcut Keys Available in BCMA

Use This Shortcut:	To Make This Occur:
Ctrl+O	Access the Patient Lookup dialog box to open a Patient Record.
F1	Access context-sensitive, on-line help for a command selected in the Menu Bar or Right Click drop-down menu, or for a button, feature, or option that you have “focused” on the VDL.
F4	Display details of the selected medication order on the VDL, from Inpatient Medications V. 5.0.
F5	Load active medication orders onto the VDL, and refresh the information in the Status and Last Action columns.
F9	Display active medication orders under the Unit Dose Medication Tab.
F10	Display active medication orders under the IVP/IVPB Medication Tab.
F11	Display active medication orders under the IV Medication Tab.

Getting Acquainted with the VDL

Understanding the Columns on the VDL



TIP:

This section describes the columns that display for the Unit Dose and IVP/IVPB Medication Tabs. It also includes the differences among these Tabs and the IV Medication Tab, plus Exceptions.

The Medication Order Display Area displays active medication orders for the Start/Stop Times, Schedule Types, and Medication Tab selected on the BCMA VDL. This “area” of the VDL is organized into columns, and described in this section.

- **Status:** Indicates the status of medications scanned for the Administration Time Window (Start/Stop Times) selected on the BCMA VDL. When a medication bar code is scanned, it is considered “Given,” and marked as such (with the letter “G”) in this column. You can change this status using the Due List menu or the Right Click drop-down menu. BCMA then “refreshes” (updates) information in this column and the Last Action column.
 - **If Blank:** Indicates that no action was taken on the medication.
 - **Not Given Orders:** Appear only in the Audit Trail section of the Medication Log Report (not on the BCMA VDL).
 - **IV Medication Tab:** Lists the status of the order with a word instead of a letter like the Unit Dose and IVP/IVPB Medication Tabs.
- **Ver:** An abbreviation for “Verified,” displays the initials of the nurse who verified the order using CPRS or the Inpatient Medications V. 5.0 package.
 - **Three Asterisks:** Indicates that the order has not been verified by a nurse, but by a pharmacist.
- **HSM:** An abbreviation for “Hospital-supplied Self Medication,” indicates that the medication is supplied by your medical center’s Pharmacy, but administered by the patient.
 - **SM:** An abbreviation for “Self Medication,” indicates that the patient is providing *and* administering the medication.
 - **If Blank:** Indicates that your medical center’s Pharmacy is providing the medication, and that a nurse is administering the medication.
 - **IVP/IVPB Medication Tab:** Column is not available for this Tab.
 - **IV Medication Tab:** Column is not available for this Tab.

Getting Acquainted with the VDL

Understanding the Columns on the VDL (cont.)

This section describes the columns within the Medication Order Display Area of the BCMA VDL.

- **Type:** Displays the Schedule Type of a medication order. They include “C” (Continuous), “P” (PRN), “OC” (On-Call), and “O” (One-Time).
 - **Fill-on-Request Orders:** These order types are grouped, based on whether their Schedule Type is Continuous or PRN. This depends on whether the schedule contains the characters “PRN.”
 - **IV Medication Tab:** These order types are listed as Admixture, Chemotherapy, Hyperal, Piggyback, and Syringe.
- **Active Medication:** Lists the orderable item on the first line, and the dispensed drug name or medication (indented) on the second line.
 - **Special Instructions in RED:** Display below the dispensed drug name or medication. Pharmacists enter Instructions using the Inpatient Medications V. 5.0 package. These codes expand to full text on the BCMA VDL.
 - **Special Instructions in a Pop-up Box:** Display when you scan the medication bar code. You must acknowledge the message in the Pop-up Box before administering the medication.
 - **IVP/IVPB Medication Tab:** Column is not available for this Tab.
 - **IV Medication Tab:** Column is not available for this Tab.
- **Dosage:** Lists the total dosage and schedule information for the medication order.
 - **IVP/IVPB Medication Tab:** This column is replaced by the Infusion Rate column.
 - **IV Medication Tab:** This column is replaced by the Infusion Rate column.
- **Route:** Also called “Med Route,” indicates in an abbreviated format, how a clinician will administer the medication to the patient. For example: IV, IM, ID, SQ, and SC.

Getting Acquainted with the VDL

Understanding the Columns on the VDL (cont.)



TIP:

The Last Action column will not display a date/time if the medication was not administered *before* to the patient.

This section describes the columns within the Medication Order Display Area of the BCMA VDL.

- **Admin Time:** Indicates the Administration Date and Time entered for the medication by the Pharmacy, using the Inpatient Medications V. 5.0 package.
 - **Orders that Display on VDL:** The administration time for an order must fall between the Start and Stop Time Parameters selected on the BCMA VDL, before the order will display on the VDL.
 - **Multiple Administration Times:** If a Continuous-type order has multiple administration times, each administration time appears as a separate line item on the BCMA VDL.
 - **IV Medication Tab:** Column is not available for this Tab since IVs do not have administration times associated to them.

- **Last Action:** Describes the last action taken on the orderable item and the date/time of this action. When BCMA “refreshes,” it updates medication order information, plus this column and the Status column.
 - **Multiple Line Items:** If multiple line items are displayed, the same last action time displays for each related item.
 - **Renewed Medications:** Medications renewed during the Start/Stop Time Parameters selected on the BCMA VDL, display the last action and time of the preceding order.
 - **IV Medication Tab:** Column is not available for this Tab.

Exceptions

Besides the Medication Order Display Area, the IV Medication Tab also includes the IV Bag Chronology and the IV Bag Detail display areas. Each area is described below:

- **IV Bag Chronology:** Lists the action taken on each IV bag, whether the bag is available, the Unique Identifier Number, and the contents of each bag.
- **IV Bag Detail:** Provides a history of an IV bag, such as the date and time the medication was administered, the initials of the clinician who administered the medication, any actions taken on the medication, and any comments entered by a clinician.

Getting Acquainted with the VDL

Sorting the Contents of a Column



TIP:

You can sort a column by clicking on a Column Header.



TIP:

“Blank” columns display at the top of the VDL.

BCMA displays medication information in columns on the BCMA VDL. You can sort the contents of each column alphabetically, by ascending or descending order. You cannot change the order of the actual columns within the BCMA VDL.

Note: Information in columns is actually sorted numerically, then alphabetically in the columns.

To sort the contents of a column

- 1 Select the Sort By command in the Due List menu. The Sort By drop-down menu displays.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **S** to display the Sort By drop-down menu.

Example: Sort By Drop-down Menu

The screenshot shows the 'Bar Code Medication Administration' window. The 'Due List' menu is open, and the 'Sort By' option is selected, displaying a sub-menu with the following options: Status, Verifying Nurse, Hospital Self Med, Type, Active Medication, Dosage, Route, Administration Time (checked), and Last Action. The main window displays patient information for IDWA, LUKE (MALE) and a table of medication orders. The table has columns for Stat., Var, Hsm, Typ, Drug IEN Code, Dosage, Route, Admin Time, and Last Action. The current medication is SODIUM BICARBONATE.

- 2 Select the name of the column that you want to sort alphabetically on the BCMA VDL. The contents of the column changes accordingly.

Keyboard Shortcut: Use the arrow keys to select the desired column name, and then press **ENTER** to sort the column alphabetically.

Getting Acquainted with the VDL

Resizing the Columns on the BCMA VDL



IMPORTANT:

Once you resize a column, you cannot “undo” it, unless you use the steps provided in this section.

You can quickly — and easily — resize the columns on the BCMA VDL. Here’s how.

To resize columns on the VDL

- 1 Place the mouse pointer over the vertical border (line) of a Column Header. A crosshair displays.

Example: Crosshair Used to Resize a Column

The screenshot shows the 'Bar Code Medication Administration' window. At the top, there are menu options: File, View, Reports, Due List, Tools, Help. Below that are tabs: Missing Dose, Medication Log, Medication Admin History, Allergies, CPRS Med Order. Patient information is displayed: ID:WA,LUKE (MALE), SSN = 000-00-3679, DOB = 9/2/1947 (66), Height = ", Weight = ", Location = 7A GEN MED 724-A. Virtual Due List Parameters show Start Time: 12/31@0900 and Stop Time: 12/31@1000. Schedule Types are checked for Continuous, PRN, O2-Call, and One-Time. Allergies are listed as 'no allergies assessment' and 'ADRs: No ADRs on file'. The main table has columns: Stat., Ver, Hsm, Type, Active Medication, Dosage, Route, Admin Time, Last Action. The 'Type' column header is highlighted with a blue circle and a crosshair cursor. The table contains several rows of medication data. At the bottom, there are controls for Unit Dose, IVP/IVPB, and IV. A Scanner Status is 'Ready'. A Scan Medication Bar Code field is present. BCMA Clinical Reminders show a Count of 0 and Activity PRN Effectiveness. The footer shows DENVER.DONNA, ALBANY, and Server Time: 12/31/2003 09:48.

Stat...	Ver	Hsm	Type	Active Medication	Dosage	Route	Admin Time	Last Action
***			P	ACETAMINOPHEN TAB	650MG, Q6H PRN	PO		
***			D	ACETAMINOPHEN 325MG TAB				
***			D	DIGOXIN ELIXIR	0.05MG/1ML, STAT	PO		
***			OC	DIGOXIN 0.05MG/ML ELIX (60CC)				
***				FUROSEMIDE TAB	20MG, ON CALL	PO		
***			C	FUROSEMIDE 40MG TAB				
***				30 Minutes Prior to Cisplatin				
***			C	HALOPERIDOL TAB	2MG, Q4H	PO	12/31@0900	
***				HALOPERIDOL 1MG S.T.				
***			D	LORAZEPAM INJ	4MG/1ML, NOW	IMP		
***			C	LORAZEPAM 4MG/ML 1ML TUBEX				
***				SODIUM BICARBONATE TAB	325MG, Q4H	PO	12/31@0900	
***				SODIUM BICARBONATE 325MG TABS				

- 2 Press and drag the crosshair to the right to increase the column width, or to the left to decrease the column width.

Note: There is a minimum size allowed for each column so you do not accidentally overlay one column onto another, and find yourself unable to access a column.

Getting Acquainted with the VDL

Refreshing the VDL



TIP:

After a medication pass, press **F5** to refresh the VDL with current medication order information, and to update the information in the Status and Last Action columns.

You can “refresh” the BCMA VDL to ensure that the medication order information displayed is the most current received from Inpatient Medications V. 5.0. When you use this feature, BCMA “loads” active medication orders onto the BCMA VDL, and refreshes the information in the Status and Last Action columns.

To refresh the VDL

- 1 Select the Refresh command in the Due List menu. The BCMA VDL refreshes so you are receiving the most current medication order information. It also updates the information in the Status and Last Action columns.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **R** to select the Refresh command. The BCMA VDL “refreshes” with current medication order information, and also updates the Status and Last Action columns.

Example: Command Used to Refresh the VDL

The screenshot shows the 'Bar Code Medication Administration' window. The 'Due List' menu is open, and the 'Refresh' option (F5) is highlighted. The main window displays a table of medication orders with columns for Status, Ver, Hsm, Typ, Drug IEN Code, Dosage, Route, Admin Time, and Last Action. The patient information at the top includes: IOWA, LUKE (MALE), SSN = 000-00-9678, DOB = 9/2/1947 (56), Height = 5', Weight = 150 lbs, Location = 7A GEN MED. The 'ALLERGIES' section shows 'no allergies'. The 'Schedule Types' section has checkboxes for Continuous, Qd-Call, ERN, and One-Time, all of which are checked. The 'Scanner Status' is 'Ready'. The 'Server Time' is 12/31/2003 09:47.

Stat.	Ver	Hsm	Typ	Drug IEN Code	Dosage	Route	Admin Time	Last Action
***			P		650MG, Q6H PRN	PO		
***			O	25MG TAB	0.05MG/1ML, STAT	PO		
***			OC	FUROSEMIDE TAB FUROSEMIDE 40MG TAB 30 Minutes Prior to Cloplatin	20MG, ON CALL	PO		
***			C	HALOPERIDOL TAB HALOPERIDOL 1MG S.T.	2MG, Q4H	PO	12/31@0900	
***			O	LORAZEPAM INJ LORAZEPAM 4MG/ML 1ML TUBEX	4MG/1ML, NOW	IMP		
***			C	SODIUM BICARBONATE TAB SODIUM BICARBONATE 325MG TABS	325MG, Q4H	PO	12/31@0900	

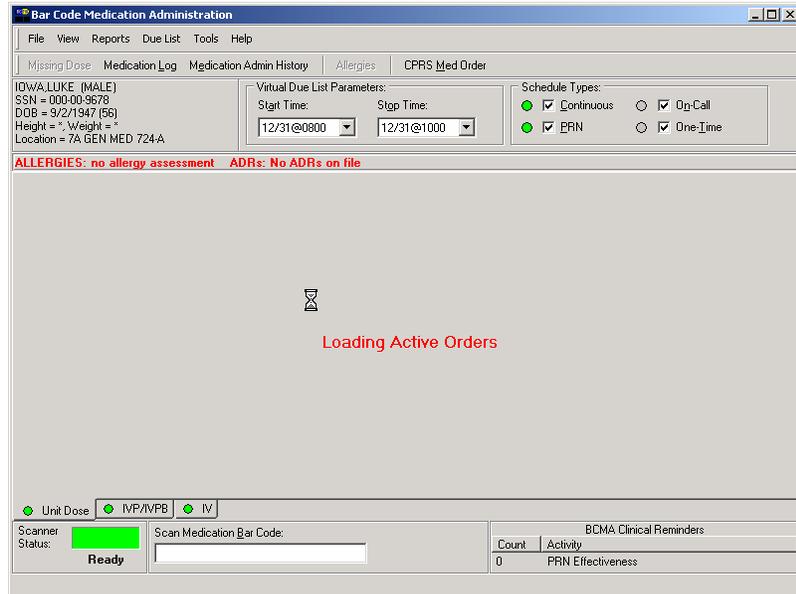
— THEN —
(SEE NEXT PAGE)

Getting Acquainted with the VDL

Refreshing the VDL (cont.)

To refresh the VDL (cont.)

Example: Message When VDL Refreshing



- 2 Notice the message that displays when you refresh the BCMA VDL, and that the Status and Last Action columns are updated once this process is complete.

Working with Unit Dose Medications

Benefits of this Chapter

Use this chapter when you need to administer active Unit Dose medications to patients on your ward. The options and features available within the BCMA VDL apply specifically to active Unit Dose medication orders only.

Preparing to Administer Unit Dose Medications



TIP:

A medication displays on the VDL if it has an “active” status and the patient has a status and location of “inpatient.”



TIP:

The PRN Schedule Type controls the default display of PRN medications on the VDL, and is based on the GUI BCMA Site Parameters entry for “Include Schedule Types.”

Before administering any active Unit Dose medications to a patient, review this section to learn more about the Schedule Types for Unit Dose medications that you can administer, including medication orders that display on the BCMA VDL, and how BCMA indicates “actions” taken on medications displayed on the VDL.

Then you will be ready to define the administration Start and Stop Times and Schedule Types of the medications that you want to display on the BCMA VDL, and to administer active Unit Dose medications to your patients.

Schedule Types that You Can Administer

You can administer medications for active Unit Dose medication orders with the Schedule Types listed below.

- **Continuous:** A medication given continuously to a patient for the life of the order, as defined by the order Start and Stop Date/Time. Includes Fill-on-Request orders.
 - **Fill-on-Request Orders:** These are grouped, based on whether their Schedule Type is Continuous or PRN. This depends on whether the schedule contains the characters “PRN.” If BCMA does not find these characters, it looks for administration times, and places the order accordingly on the BCMA VDL.
- **PRN:** A medication dosage given to a patient on an “as needed” basis. Includes Fill-on-Request orders.
- **On-Call:** A specific order or action dependent upon another order or action taking place before it is carried out.
- **One-Time:** A medication order given one time to a patient such as a STAT or a NOW order. This order type displays for a fixed length of time on the BCMA VDL, as defined by the order Start and Stop Date/Time.

Note: Each time that you open a BCMA VDL (i.e., patient record), BCMA defaults to the Unit Dose Medication Tab and the Schedule Types of Continuous, One-Time, and On-Call already selected. This occurs even if you change the Schedule Types or Medication Tab during a medication pass.

Working with Unit Dose Medications

Preparing to Administer Unit Dose Medications (cont.)



TIP:

The administration time of an *active* order must fall within the Start and Stop Date/Times selected on the VDL *before* the order will display.

Medication Orders that Display on the VDL

Once a Unit Dose medication order becomes “active,” it displays on the BCMA VDL under the Unit Dose Medication Tab for the Start and Stop Date/Times and Schedule Types selected on the BCMA VDL. This status occurs once a pharmacist or nurse verifies a medication order using Inpatient Medications V. 5.0 or CPRS. This includes orders on “Hold” and any orders entered through the Unit Dose or IV package. Orders placed “On Hold” by a provider display grayed out on the BCMA VDL. You can only mark these order types as “Held,” although it is not necessary that you do so.

Active Unit Dose orders display under the Unit Dose Medication Tab, except for orders entered with a Medication Route of IVP or IV PUSH. (These order types display under the IVP/IVPB Medication Tab.)

BCMA determines *when* to display an order on the BCMA VDL by subtracting the information in the “Before Scheduled Admin Time” site parameter field from the Start Date/Time of the medication order. You can define this parameter using the Parameters Tab in the GUI BCMA Site Parameters application.

Medications Available for Scanning

Administering Unit Dose medications to a patient involves the scanning of the patient’s medication (drug) bar code. BCMA recognizes the following number on the Unit Dose Medication Tab:

- **Internal Entry Number (IEN):** Drug numbers provided on medication bar codes are considered a unique drug identifier by the Pharmacy. BCMA validates the bar code scanned against the IEN of DRUG file (#50) and/or the SYNONYM field (#.01) of the DRUG file (#50), to ensure that a valid number exists for the dispensed drug and strength scheduled for administration.

Working with Unit Dose Medications

Preparing to Administer Unit Dose Medications (cont.)



TIP:

When the patient's VDL uses the Status column to sort orders, BCMA displays medications with no status at the top of the VDL. It then displays all other medications in alphabetical order by the Status code.



TIP:

You can only change a "Given" status to "Not Given." This status does *not* display on the VDL; it only appears in the Audit Trail section of the Medication Log Report.

Marking the Order Status/Last Action Column

When you administer a Unit Dose medication to a patient, BCMA electronically documents the "action" taken on the medication by displaying a letter, for example a "G" (for "Given"), in the Status column of the BCMA VDL. This information also displays on the Medication Log Report and the MAH Report.

The Last Action column lists the "last action" taken on an orderable item and the date/time of this action, so the nurse will know when the patient last received any dose of a medication regardless of the Schedule Type selected. This information helps to prevent the same medication from being given to the patient from another order or schedule type.

- If the orderable item is the same, the Last Action column lists the last administration action.
- If the patient has two different orders, for the same orderable item, the last administration of either of these orders displays in the Last Action column for both orders. You can view the MAH Report to determine which order the medication was given from on the BCMA VDL.
- If a medication was not administered before to the patient, the Last Action column will not list a date/time.

Understanding the Status of a Medication Order

Once you scan and mark a medication as Given, you cannot scan it again for the same administration time. If you do, you will receive an Error message. You can, however, change the status from "Given" to "Not Given" provided you are the individual who originally marked it as "Given," or you have been assigned the PSB MANAGER security key.

