BAR CODE MEDICATION ADMINISTRATION (BCMA)

GUI USER MANUAL

Version 3.0
September 2022

Department of Veterans Affairs
Office of Information and Technology

Revision History

Date	Revised Pages	Patch Number	Description
9/2022	8, 40	PSB*3*93	Indications for Prescription and Medication Orders: • Under Discover Benefits Of BCMA 3.0, added description of Medication Indications in the Bar Code under Indications for Prescription and Medication Orders. • Under Features of the VDL, expanded the description of Allergies • Updated Footers and TOC (Global)
07/2021		PSB*3*82	For Medication Administration History (MAH) and Medication History reports sections: • Added Note and text under "Read Me First" section for MAH and Med History • Added Note for MAH Report • Added new MAH Report example for patient • Added new MAH Report example for ward • Added Note for Med History Report • Added new Med History Report example • Added Note and text under Viewing/Printing a MAH Report (refer to Chapters 7 thru 13) • Updated Footers and TOC (Global)
07/2021	i, 6, 8-9, 36, 43, 354, 358, 361, 368, 373, 379, 399, 456	PSB*3*106	Updated the content to add the Hazardous to Handle and Hazardous to Dispose of icons to the Icon Legend and to the sections where those icons and/or notifications are discussed.
04/2019	99	PSB*3*119	Updated TOC, footers, and the image and process on the revised page.
12/2018	i, 46-47, 333, A-14	PSB*3*96	Two-factor authentication (2FA).
11/2016	i-xi 5, 6, 7, 8, 20, 21, 27, 29, 32, 37, 39, 40, 41, 42, 43, 44, 45, 61, 65, 69, 76, 115, 126, 207, 210, 212, 214, 219, 220	PSB*3*83	Updated TOC and footers. Enhancements made in support of Inpatient Medication Administration-Transdermal project for medication requiring removal (MRR). Renamed "Wit" column to "Alert" and added icon for Requires Removal. Replaced screen displays that include this column. Renamed "AdminTime" column to "Next Dose Action" to provide information on medication that is late and/or due for removal along with the admin date and time. Added new MRR information in report definitions. Replaced screen displays of reports that now include new MRR removal information and have Injection site wording revised for new Body Site and Dermal Site terminology that encompasses both MRR body sites and non-MRR injection sites.
11/2015	i, ii, 2, 33	PSB*3*86	Added description of maximum days back searched for PRN medication orders needing effectiveness documentation.

12/2013	All	PSB*3*70	Enhancements made in support of the BCMA Clinic Orders and Witness for High Risk/High Alert Medications projects. **Clinic Orders** - BCMA modified to display clinic orders on all medication tabs including Cover Sheet, Unit Dose, IVP/IVPB and IV tabs. - Choice of order modes – Inpatient or Clinic - Inpatient Order Mode Indicator to display showing green when active inpatient orders exist or white when no active inpatient orders exist. - Clinic Order Mode Indicator to display showing green when active clinic orders exist or white when no active clinic orders exist. - "Clinic" column displaying clinic name added to all medication tabs including cover sheet - Ability to view and administer clinic medications that are due each day and to see active clinic orders that were due prior to today and after today. - Ability to see all active IV orders that have been infused, whether infused in an inpatient ward or clinic. - Ability to see clinic order IV bags that have not been completed until marked as completed. - Last Action column updated on Unit Dose and IVP/IVPB tabs to reflect action taken and date/time of action, whether in an Inpatient Ward or in a Clinic. - Last Given calculation and date updated on the PRN medication log dialog to reflect the last date/time the orderable item was given and the elapsed time since it was last given, whether in an inpatient ward or in a clinic. - All pending PRN Effectiveness entries, along with the Location given, displayed in the PRN Medication Log dialog, whether the PRN med was originally given in an inpatient ward or in a clinic. - Indicators to display on the VDL when patient has any Infusing IV's, Stopped IV's and Patches that are not removed. - Mutually exclusive reports which separate Inpatient data from Clinic Order data including Admin Times, Due List, Missed Meds, and Cover Sheet reports. - Combined reports which include both Inpatient data and Clinic Order data including MAH, Med Log, Med History, IV Bag Status, Med Therapy and PRN Effectiveness reports. **High Risk/High Alert Medications** - High Risk/High Alert medications requiring witness to complete administration identified on the VDL - "Wit" column added to the Cover Sheet and all medication tabs on the VDL displaying the HR/HA Icon when a witness is required for the administration. - New BCMA Witness Sign-On dialog for administrations requiring a witness added. - New BCMA Witness Sign-On dialog for administrations requiring a witness to display Quantity and Units, where applicable.

			- Witness information stored in the Medication Log for report purposes.

Table of Contents

Chapter 1: Introducing BCMA V. 3.0

Read Me First **7**
Before Using this Software 7
Discover Benefits of BCMA V. 3.0 8

Using this Manual **20**
Assumptions that We Made About You 20
Benefits of this Manual 20
How this Manual is Organized 21
Conventions Used in this Manual 22
Windows Terminology Used in this Manual 23
Other Sources of Information 24

BCMA: In a Nutshell **25**
What is BCMA? 25
Benefits of BCMA 27
Features Unique to BCMA 28
Background Information About BCMA 31

Getting Help — In a Hurry **33**
Offering Superior Customer Service, Technical Support 33

Chapter 2: Take a Quick Tour of BCMA

Taking a Quick Tour of BCMA **35**
Benefits of this Chapter 35
The VDL: In a Nutshell 35

Getting Acquainted with the VDL **44**
Accessing BCMA Features and Options 44
Understanding the Columns on the VDL 47
Sorting the Contents of a Column 54
Resizing the Columns on the BCMA VDL 55
Refreshing the VDL 56

Getting Started **58**
Signing on to BCMA 59

Working with Patient Records **50**
Opening a Patient Record 50
Closing a Patient Record 58

Table of Contents

Chapter 3: Administering Active Unit Dose Medications

Working with Unit Dose Medications 59
Benefits of this Chapter 59
Preparing to Administer Unit Dose Medications 59
How BCMA Validates Patient and Medication Information 63

Administering a Patient's Unit Dose Medications 65
Preparing to Administer Unit Dose Medications 65
Scanning and Verifying Medication Information 68
Unable to Scan Unit Dose Medication 76
Administering a Multiple Dose Order 83
Administering a Fractional Dose Order 85
Administering an Order with Multiple Admin Times 89
Administering an Order with Special Instructions 90
Specifying the Medication Quantity and Units Given 93
Specifying the Injection Site for the Medication 95
Displaying the Injection Site for the Medication 96
Marking a Patch As Removed 98
"Given" Patch that is Expired or Discontinued 99
Administering a PRN Order 101
Recording the Effectiveness of a PRN Medication 103
Administering a Medication Early 105
Administering a Medication Late 107
Marking Single Administration as Held or Refused 108
Marking Multiple Administrations as Held or Refused 111
Changing the Status of a Unit Dose Medication 113
Adding Comments to a Patient's Medication Record 114
Submitting a Missing Dose Request 116

Table of Contents

Chapter 4: Administering Active IVP/IVPB Medications

Working with IVP/IVPB Medications 122
Benefits of this Chapter 122
Preparing to Administer IVP or IVPB Medications 122
How BCMA Validates Patient and Medication Information 127

Administering a Patient's IVP/IVPB Medications 130
Preparing to Administer IVP or IVPB Medications 130
Scanning and Verifying Medication Information 133
Unable to Scan IVP/IVPB Medication 143
Administering an Order with Multiple Admin Times 159
Administering an Order with Special Instructions / Other Print Info 160
Specifying the Medication Quantity and Units Given 163
Specifying the Injection Site for the Medication 165
Displaying the Injection Site for the Medication 168
Administering a PRN Order 170
Recording the Effectiveness of a PRN Medication 172
Administering a Medication Early 174
Administering a Medication Late 176
Changing the Status of an IVP or IVPB Medication 177
Adding Comments to a Patient's Medication Record 178
Marking Single Administration as Held or Refused 180
Submitting a Missing Dose Request 185

Chapter 5: Administering Active Clinic Order Medications

Administering a Patient's Clinic Order Medications 189
Displaying Clinic Orders in BCMA 189
Administering Clinic Orders in BCMA 193
Working with Large Volume IV Clinic Orders 196
Last Action and PRN/Effectiveness for Clinic Orders 197
Meds on Patient Indicators 199
Patch Administrations Expired or Discontinued 201
Viewing and Printing Clinic Order Reports 202

Table of Contents

Chapter 6: Administering High Risk/High Alert Medications

Administering a Patient's High Risk/High Alert Drugs 216
Preparing to Witness High Risk/High Alert Drugs 216
Witnessing High Risk/High Alert Drugs When a Witness is Required 220
Witnessing High Risk/High Alert Drugs When a Witness is Recommended and Witness is Provided 224
Witnessing High Risk/High Alert Drugs When a Witness is Recommended, but Not Provided 226
Error Messages for Witness Validation When Witnessing High Risk/High Alert Drugs 228
Witness Information Stored in the Med Log Report 232
Examples of Witness Information Included in the Med Log Report 235

Appendix A: Frequently Asked Questions A-1
Appendix B: Index B-1
Appendix C: Clinical Context Object Workgroup (CCOW) C-1
Appendix D: 508 Compliance D-1
Appendix E: IHS - Parameterization E-1

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.

- Charleston, South Carolina
- Dublin, Georgia
- Durham, North Carolina
- East Orange, New Jersey
- Fargo, North Dakota
- Hampton, Virginia
- Indianapolis, Indiana
- Iowa City, Iowa
- Iron Mountain, Michigan
- Loma Linda, California
- Madison, Wisconsin
- Manchester, New Hampshire
- Martinez, California
- Martinsburg, West Virginia
- Minneapolis, Minnesota
- Mountain Home, Tennessee
- North Chicago, Illinois
- Palo Alto, California
- Phoenix, Arizona
- Pittsburgh, Pennsylvania
- St. Cloud, Minnesota
- Tampa, Florida
- Temple, Texas
- Tucson, Arizona
- Upstate New York, New York
- Washington, D.C.
- West Palm Beach, Florida

Discover Benefits of BCMA V. 3.0

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.

Indications for Prescription and Medication Orders

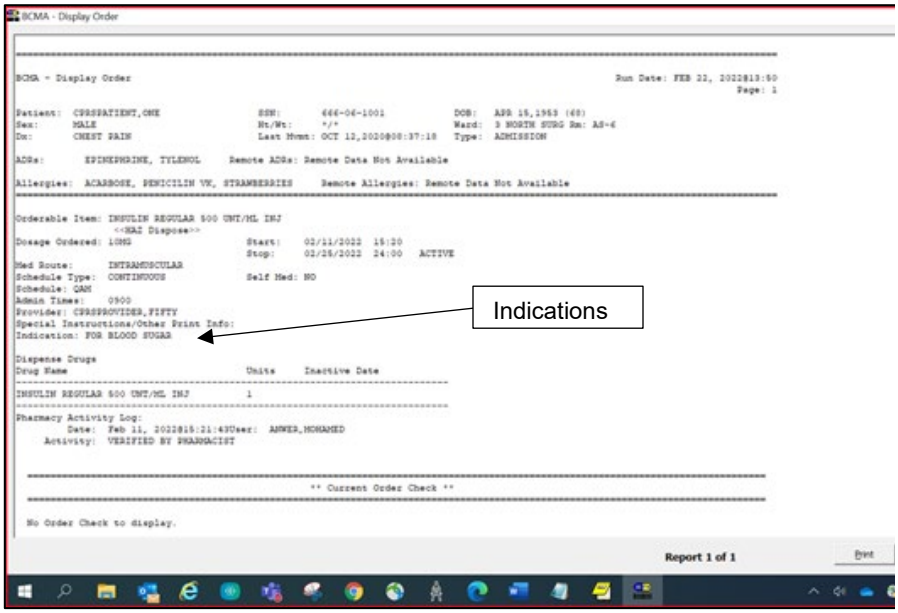
TIP:

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

Adds the ability for clinicians to view medication indications in the Bar Code Medication Administration (BCMA) application for unit dose, continuous IV, and intermittent IV medications in the order detail screen.

This will prevent medication errors from occurring, improve the accuracy of medication administration, and enhance patient safety and patient care.

Example: Indications on BCMA Display Order



Patient Transfer Notification Message

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.

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 unit 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. The maximum days back searched for PRN medication orders needing effectiveness documentation is 35 days, or the value of the Med Hist Days Back parameter; whichever is greater. 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 Type 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 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, 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.

Unable to Scan Functionality

The Unable to Scan functionality allows the nurse to record and report wristband and medication bar code scanning failures when they happen during a med pass. An email notification message is automatically sent, and data is captured so that management reports can be generated in order to identify, analyze, and ultimately reduce scanning failures.

Icon Legend

An Icon Legend option has been added to the View menu. When selected, a dialog will display showing icons used throughout BCMA

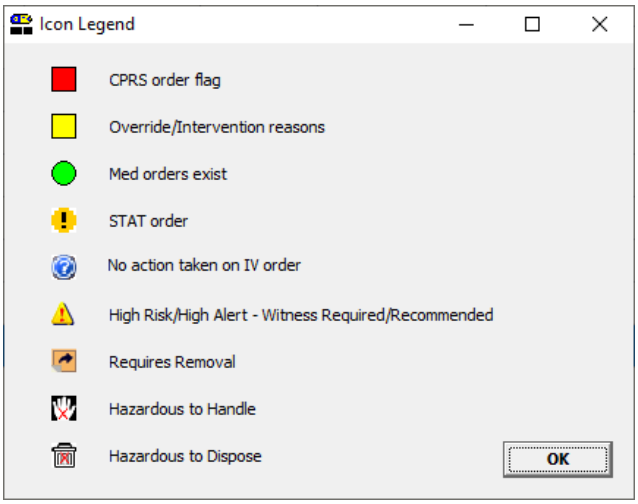
Discover Benefits of BCMA V. 3.0 (cont.)

with their corresponding descriptions.

To display the legend

1 Click on View then click on Icon Legend.

Example: Icon Legend



2 Click OK to return to the VDL

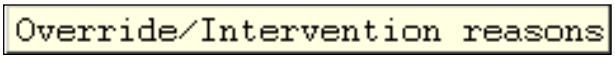
CPRS Order Flag Indicator

The CPRS order flag identifies a patient that may need special handling such as a violent patient.

Provider Overrides/Pharmacist Interventions Indicator

If Computerized Patient Record System (CPRS) Provider Override Reasons/Pharmacist Interventions are associated with an order, the cell in the "ver" column of the order/administration on the BCMA Virtual Due List (VDL) will be highlighted in yellow for all three medication tabs: Unit Dose, Intra Venous Push/Intra Venous Piggy Back (IVP/IVPB) and Intravenous (IV) as well as the Cover Sheet. If you hover over the highlighted "ver" cell a visual indicator will display the following message: "Override/Intervention reasons."

Example: Override/Intervention Indicator



Read Me First!

Discover Benefits of BCMA V. 3.0 (cont.)

Med Orders Exist Indicator

Med Orders Exist Indicator alerts you that active orders exist on the VDL for the patient.

STAT Order Indicator

The STAT Order Indicator identifies a medication order given immediately to a patient, entered as a One-Time order by providers and pharmacists. This order type displays for a fixed length of time on the VDL, as defined by the order Start and Stop Date/Time.

No Action Taken on IV Order Indicator

The No Action Taken on IV Order Indicator alerts you that IV bags are available, but nothing has been infused.

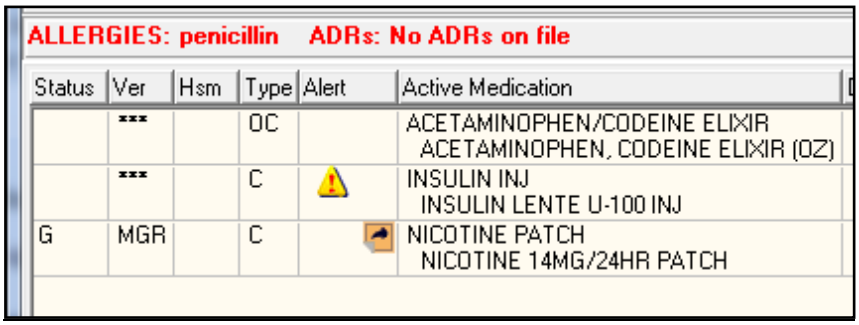
Witness Indicator and Requires Removal

The Witness Indicator icon appears in the "Alert" column on the Cover Sheet, Unit Dose, IVP/IVPB and IV tabs to alert you that a High Risk/High Alert medication is to be administered requiring a second signature from licensed personnel.

The Requires Removal icon in the Alert column indicates the date and time that a medication requiring removal has been entered for the order.

The system allows the user to sort the icons in the Alert column by clicking on the column heading "Alert," or by selecting the Due List menu, Sort by, then Witness. The system automatically prompts for the witness sign-on, determines if the witness is authorized to witness a high risk/high alert medication administration and store the information with the patient's record so that the process is integrated into the administration workflow.

Example: "Alert" Column on the VDL



Example: Hazardous to Handle and Hazardous to Dispose Alerts on the VDL

Status	Ver	Type	Alert	Medication
Active	***	C		FAMOTIDINE TAB
Active	***	C		PHENOXYBENZAMINE CAP,ORAL
Active	***	C		WARFARIN TAB

The system allows the user to sort the icons in the Alert column by clicking on the column heading "Alert," or by selecting the Due List menu, Sort by, then Alert.

Read Me First!

Discover Benefits of BCMA V. 3.0 (cont.)

Report Printing

Here is the report printing functionality in BCMA V. 3.0:

- All reports have the following features:
    - Report criteria entered by user at report run-time appear at the top of the report.
    - When applicable, a legend of initials and names appearing in the report displays at the bottom of all reports.
    - Queuing functionality can delay report printing to a future date/time.
    - Reports can be previewed on screen or printed directly to the printer.
    - Ward-based reports allow the user to select multiple patients, print directly to a printer or preview and selectively print per patient.
    - Ward-based reports provide a feature to exclude inactive wards in order to limit the selections in the drop-down list.
    - Ward drop-down list includes an indicator that distinguishes between Nurse Units and MAS Wards.
    - A date range for Start and Stop dates is available for Medication Log, PRN Effectiveness, and Patient Ward Administration Time reports.

Note: For the Med Admin History and Med History Reports (below):

When an order contains an additive (or additives) in a solution, the CPRS Order Details display will only search for and display administrations associated with the relevant additives. A duplicative display representing administrations of the solutions will no longer occur. When a patient has medication administrations for dispense drugs associated with the same Orderable Item, those administrations will continue to display, BUT the administrations will no longer be grouped separately in reverse chronological order. Instead, the administrations for the infusion and unit dose orders will be interspersed (in reverse chronological order) so providers can visualize administration history for medications associated with the same orderable item regardless of whether the medication was delivered as a unit dose order or as an infusion.

- **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 History Report:**
    - The Status and Schedule Type will have their own columns with their values spelled out, e.g., G will be 'Given' and P will be 'PRN'
    - Units Ordered is being added as a new column

    - Previous statuses will be displayed in reverse chronological order
- **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 or before the removal time for medications requiring removal.

- **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.

Discover Benefits of BCMA V. 3.0 (cont.)

Report Printing (cont.)

- **Ward-Based Reports:** Simply click **CANCEL** at the Patient Lookup dialog box to access the Menu Bar — without opening a patient record — and print ward-based 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.

  When running the Missed Medications report, the user may selectively include or exclude Held and Refused orders. Held, Refused, and Comments boxes will be checked on the Missed Medications Report dialog box as an initial default. The report now includes a "Ver" column containing the initials of the nurse who verified the order or three asterisks (***) indicating the order was not nurse verifies. The report has added the word "(Remove)" below the medications requiring removal that are past due for removal per site parameters.
- **Cover Sheet–Medication Overview Report:** Displays and groups active, expired or discontinued, and future expiring orders for the current patient and by ward. For each group, the total number of orders per group is displayed in brackets next to the group heading.
- **Cover Sheet–PRN Overview Report:** Displays and groups active, expired or discontinued, and future expiring orders with a schedule type of PRN for the current patient and by ward. For each group, the total number of orders per group is displayed in brackets next to the group heading.
- **Cover Sheet–IV Overview Report:** Displays and groups IV bag information on active, expired, and discontinued orders for the current patient and by ward. For each group, the total number of IV bags per group is displayed in brackets next to the group heading.
- **Cover Sheet–Expired/DC'd/Expiring Orders Report:** Displays and groups expired and discontinued orders, as well as orders that will expire for the current patient and by ward. For each group, the total number of IV bags per group is displayed in brackets next to the group heading.
- **Medication Therapy Report:** Includes information similar to the Medication History Report but does not require a patient record to be open. The report allows searching by VA Drug Class, Orderable

Discover Benefits of BCMA V. 3.0 (cont.)

Report Printing (cont.)

Item, or Dispense Drug within a specified date range and selected search criteria.

- **IV Bag Status Report:** Provides status on IV bags, excluding available bags, by patient or ward. This report allows the user to include/exclude completed, infusing, stopped, missing, held, and refused IV bags. In addition, the user can include bags for which no action has been taken on the order.
- **Unable to Scan (Detailed) Report:** Provides detailed information related to each "unable to scan" event for a selected ward/nurse unit, or for all wards. The report includes patient, date/time of unable to scan event, location, type of bar code failure, drug, user's name, reason for scanning failure and optional comments. The user can specify report selection criteria including start and stop date/time, type of scanning failure and the unable to scan reason, in addition to up to three levels of sort fields.
- **Unable to Scan (Summary) Report:** Provides totals and percentages of wristband and medication bar codes scanned and when scanning is bypassed. The report will include totals and percentages for: total wristbands scanned; total wristbands bypassed; total medications scanned and total medications bypassed. The user will be able to print the report for the entire facility (default), by nurse unit/location or by ward.

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 EMail Notification

The email notification that is sent from BCMA to the Pharmacy, when you submit a Missing Dose Request, includes "Schedule" information.

Discover Benefits of BCMA V. 3.0 (cont.)

Documenting PRN Pain Scores

With BCMA V. 3.0, you can perform the following tasks with regard 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.

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 11 of this User Guide. With this knowledge, you will be ready to use the BCMA VDL for viewing, documenting, and printing patient medication administration information.

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. Functionality for Inpatient as well as Clinic Orders is provided. Applicable Clinic Orders functionality will be so indicated.

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 3-12 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 13, 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.

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, indicates 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 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 press P to display the Patient Inquiry dialog box."

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:
Click	To perform an action by pressing and releasing the mouse button quickly.
Double-click	To press and release the mouse button twice in quick succession.
Right Click	To display the Right Click drop-down menu on the VDL.
Ctrl+Click	To individually select multiple medication orders on the VDL, so you can mark them with the same administration status, to select multiple patients when printing selected patients on a Ward, or to select multiple medications in the search results window of the Medication Therapy report.
Shift+Click	To select a range of medication orders, on the VDL, so you can mark them with the same administration status, or a range of patients when printing selected patients on a Ward, or a range of medications in the search results window of the Medication Therapy report.
Ctrl+A	To select all patients listed on a selected Ward, in reports where you can print selected patients on a Ward, or to select all medications in the search results window of the Medication Therapy report.
Choose	To pick an item (i.e., a command from a menu) to perform an action.
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.
Select	To choose (or highlight) an item by clicking on it.
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.

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

To access the BCMA Bar Code Resource Office (BCRO) home page, access the following link from your Intranet: REDACTED

Training Information

To access BCMA training modules on the National Training and Education Office web site, access the following link from your Intranet: REDACTED

This Manual and Related Documentation

To access this manual, and those listed below, from the VHA Software Document Library, access the following link from your Intranet: http://www.va.gov/vdl/application.asp?appid=84

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

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 documents 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.

What is BCMA? (cont.)

Augments Nurse's Clinical Judgment

Because BCMA was designed to augment, not replace the nurse's clinical judgment, the nurses alone can determine whether (or not) to administer the medication to the patient. If they 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

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.

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, or medications requiring removal that need to be removed from, a patient within the specific time parameters established by your medical center. These include active Continuous, PRN, On-Call and One-Time Inpatient and Clinic 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 or due for removal for medications requiring removal, within a specific timeframe, during a 24-hour period. Inpatient data and Clinic Order data are shown separately.
- **Medication Administration History (MAH) Report:** Lists the patient's Unit Dose and IV Inpatient and Clinic 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 for both Inpatient and Clinic. Includes witness name, date/time witnessed and optional witness comments made for high risk/high alert medications. Witness data is recorded in the audit log when a high risk/high alert drug is administered.
- **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' workload and disruption to the Pharmacy and Nursing workflow. An email 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 Inpatient and Clinic medications that were not administered to a patient or removed from a patient for medications requiring removal during a medication pass, within a specific timeframe, during a 24-hour period. This Report also includes Missing Dose Requests submitted to the Pharmacy. Inpatient data and Clinic Order data are shown separately.
- **PRN Effectiveness List:** Identifies PRN or "as needed" Inpatient and Clinic medication doses that require Effectiveness comments after they are given.

Features Unique to BCMA (cont.)

- **Medication Variance Log:** Logs Inpatient 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 or removed early or late, any comments from the nurse, late PRN Effectiveness documentation, and event totals and percentages.
- **Patient Record Flag (PRF) Report:** Prints detailed information about any active PRF assignments associated with the current patient record.
- **Cover Sheet–Medication Overview Report:** Displays and groups active, expired or discontinued, and future expiring orders for the current patient or by selected patients on a ward. For each group, the total number of orders per group is displayed in brackets next to the group heading. Inpatient data and Clinic Order data are shown separately.
- **Cover Sheet–PRN Overview Report:** Displays and groups active, expired or discontinued, and future expiring orders with a schedule type of PRN for the current patient or by selected patients on a ward. For each group, the total number of orders per group is displayed in brackets next to the group heading. Inpatient data and Clinic Order data are shown separately.
- **Cover Sheet–IV Overview Report:** Displays and groups IV bag information on active, expired, and discontinued orders for the current patient or by selected patients on a ward. For each group, the total number of IV bags per group is displayed in brackets next to the group heading. Inpatient data and Clinic Order data are shown separately.
- **Cover Sheet–Expired/DC'd/Expiring Orders Report:** Displays and groups expired and discontinued orders, as well as orders that will expire for the current patient or by selected patients on a ward. For each group, the total number of IV bags per group is displayed in brackets next to the group heading. Inpatient data and Clinic Order data are shown separately.
- **Medication Therapy Report:** Includes information similar to the Medication History Report for both Inpatient and Clinic orders, but does not require a patient record to be open. The report allows searching by VA Drug Class, Orderable Item, or Dispense Drug within a specified date range and selected search criteria. This report can be run for the current patient (if applicable) or by selected patients on a ward.
- **IV Bag Status Report:** Provides status on IV bags, excluding available bags, by patient or by selected patients on a ward for both Inpatient and Clinic orders. This report allows the user to include/exclude completed, infusing, stopped, missing, held, and refused IV bags. In addition, the user can include bags for which no action has been taken on the order.

Features Unique to BCMA (cont.)

- **Unable to Scan (Detailed) Report:** Provides detailed information related to each "unable to scan" event for a selected ward/nurse unit or for all wards for Inpatient administrations, only. The report includes patient, date/time of unable to scan event, location, type of bar code failure, drug, user's name, reason for scanning failure and optional comments. The user can specify report selection criteria including start and stop date/time, type of scanning failure and the unable to scan reason, in addition to up to three levels of sort fields.
- **Unable to Scan (Summary) Report:** Provides totals and percentages of wristband and medication bar codes scanned and when scanning is bypassed for Inpatient administrations, only. The report includes totals and percentages for: total wristbands scanned; total wristbands bypassed; total medications scanned and total medications bypassed. The user may print the report for the entire facility (default), by nurse unit/location or by ward.

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 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.

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

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.

TIP:

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

- **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 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 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," provide 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.

Offering Superior Customer Service, Technical Support (cont.)

Your Checklist for Solving Problems (cont.)

- **Third Solution:** Refer to our other BCMA manuals.
  - Check out the other manuals that we provide with this software on the VistA Documentation Library.
    From your Intranet, enter the following in the Address field to access these manuals:
    http://www.va.gov/vdl/application.asp?appid=84
- **Final Destination:** Contact Your BCMA Coordinator.
  - Contact your BCMA Coordinator about the specific type of problem that you are experiencing with BCMA. They are responsible for assisting you initially and contacting Enterprise Product Support for technical assistance should the need arise.
  - You may be required to document the problem that you are having, by logging a Remedy 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 it 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

An example of the VDL, or Main Screen in BCMA, and its many features and options 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.