You can mark a Unit Dose medication with the following status:

- Given to Not Given or Removed
- Held or Refused to Given
- Missing to Given, Held, or Refused

Note: A patch marked as "Given," displays on the BCMA VDL each time BCMA is opened — until it is marked as "Removed" — even if the order is discontinued or expires, or the patient is discharged or re-admitted to your medical center.

Working with Unit Dose Medications

Preparing to Administer Unit Dose Medications (cont.)

Information Stored by BCMA

BCMA stores the following information each time you administer an active Unit Dose medication to a patient:

- Patient
- Location of the patient (i.e., bed, ward, or division)
- Clinician administering the medication
- Clinician who created the Medication Log Entry
- Entered date and time
- Audit information (i.e., clinician, text, date and time)
- Administration date and time
- Status of the administration, such as Given, Held, Refused, Missing, or Removed (in the case of a patch)
 - Orders changed to “Not Given” do not display a code (letter) in the Status column of the BCMA VDL. This status appears only in the Audit Trail section of the Medication Log Report, not on the BCMA VDL.
 - “Cancelled” administrations are not stored in the Medication Log.
- Number of minutes that the dose was given too Early or too Late to the patient
- Reason that a PRN medication was administered and the medication effectiveness
- Medication, dosage, and/or number of units given
- Any comments associated with the drug administration dose
- Injection site for medications that must be injected

Working with Unit Dose Medications

How BCMA Validates Patient and Medication Information



TIP:

After a medication pass, press **F5** to refresh the VDL, then note that the Last Action column lists an administration as the most recent one.

When used as intended, BCMA serves as an excellent check-and-balance system for patients and VAMCs. The chances for errors increase when the scanning process is circumvented — entered manually — during the medication administration process. In short, here is the validation process completed by BCMA V. 3.0.

First Validation By BCMA

When you scan the bar code on a patient's wristband, BCMA automatically verifies/validates the patient's identity, then provides important clinical information via a Confirmation dialog box and the patient's VDL.

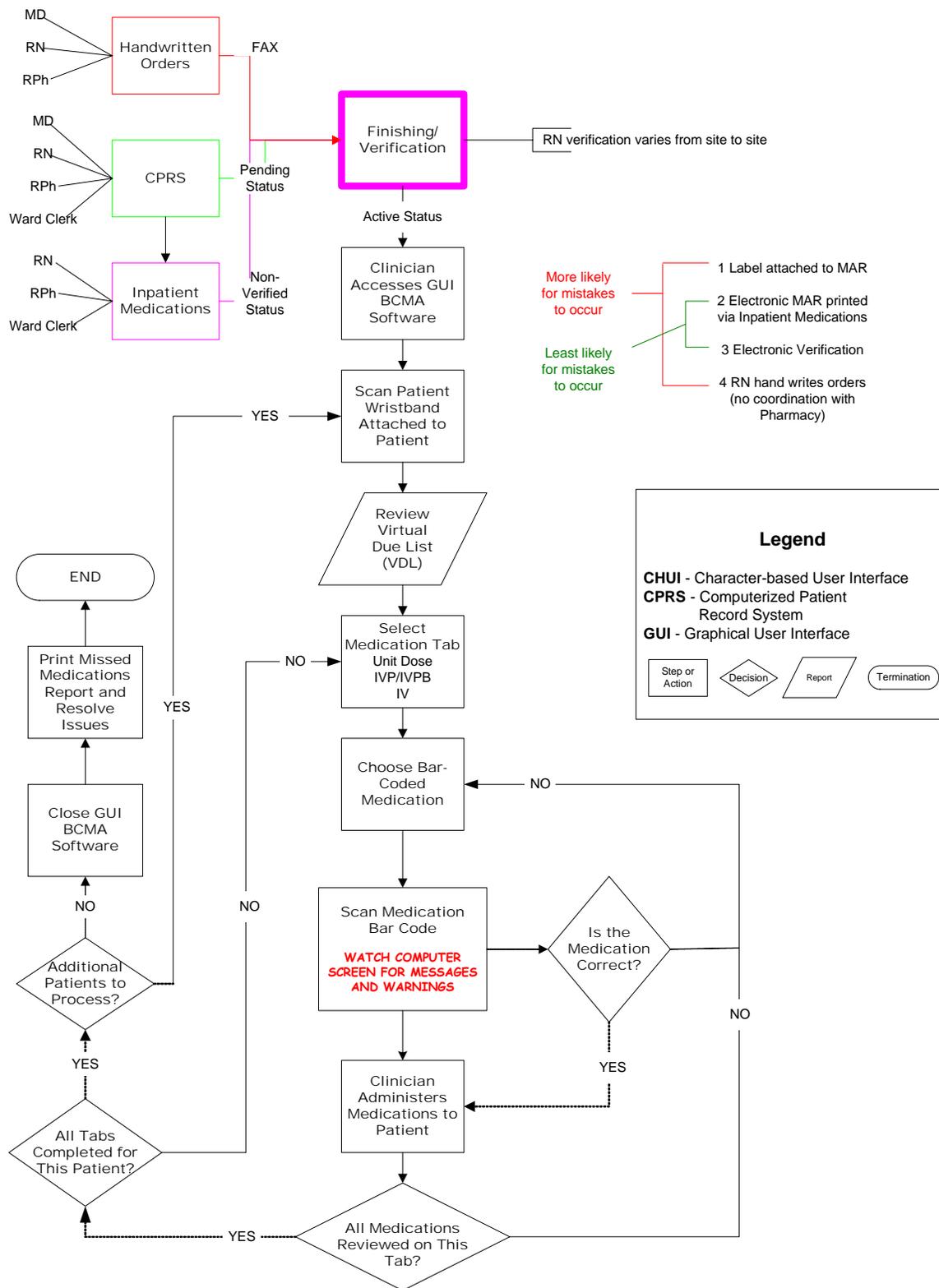
Second Validation By BCMA

The second validation by BCMA occurs when you scan the bar code on the patient's medication. During this validation process, BCMA verifies whether the medication is located in the DRUG file (#50), if the patient has an active order entered into Inpatient Medications V. 5.0 for the medication scanned, and if the dosage is correct and timely for the medication ordered. The lookup is restricted to the IEN and SYNONYM field (#.01) of the DRUG file (#50).

A variety of dialog boxes will display for each patient, depending on the medications scheduled for administration. (See the descriptions provided below to learn when a dialog will display on the VDL.) If the administration is successful, the patient's VDL displays the letter "G" (for "Given) in the Status column to document that the patient received the medication as required.

- If the order is active, and includes more than one unit per dose, a dialog box displays so you can select and scan each unit dose scheduled for administration.
- If a patient has more than one active order for the same medication, with different schedule types, both orders display on the BCMA VDL.
- If you give the medication outside the medication administration window — Early or Late — (as defined by a site parameter), the Medication Log dialog box displays, requiring that you complete the Comments field. The order is then logged as Early or Late in the Medication Variance Log.
- If a medication is scanned and marked as "Given," you cannot scan it again for the same administration time.
- If you scan a medication twice for the same administration time, you will receive an Error message.

Medication Pass FlowChart for Unit Dose Medications



Administering a Patient's Unit Dose Medications

Let's Get Started: Signing on to BCMA



TIP:

Starting an administration session in BCMA is quite simple. Just double-click on the BCMA icon on your desktop, then enter information when prompted by the system.

Now that you are familiar with the Unit Dose administration process, and the types of orders that display on the BCMA VDL, you are ready to administer active Unit Dose medications to your patients by first signing on (logging on) to BCMA.

Note: The initial process of signing on to BCMA V. 3.0 is the same for each medical center, although the screens that display may vary. This is a result of how site parameters are set for your division. For example, your medical center may require that you specify your division, enter an electronic signature code, or indicate if you are working with a nursing instructor. If so, you will receive all or just a few of the associated screens shown in this section when accessing BCMA V. 3.0.

To sign on to BCMA

- 1 Double-click on the BCMA icon on your desktop. BCMA displays the BCMA Splash Screen, and then the *VISTA* Sign-on dialog box.

Example: BCMA Splash Screen and *VISTA* Sign-on Dialog Box

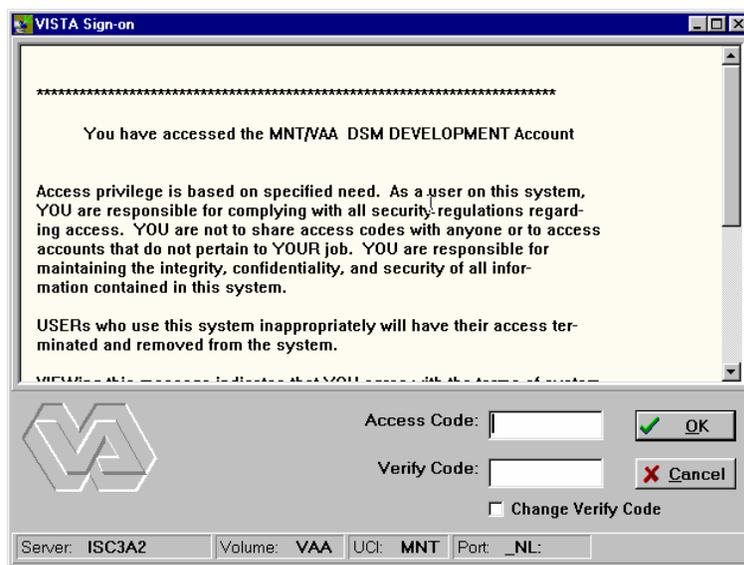


— THEN —



TIP:

The dialog boxes and messages that display, during the administration process, will depend on the Schedule Types selected on the VDL.



Administering a Patient's Unit Dose Medications

Let's Get Started: Signing on to BCMA (cont.)



TIP:

You can skip steps 2 and 3 by typing your Access Code, then your Verify Code — separated by a semi-colon — in the Access Code field. Press **ENTER** after typing the codes.

To sign on to BCMA (cont.)

- 2 In the Access Code field, type your Access Code, and then press **TAB**.
 - If the “blinking” cursor does not display in this field, click once in the field to activate it.
 - If you are a nursing student, enter your Access and Verify Codes. When you do, the system will verify that you have been assigned the PSB STUDENT security key. Your instructor should then enter their Codes at the Instructor Sign-On dialog box that displays.

Keyboard Shortcut: Press **TAB** to move among the fields and buttons on the dialog box.

- 3 In the Verify Code field, type your Verify Code, and then click **OK**.
 - If the “blinking” cursor does not display in this field, click once in the field to activate it.
 - Medical centers with multiple divisions, [click here](#).
 - Divisions with nursing students, [click here](#).
 - Divisions requiring an Electronic Signature Code, [click here](#).

Keyboard Shortcut: Press **ENTER** after typing your codes to begin the verification process.

Administering a Patient's Unit Dose Medications

Let's Get Started: Signing on to BCMA (cont.)

➤ For Medical Centers with Multiple Divisions

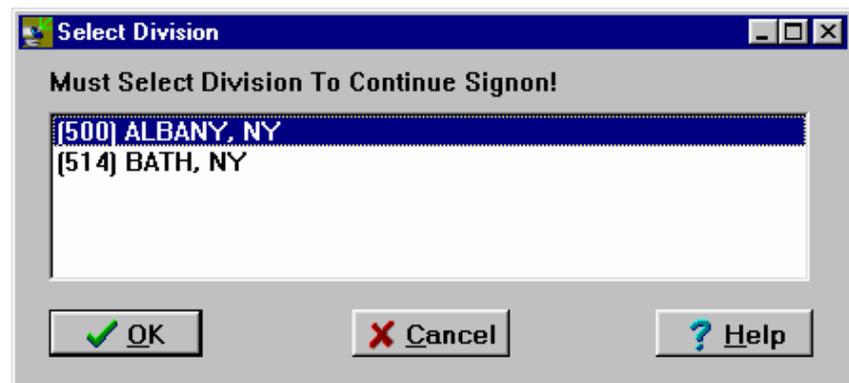
If your medical center has multiple divisions, the Select Division dialog box provided below displays.

To select a division

- 1 Select a division that corresponds to your medical center, and then click **OK** to continue with the sign-on process.

Keyboard Shortcut: Use the **ARROW** keys to select your division name, and then press **ENTER**. Press **TAB** to activate the **OK** button, and then press **ENTER**.

Example: Select Division Dialog Box



- 2 Continue with the medication administration process.

Administering a Patient's Unit Dose Medications

Let's Get Started: Signing on to BCMA (cont.)



TIP:

Student and instructor names display in the bottom left-hand corner of the VDL, on the Status Bar, as the medication administrators for a patient.



TIP:

The Sign On Button is grayed out *until* you click inside the Access Code field in the Instructor Sign-On dialog box.

➤ For Divisions with Nursing Students

If you are a nursing student, your nursing instructor must enter their Access and Verify Codes, at the Instructor Sign-On dialog box provided below, *before* you can access the patient's VDL. BCMA will then verify that the instructor has been assigned the PSB INSTRUCTOR security key, and is a recognized nursing instructor.

To enter nursing instructor codes

- 1 Request that your nursing instructor enter their Access and Verify Codes in the Instructor Sign-On dialog box, and then press **SIGN ON**.

Keyboard Shortcut: Press **TAB** to activate the SIGN ON button, and then press **ENTER**.

Example: Instructor Sign-On Dialog Box

The screenshot shows a standard Windows-style dialog box titled "Instructor Sign-On". It features a title bar with a close button (X). The main area contains two text input fields. The first is labeled "Access Code:" and contains six asterisks. The second is labeled "Verify Code:" and contains eight asterisks. At the bottom of the dialog are two buttons: "Sign On" and "Cancel".

- 2 Continue with the medication administration process.

Administering a Patient's Unit Dose Medications

Let's Get Started: Signing on to BCMA (cont.)

➤ For Divisions Requiring an Electronic Signature Code

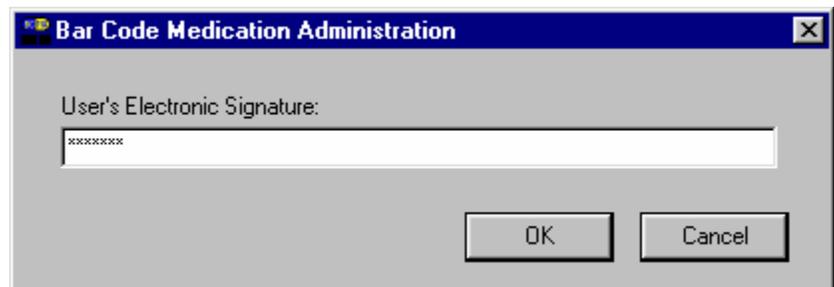
The Electronic Signature dialog box provided below displays if your medical center has set its site parameters to require individuals to enter an Electronic Signature Code.

To enter an electronic signature code

- 1 Enter your electronic signature code, and then click **OK**.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER**.

Example: Electronic Signature Code Dialog Box



- 2 Continue with the medication administration process.

Administering a Patient's Unit Dose Medications

Scanning and Verifying Patient Information

Follow the instructions in this section to scan the bar code on a patient's wristband, to verify their personal and allergy information, and to activate their patient-specific VDL.

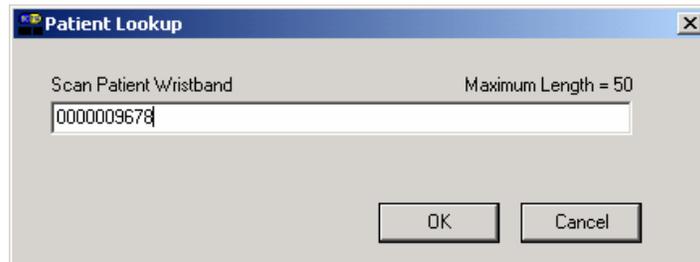
Note: At the Patient Lookup dialog box, you can click **CANCEL** to access the Menu Bar — without opening a patient record — and print all reports by ward, except for the Cumulative Vitals/Measurement Report. A patient's file must be opened to access patient-specific reports. See chapter 7, "Viewing and Printing BCMA Reports" for more information.

To scan and verify patient information

- 1 At the Patient Lookup dialog box, scan the bar code on the patient's wristband. The maximum character length is 50. A Confirmation dialog box displays the patient's personal data such as name, SSN, ward, room-bed, allergies, and ADRs.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to accept your entry and begin the scan process.

Example: Patient Lookup Dialog Box



Administering a Patient's Unit Dose Medications

Scanning and Verifying Patient Information (cont.)



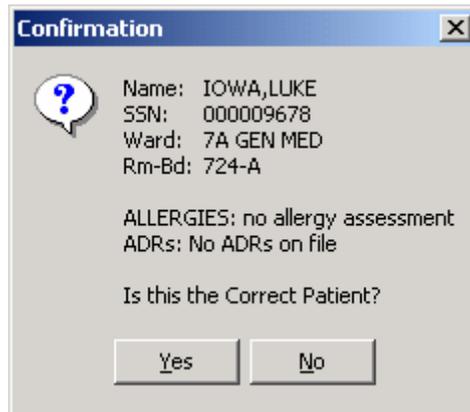
TIP:

The Confirmation dialog box that displays, after a patient's wristband is scanned, includes the patient's allergies and ADRs.

To scan and verify patient information (cont.)

- 2 Verify the information provided in the Confirmation dialog box with the information on the patient's wristband.

Example: Confirmation Dialog Box



- 3 Perform one of the following actions:

- **If the information matches** the data printed on the patient's wristband, click **YES** to access their VDL and to begin administering active medications to the patient.

Keyboard Shortcut: Press **TAB** to activate the YES button, and then press **ENTER** to access the patient's VDL.

- If the "Restricted Record" dialog box displays, [click here](#).
- If the "Patient Transfer Notification" message displays, [click here](#).
- **If this information does not match** the data on the patient's wristband, click **NO**, and then verify the patient's identity against the information on their wristband.
 - **If correct**, scan the wristband again.
 - **If incorrect**, correct the wristband for the patient.

Administering a Patient's Unit Dose Medications

Scanning and Verifying Patient Information (cont.)



TIP:

The information in a "Sensitive Record" is considered extremely confidential and should be treated as such.

➤ If Patient's Record Marked as "Sensitive"

BCMA uses the standard Patient Lookup. If a patient record is marked as "Sensitive," you may (or may not) receive a Restricted Record Warning message. This will depend on whether you hold the security key for this type of patient record. A "Sensitive Patient" is one for whom a record exists in the DG SECURITY LOG file (#38.1) with a SECURITY LEVEL field (#2) marked as "Sensitive."

Note: Every time a "Sensitive" patient record is accessed, an entry is created in a log for the Information Security Officer at your medical center. The log lists the individual who accessed the record, how they accessed the record, and for what length of time. That way, the Security Officer can monitor the patient's privacy and make sure that "need to know" information is disseminated accordingly.

To review information for a sensitive record

- 1 Review the Warning message, and then click **YES** to return to the patient's VDL and begin administering active medications to the patient.

Keyboard Shortcut: Press **TAB** to activate the YES button, and then press **ENTER** to display the patient's VDL.

- 2 Continue with the medication administration process.

Administering a Patient's Unit Dose Medications

Scanning and Verifying Patient Information (cont.)



TIP:

The Patient Transfer Notification message will only display **once** per Medication Tab (i.e. Unit Dose or IVP/IVPB), while the patient's record is open.