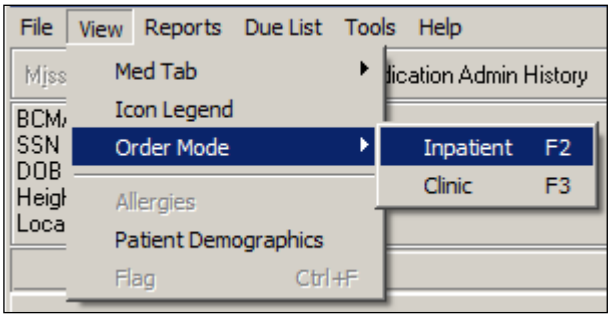
Note: The PRN Schedule Type controls the default display of PRN medications on the BCMA VDL, and is based on the GUI BCMA Site Parameters entry for "Include Schedule Types."

The VDL: In a Nutshell (cont.)

View Menu Option

The view menu option provides a quick way to select between Inpatient or Clinic order mode.

Example: View Menu Option

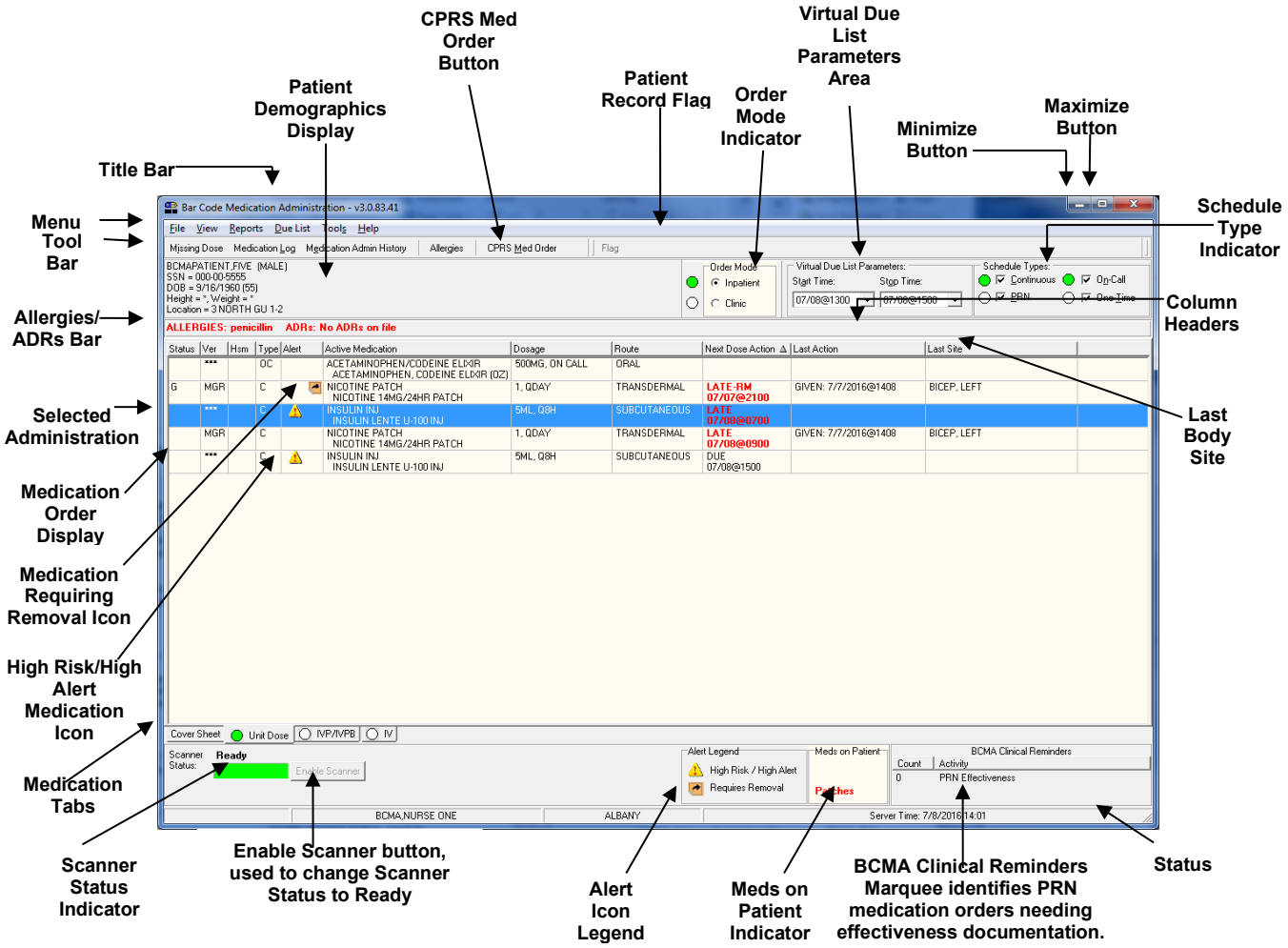


The VDL: In a Nutshell (cont.)

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)



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**/ADR Bar**:** 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.
- **Flag Button:** For the current patient record, displays a Patient Record Flag (PRF) Report for active PRFs. The button is disabled when there are no active PRFs associated with the current patient record.
- **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 Display:** 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.
- **Order Mode:** Indicates whether you are working with Inpatient or Clinic orders. When a patient record is open, if the patient status is admitted, the Inpatient order mode defaults. If the patient status is not admitted, the Clinic order mode defaults, and the Virtual Due List Parameters area is replaced by the Clinic Order Date area, the Clinic column is added, and the HSM column is removed from the Unit Dose tab. A GREEN "alert light" indicates that active medication orders exist and/or an action needs to be taken on an expired or discontinued order.

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.)

- **Clinic Order Date (Clinic order mode only):** Defaults to today's date, regardless of whether there are active orders to be administered today.
- **Virtual Due List Parameters Area:** Reflects the "Administration Time Window" defined as a site parameter for your site for Inpatient order mode, only. 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.
- **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, 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.

  Additionally, the display of a drug-allergy order check shows ALL ingredients and the drug class associated with the entry in the allergy file.
- **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.
- **"Clinic" Column (Clinic** order m**ode only):** Displays the clinic name associated with the order.

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.)

- **"Ver" Column:** Displays either the initials of the nurse who verified the order or three asterisks "***" to indicate the order is not nurse verified. "Ver" column is highlighted in yellow when CPRS Provider override reasons or Pharmacist interventions are associated with the order.
- **"Alert" Column:** The presence of the Icon in the "Alert" column identifies high risk/high alert medications for which a witness is recommended or required, for administration of the drug.

  The presence of the icon indicates a drug, additive or solution is hazardous to handle; personnel handling the product should follow the recommended precautions.

  The presence of the icon indicates a drug, additive or solution is hazardous to dispose; personnel handling the product should follow the recommended precautions.
-
- **Cover Sheet Tab:** Its primary purpose is to provide users with four alternate user-selectable views of medication data related to the selected patient, and allow the user to drill down to view additional data. The Cover Sheet displays information by order, instead of by administration, as is displayed on the Medication Tabs, and does not allow the user to edit or take action against a patient record. When Clinic order mode is selected, only clinic orders display. When Inpatient order mode is selected, only inpatient orders display.
- **Medication Tabs:** Within each order mode, medication tabs separate 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 with them and/or an action needs to be taken on an expired or discontinued order. On the Unit Dose and IVP/IVPB tabs, active orders will display when the admin time is within 12 hours before and 12 hours after NOW.
  - **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 indicator is RED and displays the "Not Ready" message, click the Enable Scanner button to activate the (GREEN) Ready Light and display the "Ready" message.

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.)

- **Meds on Patient Indicators:** Indicates when the patient has any Infusing IVs, Stopped IVs, and Patches that are not removed. These indicators are updated in real-time, and are applicable to both Inpatient and Clinic orders.
- **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. The maximum days back searched for PRN medication orders needing effectiveness documentation is 35 days, or the value of the Med Hist Days Back parameter; whichever is greater.
  - **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.

Accessing BCMA Features and Options

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 a range of medication orders, on the VDL, so you can mark them with the same administration status, or a range of patients when printing selected patients on a Ward, or a range of medications in the search results window of the Medication Therapy report.
- **CTRL+CLICK:** Use to individually select multiple medication orders on the VDL, so you can mark them with the same administration status, to select multiple patients when printing selected patients on a Ward, or to select multiple medications in the search results window of the Medication Therapy report.

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.

Accessing BCMA Features and Options (cont.)

Mouse/Stylus (cont.)

- **CTRL+A:** Use to select all patients listed on a selected Ward, in reports where you can print selected patients on a Ward, or to select all medications in the search results window of the Medication Therapy report.

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.

Accessing BCMA Features and Options (cont.)

Example: Shortcut Keys Available in BCMA

Use This Shortcut:	To Make This Occur:
Ctrl+O	Depending on the mode, accesses the Scan Patient Wristband dialog box or the Patient Select dialog box (Read-Only, Limited Access, and after an Unable to Scan event) to open a Patient Record.
Ctrl+F	Display the Patient Record Flag report.
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.
F2	Select Inpatient Order Mode
F3	Select Clinic Order Mode
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.
F6	Display Special Instructions/Other Print Info.
F7	Display Body Site History.
F9	Display Cover Sheet Tab.
F10	Display active medication orders under the Unit Dose Medication Tab.
F11	Display active medication orders under the IVP/IVPB Medication Tab.
F12	Display active medication orders under the IV Medication Tab.

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.

TIP:

An "Unknown" status can only be changed using the Edit Med Log option.

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.
  - **"Unknown" Status:** If an order created in BCMA CHUI *Manual Medication Entry* is not completed with a valid administration status, it will display as "U" (unknown) in the BCMA VDL Status column.
  - **Undo–Given Orders:** Appear only in the Audit Trail section of the Medication Log Report (not on the BCMA VDL). The status is listed as "Not Given."
  - **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.

Note: When the Clinic order mode is selected, the HSM column is removed from the Unit Dose 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.
- "Alert" Column: Displays the Icon when high risk/high alert medications exist for which a witness is recommended or required, for administration of the drug. Displays the Icon to indicate the date and time that a medication requiring removal has been entered for the order.

  has been entered for the order. Displays the icon to indicate hazardous to handle medications. Displays the icon to indication hazardous to dispose medications
- **Active Medication:** Lists the orderable item on the first line, and the dispensed drug name or medication (indented) on the second line.
  - **Special Instructions/Other Print Info in RED:** Display below the dispensed drug name or medication. Pharmacists enter Instructions using the Inpatient Medications V. 5.0 package
  - **Special Instructions/Other Print Info in a Pop-up Box:** Display when you scan the medication bar code when set to pop-up by the pharmacist in Inpatient Medications. You must acknowledge the message in the Pop-up Box before administering the medication. Special Instructions / Other Print Info may also be displayed on demand for orders that contain them on the right click menu option or the Due List menu option.
  - **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 how a clinician will administer the medication to the patient. For example: Intravenous, Intramuscular, Intradermal, Subcutaneous.

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.

- **Next Dose Action:** Replaces the previous "Admin Time" column on the Unit Dose and IVPB tabs and provides information on medication that is late and/or due for removal along with the admin date and time.
- NOTE: For non-standard schedules such as DAY@HHMM, HHMM or other odd schedules, Removal Times cannot be calculated due to the lack of a Frequency. Regardless of the Prompt for Removal in BCMA code value for the orderable item, no Removal Times will display in BCMA for these non-standard schedules. These types of schedules must be avoided for Medications Requiring Removal (MRR) orders**.**
  - **Continuous Medication Order:** If a medication is late, the text is in red. If a cell in the Alert column contains the Requires Removal icon and the medication is due to be removed, the hover hint text consists of "REMOVE" along with the removal date and time. If the next action is for it to be administered (i.e., Given), the column contains the word "DUE" and the next Admin Time as a date/time on a separate line. If the next action for a medication requiring removal is for it to be Removed, but is late, the column contains "LATE-RM" and the next Removal Time as a date/time on a separate line, with all text in red font.
  - **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.
  - **"Unknown" Status:** If an order created in BCMA CHUI Manual Medication Entry is not completed with a valid administration status, it will display as "Unknown" in the Last Action column.
- **Last Site:** Shows the location of the last injection site for the orderable item shown, applicable to administrations that participate in injection site rotation. When BCMA "refreshes," it updates this column.
  - **IV Medication Tab:** Column is not available for this Tab.

TIP:

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

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.

Sorting the Contents of a Column

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.

TIP:

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

Note: Information in columns is actually sorted numerically, then alphabetically in the columns. On the Unit Dose VDL in Inpatient Order Mode, the default sort order upon logging in to BCMA is in ascending order based on the date/time in the Next Dose Action column, so "older" items are at the top.

To sort the contents of a column

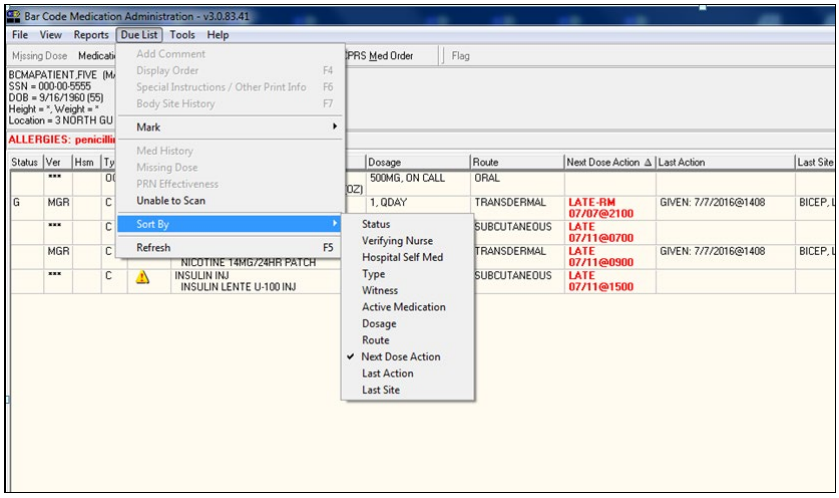
1 Select the Sort By command in the Due List menu. The Sort By drop-down menu displays.

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

TIP:

"Blank" columns display at the top of the VDL.

Example: Sort By Drop-down Menu



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 press **ENTER** to sort the column alphabetically.