➤ If Patient Transfer Notification Message Displays

BCMA displays the Patient Transfer Notification message if the patient has had a movement type (i.e., usually a transfer) within the site-definable parameter, and the last action for the medication occurred before the movement, but still within the defined timeframe. You can define this parameter, the Patient Transfer Notification Timeframe, on the BCMA Site Parameters Tab of the BCMA GUI Site Parameters application.

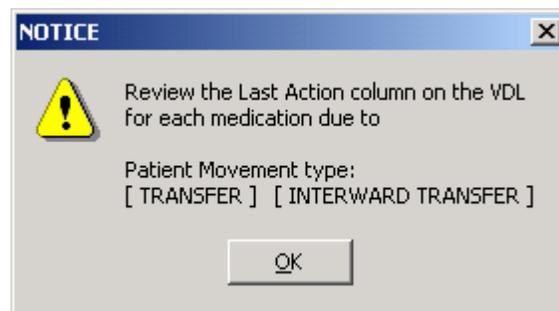
Note: The display of the message is dependent on the last action displayed in the "Last Action" column of the BCMA VDL. BCMA evaluates the last action performed each time the Unit Dose or IVP/IVPB Medication Tabs are refreshed.

To review Patient Transfer Notification message

- 1 Review the Patient Transfer Notification message, and then click **OK** to return to the patient's VDL and begin administering active medications to the patient. BCMA will determine each last action that falls within the site-specified Notification "window" and display the patient's movement in the "Last Action" column, along with the existing last action.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to display the patient's VDL.

Example: Patient Transfer Notification Message



- 2 Continue with the medication administration process.

Administering a Patient's Unit Dose Medications

Preparing to Administer Unit Dose Medications



TIP:

If the number of medications that need to be administered is greater than the VDL can display, use the Scroll Bar to view all of them.



TIP:

Each time you open a patient record, BCMA defaults to the Unit Dose Medication Tab.

The instructions listed in this section describe how to change the Virtual Due List Parameters (Start and Stop Date/Time) and Schedule Types on the patient's VDL, along with the process for scanning the patient's active Unit Dose medications.

Viewing a Patient's Active Unit Dose Medications

The "view" or active window shown below, displays the *first* time that you open BCMA and display medications under the Unit Dose Medication Tab.

Each time that you open a VDL (i.e., patient record), BCMA defaults to the Unit Dose Medication Tab and the Schedule Types of Continuous, One-Time, and On-Call already selected. This occurs even if you change the Schedule Types or Medication Tab during a medication pass. The PRN Schedule Type controls the default display of PRN medications on the BCMA VDL, and is based on the GUI BCMA Site Parameters entry for "Include Schedule Types."

Using the Unit Dose Medication Tab

The Unit Dose Medication Tab provides an "alert light" which turns **GREEN** only when the patient has active medication orders associated to them and the admin time is within 12 hours before and 12 hours after NOW. When you click a "lit" Tab, BCMA displays the patient's active medication orders on the BCMA VDL for your selected timeframe. This safeguard is provided, along with the Missed Medications Report, to ensure that all Unit Dose medications that are due are given to the patient in the correct dosage and on time.

Example: BCMA VDL for Active Unit Dose Medications

Stat	Vis	Hm	Typ	Active Medication	Dosage	Route	Admin Time	Last Action
---			P	ACETAMINOPHEN TAB	650MG, Q4H PRN	PO		
---			D	ACETAMINOPHEN 325MG TAB				
---			D	DIGOXIN ELDR	0.05MG/1ML, STAT	PO		
---			DC	DIGOXIN ELDR 0.05MG/ML ELDC (RDC)				
---			DC	FLUROSEMIDE TAB	20MG, ON CALL	PO		
---			DC	FLUROSEMIDE 40MG TAB				
---			C	HALOPERIDOL TAB	2MG, Q4H	PO	12/31@0900	
---			C	HALOPERIDOL 1MG S.T.				
---			D	LORAZEPAM INJ	4MG/1ML, NOW	IMP		
---			D	LORAZEPAM 4MG/AML 1ML TUBDC				
---			C	SODIUM BICARBONATE TAB	325MG, Q4H	PO	12/31@0900	
---			C	SODIUM BICARBONATE 325MG TABS				

Administering a Patient's Unit Dose Medications

Preparing to Administer Unit Dose Medications (cont.)



TIP:

The Start and Stop Time Parameters are set to the "Default Times from" settings in the GUI BCMA Site Parameters application.



TIP:

You can expand (or restrict) the number of active Unit Dose medications, that display on the VDL, by changing the default Start and Stop Times in the Virtual Due List Parameters area.

Changing the Virtual Due List Parameters

The Virtual Due List Parameters is the functional timeframe during which you can administer medications to a patient before or after the scheduled administration time. For many medical centers, this timeframe is defined as two hours.

Once you use BCMA, these Parameters become your default settings. For example, when you change the default settings for certain fields (i.e., Start and Stop Times, and Column Sort Selection) on the BCMA VDL, these settings are retained in your user parameters and become the default settings each time you log on to BCMA. You can reset these user-selected parameters to site-defined parameters using the *Reset User Parameters* [PSB USER PARAM RESET] option in CHUI BCMA.

Note: The BCMA VDL Start and Stop Times display in one-hour increments, from the top of the nearest hour. For example, 1:15 displays as 1:00 and 1:45 displays as 2:00. You can expand the time range 12 hours before and 12 hours after NOW.

To change the Virtual Due List Parameters

- 1 In the patient's VDL, select the Start and Stop Times in the Virtual Due List Parameters area. The BCMA VDL automatically refreshes and displays active medications for the newly selected administration window.

Keyboard Shortcut: Press **TAB** to access the Virtual Due List Parameters area and to move among the Time fields.

Example: Virtual Due List Parameters Area on VDL

Hist	Allergies	CPRS Med Order
Virtual Due List Parameters:		
Start Time:		Stop Time:
03/19@1200		03/19@1400

- 2 Now you are ready to select the Schedule Types of Unit Dose medications that you want to display on the BCMA VDL.

Administering a Patient's Unit Dose Medications

Preparing to Administer Unit Dose Medications (cont.)



TIP:

You can automatically display PRN medication orders when the VDL is first opened by selecting the PRN check box in the "Include Schedule Types" area of the GUI BCMA Site Parameters application.



TIP:

A **GREEN** "alert light" indicates that a medication order exists for the Schedule Type selected within the respective start/stop date and time. If grayed out, then none exist.

Changing Schedule Types on the VDL

You are ready to select the Schedule Types of the active Unit Dose medications that you want to display on the BCMA VDL. You can choose all Schedule Types available, or just specific ones.

The abbreviation for each Schedule Type is listed as follows in the Type column of the BCMA VDL:

- C (for Continuous)
- P (for PRN)
- OC (for On-Call)
- O (for One-Time)

Note: Each time that you open a VDL (i.e., patient record), BCMA defaults to the Unit Dose Medication Tab and the Schedule Types of Continuous, One-Time, and On-Call already selected. This occurs even if you change the Schedule Types or Medication Tab during a medication pass. The PRN Schedule Type controls the default display of PRN medications on the BCMA VDL, and is based on the GUI BCMA Site Parameters entry for "Include Schedule Types."

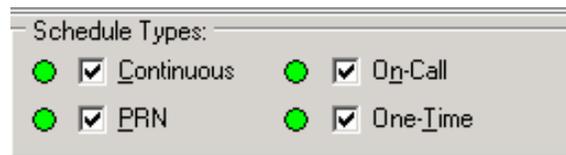
To select Schedule Types that display on the VDL

1 In the Schedule Types area of the BCMA VDL, select the check boxes that apply to the types of medication orders that you want to display on the BCMA VDL for the patient. You may select all of the check boxes or just specific ones.

- If a checkbox is selected for a Schedule Type that you do not want displayed, click on it to deselect it.

Keyboard Shortcut: Press **TAB** to access the Schedule Types area and the **ARROW** keys to move among the Schedule Types. Use the **SPACEBAR** to select a Schedule Type.

Example: Schedule Types Area of VDL



2 Now you are ready to scan the patient's active Unit Dose medications.

Administering a Patient's Unit Dose Medications

Scanning and Verifying Medication Information



TIP:

If the Scanner Status Indicator is **RED**, click in the Indicator field to activate the **GREEN** Ready Light *before* scanning a medication bar code.



TIP:

You do *not* have to select an active Unit Dose medication on the VDL before scanning the medication bar code.

Now you are ready to scan (and verify) the patient's active Unit Dose medications and to officially begin the medication administration process.

To scan and verify medication information

- 1 At the patient's VDL, scan the bar code on the patient's medication. BCMA briefly displays the medication Bar Code number in the Scan Medication Bar Code field. BCMA processes the scan, and then displays screens related to the medication order.

Keyboard Shortcut: Press **TAB** to move to the Scan Medication Bar Code field, or Scanner Status Indicator field, at the lower, left-hand corner of the BCMA VDL.

Note: If the medication bar code is missing or unreadable, right-click on the medication to select the Drug IEN Code command from the Right Click drop-down menu and to display the number. Enter this number manually into the Scan Medication Bar Code field on the BCMA VDL to start the validation process.

Example: Scan Medication Bar Code Field with Drug IEN Code Entered

The screenshot shows a software interface with three tabs at the top: 'Unit Dose', 'IVP/IVPB', and 'IV'. Below the tabs, there are two main sections. The left section is labeled 'Scanner Status:' and contains a green rectangular indicator with the word 'Ready' written below it. The right section is labeled 'Scan Medication Bar Code:' and contains a text input field with the number '5427' entered.

- 2 Continue with the medication administration process for the patient's active Unit Dose medications.
 - If an Error message indicates that the Drug Bar Code was not found in the DRUG file (#50), [click here](#).
 - If an Error message indicates that the medication has already been given or it's not time to give it yet, [click here](#).
 - If an Error message indicates that no order exists for the medication that you just scanned, [click here](#).

Administering a Patient's Unit Dose Medications

Scanning and Verifying Medication Information (cont.)

➤ If Drug IEN Code Not Found in DRUG file (#50)

The Error message provided below displays when BCMA does not locate the medication Drug IEN Code in the DRUG file (#50). This occurs if the DRUG file (#50) contains two entries for the same Drug IEN Code, *or* the code is invalid.

Note: If you receive this Error message more than once, contact the Pharmacy directly about the problem.

To manually enter Drug IEN Code for medication

- 1 Review the Error message, and then click **OK** to return to the patient's VDL.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to display the patient's VDL.

Example: Error Message When Drug IEN Code Not Found



- 2 Select a medication order on the patient's VDL.

Administering a Patient's Unit Dose Medications

Scanning and Verifying Medication Information (cont.)



TIP:

You can quickly look up the Drug IEN Code for a medication by selecting the medication on the VDL, and then selecting the Drug IEN Code command from the Right Click drop-down menu.



TIP:

If the Scanner Status Indicator is **RED**, click in the Indicator field to activate the **GREEN** Ready Light before manually entering the Drug IEN Code.

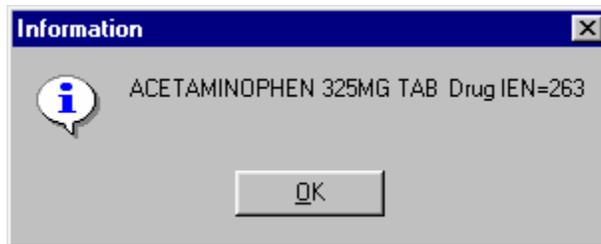
To manually enter Drug IEN Code for medication (cont.)

- 3 Select the Drug IEN Code command from the Due List menu. The Drug IEN Code Information message displays with the medication name, dosage, and related Drug IEN Code.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **D** to display the Drug IEN Code Information message.

- 4 Note the Drug IEN Code from the Drug IEN Code Information message.

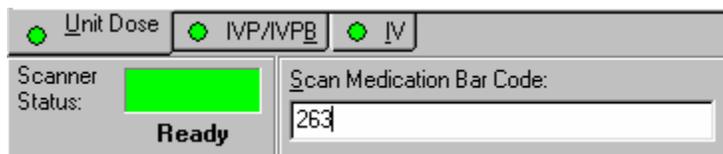
Example: Drug IEN Code for Medication Selected on VDL



- 5 Manually enter the number into the Scan Medication Bar Code field, and then press **ENTER**. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Press **TAB** to access the Scan Medication Bar Code field. Enter the Drug IEN Code in the field, and then press **ENTER** to begin the scan process.

Example: Drug IEN Code Manually Entered into Scan Medication Bar Code Field on VDL



- 6 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Scanning and Verifying Medication Information (cont.)

➤ If Medication Already Given or Not Time To Give Yet

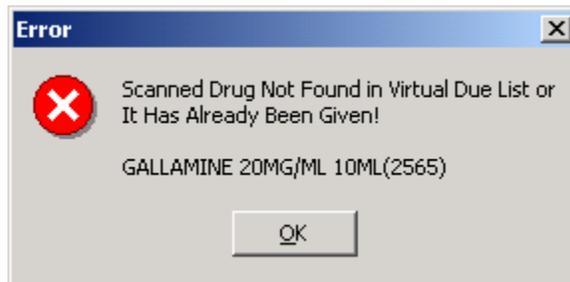
The Error message, provided below, displays if a patient has an order, BUT the medication has already been given to them, *or* it's not time yet to give the medication to them.

To review the Error message

- 1 Review the Error message, and then click **OK** to return to the patient's VDL.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to return to the patient's VDL.

Example: Error Message When Medication Already Given or It's Not Time to Give Yet



- 2 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Scanning and Verifying Medication Information (cont.)

➤ If No Order Exists for Medication Scanned

The Error message, provided below, displays if the patient does not have an order for the medication that you just scanned.

To review the Error message

- 1 Review the Error message, and then click **OK** to return to the patient's VDL.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to return to the patient's VDL.

Example: Error Message When No Order Exists for Medication Scanned



- 2 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Administering a Multiple Dose Order



TIP:

This functionality is also available on the IVP/IVPB Medication Tab.

The Multiple Dose dialog box, provided below, displays when the patient's order includes a **single** dispensed drug with multiple doses (variable doses) that need to be administered to the patient. The Multiple Dose dialog box provided on the next page displays when the patient has **multiple** dispensed drugs that need to be administered to them. You can add comments about the medication administration process to either dialog box.

To administer a multiple dose order

- 1 Scan **each** dosage or dispensed drug for the medication that you want to administer to the patient.
 - **If you did not scan once for each unit listed in the Multiple Dose dialog box**, the Confirmation dialog box displays. Proceed to step #2.

Note: The Multiple Dose dialog box closes automatically if you are scanning the last dosage for the medication.

Example: Multiple Dose Dialog Box

Multiple Dose

Active Medication: **THIORIDAZINE TAB**

Special Instructions/Information:

Dosage: 30MG Units per Dose: 3

- THIORIDAZINE 10MG TABS
- THIORIDAZINE 10MG TABS
- THIORIDAZINE 10MG TABS

Enter a Comment (Optional): (150 Characters Maximum)

Scanner Status: **Ready** Scan Bar Code: [] Done Cancel

— OR —
(See Next Page)

Administering a Patient's Unit Dose Medications

Administering a Multiple Dose Order (cont.)



TIP:

The Multiple Dose dialog box displays the dosage and units per dose for orders that contain only one dispensed drug. However, orders that contain more than one dispensed drug will display the heading "****Multiple Dispensed Drugs:" instead.

To administer a multiple dose order (cont.)

Example: Multiple Dose Dialog Box

Multiple Dose

Active Medication: **THIORIDAZINE TAB**

Special Instructions/Information:

****Multiple Dispensed Drugs:

THIORIDAZINE 100MG TAB
 THIORIDAZINE 25MG

Enter a Comment (Optional): (150 Characters Maximum)

Scanner Status: **Ready** Scan Bar Code: Done Cancel

— OR —

Confirmation

Warning

Dispensed Drug: **ACETAMINOPHEN 325MG TAB**

Units per dose: 2

You did not scan all of the units for this dispensed drug. Click the BACK button to scan additional units.

-- OR --

Click the OK button if you completed scanning the necessary units.

Back OK

- 2 At the Confirmation dialog box, click **BACK** to scan additional units. The Multiple Dose dialog box re-displays, retaining the data entered before you clicked the **DONE** button.
- 3 Click **DONE** after you scan all multiple dosages or multiple dispensed drugs needed. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.
- 4 Continue administering active Unit Dose medications.

Keyboard Shortcut: Press **TAB** to activate the DONE button, and then press **ENTER** to display the patient's VDL.

Administering a Patient's Unit Dose Medications

Administering a Fractional Dose Order



TIP:

This functionality is also available on the IVP/IVPB Medication Tab.



TIP:

The Fractional Dose dialog box lets you document the administration of fractional unit doses that are *less than 1.0*.

The Fractional Dose functionality is designed to alert you when dispensed drug dosages need to be administered to a patient in “fractional” doses, and to allow you to provide comments about this order type once administered. In short, the related dialog boxes let you document the units and the fractional portion of a dose administered to a patient.

Note: The Fractional Dose dialog box displays when the units per dose is fractional and *less than 1.0*. The Multiple/Fractional Dose dialog box displays when the units per dose is *greater than 1.0*. If you do not scan once for each unit listed in the Multiple/Fractional Dose dialog box, the Confirmation dialog box displays, requesting that you confirm the actual total units administered to the patient.

To administer a fractional dose order

- 1 Scan the medication that you want to administer to the patient.

Note: The dialog box that displays depends on the amount of the fractional dose (i.e., less than or greater than 1.0) to be administered to the patient. Both dialog boxes no longer provide the Close button on the Title Bar.

Example: Fractional Dose Dialog Box

Fractional Dose

Active Medication: **THIORIDAZINE TAB**

Special Instructions/Information:

Dosage: 5MG Units per Dose: 0.5

Enter a Comment (Optional): (150 Characters Maximum)

Scanner Status: **Not Ready** Scan Bar Code:

— OR —
(See Next Page)

Administering a Patient's Unit Dose Medications

Administering a Fractional Dose Order (cont.)



TIP:

The Multiple/Fractional Dose dialog box lets you document the administration of fractional unit doses that are *greater than 1.0*.

To administer a fractional dose order (cont.)

Example: Multiple/Fractional Dose Dialog Box

Multiple/Fractional Dose

Active Medication: **THIORIDAZINE TAB**

Special Instructions/Information:

Dosage: 25MG Units per Dose: 2.5

- THIORIDAZINE 10MG TABS
- THIORIDAZINE 10MG TABS
- [Partial] THIORIDAZINE 10MG TABS

Enter a Comment (Optional): (150 Characters Maximum)

Scanner Status: **Ready** Scan Bar Code: Done Cancel

- 2 Perform one of the following actions, which are related to the fractional dose administered to the patient.
 - **If the fractional dose is *less than 1.0***, enter any comments about the administration (if desired), and then click **DONE**. BCMA then processes the information, and displays the letter “G” (for “Given”) in the Status column to document that you administered the medication to the patient.
 - **If the fractional dose is *greater than 1.0***, scan all units that you’re administering to the patient, enter any comments about the administration (if desired), and then click **DONE**. If all units are scanned, BCMA then processes the information, and displays the letter “G” (for “Given”) in the Status column to document that you administered the medication to the patient.
 - If you did not scan once for each unit listed in the Multiple/Fractional Dose dialog box, the Confirmation dialog box displays. Proceed to step #3.

Keyboard Shortcut: Press **TAB** to activate the **DONE** button, and then press **ENTER** to display the patient’s VDL.

Administering a Patient's Unit Dose Medications

Administering a Fractional Dose Order (cont.)



TIP:

The Confirmation dialog box displays if you do *not* scan once for each unit listed in the Multiple/Fractional Dose dialog box.

To administer a fractional dose order (cont.)

Example: Confirmation Dialog Box

Confirmation

Warning

Dispensed Drug:
THIORIDAZINE 10MG TABS

Units per dose: **2.5**

You did not scan all of the units for this dispensed drug. Click the **BACK** button to scan additional units.

-- OR --

Click the **PARTIAL** button to confirm the number of units that have been scanned.

Back

Partial

- 3 At the Confirmation dialog box, perform one of the following actions, which are related to the fractional dose administered to the patient.
 - Click **BACK** to scan additional units, if you did not scan all of the units for this dispensed drug. The Multiple/Fractional Dose dialog box re-displays, retaining the data entered before you clicked the **DONE** button. If the fractional dose is greater than 1.0, perform step #2 again.
 - Click the **PARTIAL** button to confirm the number of units that have been scanned. The Confirmation dialog box expands for you to select the number of units that have been scanned. Proceed to step #4.

Administering a Patient's Unit Dose Medications

Administering a Fractional Dose Order (cont.)



TIP:

The Confirmation dialog box expands when you click the **PARTIAL** button, allowing you to select the number of units scanned that will be recorded in BCMA.

To administer a fractional dose order (cont.)

Example: Confirmation Dialog Box (Expanded)

Confirmation

Warning

Dispensed Drug:
THIORIDAZINE 10MG TABS

Units per dose: **2.5**

You did not scan all of the units for this dispensed drug. Click the **BACK** button to scan additional units.

-- OR --

Click the **PARTIAL** button to confirm the number of units that have been scanned.

Select the number of units scanned that will be recorded in BCMA:

1.5 2.0 **OK**

- 4 Select the number of units scanned that will be recorded in BCMA.

Note: Since BCMA cannot determine if one of the units scanned was the fractional unit (i.e., the split tablet), the following choices are provided in the example above, where only two scans were performed.

- Selecting 1.5 indicates that 1.5 units were administered to the patient.
 - Selecting 2.0 indicates that 2.0 units were administered to the patient.
- 5 Click **OK** after making your selection. BCMA then processes the information, records the number of units selected, and displays the letter “G” (for “Given”) in the Status column to document that you administered the medication to the patient.
 - 6 Continue administering active medications to the patient.

Administering a Patient's Unit Dose Medications

Administering an Order with Multiple Admin Times

The Multiple Orders for Scanned Drug dialog box, provided below, displays *only* if the patient's order has multiple administration times for the medication that you scanned — using the Start and Stop time setting on the BCMA VDL.

To administer an order with multiple administration times

- 1 Select the order containing the administration time that you need, and then click **OK**. BCMA processes the information, and then displays the letter “G” (for “Given”) in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Use the **ARROW** keys to select an order. Press **TAB** to activate the OK button, and then press **ENTER** to accept the selection and display the patient's VDL.

Example: Multiple Orders for Scanned Drug Dialog Box



- 2 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Administering an Order with Special Instructions



TIP:

Special Instructions help to ensure that the patient receives the medication dosage required by the provider.

Information messages, like the ones provided below, display when the Pharmacy answers “YES” to a question in Inpatient Medications V. 5.0 about including Special Instructions in a Pop-up box after a nurse scans a medication. If the Pharmacy answers “NO” to the question, the Special Instructions *only* display in **RED** below the dispensed drug name in the Medication Order Display Area. You must acknowledge the message *before* administering the medication.

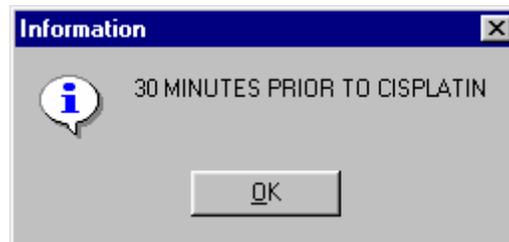
The Special Instructions may include those provided below, or they could even include the sliding scale range written by the provider. That way, you know how much insulin to administer to the patient, based on the patient's blood sugar level.

To review Special Instructions from the Pharmacy

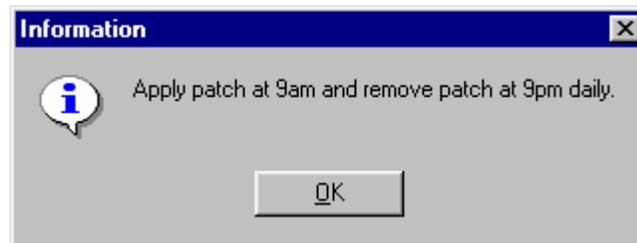
- 1 Review the Information message from the Pharmacy, and then click **OK** to return to the patient's VDL.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to continue the medication administration process.

Example: Special Instructions Pop-up Boxes



— OR —



- 2 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Specifying the Medication Quantity and Units Given



TIP:

You may be required to specify the quantity and units given for cc's, milliliters, grams, milliequivalents, milligrams, millimoles, and units.

The Quantity and Units dialog box, provided below, displays when the medication order does not include the words "CAP" or "TAB" in the "DOSAGE ORDERED:" prompt of the patient's order from Inpatient Medications V. 5.0.

To specify medication quantity and units given to patient

- 1 Enter the quantity and units of the medication that you are administering to the patient, and then click **OK**. The maximum character length is 40. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to continue.

Example: Quantity and Units Dialog Box

SODIUM BIPHOSPHATE/SODIUM PHOSPHATE ENEMA

Enter Quantity and Units (ie., 30 ml): Maximum Length = 40

4.5 oz

OK Cancel

- 2 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Specifying the Injection Site for the Medication

The Injection Site Selection dialog box, provided below, displays when a Unit Dose medication is injectable and has a Med Route of IV, IM, ID, SQ, or SC. (Other routes do not have this requirement.) When this occurs, BCMA requires that you enter the quantity/units and location on the patient (the site/location) where you are injecting the medication — *before* proceeding with the administration process.

To specify an injection site for the medication

- 1 In the Injection Site Selection drop-down list box, select the location where you are injecting the medication into the patient, and then click **OK**. BCMA processes the information, and then displays the letter “G” (for “Given”) in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Use the **ARROW** keys to select an injection “site” in the drop-down list box. Press **TAB** to activate the OK button, and then press **ENTER** to continue.

Example: Injection Site Dialog Box



- 2 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Marking a Patch As Removed



TIP:

You can quickly mark a patch as "Removed" by selecting a medication on the VDL, then selecting the Mark command from the Right Click drop-down menu.

BCMA lets you document when you "remove" a patch (i.e., Nitroglycerin, Fentanyl, or Nicotine) from a patient. Once marked, the letters "RM" (for "Removed") display in the Status column of the BCMA VDL.

Note: A patch marked as "Given," displays on the BCMA VDL each time BCMA is opened — until it is marked as "Removed" — even if the order is discontinued or expires, or the patient is discharged or re-admitted to your medical center.

To mark a patch as Removed

- 1 Select a "patch" medication that you want to mark as "Removed" on the BCMA VDL.

Note: You cannot administer another patch to a patient, from the same order, until the previous one is marked as "Removed." This requirement applies to all orderable items with a dosage form of Patch.

- 2 Select the Mark command from the Due List menu. The Mark drop-down menu displays with the "actions" available for this medication (patch).

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **M** to display the Mark command in the drop-down menu.

- 3 Select the Removed command from the drop-down menu. BCMA processes the information, and then displays the letters "RM" (for "Removed") in the Status column of the BCMA VDL to document the action taken on the medication.

Keyboard Shortcut: Use the **ARROW** keys to select the Removed command.

- 4 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Administering a PRN Order



TIP:

If no administration times are listed in the Medication Log dialog box, the patient has *not* received any previous doses.



TIP:

The Med History button displays the Medication History Report for the orderable item listed in the dialog box.

The Medication Log dialog box, provided below, displays when you administer a PRN medication to a patient. BCMA checks for an active order, and then displays the last four “actions” for the same orderable item (not the medication), the date/time of each action, the schedule type, the reasons that the selected PRN medication was administered to the patient, and the number of units given to the patient.

The dialog box also includes the Vitals area, which can display the four previous vitals entries for each of the Vital signs listed in the area. The “+” (plus) sign, to the left of a Vital sign, expands the row to reveal additional entries. The “-” (minus) sign collapses the row to hide all, but the most recent entry.

To administer a PRN order

- 1 In the Select a Reason drop-down list box, select a site-defined reason that indicates why you are administering the PRN medication to the patient.

Keyboard Shortcut: Use the **ARROW** keys to locate and select a Reason in the drop-down list box.

Example: Medication Log Dialog Box for PRN Administration

The screenshot shows the Medication Log dialog box with the following fields and tables:

Active Medication: ACETAMINOPHEN TAB
Dispensed Drug: ACETAMINOPHEN 325MG TAB
Special Instructions/Information: For Fever or Pain

Last Four Actions:

Date/Time	Action	Type	Reason	Units Given
11/7/2003@0813	GIVEN	PRN	Headache	1
11/7/2003@0808	GIVEN	PRN	Fever	1
10/28/2003@0953	MISSING DOSE	PRN		0
10/27/2003@0732	GIVEN	PRN	Elevated Blood Sugar	1

* Units Given do not display in the table above for orders with multiple dispensed drugs.

Select a Reason: [dropdown] Pain Score: [dropdown]

Vitals (click + for the last four):

Vital	Value	Date/Time
Temp	101	11/7/2003@0811
Pain	5	11/7/2003@0813
BP	98/64	11/7/2003@0811
Pulse	70	11/7/2003@0811
Resp	90	11/7/2003@0811

Buttons: OK, Cancel, Med History

Administering a Patient's Unit Dose Medications

Administering a PRN Order (cont.)



TIP:

The "G" disappears from the Status column after you refresh the VDL, or close the VDL after administering a PRN medication to the patient.

To administer a PRN order (cont.)

- 2 In the Pain Score drop-down list box, select the patient's pain score, between 0 and 10 or 99, with "0" being No Pain, "10" the Worst Imaginable, and "99" for "Unable to Respond."

Note: You are prompted to enter a pain score only if your site has selected this requirement for the "Reason Medication Given PRN Answer Lists" in the GUI BCMA Site Parameters application.

- 3 Click **OK** to accept your selection and return to the patient's VDL. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to continue.

- 4 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Recording the Effectiveness of a PRN Medication



TIP:

You can quickly access the PRN Effectiveness Log by selecting a medication on the VDL, and then selecting the PRN Effectiveness command from the Right Click drop-down menu.



TIP:

You can double click on the PRN Effectiveness Activity in the BCMA Clinical Reminders marquee to document ALL PRN medication orders needing effectiveness documentation.

After administering a PRN medication to a patient, you can record the effectiveness of the medication for the patient and view the related information on the PRN Effectiveness List Report.

The PRN Effectiveness Log dialog box lists the orderable item, units given, administration date/time, reason the PRN medication was given, medication administrator, and the patient's location in the hospital. The Vitals area can display the four previous vitals entries for each of the Vital signs listed in the area. The "+" (plus) sign, to the left of a Vital sign, expands the row to reveal additional entries. The "-" (minus) sign collapses the row to hide all, but the most recent entry.

To record the effectiveness of a PRN medication

- 1 Select the PRN medication on the BCMA VDL for which you want to record Effectiveness comments.

Note: You can enter the Effectiveness for a PRN medication *only* if an administration has a status of "G" (for Given).

- 2 Select the PRN Effectiveness command from the Due List menu. The PRN Effectiveness Log dialog box displays with the patient's medication information listed at the top of the box, under the Selected Administration area, and all PRN medication administrations displayed in the PRN List table.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **P** to select the PRN Effectiveness command.

- 3 Under the PRN List table, select the medication for which you want to enter an Effectiveness comment. The "Selected Administration" area of the dialog box populates with administration information.

Keyboard Shortcut: Use the **ARROW** keys to locate and select a PRN medication in the list box.

Administering a Patient's Unit Dose Medications

Recording the Effectiveness of a PRN Medication (cont.)



TIP:

The Med History button displays the Medication History Report for the orderable item listed in the "Selected Administration" area of the dialog box.



TIP:

After you submit the pain score, date/time, and comments *and* the BCMA VDL is refreshed, BCMA updates the count for the PRN Effectiveness Activity in the BCMA Clinical Reminders marquee.

To record the effectiveness of a PRN medication (cont.)

- Under the PRN Effectiveness Comment area, enter the effectiveness of the medication given to the patient, up to 150 characters in length. If a pain score is entered, the comment is optional.

Example: Entering an Effectiveness Comment for a Selected PRN Medication

PRN Effectiveness Log

Selected Administration

Active Medication: ACETAMINOPHEN
Dispensed Drug:
ACETAMINOPHEN 325MG TAB

Special Instructions:

Vitals (click + for the last four):

Vital	Value	Date/Time
Temp	101.1	1/16/2004@0945
<input checked="" type="checkbox"/> Pain	4	1/16/2004@0945
BP	98/64	1/16/2004@0945
Pulse	70	1/16/2004@0945
Resp	40	1/16/2004@0945

Enter a PRN Effectiveness Comment: (80 Characters Maximum)

Pain Score
Value: Date/Time: JAN 16, 2004@09:50

OK Cancel Med History

PRN List (Select administration to document):

Orderable Item	Units Given	Administration Time	Reason Given	Administered By	Location
ACETAMINOPHEN	1	1/16/2004@0945	Fever	DENVER, DONNA	7A GEN MED 7...
ACETAMINOPHEN	2	1/16/2004@0843	Fever	DENVER, DONNA	7A GEN MED 7...

* Units Given do not display in the table above for orders with multiple dispensed drugs.

Exit

- In the Pain Score drop-down list box, select the patient's pain score, between 0 and 10 or 99, with "0" being No Pain, "10" the Worst Imaginable, and "99" for "Unable to Respond."

Note: You are prompted to enter a pain score only if your site has selected this requirement for the "Reason Medication Given PRN Answer Lists" in the GUI BCMA Site Parameters application.

- In the Date/Time drop-down list box, define the date/time that the pain score was taken. This information cannot be before the administration time or after the current system time.
- Click **OK** to file your comments, or click **EXIT** to submit your comments and pain score information and return to the patient's VDL. If you entered a pain score, the text "Pain Score entered in Vitals via BCMA taken at [date/time]" and your comments will display on the Medication Log.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to continue.

Administering a Patient's Unit Dose Medications

Administering a Medication Early



TIP:

BCMA will *not* mark the medication as Given (with a "G"), in the Status column of the VDL, until you enter a "Comment" in the Medication Log dialog box.



TIP:

Medications logged as "Early" are noted in the Medication Variance Log, along with the time scanned, and the reason the medication was administered early.

The Medication Log dialog box, provided below, is designed to "alert" you that you are administering the medication to the patient *before* the scheduled administration time. The dialog box includes the number of minutes that you are administering the medication, "before the scheduled administration time" listed on the BCMA VDL. You can add a "Comment" (free text), up to 150 characters in length.

To administer a medication early to a patient

- 1 In the Comments area of the Medication Log dialog box, specify the reason that you are administering the medication *early* to the patient, and then click **OK**. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to continue.

Example: Medication Log Dialog Box for Early Dose

Medication Log

Active Medication: ACETAMINOPHEN TAB
Dispensed Drug: ACETAMINOPHEN 325MG TABLET

Special Instructions

Message
Admin is 558 minutes before the scheduled administration time

Confirm Continuous Medication

Enter a Comment (150 Characters Maximum)
Patient has a fever.

OK Cancel

- 2 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Administering a Medication Late



TIP:

BCMA will *not* mark the medication as "Given" (with a "G"), in the Status column of the VDL, until you enter a "Comment" in the Medication Log dialog box.



TIP:

Medications logged as "Late" are noted in the Medication Variance Log, along with the time scanned, and the reason the medication was administered late.

The Medication Log dialog box, provided below, is designed to "alert" you that you are administering the medication to the patient after the scheduled administration time. The dialog box includes the number of minutes that you are administering the medication, "after the scheduled administration time" listed on the BCMA VDL. You can add a "Comment" (free text), up to 150 characters in length.

To administer a medication late to a patient

- 1 In the Comments area of the Medication Log dialog box, specify the reason that you are administering the medication *late* to the patient, and then click **OK**. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to continue.

Example: Medication Log Dialog Box for Late Dose

Medication Log

Active Medication: ACETAMINOPHEN TAB
Dispensed Drug: ACETAMINOPHEN 325MG TABLET

Special Instructions

Message
Admin is 413 minutes after the scheduled administration time
**** NOTICE, ACETAMINOPHEN TAB was GIVEN 9 minutes ago.

Confirm Continuous Medication

Enter a Comment (150 Characters Maximum)
Patient in Radiology.

OK Cancel

- 2 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Marking Multiple Medications on the VDL



TIP:

You can quickly mark multiple medications selected on the VDL, with the same "action," by selecting the Mark command from the Right Click drop-down menu.

As requested, you can select and mark multiple medications, for the patient, as "Held" or "Refused" on the BCMA VDL. This feature is particularly helpful when a patient is temporarily off their ward, or if they refuse to take their medications.

To mark multiple medications on the VDL

- 1 Perform one of the following actions:
 - Using **SHIFT+CLICK**, select a range of medication orders that you want to mark with the same status on the BCMA VDL.
 - Using **CTRL+CLICK**, individually select several medication orders that you want to mark with the same status on the BCMA VDL.

Note: If you do not "select" orders on the BCMA VDL, the Mark options will be grayed out and not accessible to you. The options available to you will depend on the current Status of the medication order.

- 2 Select the Mark command from the Due List menu. The Mark drop-down menu displays with the "actions" available for these medications.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **M** to display the Mark drop-down menu.

- 3 Select the command that represents the "action" that you want to take on the medications selected on the BCMA VDL. BCMA processes the information, and then displays a letter in the Status column of the BCMA VDL to document the action taken on the medications.

Keyboard Shortcut: Use the **ARROW** keys to select the command that represents the "action" that you want to take on the medications selected on the BCMA VDL.

- 4 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Changing the Status of a Unit Dose Medication



TIP:

You can mark the status of a medication placed "On Hold" to "Held," although it is not necessary that you do so unless required by your medical center.



TIP:

You can quickly change the status of a Unit Dose medication by selecting the Mark command from the Right Click drop-down menu.

Use this section when you need to "mark" (change) the status of a patient's medication.

Once you scan and mark a medication as "Given," you cannot scan it again for the same administration time. If you do, you will receive an Error message. You can, however, change the status from "Given" to "Not Given" provided you are the individual who originally marked it as "Given," or you have been assigned the PSB MANAGER security key.

You can mark a medication with the following status:

- Given to Not Given or Removed
- Held or Refused to Given
- Missing to Given, Held, or Refused

Note: A patch marked as "Given," displays on the BCMA VDL each time BCMA is opened — until it is marked as "Removed" — even if the order is discontinued or expires, or the patient is discharged or re-admitted to your medical center.

To change the status of a Unit Dose medication

- 1 Select the medication on the BCMA VDL for which you want to change the status (take an action on).
- 2 Select the Mark command from the Due List menu. The Mark drop-down menu displays with the "actions" available for this medication.