Resizing the Columns on the BCMA VDL

IMPORTANT:

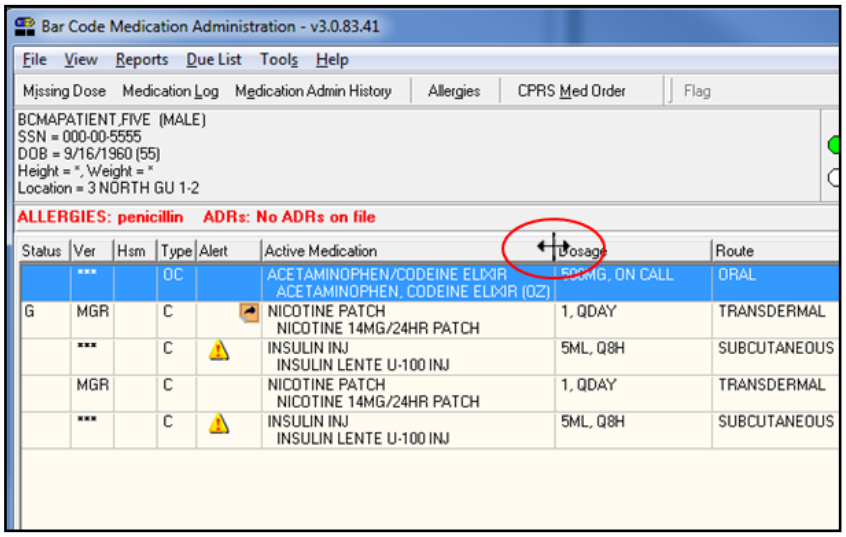
Once you resize a column, you cannot "undo" it, unless you use the steps provided in this section.

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



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.

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.

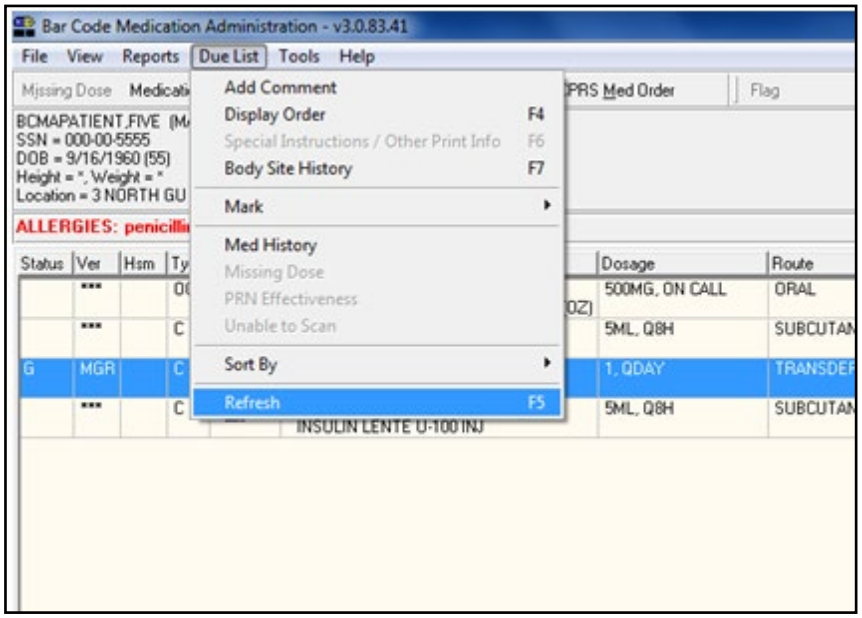
You can "refresh" the BCMA VDL to ensure that the medication order information displayed is the most current received from Inpatient Medications V. 5.0. When you use this feature, BCMA "loads" active medication orders onto the BCMA VDL, and refreshes the information in the Status and Last Action columns.

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 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



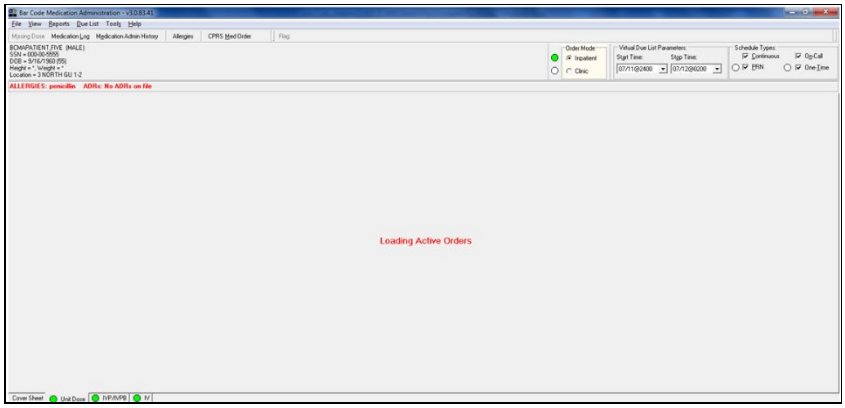
— THEN —

(SEE NEXT PAGE)

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.

Getting Started

Signing on to BCMA

TIP:

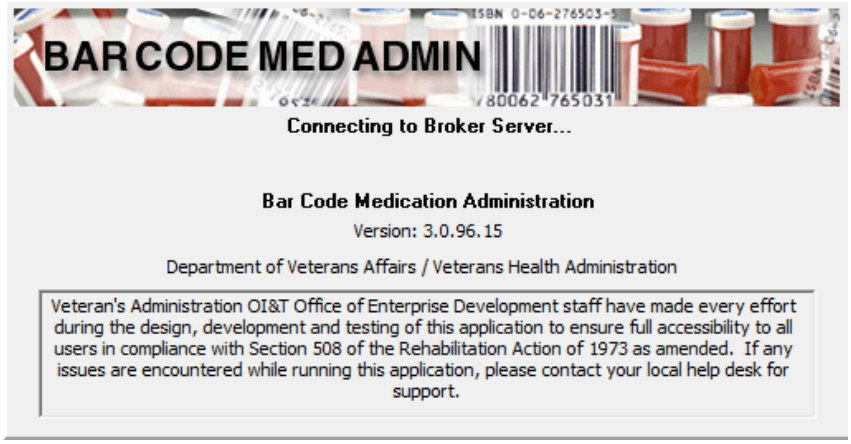
Starting an administration session in BCMA is quite simple. Just double-click on the BCMA icon on your desktop, then enter information when prompted by the system.

Signing on to BCMA V. 3.0 may vary slightly, as 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

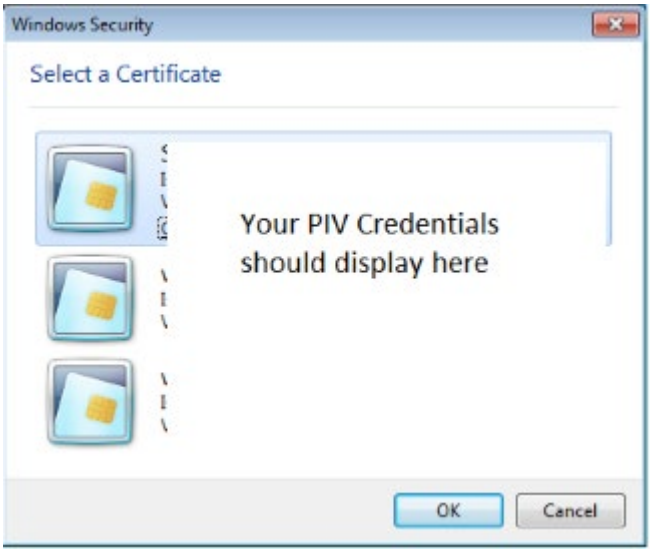
1 Double-click on the BCMA icon on your desktop. BCMA displays the BCMA Splash Screen then prompts you for your VistA sign on credentials.

Example: BCMA Splash Screen



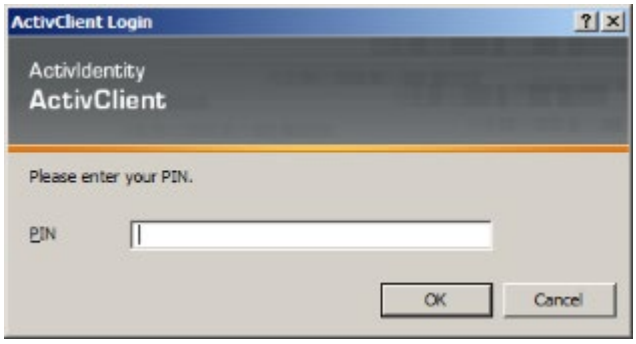
2 To sign in using two-factor authentication (2FA) you will select the appropriate PIV credentials.

Example: Select PIV Credentials



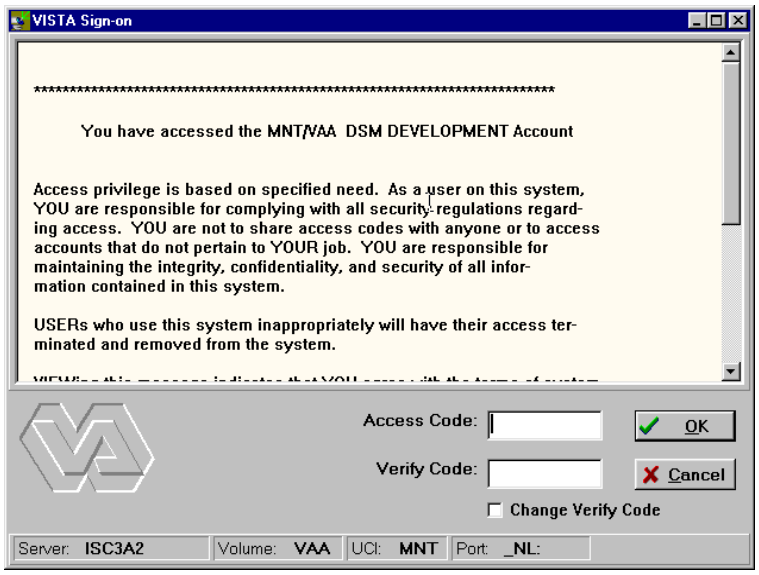
3 Enter your PIV PIN.

Example: Enter PIV PIN



4 If you are prompted for your Access Code and Verify Code, enter those here.

Example: VistA Sign-on Dialog Box



Signing on to BCMA (cont.)

TIP:

You can skip steps 4 and 5 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.)

5 In the Access Code field, type your Access Code, and 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 enter their Codes at the Instructor Sign-On dialog box that displays. In order to administer medications, you must exit Read-Only BCMA and sign on with your instructor.
- If you are a user requiring Read-Only access to BCMA, enter your Access and Verify Codes. The system will verify that you have been assigned the PSB READ ONLY security key. Upon login to Read-Only BCMA, "READ-ONLY" will display in the title bar, scanning of patient wristbands and medications is disabled, and only a subset of features will be available. Read-Only users are allowed access to the BCMA VDL to view data and run reports, but are not allowed to perform any actions against patient records.

Note: For more information on using Read-Only BCMA, please refer to the chapter, entitled, "Read-Only and Limited Access BCMA."

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

6 In the Verify Code field, type your Verify Code, and 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, see section entitled, "**For Medical Centers with Multiple Divisions.**"
  - Divisions with nursing students, see section entitled, "**For Divisions with Nursing Students.**"
  - Divisions requiring an Electronic Signature Code, see section entitled, "**For Divisions Requiring an Electronic Signature Code.**"

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

Signing on to BCMA (cont.)

For Medical Centers with Multiple Divisions

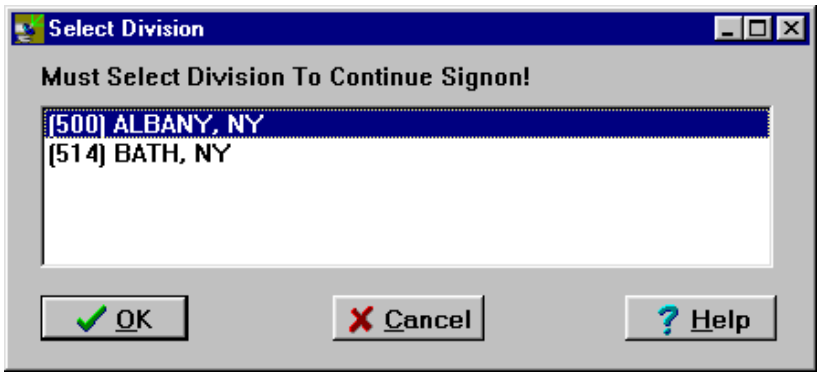
If your medical center has multiple divisions, the Select Division dialog box provided below displays.

To select a division

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

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

Example: Select Division Dialog Box



2 Continue with the medication administration process.

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 have full access to 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.

Note: If Instructor Codes are not entered, BCMA will automatically default to Read-Only mode (indicated by the "READ-ONLY" message in the title bar.) In order to administer medications, you must exit Read-Only BCMA and sign on with your instructor. For more information on using Read-Only BCMA, please refer to the chapter entitled, "Read-Only and Limited Access BCMA."

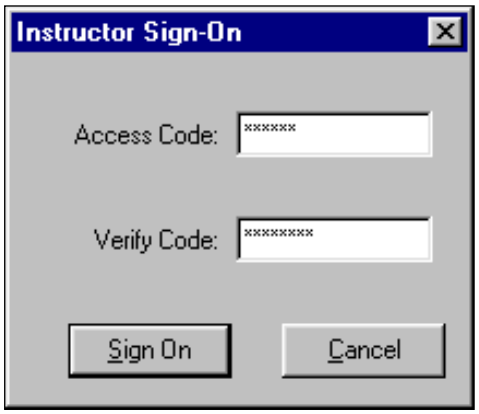
Note: An Instructor, logged on for the purpose of monitoring a Student, is not authorized to witness High Risk/High Alert administrations. If the Instructor currently logged on with a student, attempts to witness the administration of a high risk/high alert medication, the following message will display: "An instructor monitoring a student does not have authority to witness a high risk/high alert medication."

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 press Sign On.

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

Example: Instructor Sign-On Dialog Box



2 Continue with the medication administration process.

Signing on to BCMA (cont.)

For Divisions Requiring an Electronic Signature Code

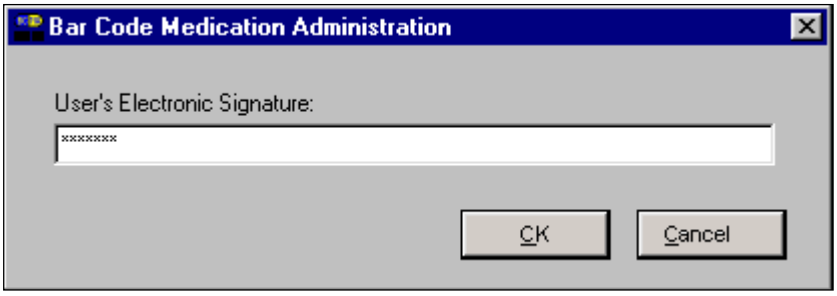
The Electronic Signature dialog box, provided below, displays, if your medical center has set its site parameters to require individuals to enter an Electronic Signature Code.

To enter an electronic signature code

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

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

Example: Electronic Signature Code Dialog Box



2 Continue with the medication administration process.

Opening a Patient Record

TIP:

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

Before you can administer active medications to a patient, you must open the patient record (VDL). You can also open a patient record while an existing record is still open on the screen. BCMA may prompt you to confirm any active medication orders that have not been viewed, then proceeds to close the current record.

To open a patient record

1 At the Scan Patient Wristband dialog box, perform one of the following actions:

- **If the Scanner Status is "Ready,"** scan the bar code on the patient's wristband or the Veterans Health Information Card (VHIC).
- **If the Scanner Status is "Not Ready,"** click the **ENABLE SCANNER** button to enable the scanner. You are ready to scan when the Scanner Status indicator is **GREEN** and displays "Ready."

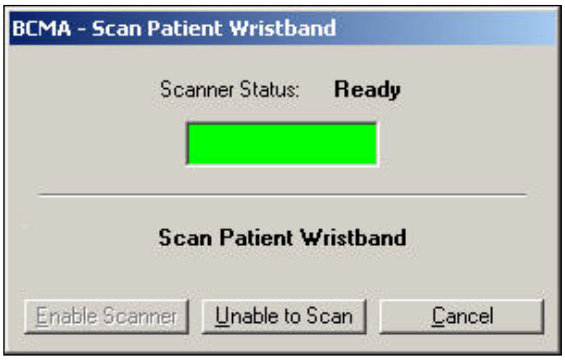
Keyboard Shortcut: Press **TAB** to activate the **ENABLE SCANNER** button, press **ENTER,** or press **ALT-B** to enable the scanner.

TIP:

If the Scan Patient Wristband dialog is open, and your application focus changes to a program outside of BCMA, the Scanner Status will change to Not Ready.

To regain focus and re-enable the scanner, click the Enable Scanner button, or click anywhere on the BCMA application window, or press **ALT-TAB** as many times as necessary to switch focus back to BCMA.

Example: Scan Patient Wristband Dialog Box



Note: Deceased patients cannot be opened via the Scan Patient Wristband dialog or Unable to Scan functionality. They can only be opened via Limited Access, Read-Only, and Edit Med Log.

- Click **CANCEL** to return to the VDL and access the Menu Bar — without opening a patient record — and do one of the following:
  - 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 the chapter entitled, "Viewing and Printing BCMA Reports" for more information.

Opening a Patient Record (cont.)

To open a patient record (cont.)

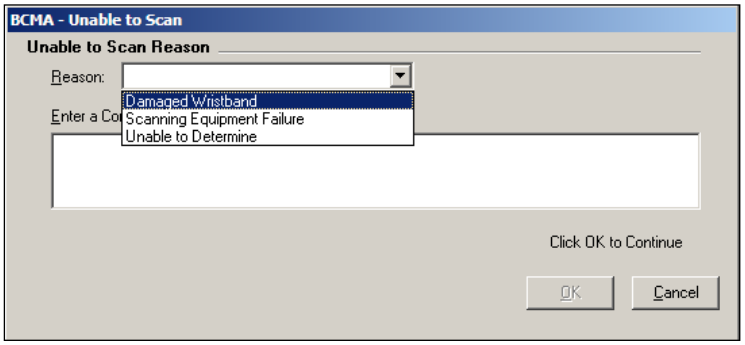
- Edit the Medication Log to make changes to medication administration entries that have been created during the medication administration process. Access the Edit Med Log command from the File menu. See chapter entitled, "Editing the Medication Log" for more information.
- Open a patient record in Limited Access Mode. See chapter entitled, "Read-Only and Limited Access BCMA" for more information.

2 If the scan is successful, skip to step #5. If you are unable to scan the patient wristband, click the unable to scan button, and perform the following actions at the Unable to Scan dialog box:

Keyboard Shortcut: Press **TAB** to activate the **UNABLE TO SCAN** button, press **ENTER,** or press **ALT-U**.

- **Select a Reason** (required) for scanning failure from the drop-down list.
- **Enter a Comment** (optional) that will aid your IRM staff in trouble-shooting the problem. The Comment field is limited to 150 characters.
- **Click OK** to complete the Unable to Scan event. The Patient Select dialog box displays. Proceed to Step#3.

Example: Unable to Scan Patient Wristband Dialog Box



3 At the BCMA – Patient Select dialog box, enter one of the following search criteria in the Patient Name field:

- Patient name (Last, First)
- Patient Social Security Number (SSN)
- Rm-Bed
- Ward

TIP:

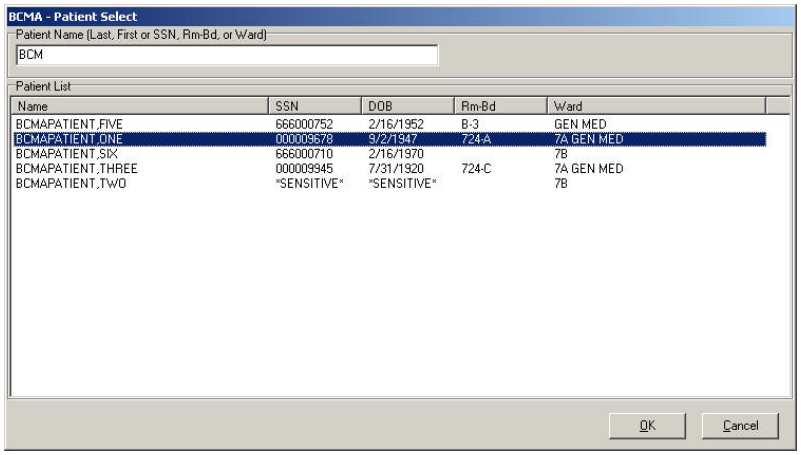
You can also enter the first letter of the last name and the last 4 of the SSN, e.g., B9678.

Opening a Patient Record (cont.)

To open a patient record (cont.)

Note: BCMA automatically searches for the patient record(s) that match the criteria - as you are typing. You must enter at least 2 characters to initiate the search. There is no need to press ENTER. Note that the search is not case sensitive.

Example: Patient Select Dialog Box



4 Perform one of the following actions:

- **If the patient you are requesting is displayed in the Patient List**, click on the patient record you want to access, and click **OK** to access the patient's VDL. Proceed to Step #5.

Keyboard Shortcut: Press **TAB** to go to the Patient List. If multiple records are displayed, use the **ARROW** keys to select the patient record. Press **TAB** to activate the **OK** button, and press **ENTER** to access the patient's VDL in Read-Only mode.

- **If the patient you are requesting is not displayed in the Patient List:**
  - If more records are retrieved than can be displayed in the Patient List, SCROLL BARS will appear to allow you to scroll through the data. Scroll to the patient record, click on the patient record you want to access, and click **OK** to access the patient's VDL in Read-Only mode.
  - If records are retrieved, but you do not see the intended patient record, re-enter your patient search criteria, as indicated in step #3 above.
  - If you see a "No patients matching…" message, re-enter your patient search criteria, as indicated in step #4 above.

TIP:

To broaden your search, you can enter *partial* search criteria for Last Name, SSN, Rm-Bed, or Ward in the BCMA – Patient Select dialog box.

TIP:

You can double-click on the patient name to quickly open the record on the VDL.

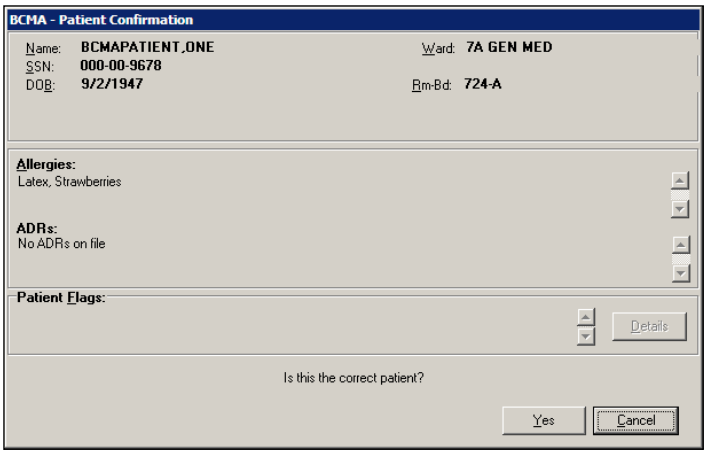
Opening a Patient Record (cont.)

To open a patient record (cont.)

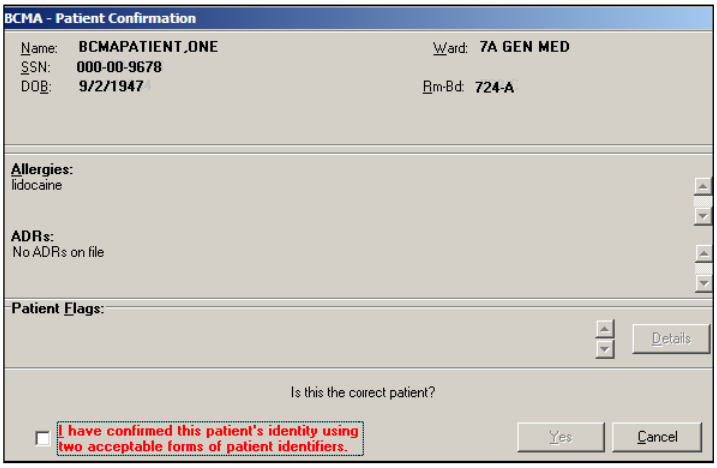
- If you see a "Too many patients matching…" message, the system found more than 100 records that matched your criteria. Re-enter more specific patient criteria, as indicated in step #2 above.

5 The Patient Confirmation dialog box displays after a successful scan, or upon selecting a patient after documenting an Unable to Scan event. The patient's personal data displays, such as name, SSN, date of birth, ward, room-bed, allergies, ADRs, and Patient Record Flag (PRF) assignments, if applicable.

Example: Patient Confirmation Dialog Box (After Successful Scan)



Example: Patient Confirmation Dialog Box (After Unable to Scan Event)



Opening a Patient Record (cont.)

To open a patient record (cont.)

6 Verify the information provided on the BCMA – Patient Confirmation dialog box with the information on the patient's wristband.

Note: If the patient's record is marked as "Sensitive," the SSN and DOB fields will be blocked out. See the section "If Patient's Record Marked as Sensitive" for reviewing information on a sensitive record.

Note: If any active PRF assignments exist for this patient, the **DETAILS** button will be enabled in the Patient Flags section of the dialog box. It is strongly recommended that you click the **DETAILS** button to view the Patient Record Flag report, especially for behavioral flags, to view information which may be critical to patient and employee safety.

7 Perform one of the following actions:

- **If the information matches** the data printed on the patient's wristband:
  - If a confirmation checkbox displays as a result of a Unable to Scan event, check the box and confirm that you have used two acceptable forms of patient identifiers.
  - Click **YES** to access their VDL and to begin administering active medications to the patient.
- **If the patient record is Sensitive:**
  - If a confirmation checkbox displays as a result of an Unable to Scan event, check the box and confirm that you have used two acceptable forms of patient identifiers.
  - Click **ACCEPT** then **YES** to access their VDL and to begin administering active medications to the patient. An entry is created automatically in a log for your Information Security Officer.
- **If this information does** not **match** the data on the patient's wristband, click **CANCEL,** and verify the patient's identity against the information on their wristband.

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

Working with Patient Records

Opening a Patient Record (cont.)

TIP:

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

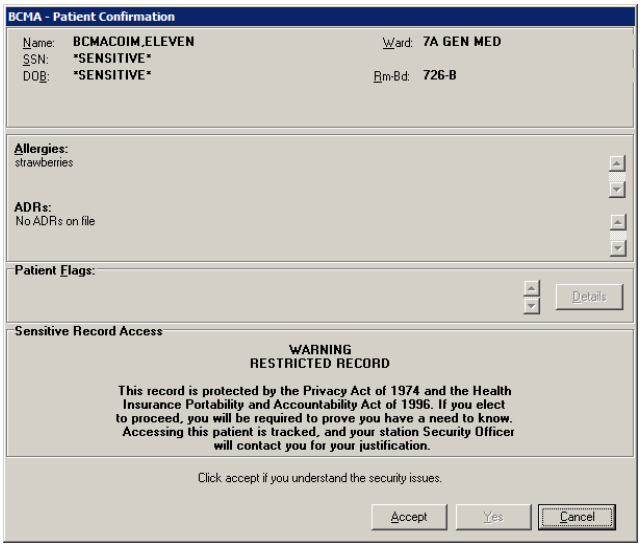
TIP:

If the Details button is enabled in the Patient Confirmation dialog box, it indicates that this "Sensitive" patient also has active PRF assignments. Click the Details button to display the Patient Record Flag report.

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."

Example: Sensitive Patient Confirmation Dialog Box



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.

Note: For opening Sensitive patients during an Unable to Scan event, the checkbox must be checked to enable the Accept button. Click **ACCEPT** to enable the Yes button. Click **YES** to open the patient's record.

To review information for a sensitive record

1. Review the Warning message, and click **ACCEPT**, which acknowledges your understanding of the security warning, Click **YES** to access the patient's VDL and begin administering active medications to the patient.

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

2. Continue with the medication administration process.

Opening a Patient Record (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 for Inpatient orders, only, 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

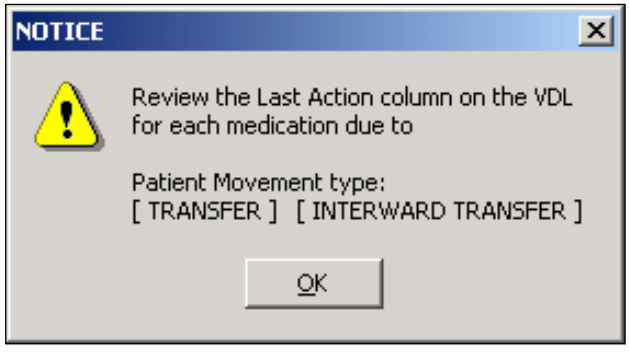
Note: The display of the message is dependent on the last action displayed in the "Last Action" column of the BCMA VDL. BCMA evaluates the last action performed each time the Unit Dose or IVP/IVPB Medication Tabs are refreshed.