Note: The Mark options available to you will depend on the current Status of the medication order.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **M** to display the Mark drop-down menu.

- 3 Select the command that represents the "action" that you want to take on the medication selected on the BCMA VDL. BCMA processes the information, and then displays a letter in the Status column of the BCMA VDL to document the action taken on the medication.

Keyboard Shortcut: Use the **ARROW** keys to select the command that represents the "action" that you want to take on the medication selected on the BCMA VDL.

- 4 Continue administering active Unit Dose medications to the patient.

Administering a Patient's Unit Dose Medications

Adding Comments to a Patient's Medication Record



TIP:

You can quickly add comments to a patient's medication by selecting the medication on the VDL, and then selecting the Add Comment command from the Right Click drop-down menu.

You can add a comment (free text), up to 150 characters in length, to a patient's medication marked as "G" (Given), "H" (Held), or "R" (for "Refused") in the Status column of the BCMA VDL. Your comments will also display in the Medication Log Report.

To add comments to a patient's medication record

- 1 Select the medication on the BCMA VDL that you want to add Comments.
- 2 Select the Add Comment command from the Due List menu. The Medication Log dialog box displays.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **A** to display the Medication Log dialog box.

- 3 In the Add Comment area, enter the comments that you want to associate with the medication selected on the patient's VDL.

Example: Adding Comments to a Patient's Medication Record

Medication Log

Active Medication: SODIUM BIPHOSPHATE/SODIUM PHOSPHATE ENEMA
Dispensed Drug: FLEETS ENEMA 4.5 OZ

Special Instructions

Message
Okay to administer

Add Comment

Enter a Comment (150 Characters Maximum)
Patient fainted when enema administered.

OK Cancel

- 4 Click **OK** once you've read your entry and are satisfied with it. An Information message displays, indicating that BCMA has successfully filed your comments.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to continue.

Administering a Patient's Unit Dose Medications

Adding Comments to a Patient's Medication Record (cont.)

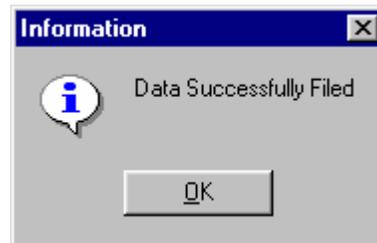


TIP:

BCMA automatically wraps words in the Comments area.

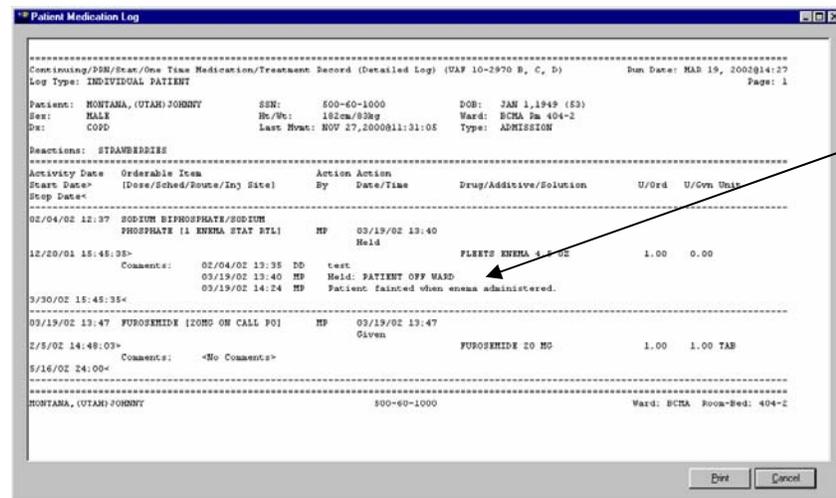
To add comments to a patient's medication record (cont.)

Example: Information Message Received When Comments Entered Successfully



- 5 Verify that your comments were entered in the patient's record by clicking the Med Log button in the Tool Bar to access the Medication Log Report.

Example: Medication Log with Comments Entered



Note: You can view comments on the Medication Log Report if you select the “Audits” check box in the Include area of the Patient Medication Log dialog box. See chapter 7, Viewing and Printing BCMA Reports” for more information.

Administering a Patient's Unit Dose Medications

Submitting a Missing Dose Request



TIP:

You cannot submit a Missing Dose Request for a medication marked as "Given" on the VDL. You can, however, change the status from Missing to Held, Refused, or Given.



TIP:

You can quickly submit a Missing Dose Request by selecting a medication on the VDL, and then clicking once on the Missing Dose button in the Tool Bar at the top of the VDL.

You can use the Missing Dose command or the Missing Dose button on the Tool Bar to send Missing Dose Requests directly to the Pharmacy. Your request will automatically print on a dedicated printer in the Pharmacy that your site predefined using the GUI BCMA Site Parameters application. BCMA will also send a MailMan message to a predefined mail group. If both are predefined, both will be notified.

BCMA V. 3.0 displays an "M" in the Status column of the BCMA VDL after you submit a Missing Dose Request to the Pharmacy. The Last Action column includes this status information after you refresh the BCMA VDL. This functionality will benefit the Pharmacy by identifying requests that have already been submitted, and by reducing the number of duplicate submissions that they receive on a daily basis.

Note: You can mark a Missing Dose medication as "Held," "Refused," or "Given." If you miss the "administration window," you can use the *Manual Med Entry* [PSB MED LOG NEW ENTRY] option in CHUI BCMA to mark it as "Given."

To submit a Missing Dose Request

- 1 Select a medication on the BCMA VDL that is considered "Missing."
- 2 Select the Missing Dose command from the Due List menu. The Missing Dose Request dialog box displays.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **I** (not "L") to display the Missing Dose Request dialog box.

- 3 Verify the patient's name on the Tab at the top of the dialog box, and their location and medication information within the dialog box.

Example: Submitting a Missing Dose Request to the Pharmacy

Missing Dose Request

IDWA,LUKE

Ward
7A GEN MED

Ordered Drug
3800

Dosage
4MG/1ML

LORAZEPAM 4MG/ML 1ML TUBEX

Administration Time

Date@Time Needed

Reason

Submit Cancel

Administering a Patient's Unit Dose Medications

Submitting a Missing Dose Request (cont.)



TIP:

When you select the Missing Dose option, BCMA automatically populates the fields in the Missing Dose Request dialog box. You must complete all fields *before* submitting the request to the Pharmacy.



TIP:

Enter "N" (for NOW) if you want BCMA to automatically enter the current date and time in the dialog box for you when you move to the Reason drop-down list box.

To submit a Missing Dose Request (cont.)

- 4 In the Date@Time Needed field, enter the day and time when you need the medication for the patient using the VA FileMan Date/Time formatting guidelines listed below. You can use a date in the future or the past.

Date Formatting

- May 1, 2004, 01 MAY 04, 5/01/04, 050104
- N (for NOW)
- T (for Today)

Time Formatting

- 00:00 (For example, 14:00 for 2:00 p.m.)

Keyboard Shortcut: Press **TAB** to move among the fields on the dialog box.

Note: If the year is omitted, the computer uses the current year. A two-digit year assumes no more than 20 years in the future, or 80 years in the past.

- 5 In the Reason field, click once on the drop-down arrow to display pre-defined reasons why you are sending this request to the Pharmacy.

Keyboard Shortcut: Use the **ARROW** keys to locate and select a Reason in the drop-down list box.

Example: Selecting Reason for Submitting a Missing Dose Request

The screenshot shows a dialog box titled "Missing Dose Request" with the following fields and values:

- Ward: BCMA
- Ordered Drug: 5427
- Dosage: 1MG
- Administration Time: (empty)
- Date@Time Needed: MAR 19, 2002@14:32
- Reason: Empty Package (selected from a list that also includes Dropped, Not Available, and Wrong Dose/Drug Delivered)

Administering a Patient's Unit Dose Medications

Submitting a Missing Dose Request (cont.)



TIP:

When you “refresh” the VDL, the Last Action column reflects the action taken on the Missing Dose.

To submit a Missing Dose Request (cont.)

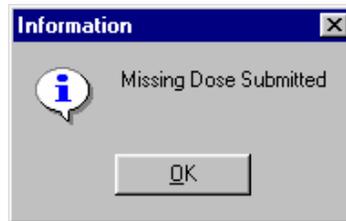
- 6 Verify the information in the dialog box, and then click **SUBMIT** to send the request to the Pharmacy, where it prints on a predefined printer. An Information message displays. A MailMan message will also be sent to a mail group if predefined using the GUI BCMA Site Parameters application.

Keyboard Shortcut: Press **TAB** to activate the **SUBMIT** button, and then press **ENTER** to display the Information message.

- 7 Read the Information message, and then click **OK**. BCMA processes the request, and then displays the letter “M” (for “Missing”) in the Status column.

Note: A “Missing Dose Request” displays on the Missed Medications Report.

Example: Missing Dose Submission Message



Working with Patient Records

Opening a Patient Record



TIP:

Press **CTRL+O** to access a patient record.

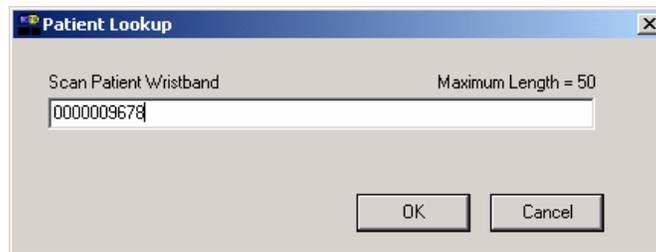
Once you finish administering active medications to a patient, you can open another patient record (VDL), and then another. The process for doing so is quick and easy.

To open a patient record

- 1 Select the Open Patient Record command from the File menu. The Patient Lookup dialog box displays.

Keyboard Shortcut: Press **ALT+F** to display the File menu, and then press **O** to display the following Information message.

Example: Patient Lookup Dialog Box

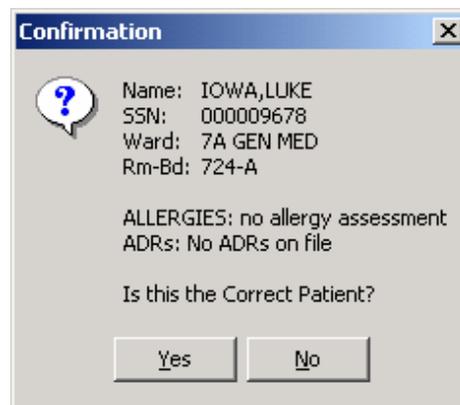


- 2 At the Patient Lookup dialog box, scan the bar code on the patient's wristband. The maximum character length is 50. A Confirmation dialog box displays the patient's personal data such as name, SSN, ward, room-bed, allergies, and ADRs.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to accept your entry and begin the scan process.

- 3 Verify the information provided in the Confirmation dialog box with the information on the patient's wristband.

Example: Confirmation Dialog Box



TIP:

The Confirmation dialog box that displays, after a patient's wristband is scanned, includes the patient's allergies and ADRs.

Working with Patient Records

Opening a Patient Record (cont.)

To open a patient record (cont.)

4 Perform one of the following actions:

- **If the information matches** the data printed on the patient's wristband, click **YES** to access their VDL and to begin administering active medications to the patient.

Keyboard Shortcut: Press **TAB** to activate the YES button, and then press **ENTER** to access the patient's VDL.

- **If this information does not match** the data on the patient's wristband, click **NO**, and then verify the patient's identity against the information on their wristband.
 - **If correct**, scan the wristband again.
 - **If incorrect**, correct the wristband for the patient.

5 Continue administering active Unit Dose medications to your patient.

Working with Patient Records

Closing a Patient Record



TIP:

It is *not* necessary or required to close a patient record *before* opening another, although it is advised if you are leaving the patient's room for awhile.

Once you finish administering active medications to your patient, you can close their patient record (VDL), and then open another patient record. This feature is particularly useful when you need to leave the patient's room for a few minutes, and do not want to leave their record open on your computer.

To close a patient record

- 1 Select the Close Patient Record command from the File menu. The Information message provided below displays.

Keyboard Shortcut: Press **ALT+F** to display the File menu, and then press **C** to display the following Information message.

Example: Information Message



Note: The Information message, provided above, displays only for IV Piggyback medications since you automatically view Unit Dose orders when the BCMA VDL opens. The message lets you verify if you want to view active orders under the IVP/IVPB Medication Tab *before* closing the patient's record.

- 2 Perform one of the following actions:
 - Click **YES** to close the current record without viewing medication orders, for the patient, on other Medication Tabs. The Patient Lookup dialog box then displays.
 - Click **NO** to view active medication orders under the Medication Tab listed in the Information message.

Keyboard Shortcut: Press **TAB** to activate the YES button, and then press **ENTER** to continue.

Note: BCMA provides the "BCMA Idle Timeout" site parameter for defining the number of minutes that an idle BCMA session can stay open. Once the allowable time-out has been reached, BCMA will close. If the BCMA session displays a prompt, it will not time-out until the prompt is answered. The allowable entry for this parameter is 1 to 1440 minutes/day. The default is 30 minutes.

Working with IVP/IVPB Medications

Benefits of this Chapter

Use this chapter when you need to administer active IV Piggyback and intermittent syringe, *and* any Unit Dose medication with a route of IVP or IV PUSH to patients on your ward. The options and features available within the BCMA VDL apply specifically to active orders only.

Preparing to Administer IVP or IVPB Medications



TIP:

A medication displays on the VDL if it has an “active” status *and* the patient has a status and location of “inpatient.”



TIP:

The PRN Schedule Type controls the default display of PRN medications on the VDL, and is based on the GUI BCMA Site Parameters entry for “Include Schedule Types.”

Before administering any active IV Push or IV Piggyback medications to a patient, review this section to learn more about the Schedule Types for the medications that you can administer, including medication orders that display on the BCMA VDL, and how BCMA indicates “actions” taken on medications displayed on the BCMA VDL.

Then you will be ready to define the administration Start and Stop Times and Schedule Types of the medications that you want to display on the BCMA VDL, and to administer active IVP and IVPB medications to your patients.

Schedule Types that You Can Administer

You can administer medications for active IV Push, IV Piggyback, and intermittent syringe medication orders with the Schedule Types below.

- **Continuous:** A medication given continuously to a patient for the life of the order, as defined by the order Start and Stop Date/Time. Includes Fill-on-Request orders.
 - **Fill-on-Request Orders:** These are grouped, based on whether their Schedule Type is Continuous or PRN. This depends on whether the schedule contains the characters “PRN.” If BCMA does not find these characters, it looks for administration times, and places the order accordingly on the BCMA VDL.
- **PRN:** A medication dosage given to a patient on an “as needed” basis. Includes Fill-on-Request orders.
- **On-Call:** A specific order or action dependent upon another order or action taking place *before* it is carried out.
- **One-Time:** A medication order given one time to a patient such as a STAT or a NOW order. This order type displays for a fixed length of time on the VDL, as defined by the order Start and Stop Date/Time.

Note: Each time that you open a VDL (i.e., patient record), BCMA defaults to the Unit Dose Medication Tab and the Schedule Types of Continuous, One-Time, and On-Call already selected. This occurs even if you change the Schedule Types or Medication Tab during a medication pass.

Working with IVP/IVPB Medications

Preparing to Administer IVP or IVPB Medications (cont.)



TIP:

The administration time of an *active* order must fall within the Start and Stop Date/Times selected on the VDL *before* the order will display.

Medication Orders that Display on the VDL

Once an IV Push or IV Piggyback medication order becomes active, it displays on the BCMA VDL under the IVP/IVPB Medication Tab for the Start and Stop Date/Times and Schedule Types selected on the BCMA VDL. This includes all active Unit Dose orders with a medication route of IVP or IV PUSH, and the IV order types listed below:

- Piggyback”
- “Syringe,” with the “INTERMITTENT SYRINGE?” prompt set to “YES”
- “Chemotherapy,” with the “CHEMOTHERAPY TYPE:” prompt set to “Piggyback” or “Syringe” and the “INTERMITTENT SYRINGE?” prompt set to “YES”

An “active” status occurs once a pharmacist or a nurse verifies a medication order using Inpatient Medications V. 5.0 or CPRS. This includes orders on “Hold” and any orders entered through the Unit Dose or IV package. Orders placed “On Hold” by a provider display grayed out on the BCMA VDL. You can only mark these order types as “Held,” although it is not necessary that you do so.

BCMA determines *when* to display an order on the BCMA VDL by subtracting the information in the “Before Scheduled Admin Time” site parameter field from the Start Date/Time of the medication order. You can define this parameter using the Parameters Tab in the GUI BCMA Site Parameters application.

Working with IVP/IVPB Medications

Preparing to Administer IVP or IVPB Medications (cont.)



TIP:

IV Piggyback medications include a Unique Identifier Number, with a "V," which is generated when the Pharmacy prints a bar code label for an IV bag.

Medications Available for Scanning

Administering IV Push and IV Piggyback medications to a patient involves the scanning of the patient's medication (drug) bar code, which was applied by the Pharmacy. BCMA recognizes the following numbers on the IVP/IVPB Medication Tab.

- **Internal Entry Number (IEN):** Drug numbers provided on medication bar codes are considered a unique drug identifier by the Pharmacy. BCMA validates the bar code scanned against the IEN of DRUG file (#50) and/or the SYNONYM field (#.01) of the DRUG file (#50), to ensure that a valid number exists for the dispensed drug and strength scheduled for administration.
- **Unique Identifier Number:** This number is generated when the Pharmacy prints a bar code label for an IV bag. It is designed to communicate which IVs have been manufactured by the Pharmacy. This number displays in the IV Bag Chronology display area of the BCMA VDL.
- **Ward Stock Number:** This number is generated when you use a "Ward Stock" item to complete an IV medication order because the IV bag is not available from the Pharmacy (with a Unique Identifier Number). When you scan the Bar Code number on the bag, BCMA generates a Ward Stock number (with a "WS") that also displays on the Medication Log. You must scan every Additive and Solution for the Ward Stock item. When you do, BCMA then searches for a match to the Bar Code number in any of the active IV orders displayed on the BCMA VDL.

Note: Most Pharmacies use a combination of bar codes to identify drug products at the point of administration.

Working with IVP/IVPB Medications

Preparing to Administer IVP or IVPB Medications (cont.)



TIP:

When the patient's VDL uses the Status column to sort orders, BCMA displays medications with no status at the top of the VDL. It then displays all other medications in alphabetical order by the Status code.



TIP:

You can only change a "Given" status to "Not Given." This status does *not* display on the VDL; it only appears in the Audit Trail section of the Medication Log Report.

Marking the Order Status/Last Action Column

When you administer an IV Push or IV Piggyback medication to a patient, BCMA electronically documents the "action" taken on the medication by displaying a letter, for example a "G" (for "Given"), in the Status column of the BCMA VDL. This information also displays on the Medication Log Report and the MAH Report.

The Last Action column lists the "last action" taken on an orderable item (not the medication), and the date/time of this action, so the nurse will know when the patient last received any dose of a medication regardless of the Schedule Type selected. This information helps to prevent the same medication from being given to the patient from another order or schedule type.

- If the orderable item is the same, the Last Action column lists the last administration action.
- If the patient has two different orders, for the same orderable item, the last administration of either of these orders displays in the Last Action column for both orders. You can view the MAH Report to determine which order the medication was given from on the BCMA VDL.
- If a medication was not administered before to the patient, the Last Action column will not list a date/time.

Understanding the Status of a Medication Order

Once you scan and mark a medication as "Given," you cannot scan it again for the same administration time. If you do, you will receive an Error message. You can, however, change the status from "Given" to "Not Given" provided you are the individual who originally marked it as "Given," or you have been assigned the PSB MANAGER security key.

You can mark an IV Push or IV Piggyback medication with the following status:

- Given to Not Given
- Held or Refused to Given
- Missing to Given, Held, or Refused

Working with IVP/IVPB Medications

Preparing to Administer IVP or IVPB Medications (cont.)

Information Stored by BCMA

BCMA stores the following information each time you administer an active IV Push or IV Piggyback medication to a patient:

- Patient
- Location of the patient (i.e., bed, ward, and division)
- Clinician administering the medication
- Clinician who created the Medication Log Entry
- Entered date and time
- Audit information (i.e., clinician, text, date and time)
- Administration date and time
- Status of the administration, such as Given, Held, Refused, or Missing
 - Orders changed to “Not Given” do not display a code (letter) in the Status column of the BCMA VDL. This status appears only in the Audit Trail section of the Medication Log Report, not on the BCMA VDL.
 - “Cancelled” administrations are not stored in the Medication Log.
- IV Additive (strength), IV Solution (volume), and/or number of units given
- Number of minutes that the dose was given too Early or too Late to the patient
- Reason that a PRN medication was administered and the medication effectiveness
- Medication, dosage, and/or number of units given
- Any comments associated with the drug administration dose
- Injection site for medications that must be injected

Working with IVP/IVPB Medications

How BCMA Validates Patient and Medication Information



TIP:

After a medication pass, press **F5** to refresh the VDL, then note that the Last Action column lists an administration as the most recent one.

When used as intended, BCMA serves as an excellent check-and-balance system for patients and VAMCs. The chances for errors increase when the scanning process is circumvented — entered manually — during the medication administration process. In short, here is the validation process completed by BCMA V. 3.0.

First Validation By BCMA

When you scan the bar code on a patient's wristband, BCMA automatically verifies/validates the patient's identity, and then provides important clinical information via a Confirmation dialog box and the patient's VDL.

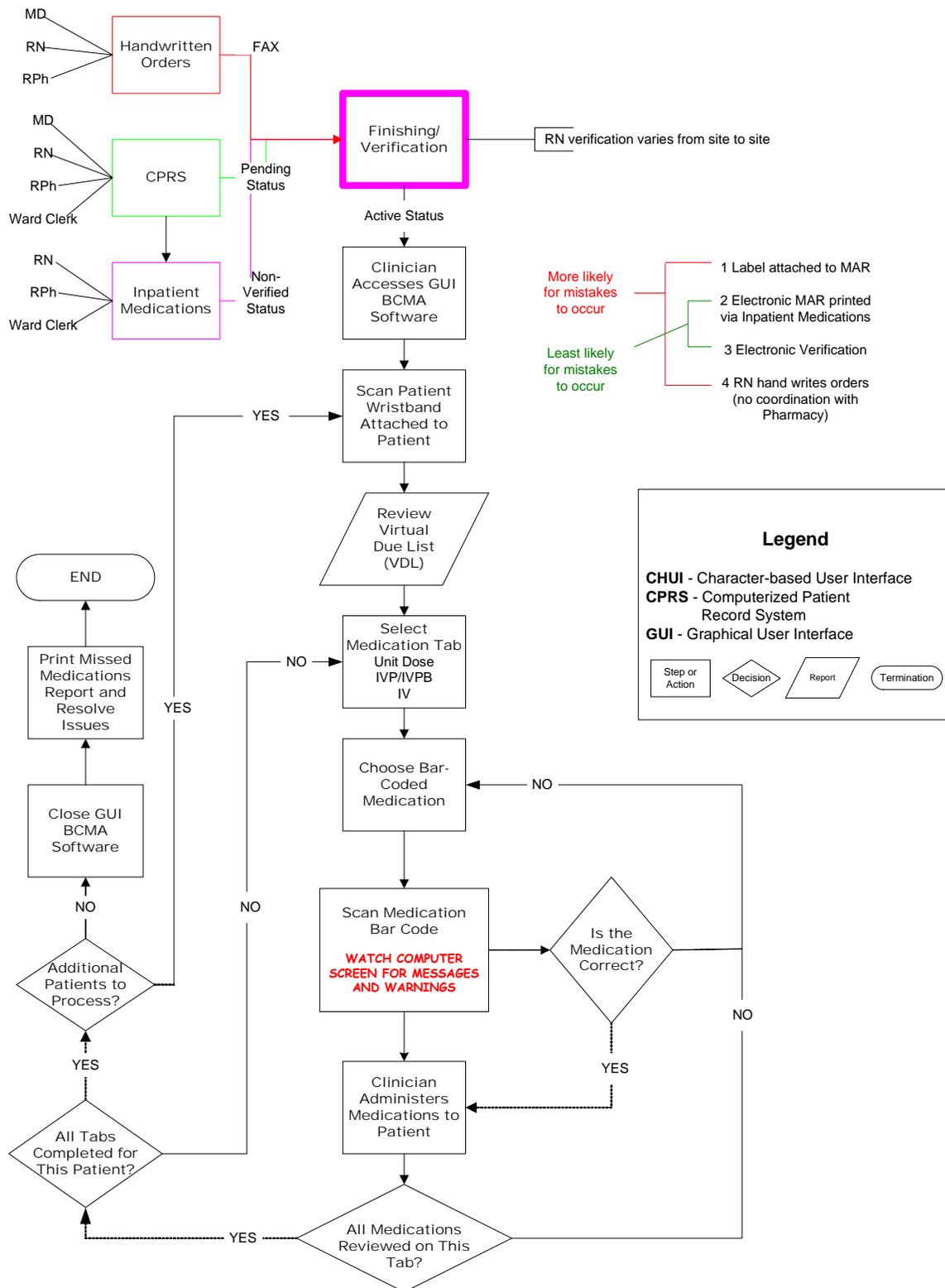
Second Validation By BCMA

The second validation by BCMA occurs when you scan the bar code on the patient's medication. During this validation process, BCMA verifies whether the medication IEN Code is located in the DRUG file (#50) or has a valid Unique Identifier Number, if the patient has an active order entered into Inpatient Medications V. 5.0 for the medication scanned, and if the dosage is correct and timely for the medication ordered. The lookup is restricted to the Unique Identifier Number only in Inpatient Medications V. 5.0.

A variety of dialog boxes will display for each patient, depending on the medications scheduled for administration. (See the examples provided below.) If the administration is successful, the patient's VDL displays the letter "G" (for "Given") in the Status column to document that the patient received the medication as required.

- If a patient has more than one active order for the same medication, with different schedule types, both orders display on the BCMA VDL.
- If you give the medication outside the medication administration window — Early or Late — (as defined by a site parameter), the Medication Log dialog box displays, requiring that you complete the Comments field. The order is then logged as Early or Late in the Medication Variance Log.
- If a medication is scanned and marked as "Given," you cannot scan it again for the same administration time.
- If you scan a medication twice for the same administration time, you will receive an Error message.

Medication Pass FlowChart for IVP/IVPB Medications



Administering a Patient's IVP/IVPB Medications

Preparing to Administer IVP or IVPB Medications



TIP:

If the number of medications that need to be administered is greater than the VDL can display, use the Scroll Bar to view all of them.

The instructions listed in this section describe how to change the Virtual Due List Parameters (Start and Stop Date/Time) and Schedule Types on the patient's VDL, along with the process for scanning the patient's active IV Push, IV Piggyback, and intermittent syringe medications.

Viewing a Patient's Active IVP/IVPB Medications

The "view" or active window shown below, displays when you select the IVP/IVPB Medication Tab on the BCMA VDL.

Each time that you open a VDL (i.e., patient record), BCMA defaults to the Unit Dose Medication Tab and the Schedule Types of Continuous, One-Time, and On-Call already selected. This occurs even if you change the Schedule Types or Medication Tab during a medication pass. The PRN Schedule Type controls the default display of PRN medications on the BCMA VDL, and is based on the GUI BCMA Site Parameters entry for "Include Schedule Types."

Note: The IVP/IVPB Medication Tab provides an "alert light" which turns **GREEN** only when the patient has active medication orders associated to them and the admin time is within 12 hours before and 12 hours after NOW. When you click a "lit" Tab, BCMA displays the patient's active medication orders on the BCMA VDL — for the selected timeframe only. This safeguard is provided, along with the Missed Medications Report, to ensure that all IV Push, IV Piggyback, and intermittent syringe medications that are due are given to the patient in the correct dosage and on time.

Example: BCMA VDL for Active IV Push and IV Piggyback Medications



TIP:

Press **F10** or click the IVP/IVPB Medication Tab to display active medication orders under this Tab.

The screenshot shows the 'Bar Code Medication Administration' window. At the top, there are menu options: File, View, Reports, Due List, Tools, Help. Below the menu is a patient information section for 'KOWALLIKE, (MALE)' with SSN, DOB, Height, Weight, and Location. The 'Virtual Due List Parameters' section shows Start Time: 12/31@0900 and Stop Time: 12/31@1000. The 'Schedule Types' section has radio buttons for Continuous (checked), On-Call, PRN (checked), and One-Time. Below this is a table of active medications:

Stat	Ver	T	Medication/Solutions	Infusion Rate	Route	Admin Time	Last Action
	C		AMPCILLIN INJ AMPCILLIN 50 GM DEXTRORSE 5% IN N. SALINE 1000 ML	INFUSE OVER 20 MIN. Q4H	IV	12/31@0900	
	P		FUROSEMIDE INJ SOLN FUROSEMIDE 10MG/ML 10ML INJ For congestion	20MG/2ML BID	IVP		

At the bottom of the window, there are tabs for 'Unit Dose', 'IVP/IVPB', and 'IV'. The 'IVP/IVPB' tab is selected. Below the tabs is a 'Scanner Status' section showing 'Ready' and a 'Scan Medication [Bar Code]' field. At the very bottom, it shows 'DENVER, DONNA' and 'ALBANY' with a 'Server Time: 12/31/2003 09:04'.

Note: The Medication Order Display Area includes the Medication/Solutions and Infusion Rate columns.

Administering a Patient's IVP/IVPB Medications

Preparing to Administer IVP or IVPB Medications (cont.)



TIP:

The Start and Stop Time Parameters are set to the "Default Times from" settings in the GUI BCMA Site Parameters application.



TIP:

You can expand (or restrict) the number of active IVP/IVPB medications, that display on the VDL, by changing the default Start and Stop Times in the Virtual Due List Parameters area.

Changing the Virtual Due List Parameters

The BCMA VDL Parameters is the functional timeframe during which you can administer medications to a patient before or after the scheduled administration time. For many medical centers, this timeframe is defined as two hours.

Once you use BCMA, these Parameters become your default settings. For example, when you change the default settings for certain fields (i.e., Start and Stop Times, and Column Sort Selection) on the BCMA VDL, these settings are retained in your user parameters and become the default settings each time you log on to BCMA. You can reset these user-selected parameters to site-defined parameters using the *Reset User Parameters* [PSB USER PARAM RESET] option in CHUI BCMA.

Note: The BCMA VDL Start and Stop Times display in one-hour increments, from the top of the nearest hour. For example, 1:15 displays as 1:00 and 1:45 displays as 2:00. You can expand the time range 12 hours before and 12 hours after NOW.

To change the Virtual Due List Parameters

- 1 In the patient's VDL, select the Start and Stop Times in the Virtual Due List Parameters area. The BCMA VDL automatically refreshes and displays active medications for the newly selected administration window.

Keyboard Shortcut: Press **TAB** to access the Virtual Due List Parameters area and to move among the Time fields.

Example: VDL Parameters Area on VDL

Hist	Allergies	CPRS Med Order
Virtual Due List Parameters:		
Start Time:	Stop Time:	
03/19@1200	03/19@1400	

- 2 Now you are ready to select the Schedule Types of IV Push or IV Piggyback medications that you want to display on the BCMA VDL.

Administering a Patient's IVP/IVPB Medications

Preparing to Administer IVP or IVPB Medications (cont.)



TIP:

The PRN Schedule Type controls the default display of PRN medications on the VDL, and is based on the GUI BCMA Site Parameters entry for "Include Schedule Types."



TIP:

A **GREEN** "alert light" indicates that a medication order exists for the Schedule Type selected within the respective start/stop date and time selected on the BCMA VDL. If grayed out, then none exist.

Changing Schedule Types on the VDL

You are ready to select the Schedule Types of the active IV Push or IV Piggyback medications that you want to display on the BCMA VDL. You can choose all Schedule Types available, or just specific ones.

The abbreviation for each Schedule Type is listed as follows in the Type column of the BCMA VDL:

- C (for Continuous)
- P (for PRN)
- OC (for On-Call)
- O (for One-Time)

Each time that you open a VDL (i.e., patient record), BCMA defaults to the Unit Dose Medication Tab and the Schedule Types of Continuous, One-Time, and On-Call already selected. This occurs even if you change the Schedule Types or Medication Tab during a medication pass.

To select Schedule Types that display on the VDL

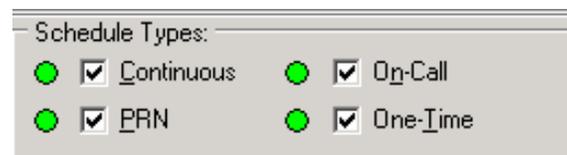
- 1 In the Schedule Types area of the BCMA VDL, select the check boxes that apply to the types of medication orders that you want to display on the BCMA VDL for the patient. You may select all of the check boxes or just specific ones.

- **If a checkbox is selected for a Schedule Type that you do not want displayed, click on it to deselect it.**

Note: You can turn off the automatic display of PRN medication orders when the BCMA VDL is first opened by deselecting the PRN check box in the "Include Schedule Types" area of the GUI BCMA Site Parameters application.

Keyboard Shortcut: Press **TAB** to access the Schedule Types area and the **ARROW** keys to move among the Schedule Types. Use the Spacebar to select a Schedule Type.

Example: Schedule Types Area of VDL



- 2 Now you are ready to scan the patient's active IV Push or IV Piggyback medications.

Administering a Patient's IVP/IVPB Medications

Scanning and Verifying Medication Information



TIP:

If the Scanner Status Indicator is **RED**, click in the Indicator field to activate the **GREEN** Ready Light before scanning a medication bar code.



TIP:

You do *not* have to select an active IVP or IVPB medication order on the VDL before scanning the Drug IEN Code or the Unique Identifier Number.

Now you are ready to scan (and verify) the patient's active IV Push and IV Piggyback medications and to officially begin the medication administration process.

To scan and verify medication information

- 1 At the patient's VDL, scan the bar code on the patient's medication. BCMA briefly displays the medication Bar Code Number or the Unique Identifier Number in the Scan Medication Bar Code field. BCMA processes the scan, and then displays screens related to the medication order.

Note: If the medication bar code is missing or unreadable, right-click on the medication to select the Drug IEN Code command or the Available Bags command from the Right Click drop-down menu, and to display the IEN Code or Unique Identifier Number. Enter this code/number manually into the Scan Medication Bar Code field on the BCMA VDL to start the validation process.

Keyboard Shortcut: Press **TAB** to move to the Scan Medication Bar Code field, or Scanner Status Indicator field, at the lower, left-hand corner of the BCMA VDL.

Example: Scan Medication Bar Code Field with Drug IEN Code Entered

<input checked="" type="radio"/> Unit Dose	<input checked="" type="radio"/> IVP/IVPB	<input checked="" type="radio"/> IV
Scanner Status: 	Scan Medication Bar Code:	
Ready	1478	

— OR —

Example: Scan Medication Bar Code Field with Unique Identifier Number Entered

<input checked="" type="radio"/> Unit Dose	<input checked="" type="radio"/> IVP/IVPB	<input checked="" type="radio"/> IV
Scanner Status: 	Scan Medication Bar Code:	
Ready	746V377	

Administering a Patient's IVP/IVPB Medications

Scanning and Verifying Medication Information (cont.)

To scan and verify medication information (cont.)

- 2 Continue with the medication administration process for the patient's active IV Push or IV Piggyback medication.
 - If an Error message indicates that the Drug IEN Code was not found in the DRUG file (#50) or the Unique Identifier number was not located, [click here](#).
 - If an Error message indicates that the medication has already been given, or it's not time to give it yet, [click here](#).
 - If an Error message indicates that no order exists for the medication that you just scanned, [click here](#).
 - If no bags are available for the medication displayed on the BCMA VDL, [click here](#).
 - If IV Parameters fields set to "Warning" *and* a field is edited in Inpatient Medications V. 5.0, [click here](#).
 - If the "OTHER PRINT INFO:" prompt is edited in Inpatient Medications V. 5.0, [click here](#).

Administering a Patient's IVP/IVPB Medications

Scanning and Verifying Medication Information (cont.)

➤ If Drug IEN Code Not Found in DRUG file (#50) or Unique Identifier Number Not Located

The Error message, provided below, displays when BCMA does not locate the Drug IEN Code in the DRUG file (#50), *or* the Unique Identifier Number is not located. This occurs if the DRUG file contains two entries for the same Drug IEN Code, *or* the code/number is invalid.

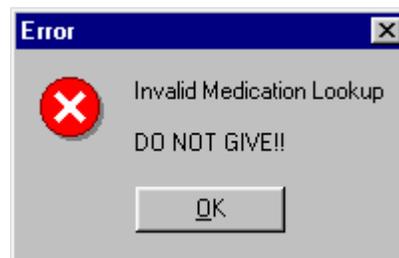
Note: If you receive this Error message more than once, contact the Pharmacy directly about the problem.

To manually enter Drug IEN Code or Unique Identifier Number for medication

- 1 Review the Error message, and then click **OK** to return to the patient's VDL.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to return to the patient's VDL.

Example: Error Message When Drug IEN Code or Unique Identifier Number Not Located



- 2 Select a medication order on the patient's VDL.

Administering a Patient's IVP/IVPB Medications

Scanning and Verifying Medication Information (cont.)



TIP:

You can quickly look up the Drug IEN Code or Unique Identifier Number for a medication by selecting the medication on the VDL, and then selecting the related command from the Right Click drop-down menu.

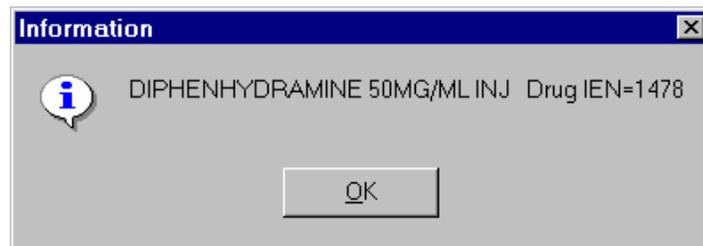
To manually enter Drug IEN Code or Unique Identifier Number for medication (cont.)

- 3 Select the Drug IEN Code command or the Available Bags command from the Due List menu. An Information message displays with the code or the number (of the IV bag) for the medication order selected on the BCMA VDL.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **D** to display the Drug IEN Code Information message, or press **V** to display the Available Bags Information message.

- 4 Note the Drug IEN Code or the Unique Identifier Number from the related Information message.

Example: Drug IEN Code for IVP Medication Selected on VDL



— OR —

Example: Unique Identifier Number for IVPB Medication Selected on VDL



Administering a Patient's IVP/IVPB Medications

Scanning and Verifying Medication Information (cont.)