To review Patient Transfer Notification message

1 Review the Patient Transfer Notification message, and 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 press **ENTER** to display the patient's VDL.

Example: Patient Transfer Notification Message



2 Continue with the medication administration process.

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.

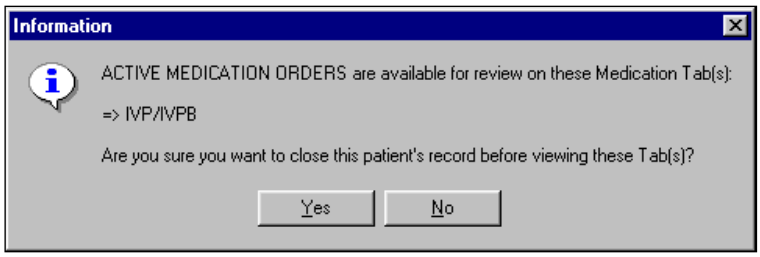
Once you finish administering active medications to your patient, you can close their patient record (VDL), and open another patient record. This feature is particularly useful when you need to leave the patient's room for a few minutes, and do not want to leave their record open on your computer.

To close a patient record

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

Keyboard Shortcut: Press **ALT+F** to display the File menu, and press **C** to display the 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 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 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 Unit Dose Medications

Benefits of this Chapter

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

Preparing to Administer Unit Dose Medications

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.

TIP:

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

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.

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."

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.

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, provided the nurse holds the PS Nurse Verify key. 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 IV PUSH or IV Piggyback. (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. BCMA also recognizes National Drug Code (NDC) unique identifier product numbers found on manufacturer bar code labels, which are also stored in the SYNONYM field (#.01) of the DRUG file (#50).

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" by using the "Undo – Given" option." This status does *not* display on the VDL; it only appears in the Audit Trail section of the Medication Log

TIP:

An "Unknown" status can only be changed to Given, Not Given, Held, or Refused–using the Edit Med Log option.

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 and last had a medication requiring removal removed for 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 from which order the medication was given 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" by using the "Undo–Given" option — 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
- Removed to Given
- 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. The patch will fall off the display after the order's stop date if the "Patch Display Duration" site parameter value is set between 7 and 14 days.

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, division, clinic)
- 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 using the "Undo–Given" option 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.
  - "Unknown" Status: If an order created in BCMA CHUI *Manual Medication Entry* is not completed with a valid administration status, the Admin Status will be stored as null (blank), but will display as "U" (unknown) in the BCMA VDL Status column and "Unknown" in the Last Action column.
- 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

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 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 or when you use the Unable to Scan feature. 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.

How BCMA Validates Patient and Medication Information (cont.)

Unable to Scan Medication

If you experience a medication scanning failure, you can select the Unable to Scan feature to administer the medication and inform your support staff of the failure, After entering a reason for the failure and an optional comment, the Medication Verification dialog displays, where you can choose one of the following options:

- **Verify Medication:** This (default) option provides an entry field in which the user types the number from the bar code label on the medication or IV bag to verify the medication being administered to the patient. BCMA validates the entry against the order and displays the matching dispense drug or bag components. Best practice dictates that you always attempt to verify the medication first. You may retry if your entry does not result in a match.
- **Verify Five Rights:** This option provides a method for administering a medication in the event that Verify Medication failed, or, for example, when the number on the bar code label is not readable, or there is no label. You must confirm that each of the five rights of medication administration have been physically verified (right patient, right medication, right dose, right route, right time) before you can continue the administration process.

Note: Refer to your BCMA Coordinator and site policy for guidance on the use of the Verify Five Rights option.

Note: The Verify Five Rights option is only available if the Five Rights Override Parameters are enabled for Unit Dose and IV medications in the BCMA Site Parameters application. If the Five Rights Override Parameter is turned off, the option will be grayed out and you will not be able to administer the medication. Refer to your site policies regarding how to contact pharmacy to address the problem**.**

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.

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."

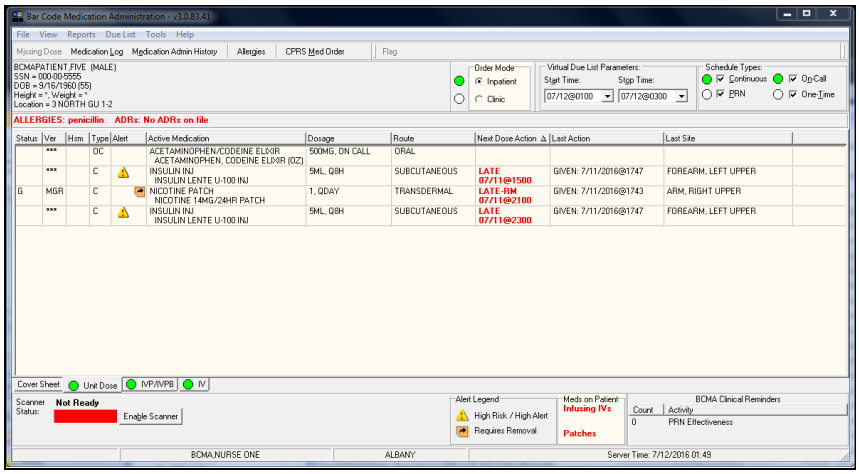
Using the Unit Dose Medication Tab

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.

TIP:

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

Example: BCMA VDL for Active 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, applicable to the Inpatient order mode, only, 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.

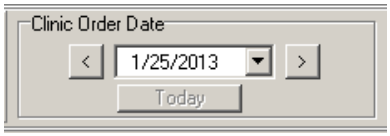
To change the Virtual Due List Parameters

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 (When Inpatient Order Mode is Selected)

Example: VDL Parameters Area on VDL (When Clinic Order Mode is Selected)



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

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.

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.

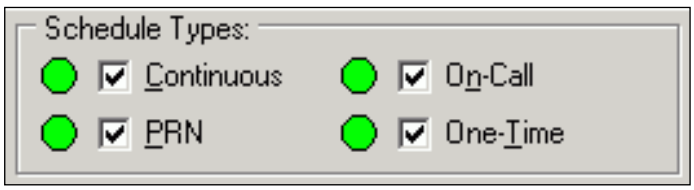
- **If a checkbox is selected for a Schedule Type that you do not want displayed,** click on it to deselect it.

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.

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.

Scanning and Verifying Medication Information

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.

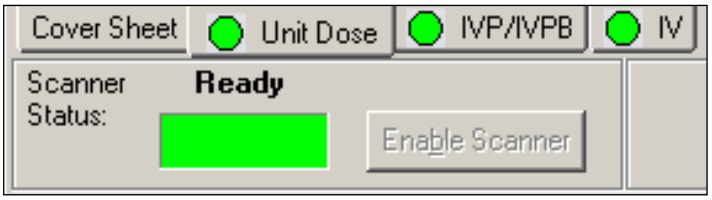
To scan and verify medication information

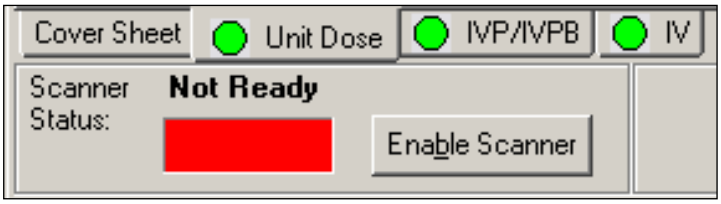
1 At the patient's VDL, first check the status of the scanner at the lower left corner of the VDL.

- **If the Scanner Status is "Ready" and** GREEN, scan the bar code on the medication.
- **If the Scanner Status is "Not Ready" and RED,** click the **ENABLE SCANNER** button to enable the scanner, and scan the bar code on the medication.

Keyboard Shortcut: Press **ALT-B** to enable the scanner.

Example: Scanner Status and Enable Scanner button





2 If you are unable to scan the medication bar code for any reason, right-click on the administration, and select the Unable to Scan option from the right click or Due List menu. Proceed to the section entitled "Unable to Scan Unit Dose Medication."

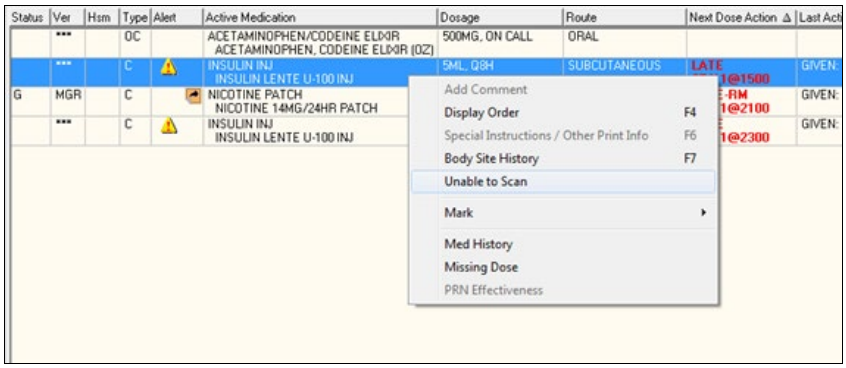
TIP:

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

Scanning and Verifying Medication Information (cont.)

To scan and verify medication information (cont.)

Example: Unable to Scan Right-Click Option



3 Continue with the medication administration process for the patient's active Unit Dose medications.

If an Error or Warning message indicates that the order is not nurse verified, see the section entitled, "If Non-Nurse Verified Orders Site Parameter "Prohibit Administration."
If an Information pop-up box displays that indicates that Special Instructions/Other Print Info apply, see the section entitled, "Administering an Order with Special Instructions."
If an Early/Late Medication Log dialog box displays, see the section entitled, "Administering a Medication Early."
If a Late Medication Log dialog box displays, see the section entitled, "Administering a Medication Late."
If an Error message indicates that the Drug IEN Code was not found in the DRUG file (#50), see the section entitled, "If Drug IEN Code Not Found in Drug File."
If an Error message indicates that the medication has already been given or it's not time to give it yet, see the section entitled, "If Medication Already Given or Not Time to Give Yet."
If an Error message indicates that no order exists for the medication that you just scanned, see the section entitled, "If No Order Exists for Medication Scanned."
If an Information message indicates that you attempted to take action on an administration with an unknown action status, see section entitled, "If User Attempts to Take Action on an Administration with an Unknown Action Status."

Scanning and Verifying Medication Information (cont.)

If an Information message indicates that you attempted to take action on an order that contains an administration with an unknown action status, see section entitled, "If User Attempts to Take Action on an Order that Contains an Administration with an Unknown Action Status."

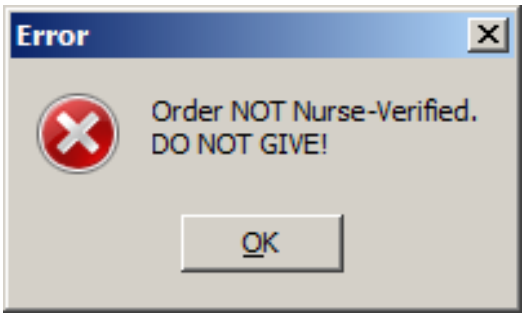
If Non-Nurse Verified Orders Site Parameter "Prohibit Administration" is Selected

The Error message provided below displays when administration of a non-nurse verified order is attempted.

- Click **OK** to acknowledge the message, then click **OK** at the "Order Administration Cancelled" dialog to acknowledge the cancellation and return to the VDL without administering the medication.

Note: Check your site policy to determine the correct workflow for verifying the order in CPRS.

Example: Error Message When "Prohibit Administration" Parameter is Selected



If Non-Nurse Verified Orders Site Parameter "Allow Administration with Warning" is Selected

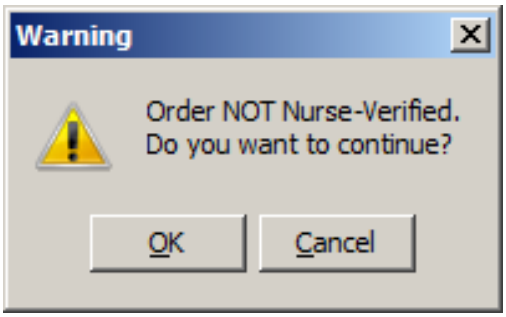
The Warning message provided below displays when administration of a non-nurse verified order is attempted.

- Click **OK** to acknowledge that the order has not been nurse verified and to continue the administration. All medication administration dialogs will display as appropriate to the workflow for the selected administration.
- Click **Cancel** to display the "Order Administration Cancelled" dialog. Click **OK** to acknowledge the cancellation and to return to the VDL.

Note: Check your site policy to determine the correct workflow for verifying the order in CPRS.

Scanning and Verifying Medication Information (cont.)

Example: Warning Message When "Allow Administration with Warning" Parameter is Selected



Note: When the "Allow Administration with Warning" or "Prohibit Administration" parameter setting is selected, the resulting warning/error pop-up message will usually precede other BCMA pop-ups during the medication administration process. Exceptions to this are:

- **Multiple Orders for Scanned Drugs:** When the user scans a medication and there are multiple administrations available within the virtual due list parameters timeframe, the Multiple Orders for Scanned Drugs dialog displays before the Non-Nurse Verified pop-up.

Note: Site parameters for non-nurse verified orders do not affect the CPRS med order button functionality.

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 or synonym 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.

This error message also displays during an Unable to Scan event, whenever the Drug IEN Code or synonym entered at the Medication Verification dialog does not match the medication on the order.

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

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

Scanning and Verifying Medication Information (cont.)

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

If Medication Already Given or Not Time To Give Yet

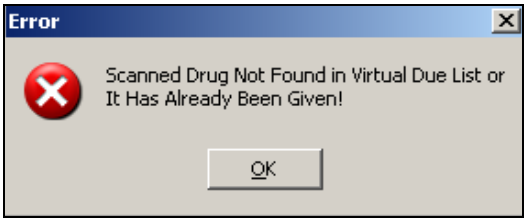
The Error message, provided below, displays if a patient has an order, BUT the medication has already been given to them, *or* it's not time yet to give the medication to them.

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.

.

Scanning and Verifying Medication Information (cont.)

If No Order Exists for Medication Scanned

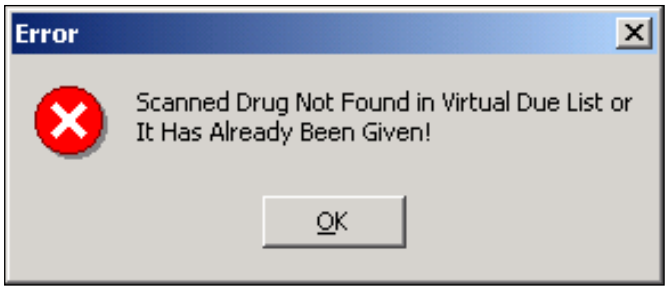
The Error message, provided below, displays if the patient does not have an order for the medication that you just scanned.

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.

Scanning and Verifying Medication Information (cont.)

If User Attempts to Take Action on an Administration with an Unknown Action Status

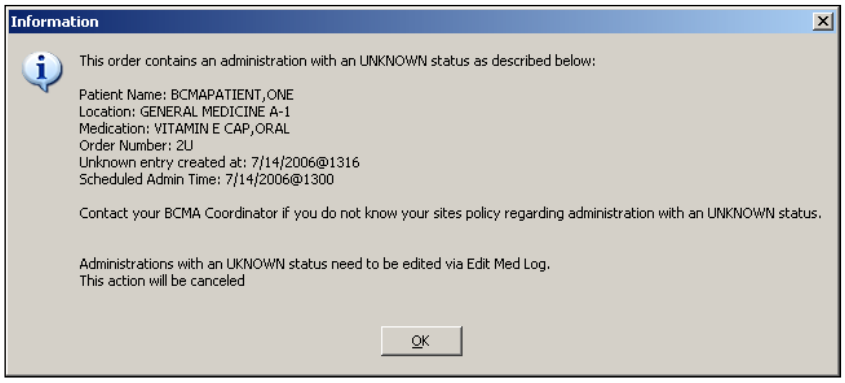
The Informational message, provided below, displays if the user attempts to administer or take action on an administration whose status is "Unknown." The user must confirm the message by clicking OK, but the action will be cancelled. Users are required to resolve the status of the administration using the Edit Med Log option.

To review the Error message

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

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

Example: Information Message for Unknown Action Status -- Administration Cancelled



2 Proceed to the Edit Med Log option to resolve the status of the administration.

Note: For information on using the Edit Med Log option, please refer to the chapter entitled, "Editing the Medication Log."

Scanning and Verifying Medication Information (cont.)

If User Attempts to Take Action on an Order that Contains an Administration with an Unknown Action Status

The Informational message, provided below, displays if the user starts to administer or take action on an order in which one of the administration associated with that order has an "Unknown" status. The user can choose to acknowledge the message and proceed with the administration or cancel the action.

To review the Error message

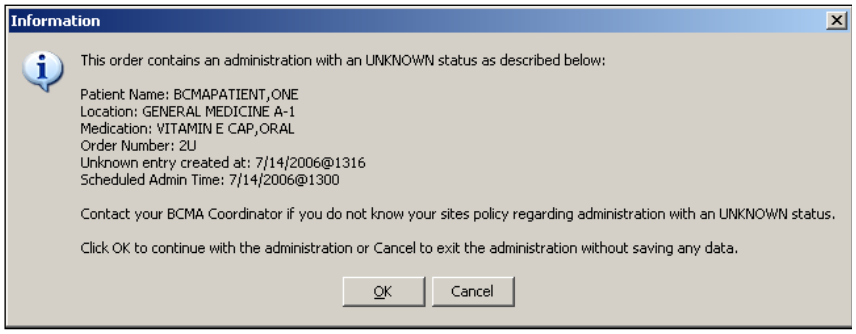
1 Review the Error message, and perform one of the following actions:

- To continue with the administration, click **OK**.
- To cancel the administration without saving, click **CANCEL**. To resolve the status of the associated administration, use the Edit Med Log option.

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

Note: For information on using the Edit Med Log option, please refer to the chapter entitled, "Editing the Medication Log."

Example: Information Message for Unknown Action Status with Option to Continue Administration



2 Continue administering active Unit Dose medications to the patient.

Unable to Scan Unit Dose Medication

Medication scanning failures may be due to several reasons. The barcode may be illegible, it may be damaged, it may be absent, the equipment may be faulty, the drug may be invalid, there may be a dose discrepancy, or the synonym may not be in our drug file. Whatever the reason, the user can select the Unable to Scan feature to document the administration as well as inform their IRM/Pharmacy staff of the problem.

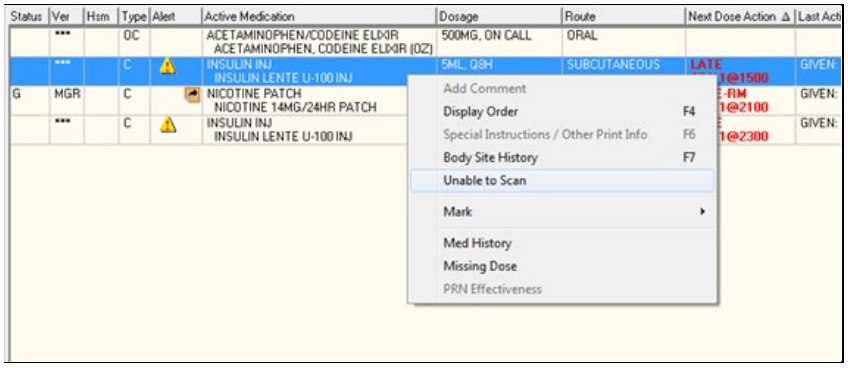
TIP:

You can report scanning failures without interrupting the medication administration process.

To administer a unit dose medication using Unable to Scan

1 From the Unit Dose tab, select an administration for a unit dose order. Then select the Unable to Scan command from the right-click or the Due List menu.

Example: Unable to Scan Right Click Option



If Non-Nurse Verified Orders Site Parameter "Prohibit Administration" is selected

The Error Message: "Order NOT Nurse-Verified! DO NOT GIVE!" displays.

- Click **OK** to acknowledge the message and click **OK** at the "Order Administration Cancelled" dialog to acknowledge the cancellation and return to the VDL without administering the medication.

Unable to Scan Unit Dose Medication (cont.)

To administer a unit dose medication using Unable to Scan (cont.)

If Non-Nurse Verified Orders Site Parameter "Allow Administration with Warning" is selected

The Warning Message: "Order NOT Nurse-Verified! Do you want to continue?" displays.

- Click **OK** to acknowledge that the order has not been nurse verified to continue the administration. Or, click **Cancel** to display the "Order Administration Cancelled" dialog then click **OK** to acknowledge the cancellation and return to the VDL.

Note: Check your site policy to determine the correct workflow for verifying the order in CPRS.

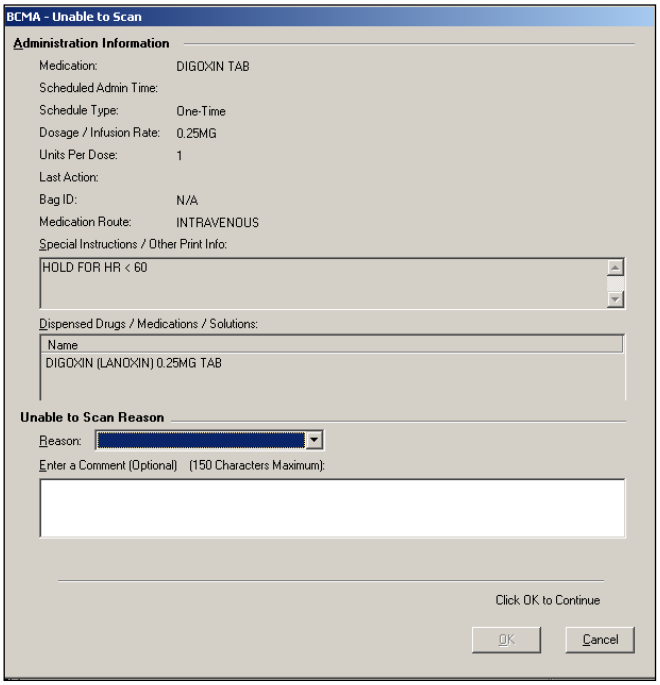
- If Special Instructions/Other Print Info apply, the information will display in a pop-up box when the pharmacist has flagged the message to pop-up in BCMA.
- If the early/late medication log displays, enter a comment describing why the administration is early or late.
- If it is a PRN order, the PRN Medication Log dialog box displays before the Unable to Scan dialog box if it is too soon to give the PRN medication.
- If the selected administration has multiple dispense drugs, or a unit per dose does not equal to one, continue the existing workflow as if the drug had been scanned until the Multiple Dose or Multiple/Fractional Dose dialog box displays. For orders with multiple dispense drugs or units per dose not equal to one, refer to the sections on "Administering a Multiple Dose Order" and "Administering a Fractional Dose Order."

Unable to Scan Unit Dose Medication (cont.)

To administer a unit dose medication using Unable to Scan (cont.)

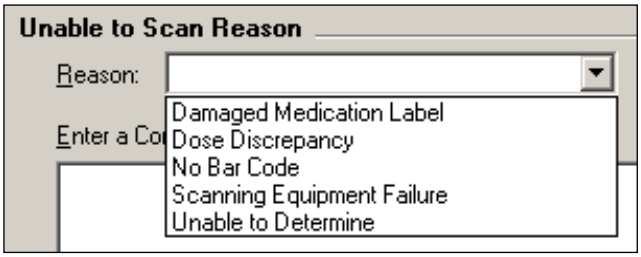
2 At the Unable to Scan dialog box, verify the administration information displayed at the top of the Unable to Scan dialog box including: Medication, Scheduled Admin Time, Schedule Type, Dosage/Infusion Rate, Units Per Dose, Last Action, Bag ID, Medication Route, Special Instructions, and Dispensed Drugs/Medications/Solutions.

Example: Unable to Scan Dialog Box for Unit Dose Administration



3 Select an "Unable to Scan Reason" from the drop-down list box. Selections include: Damaged Medication Label, Dose Discrepancy, No Bar Code, Scanning Equipment Failure, and Unable to Determine.

Example: Unable to Scan Medication Reasons



TIP:

If the Scanning failure is not an equipment problem, you can scan the problematic bar code directly into the Comment field. This may help your IRM and Pharmacy staff zero in on the source of problem more quickly.

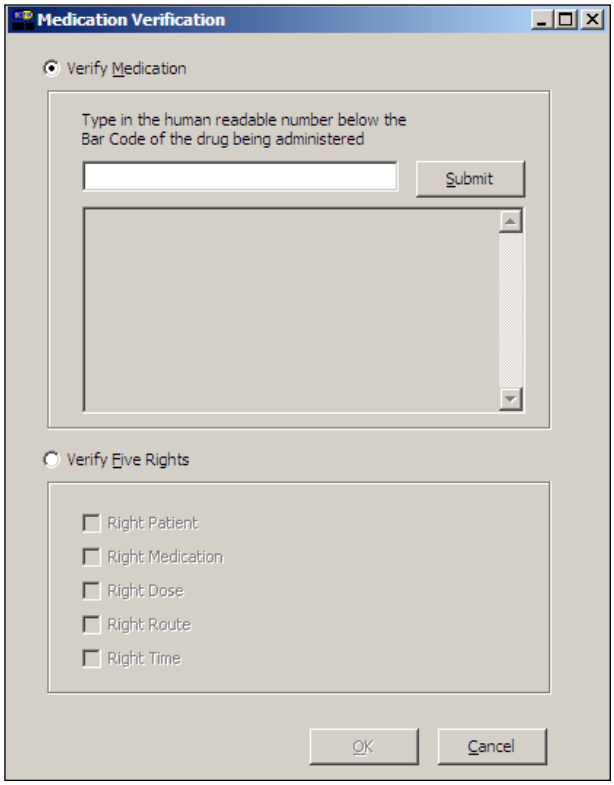
Unable to Scan Unit Dose Medication (cont.)

To administer a unit dose medication using Unable to Scan (cont.)

Note: If you click **Cancel** at any point in the Unable to Scan process, the Unable to Scan event is not logged, an email is not sent, and the "Order Administration Cancelled" message displays.

4 You may enter an optional text comment. Click OK. The Medication Verification dialog box displays.

Example: Medication Verification Dialog Box



5 Notice the Verify Medication option is selected by default. To verify the medication being administered, enter the Drug IEN or National Drug Code from the medication package in the entry field. Click Submit.

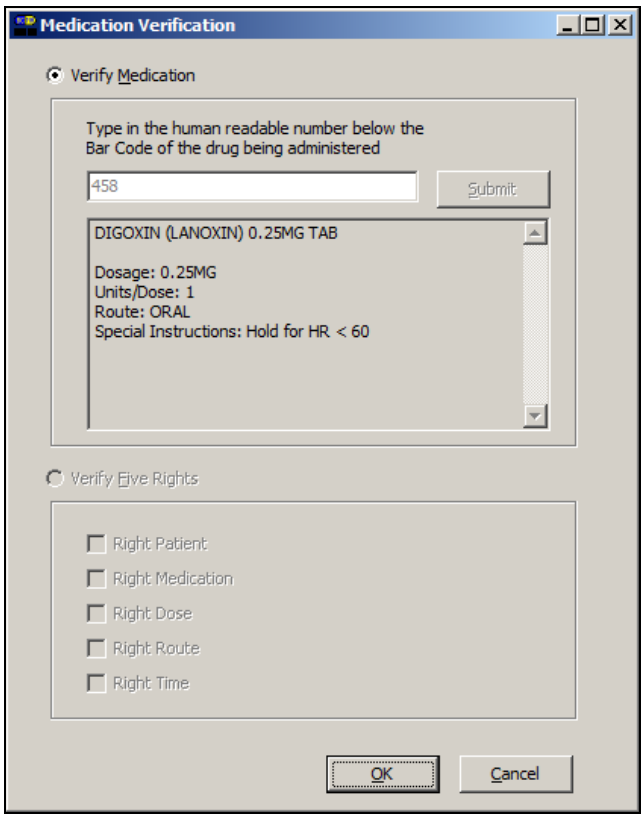
- If the number entered matches the dispense drug being administered for the selected order, the medication, dosage, units, route and special instructions will display. Verify that the information displayed matches the order.

Note: When entering a bar code number, remember that no letters, spaces or punctuation marks are allowed.

Unable to Scan Unit Dose Medication (cont.)

To administer a unit dose medication using Unable to Scan (cont.)

Example: Medication Verification Dialog Box (Verify Medication Option)



- If the number entered does not match the dispense drug being administered for the selected order:
  - An "Invalid Medication – Do not Give"error message displays.

Example: Error Message When Drug IEN Code Not Found

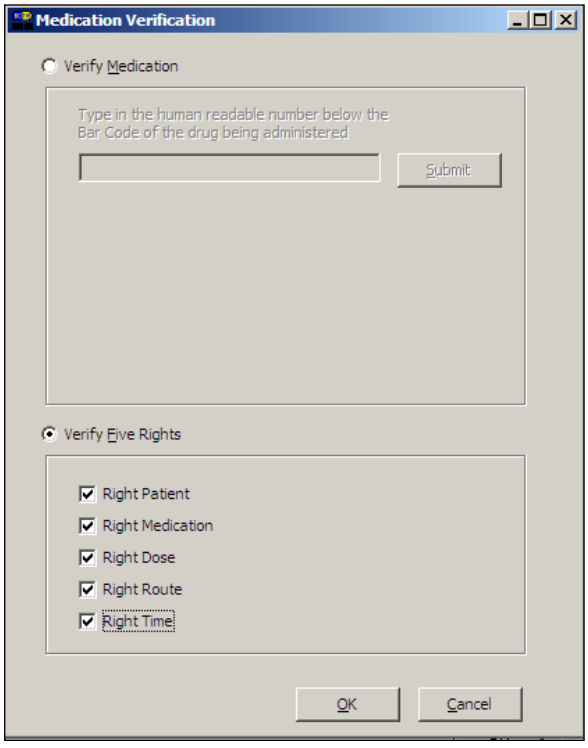
Unable to Scan Unit Dose Medication (cont.)

To administer a unit dose medication using Unable to Scan (cont.)

- If the number entered does not match, or the bar code number is not readable, or there is no label, you may select the Verify Five Rights option. Place a checkmark in each of the five checkboxes to document that the five rights of medication administration have been physically verified (right patient, right medication, right dose, right route, right time) and continue administering the medication without entering a matching bar code number.

Note: This option is only available if the Five Rights Override Parameter is enabled for unit dose medications in the BCMA Site Parameters application. If the Five Rights Override Parameter is turned off, you will not be able to administer the medication. Refer to your site policies regarding how to contact pharmacy to address the problem.

Example: Medication Verification Dialog Box (Five Rights Override Option)



6 Review the contents of the Medication Verification dialog box and perform one of the following actions:

Unable to Scan Unit Dose Medication (cont.)

TIP:

Email messages will be sent to the Unable to Scan email group that is defined in the BCMA Site Parameters application.

To administer a unit dose medication using Unable to Scan (cont.)

- Click **OK** to complete the Unable to Scan process and continue with the administration. Upon completing the administration you will return to the VDL. BCMA processes the information and displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient. The Unable to Scan event is recorded, and a Mailman message is sent notifying IRM/Pharmacy staff of the medication bar code sanning failure.
- Click the **Cancel** button to cancel the Unable to Scan process without documenting the administration. The Unable to Scan event will not be recorded, nor will a MailMan message be sent.

MailMan Message Sent After Medication Bar Code Scanning Failure

When you create a medication scanning failure entry, a MailMan message will be sent to the mail group you specified. The subject line of the message will indicate a medication scanning failure. The body of the message will contain the following information:

- User: Last name, First Name (for identifying system issues only/educational needs)
- Date/Time of event
- Patient: Last Name, First Name, and last four digits of patient's Social Security Number.
- Order Number
- Ward Location/Room
- Type of Bar Code issue: Medication
- Medication
  - Unit Dose orders will display dispense drug; drug IEN; dosage ordered
  - IV Orders will display: unique ID (Bag ID typed by User or Ward Stock); orderable item.
- Reason for scan failure
- User's comment

Note: Inclusion of the last four digits of the patient's SSN is currently allowed in VistA clinical alert messaging. If there are changes to this policy due to a future VHA directive, the format of this field is subject to change.

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.

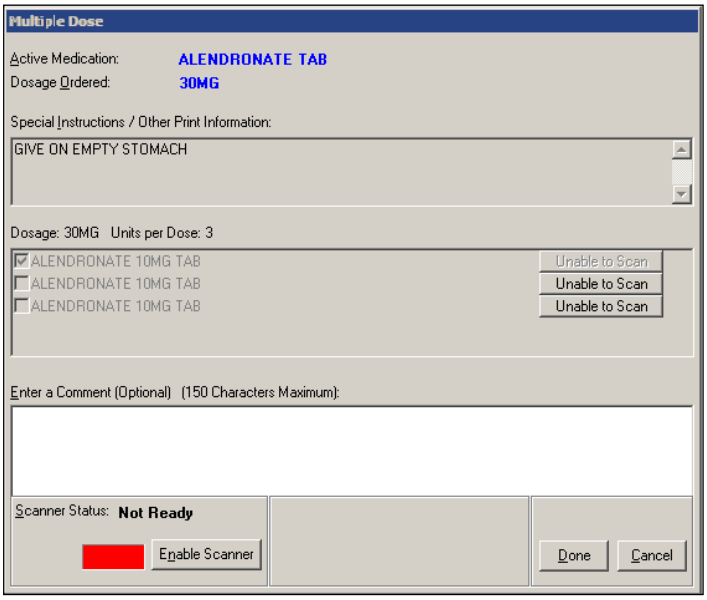
To administer a multiple dose order

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.
- If you are unable to scan one of the units, click the Unable to Scan button next to the unit and proceed with the Unable to Scan Unit Dose Medication process, as described in the Unable to Scan Unit Dose Medication section.

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

Example: Multiple Dose Dialog Box



— OR —

(See Next Page)

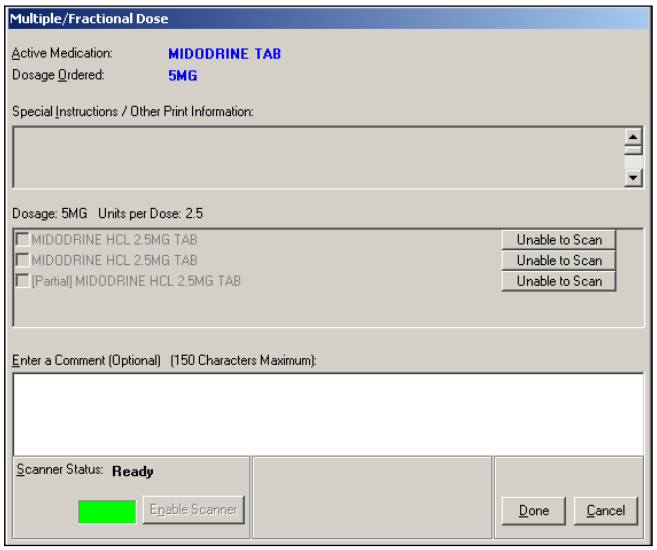
Administering a Multiple Dose Order (cont.)

TIP:

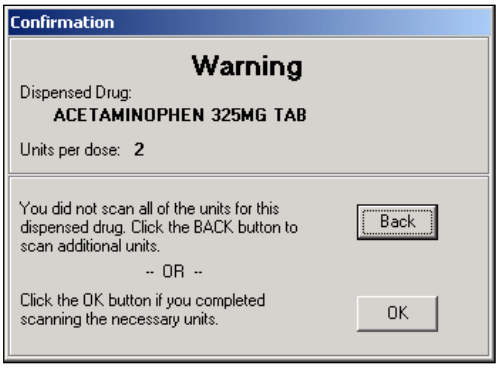
The Multiple Dose dialog box displays the dosage and units per dose for orders that contain only one dispensed drug. However, orders that contain more than one dispensed drug will display the heading "***Multiple Dispensed Drugs:" instead.

To administer a multiple dose order (cont.)

Example: Multiple/Fractional Dose Dialog Box



— OR —



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 press **ENTER** to display the patient's VDL.

Administering a Fractional Dose Order

TIP:

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

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 are 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

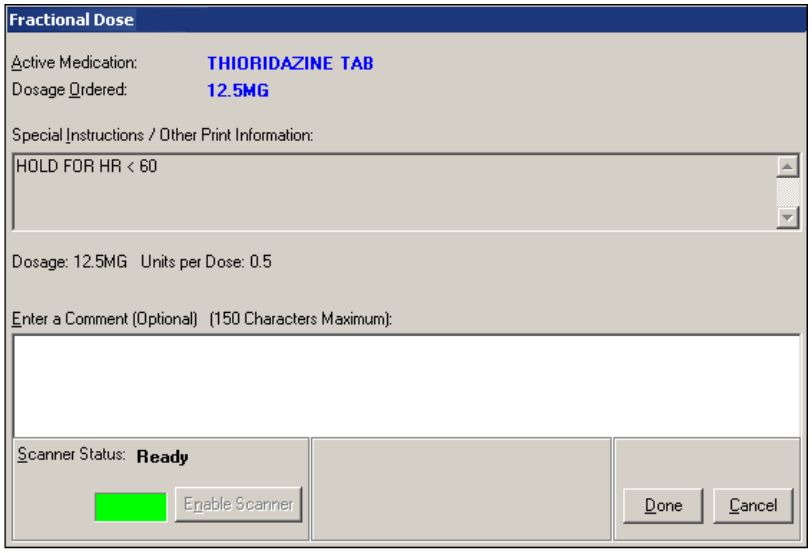
1 Scan the medication that you want to administer to the patient.

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.

TIP:

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

Example: Fractional Dose Dialog Box



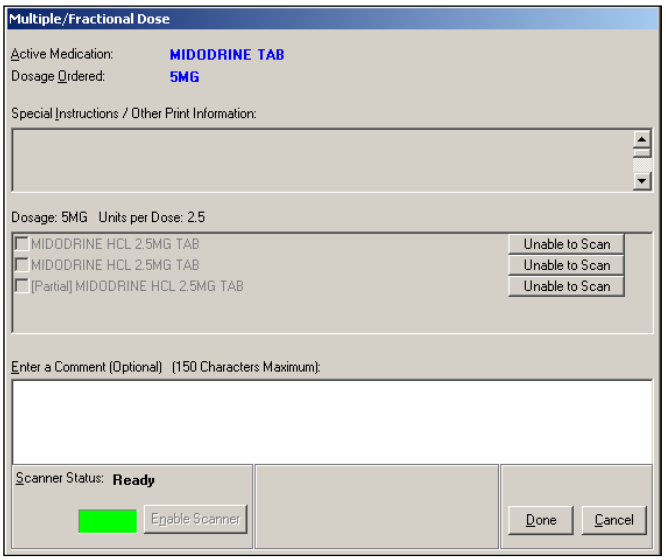
Administering a Fractional Dose Order (cont.)

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



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 click **DONE**. BCMA 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 click **DONE**. If all units are scanned, BCMA 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.
  - If you are unable to scan one of the units, click the Unable to Scan button next to the unit and proceed with the Unable to Scan Unit Dose Medication process, as described in the Unable to Scan Unit Dose Medication section.

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

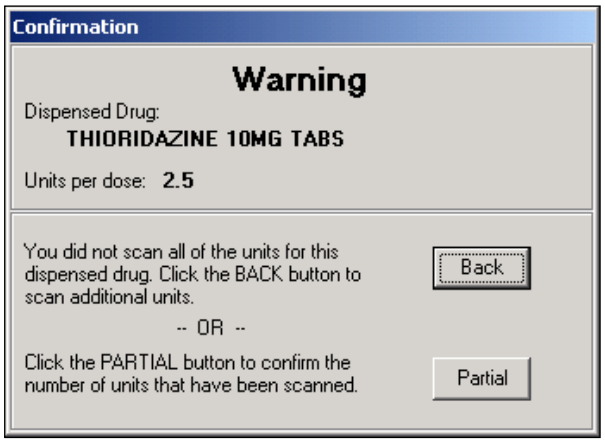
Administering a Fractional Dose Order (cont.)

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



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 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)

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 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 an Order with Multiple Admin Times

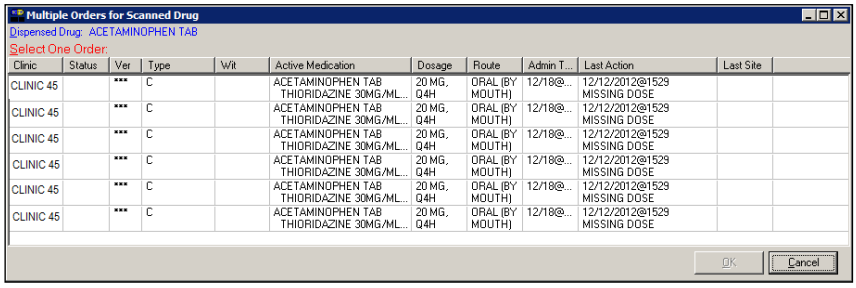
The Multiple Orders for Scanned Drug dialog box, provided below, displays *only* if the patient's order has multiple administration times for the medication that you scanned — using the Start and Stop time setting on the BCMA VDL.

To administer an order with multiple administration times

1 Select the order containing the administration time that you need, and click OK. BCMA processes the information and 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 press **ENTER** to accept the selection and display the patient's VDL.

Example: Multiple Orders for Scanned Drug Dialog Box



Note: If applicable, Non-Nurse Verified messages will display after an order is selected on the Multiple Orders for Scanned Drug dialog box.

2 Continue administering active Unit Dose medications to the patient.

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.

Special Instructions messages may include a sliding scale range written by the provider, so that you know how much insulin to administer to the patient, based on the patient's blood sugar level. Other examples include when to call the doctor, when to hold the medication based on patient vitals, and when to use standard protocols.

The default size of the Special Instructions popup box is approximately 80 characters wide with a minimum height of 6 lines. The width cannot be changed, and the height will automatically resize to accommodate the length of the message. If the vertical height of the message exceeds the size of the screen, a vertical scroll bar displays.

If the total height of the administration row, including Special Instructions, is equal to or greater than 19 lines, the following message displays in place of Special Instructions (bold red text): "**Too much information to display. Use right-click menu to display full text.**"

The following methods for displaying