TIP:

If the Scanner Status Indicator is **RED**, click in the Indicator field to activate the **GREEN** Ready Light *before* manually entering the Drug IEN Code or Unique Identifier Number.



TIP:

You can scan any Unique Identifier Number listed in the Information message.

To manually Enter Drug IEN Code or Unique Identifier Number for medication (cont.)

- 5 Manually enter the code/number into the Scan Medication Bar Code field, and then press **ENTER**. BCMA processes the information, and then displays the letter “G” (for “Given”) in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Press **TAB** to access the Scan Medication Bar Code field. Enter the Drug IEN Code or the Unique Identifier Number in the field, and then press **ENTER** to begin the scan process.

Example: Drug IEN Code Manually Entered into Scan Medication Bar Code Field on VDL

<input checked="" type="radio"/> Unit Dose	<input checked="" type="radio"/> IVP/IVPB	<input checked="" type="radio"/> IV
Scanner Status: 	Scan Medication Bar Code: 1478	

— OR —

Example: Unique Identifier Number Manually Entered into Scan Medication Bar Code Field on VDL

<input checked="" type="radio"/> Unit Dose	<input checked="" type="radio"/> IVP/IVPB	<input checked="" type="radio"/> IV
Scanner Status: 	Scan Medication Bar Code: 746V377	

- 6 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Scanning and Verifying Medication Information (cont.)

➤ If Medication Already Given or It's Not Time To Give Yet

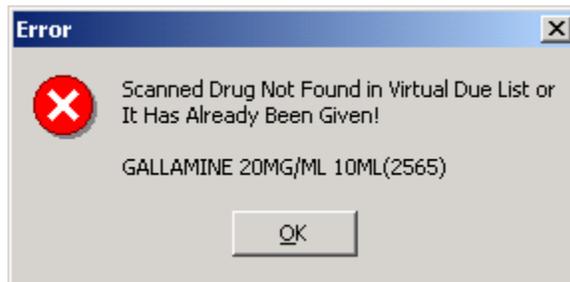
The Error message, provided below, displays if a patient has an IV Push order, BUT the medication has already been given to them, *or* it's not time yet to give the medication to them.

To review the Error message

- 1 Review the Error message, and then click **OK** to return to the patient's VDL.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to return to the patient's VDL.

Example: Error Message When Medication Already Given or It's Not Time to Give Yet



- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Scanning and Verifying Medication Information (cont.)

➤ If No Order Exists for Medication Scanned

The Error message, provided below, displays if the patient does not have an order for the medication that you just scanned.

To review the Error message

- 1 Review the Error message, and then click **OK** to return to the patient's VDL.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to return to the patient's VDL.

Example: Error Message When No Order Exists for Medication Scanned



- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Scanning and Verifying Medication Information (cont.)

➤ If No Bags Available for Medication Displayed on the VDL

The Information message, provided below, displays if the medication is incorrect.

To review the Information message

- 1 Review the Information message, and then click **OK** to return to the patient's VDL.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to return to the patient's VDL.

Example: Information Message When No Bags Available for Medication Displayed on VDL



- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Scanning and Verifying Medication Information (cont.)

➤ If IV Parameters Fields Set to “Warning” and Field Edited in Inpatient Medications V. 5.0

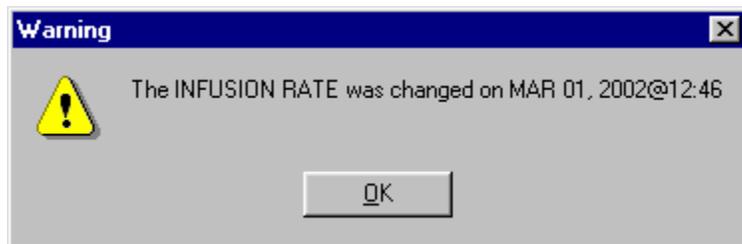
The Warning message, provided below, displays when the IV Parameters fields in the GUI BCMA Site Parameters application are set to “Warning” and an IV field is edited in Inpatient Medications V. 5.0. This message indicates that the Infusion Rate has changed.

To acknowledge IV Parameters Warning message

- 2 Review the Warning message, and then click **OK** to return to the patient's VDL.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to return to the patient's VDL.

Example: Warning Message When IV Field Edited in Inpatient Medications V. 5.0



- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Scanning and Verifying Medication Information (cont.)

➤ If "OTHER PRINT INFO:" Prompt Edited

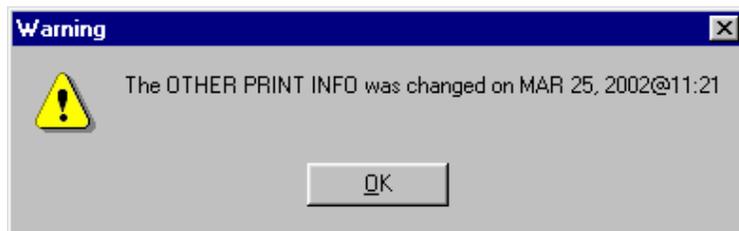
The Warning message, provided below, displays when the "OTHER PRINT INFO:" prompt in Inpatient Medications V. 5.0 is edited for a medication order displayed on the BCMA VDL.

To acknowledge changes when "OTHER PRINT INFO:" prompt edited

- 1 Review the Warning message, and then click **OK** to return to the patient's VDL.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to return to the patient's VDL.

Example: Warning Message When Other PRINT INFO Field Edited



- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Administering an Order with Multiple Admin Times

The Multiple Orders for Scanned Drug dialog box, provided below, displays *only* if the patient's order has multiple administration times for the medication that you scanned — using the Start and Stop time setting on the BCMA VDL.

To administer an order with multiple administration times

- 1 Select the order containing the administration time that you need, and then click **OK**. BCMA processes the information, and then displays the letter “G” (for “Given”) in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Use the **ARROW** keys to select an order. Press **TAB** to activate the **OK** button, and then press **ENTER** to accept the selection and display the patient's VDL.

Example: Multiple Orders for Scanned Drug Dialog Box

Status	Ver	Type	Medication/Solutions	Infusion Rate	Route	Admin Time	Last Action
	***	C	AMPICILLIN INJ AMPICILLIN 1 GM DEXTROSE 5% 50 ML ADMINISTER VIA SYRINGE PUMP	OVER ONE HOUR, Q4H	IVPB	03/24@0900	3/20/02@... GIVEN
	***	C	AMPICILLIN INJ AMPICILLIN 1 GM DEXTROSE 5% 50 ML ADMINISTER VIA SYRINGE PUMP	OVER ONE HOUR, Q4H	IVPB	03/24@0500	3/20/02@... GIVEN
	***	C	AMPICILLIN INJ AMPICILLIN 1 GM DEXTROSE 5% 50 ML ADMINISTER VIA SYRINGE PUMP	OVER ONE HOUR, Q4H	IVPB	03/24@1700	3/20/02@... GIVEN

- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Administering an Order with Special Instructions



TIP:

Special Instructions help to ensure that the patient receives the medication dosage required by the provider.

Information messages, like the ones provided below, display when the Pharmacy answers “YES” to a question in Inpatient Medications V. 5.0 about including Special Instructions in a Pop-up box after a nurse scans a medication. If the Pharmacy answers “NO” to the question, the Special Instructions *only* display in **RED** below the dispensed drug name in the Medication Order Display Area. You must acknowledge the message *before* administering the medication.

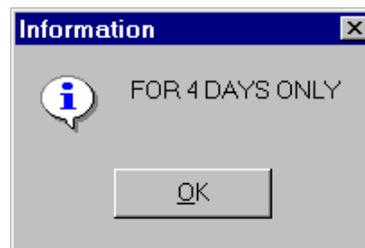
The Special Instructions may include those provided below, or they could even include the sliding scale range written by the provider. That way, you know how much insulin to administer to the patient, based on the patient’s blood sugar level.

To review Special Instructions from the Pharmacy

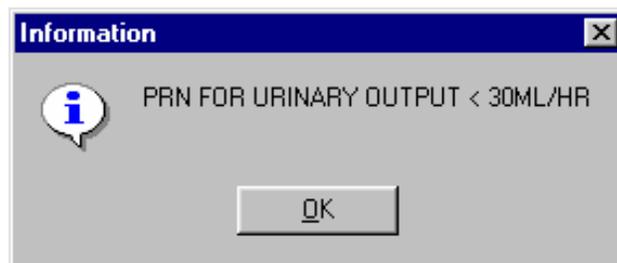
- 1 Review the Information message from the Pharmacy, and then click **OK** to return to the patient’s VDL.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to continue the medication administration process.

Example: Special Instructions Pop-up Boxes



— OR —



- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Specifying the Medication Quantity and Units Given



TIP:

You may be required to specify the quantity and units given for cc's, milliliters, grams, milliquivalents, milligrams, milimoles, and units.

The Quantity and Units dialog box, provided below, displays when the medication order does not include the words "CAP" or "TAB" in the "DOSAGE ORDERED:" prompt of the patient's order from Inpatient Medications V. 5.0.

To specify medication quantity and units given to patient

- 1 Enter the quantity and units of the medication that you are administering to the patient, and then click **OK**. The maximum character length is 40. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to continue.

Example: Quantity and Units Dialog Box

DIPHENHYDRAMINE INJ,SOLN

Enter Quantity and Units (ie., 30 ml): Maximum Length = 40

50 mg

OK Cancel

- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Specifying the Injection Site for the Medication

The Injection Site Selection dialog box, provided below, displays when an IV Push or IV Piggyback medication is injectable and has a Med Route of IV, IM, ID, SQ, or SC. (Other routes do not have this requirement.) When this occurs, BCMA requires that you enter the location on the patient (the site/location) where you are injecting the medication — *before* proceeding with the administration process.

To specify an injection site for the medication

- 1 In the Injection Site Selection drop-down list box, select the location where you are injecting the medication into the patient, and then click **OK**. BCMA processes the information, and then displays the letter “G” (for “Given”) in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Use the **ARROW** keys to select an injection “site” in the drop-down list box. Press **TAB** to activate the **OK** button, and then press **ENTER** to continue.

Example: Injection Site Selection Dialog Box



- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Administering a PRN Order



TIP:

If no administration times are listed in the Medication Log dialog box, the patient has *not* received any previous doses.



TIP:

The Med History button displays the Medication History Report for the orderable item listed in the dialog box.

The Medication Log dialog box, provided below, displays when you administer a PRN medication to a patient. BCMA checks for an active order, and then displays the last four “actions” for the same orderable item (not the medication), the date/time of each action, the schedule type, the reasons that the selected PRN medication was administered to the patient, and the number of units given to the patient.

The dialog box also includes the Vitals area, which can display the four previous vitals entries for each of the Vital signs listed in the area. The “+” sign, to the left of a Vital sign, expands the row to reveal additional entries. The “-” sign collapses the row to hide all but the most recent entry.

To administer a PRN order

- 1 In the Select a Reason drop-down list box, select a site-defined reason that indicates why you are administering the PRN medication to the patient.

Keyboard Shortcut: Use the **ARROW** keys to locate and select a Reason in the drop-down list box.

Example: Medication Log Dialog Box for PRN Administration

Medication Log

Active Medication: ACETAMINOPHEN TAB
 Dispensed Drug: ACETAMINOPHEN 325MG TAB

Special Instructions/Information:
 For Fever or Pain

Last Four Actions:

Date/Time	Action	Type	Reason	Units Given
11/7/2003@0813	GIVEN	PRN	Headache	1
11/7/2003@0808	GIVEN	PRN	Fever	1
10/28/2003@0953	MISSING DOSE	PRN		0
10/27/2003@0732	GIVEN	PRN	Elevated Blood Sugar	1

* Units Given do not display in the table above for orders with multiple dispensed drugs.

Select a Reason: Pain Score:

Vitals (click + for the last four):

Vital	Value	Date/Time
Temp	101	11/7/2003@0811
Pain	5	11/7/2003@0813
BP	98/64	11/7/2003@0811
Pulse	70	11/7/2003@0811
Resp	90	11/7/2003@0811

Administering a Patient's IVP/IVPB Medications

Administering a PRN Order (cont.)



TIP:

The "G" disappears from the Status column after you refresh the VDL, or close the VDL after administering a PRN medication to the patient.

To administer a PRN order (cont.)

- 2 In the Pain Score drop-down list box, select the patient's pain score, between 0 and 10 or 99, with "0" being No Pain, "10" the Worst Imaginable, and "99" for "Unable to Respond."

Note: You are prompted to enter a pain score only if your site has selected this requirement for the "Reason Medication Given PRN Answer Lists" in the GUI BCMA Site Parameters application.

- 3 Click **OK** to accept your selection and return to the patient's VDL. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to continue.

- 4 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Recording the Effectiveness of a PRN Medication



TIP:

You can quickly access the PRN Effectiveness Log by selecting a medication on the VDL, and then selecting the PRN Effectiveness command from the Right Click drop-down menu.



TIP:

You can double click on the PRN Effectiveness Activity in the BCMA Clinical Reminders marquee to document ALL PRN medication orders needing effectiveness documentation.

After administering a PRN medication to a patient, you can record the effectiveness of the medication for the patient and view the related information on the PRN Effectiveness List Report.

The PRN Effectiveness Log dialog box lists the orderable item, units given, administration date/time, reason the PRN medication was given, medication administrator, and the patient's location in the hospital. The Vitals area can display the four previous vitals entries for each of the Vital signs listed in the area. The "+" sign, to the left of a Vital sign, expands the row to reveal additional entries. The "-" sign collapses the row to hide all but the most recent entry.

To record the effectiveness of a PRN medication

- 1 Select the PRN medication on the BCMA VDL for which you want to record Effectiveness comments.
- 2 Select the PRN Effectiveness command from the Due List menu. The PRN Effectiveness Log dialog box displays with the patient's medication information listed at the top of the box, under the Selected Administration area, and all PRN medication administrations displayed in the PRN List table.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **P** to select the PRN Effectiveness command.

Note: Double-click on the PRN Effectiveness Activity to document ALL PRN medication orders needing effectiveness comments.

- 3 Under the PRN List table, select the medication for which you want to enter an Effectiveness comment. The "Selected Administration" area of the dialog box populates with administration information.

Keyboard Shortcut: Use the **ARROW** keys to locate and select a PRN medication in the list box.

Administering a Patient's IVP/IVPB Medications

Recording the Effectiveness of a PRN Medication (cont.)



TIP:

The Med History button displays the Medication History Report for the orderable item listed in the "Selected Administration" section of the dialog box.



TIP:

After you submit the pain score, date/time, and comments *and* the BCMA VDL is refreshed, BCMA updates the count for the PRN Effectiveness Activity in the BCMA Clinical Reminders marquee.

To record the effectiveness of a PRN medication (cont.)

- Under the PRN Effectiveness Comment area, enter the effectiveness of the medication given to the patient, up to 150 characters in length. If a pain score is entered, the comment is optional.

Example: Entering an Effectiveness Comment for a Selected PRN Medication

Vital	Value	Date/Time
Temp	101.1	1/16/2004@0945
<input checked="" type="checkbox"/> Pain	4	1/16/2004@0945
BP	98/64	1/16/2004@0945
Pulse	70	1/16/2004@0945
Resp	40	1/16/2004@0945

Orderable Item	Units Given	Administration Time	Reason Given	Administered By	Location
ACETAMINOPHEN	1	1/16/2004@0945	Fever	DENVER, DONNA	7A GEN MED 7...
ACETAMINOPHEN	2	1/16/2004@0843	Fever	DENVER, DONNA	7A GEN MED 7...

- In the Pain Score drop-down list box, select the patient's pain score, between 0 and 10 or 99, with "0" being No Pain, "10" the Worst Imaginable, and "99" for "Unable to Respond."

Note: You are prompted to enter a pain score only if your site has selected this requirement for the "Reason Medication Given PRN Answer Lists" in the GUI BCMA Site Parameters application.

- In the Date/Time drop-down list box, define the date/time that the pain score was taken. The information cannot be before the administration time or after the current system time.
- Click **OK** to file your comments or click **EXIT** to submit your comments and pain score information and return to the patient's VDL. If you entered a pain score, the text "Pain Score entered in Vitals via BCMA taken at [date/time]" and your comments will display on the Medication Log.

Keyboard Shortcut: Press **TAB** to activate the OK button, and then press **ENTER** to continue.

Administering a Patient's IVP/IVPB Medications

Administering a Medication Early



TIP:

BCMA will *not* mark the medication as Given (with a "G"), in the Status column of the VDL, until you enter a "Comment" in the Medication Log dialog box.



TIP:

Medications logged as "Early" are noted in the Medication Variance Log, along with the time scanned, and the reason the medication was administered early.

The Medication Log dialog box, provided below, is designed to "alert" you that you are administering the medication to the patient before the scheduled administration time. The dialog box includes the number of minutes that you are administering the medication, "before the scheduled administration time" listed on the BCMA VDL. You can add a "Comment" (free text), up to 150 characters in length.

To administer a medication early to a patient

- 1 In the Comments area of the Message Log dialog box, specify the reason that you are administering the medication *early* to the patient, and then click **OK**. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to continue.

Example: Medication Log Dialog Box for Early Dose

Medication Log

Active Medication: AMPICILLIN INJ

Special Instructions
ADMINISTER VIA SYRINGE PUMP

Message
Okay to administer
Admin is 252 minutes before the scheduled administration time

Confirm Continuous Medication

Enter a Comment (150 Characters Maximum)
Patient has a fever.

OK Cancel

- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Administering a Medication Late



TIP:

BCMA will *not* mark the medication as Given (with a "G"), in the Status column of the VDL, until you enter a "Comment" in the Medication Log dialog box.



TIP:

Medications logged as "Late" are noted in the Medication Variance Log, along with the time scanned, and the reason the medication was administered late.

The Medication Log dialog box, provided below, is designed to "alert" you that you are administering the medication to the patient after the scheduled administration time. The dialog box includes the number of minutes that you are administering the medication, "after the scheduled administration time" listed on the BCMA VDL. You can add a "Comment" (free text), up to 150 characters in length.

To administer a medication late to a patient

- 1 In the Comments area of the Medication Log dialog box, specify the reason that you are administering the medication *late* to the patient, and then click **OK**. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to continue.

Example: Medication Log Dialog Box for Late Dose

Medication Log

Active Medication: AMPICILLIN INJ

Special Instructions
ADMINISTER VIA SYRINGE PUMP

Message
Okay to administer
Admin is 63 minutes after the scheduled administration time

Confirm Continuous Medication

Enter a Comment (150 Characters Maximum)
Patient in Radiology.

OK Cancel

- 2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Marking Multiple Medications on the VDL



TIP:

You can quickly mark multiple medications selected on the VDL, with the same "action," by selecting the Mark command from the Right Click drop-down menu.

As requested, you can select and mark multiple medications, for the patient, as "Held" or "Refused" on the BCMA VDL. This feature is particularly helpful when a patient is temporarily off their ward, or if they refuse to take their medications.

To mark multiple medications on the VDL

- 1 Perform one of the following actions:
 - Using **SHIFT+CLICK**, select a range of medication orders that you want to mark with the same status on the BCMA VDL.
 - Using **CTRL+CLICK**, individually select several medication orders that you want to mark with the same status on the BCMA VDL.

Note: If you do not "select" orders on the BCMA VDL, the Mark options will be grayed out and not accessible to you. The options available to you will depend on the current Status of the medication order.

- 2 Select the Mark command from the Due List menu. The Mark drop-down menu displays with the "actions" available for these medications.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **M** to display the Mark drop-down menu.

- 3 Select the command that represents the "action" that you want to take on the medications selected on the BCMA VDL. BCMA processes the information, and then displays a letter in the Status column of the BCMA VDL to document the action taken on the medications.

Keyboard Shortcut: Use the **ARROW** keys to select the command that represents the "action" that you want to take on the medications selected on the BCMA VDL.

- 4 Continue administering active Unit Dose medications to the patient.

Administering a Patient's IVP/IVPB Medications

Changing the Status of an IVP or IVPB Medication



TIP:

You can change the status of a medication on "Hold" to "Held," although it is not necessary that you do so unless required by your medical center.



TIP:

You can quickly change the status of an IVP/IVPB medication by selecting the Mark command from the Right Click drop-down menu.

Use this section when you need to "mark" (change) the status of a patient's medication.

Once you scan and mark a medication as "Given," you cannot scan it again for the same administration time. If you do, you will receive an Error message. You can, however, change the status from "Given" to "Not Given" provided you are the individual who originally marked it as "Given," or you have been assigned the PSB MANAGER security key.

You can mark a medication with the following status:

- Given to Not Given
- Held or Refused to Given
- Missing to Given, Held, or Refused

To change the status of an IVP or IVPB medication

- 1 Select the medication on the BCMA VDL for which you want to change the status (take an action on).
- 2 Select the Mark command from the Due List menu. The Mark drop-down menu displays with the "actions" available for this medication.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **M** to display the Mark drop-down menu.

Note: The Mark options available to you will depend on the current Status of the medication order.

- 3 Select the command that represents the "action" that you want to take on the medication selected on the BCMA VDL. BCMA processes the information, and then displays a letter in the Status column of the BCMA VDL to document the action taken on the medication.

Keyboard Shortcut: Use the **ARROW** keys to select the command that represents the "action" that you want to take on the medication selected on the BCMA VDL.

- 4 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Patient's IVP/IVPB Medications

Adding Comments to a Patient's Medication Record



TIP:

You can quickly add comments to a patient's medication by selecting the medication on the VDL, and then selecting the Add Comment command from the Right Click drop-down menu.

You can add a comment (free text), up to 150 characters in length, to a patient's medication marked as "G" (Given), "H" (Held), or "R" (Refused) in the Status column of the BCMA VDL. Your comments will also display in the Medication Log Report.

To add comments to a patient's medication record

- 1 Select the medication on the BCMA VDL that you want to add Comments.
- 2 Select the Add Comment command from the Due List menu. The Medication Log dialog box displays.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **A** to display the Medication Log dialog box.

- 3 In the Add Comment area, enter the comments that you want to associate with the medication selected on the patient's VDL.

Example: Medication Log Dialog Box

Medication Log

Active Medication: SODIUM CHLORIDE 0.9% INJ

Special Instructions

PRN FOR URINARY OUTPUT < 30ML/HR

Message

Okay to administer
Brief Administration History
MAR 25, 2002@12:07:15 NOT GIVEN PRN FEVER Left Leg
MAR 24, 2002@22:06:55 NOT GIVEN PRN DIARRHEA IV/LOCK
MAR 24, 2002@22:01:04 GIVEN PRN FEVER Left Leg

Add Comment

Enter a Comment (150 Characters Maximum)

NACT for Creatinine Clearance Test.

OK Cancel

- 4 Click **OK** once you've read your entry and are satisfied with it. An Information message displays, indicating that BCMA has successfully filed your comments.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to continue.

Administering a Patient's IVP/IVPB Medications

Adding Comments to a Patient's Medication Record (cont.)

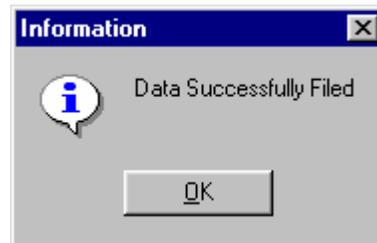


TIP:

BCMA automatically wraps words in the Comments section.

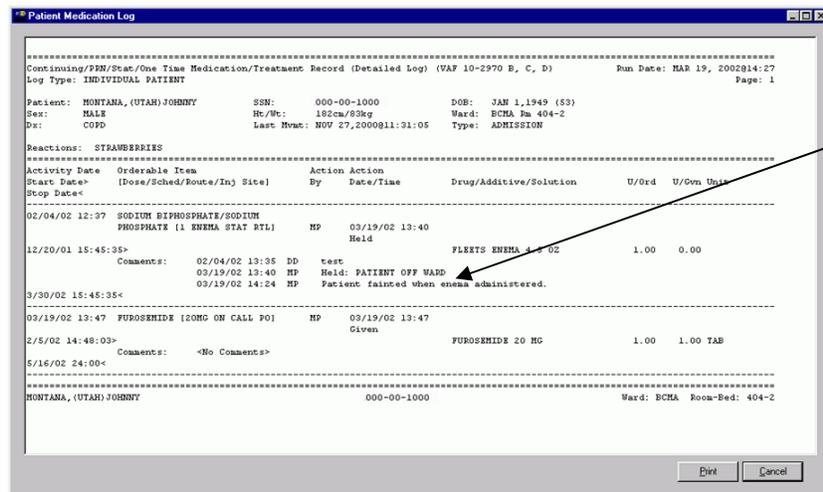
To add comments to a patient's medication record (cont.)

Example: Information Message Received When Comments Entered Successfully



- 5 Verify that your comments were entered in the patient's record by clicking the Med Log button in the Tool Bar to access the Medication Log Report.

Example: Medication Log with Comments Entered



Note: You can view comments on the Medication Log Report if you select the “Audits” check box in the Include area of the Patient Medication Log dialog box. See chapter 7, Viewing and Printing BCMA Reports” for more information.

Administering a Patient's IVP/IVPB Medications

Looking Up a Drug IEN Code or Unique Identifier Number



TIP:

You can quickly look up the Drug IEN Code or the Unique Identifier Number for a medication by selecting the medication on the VDL, and then selecting the related command from the Right Click drop-down menu.

When a medication bar code is missing or unreadable, you will need to look up the Drug IEN Code or Unique Identifier Number for the medication. The number that you locate in BCMA is the one actually stored in the DRUG file (#50). Then you can manually enter the number into the Scan Medication Bar Code field, and administer the medication.

To manually enter Drug IEN Code or Unique Identifier Number of medication

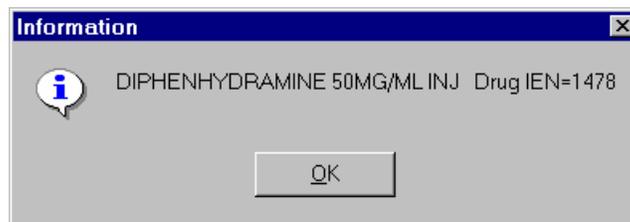
- 1 Select a medication order on the patient's VDL.
- 2 Select the Drug IEN Code or the Available Bags command from the Due List menu. An Information message displays with the Drug IEN Code or the Unique Identifier Number (of the IV) for the medication order selected on the BCMA VDL.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **D** to display the Drug IEN Code Information message or press **V** to display the Available Bags Information message.

- 3 Note the IEN Code or the Unique Identifier Number from the related Information message, and then click **OK**.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to continue.

Example: Drug IEN Code for IVP Medication Selected on VDL



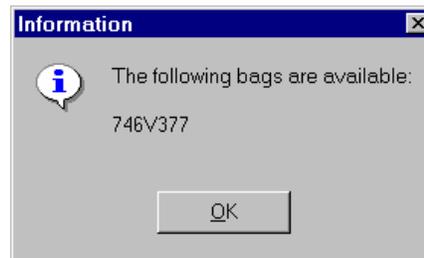
— OR —
(See Next Page)

Administering a Patient's IVP/IVPB Medications

Looking Up a Drug IEN Code or Unique Identifier Number (cont.)

To manually enter Drug IEN Code or Unique Identifier Number of medication (cont.)

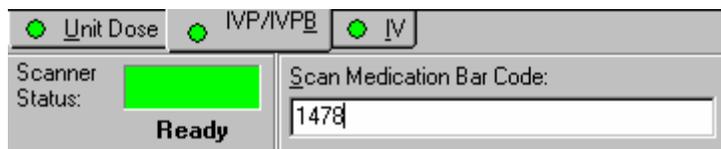
Example: Unique Identifier Number for IVPB Medication Selected on VDL



- 4 Manually enter the code/number into the Scan Medication Bar Code field, and then press **ENTER**. BCMA processes the information, and then displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

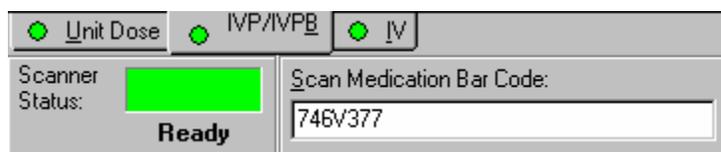
Keyboard Shortcut: Press **TAB** to access the Scan Medication Bar Code field. Enter the Drug IEN Code or the Unique Identifier Number in the field, and then press **ENTER** to begin the scan process.

Example: Drug IEN Code Manually Entered into Scan Medication Bar Code Field on VDL



— OR —

Example: Unique Identifier Number Manually Entered into Scan Medication Bar Code Field on VDL



- 5 Continue administering active IV Push or IV Piggyback medications to the patient.



TIP:

If the Scanner Status Indicator is **RED**, click in the Indicator field to activate the **GREEN** Ready Light before manually entering the Drug IEN Code or Unique Identifier Number.

Administering a Patient's IVP/IVPB Medications

Submitting a Missing Dose Request



TIP:

You *cannot* submit a Missing Dose Request for a medication marked as "Given" on the VDL. You can, however, change the status from Missing to Held, Refused, or Given.



TIP:

You can quickly submit a Missing Dose Request by selecting a medication on the VDL, and then clicking once on the Missing Dose button in the Tool Bar at the top of the VDL.

You can use the Missing Dose command or the Missing Dose button on the Tool Bar to send Missing Dose Requests directly to the Pharmacy. Your request will automatically print on a dedicated printer in the Pharmacy that your medical center predefined using the GUI BCMA Site Parameters application. BCMA will also send a MailMan message to a predefined mail group. If both are predefined, both will be notified.

BCMA V. 3.0 displays an "M" in the Status column of the BCMA VDL after you submit a Missing Dose Request to the Pharmacy. The Last Action column includes this status information after you refresh the BCMA VDL. This functionality will benefit the Pharmacy by identifying requests that have already been submitted, and by reducing the number of duplicate submissions that they receive on a daily basis.

Note: You can mark a Missing Dose medication as "Held," "Refused," or "Given." If you miss the "administration window," you can use the *Manual Med Entry* [PSB MED LOG NEW ENTRY] option in CHUI BCMA to mark it as "Given."

To submit a Missing Dose Request

- 1 Select a medication on the BCMA VDL that is considered "Missing."
- 2 Select the Missing Dose command from the Due List menu. The Missing Dose Request dialog box displays.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and then press **I** (not "L") to display the Missing Dose Request dialog box.

- 3 Verify the patient's name on the Tab at the top of the dialog box, and their location and medication information within the dialog box.

Administering a Patient's IVP/IVPB Medications

Submitting a Missing Dose Request (cont.)



TIP:

When you select the Missing Dose option, BCMA automatically populates the fields in the Missing Dose Request dialog box. You must complete all fields *before* submitting the request to the Pharmacy.



TIP:

Enter "N" (for NOW) if you want BCMA to automatically enter the current date and time in the dialog box for you when you move to the Reason drop-down list box.

To submit a Missing Dose Request (cont.)

Example: Missing Dose Request Dialog Box

Missing Dose Request

MONTANA,(UTAH)JOHNNY

Ward
BCMA

Ordered Drug
AMPICILLIN INJ

Dosage
OVER ONE HOUR

Administration Time
03/24@1300

Date@Time Needed
[Empty]

Reason
[Dropdown]

Submit Cancel

- 4 In the Date@Time Needed field, enter the day and time when you need the medication for the patient using the VA FileMan Date/Time formatting guidelines listed below. You can use a date in the future or the past.

Date Formatting

- May 1, 2004, 01 MAY 04, 5/01/04, 050104
- N (for NOW)
- T (for Today)

Time Formatting

- 00:00 (For example, 14:00 for 2:00 p.m.)

Keyboard Shortcut: Press **TAB** to move among the fields on the dialog box.

Note: If the year is omitted, the computer uses the current year. A two-digit year assumes no more than 20 years in the future, or 80 years in the past.

Administering a Patient's IVP/IVPB Medications

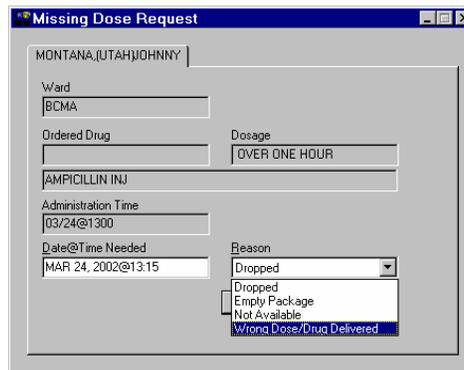
Submitting a Missing Dose Request (cont.)

To submit a Missing Dose Request (cont.)

- 5 In the Reason field, click once on the drop-down arrow to display pre-defined reasons why you are sending this request to the Pharmacy.

Keyboard Shortcut: Use the **ARROW** keys to locate and select a Reason in the drop-down list box.

Example: Missing Dose Request Dialog Box

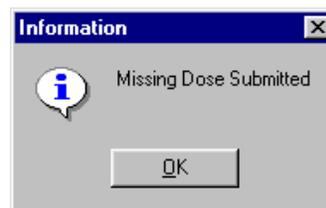


- 6 Verify the information in the dialog box, and then click **SUBMIT** to send the request to the Pharmacy, where it prints on a predefined printer. An Information message displays. A MailMan message will also be sent to a mail group if predefined using the GUI BCMA Site Parameters application.

Keyboard Shortcut: Press **TAB** to activate the **SUBMIT** button, and then press **ENTER** to display the Information message.

- 7 Read the Information message, and then click **OK**. BCMA processes the request, and then displays the letter “M” (for “Missing”) in the Status column.

Example: Missing Dose Submission Message



TIP:

When you “refresh” the VDL, the Last Action column reflects the action taken on the Missing Dose.

Working with Patient Records

Opening a Patient Record



TIP:

Press **CTRL+O** to access a patient record.

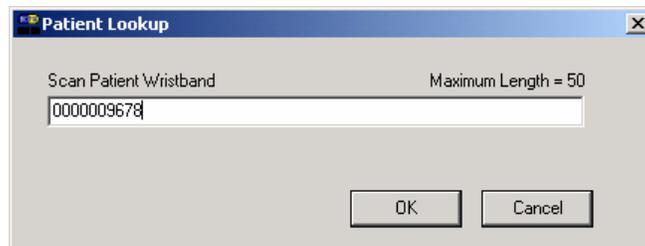
Once you finish administering active medications to a patient, you can open another patient record (VDL), and then another. The process for doing so is quick and easy.

To open a patient record

- 1 Select the Open Patient Record command from the File menu. The Patient Lookup dialog box displays.

Keyboard Shortcut: Press **ALT+F** to display the File menu, and then press **O** to display the Patient Lookup dialog box.

Example: Patient Lookup Dialog Box

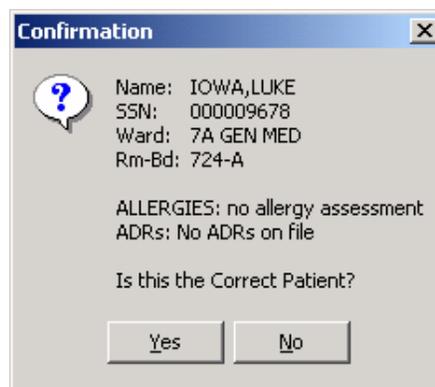


- 2 At the Patient Lookup dialog box, scan the bar code on the patient's wristband. The maximum character length is 50. A Confirmation dialog box displays the patient's personal data such as name, SSN, ward, room-bed, allergies, and ADRs.

Keyboard Shortcut: Press **TAB** to activate the **OK** button, and then press **ENTER** to accept your entry and begin the scan process.

- 3 Verify the information provided in the Confirmation dialog box, with the information on the patient's wristband.

Example: Confirmation Dialog Box



TIP:

The Confirmation dialog box that displays, after a patient's wristband is scanned, includes the patient's allergies and ADRs.

Working with Patient Records

Opening a Patient Record (cont.)

To open a patient record (cont.)

4 Perform one of the following actions:

- **If the information matches** the data printed on the patient's wristband, click **YES** to access their VDL and to begin administering active medications to the patient.

Keyboard Shortcut: Press **TAB** to activate the **YES** button, and then press **ENTER** to access the patient's VDL.

- **If this information does not match** the data on the patient's wristband, click **NO**, and then verify the patient's identity against the information on their wristband.
 - **If correct**, scan the wristband again.
 - **If incorrect**, correct the wristband for the patient.

5 Continue administering active IV Push or IV Piggyback medications to your patient.

Working with Patient Records

Closing a Patient Record



TIP:

It is *not* necessary, or required, to close a patient record *before* opening another, although it is advised if you are leaving the patient's room for awhile.



TIP:

BCMA displays an Information message to verify if you want to view active orders on other Medication Tabs *before* closing the patient's record.

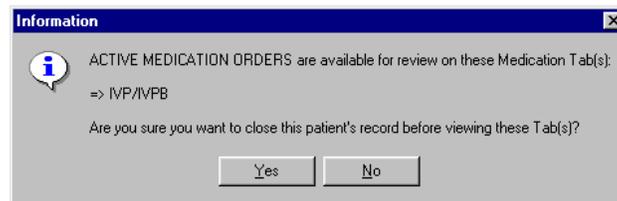
Once you finish administering active medications to your patient, you can close their patient record (VDL), and then open another patient record. This feature is particularly useful when you need to leave the patient's room for a few minutes, and do not want to leave their record open on your computer.

To close a patient record

- 1 Select the Close Patient Record command from the File menu. The Information message, provided on the following page, displays.

Keyboard Shortcut: Press **ALT+F** to display the File menu, and then press **C** to display the Information message on the following page.

Example: Information Message



Note: The Information message, provided above, displays only for IV Piggyback medications since you automatically view Unit Dose orders when the BCMA VDL opens. The message lets you verify if you want to view active orders under the IVP/IVPB Medication Tab before closing the patient's record.

- 2 Perform one of the following actions:
 - Click **YES** to close the current record without viewing medication orders, for the patient, on other Medication Tabs. The Patient Lookup dialog box then displays.
 - Click **NO** to view active medication orders under the Medication Tab listed in the Information message.

Keyboard Shortcut: Press **TAB** to activate the **YES** button, and then press **ENTER** to continue.

Note: BCMA provides the "BCMA Idle Timeout" site parameter for defining the number of minutes that an idle BCMA session can stay open. Once the allowable time-out has been reached, BCMA will close. If the BCMA session displays a prompt, it will not time-out until the prompt is answered. The allowable entry for this parameter is 1 to 1440 minutes/day. The default is 30 minutes.

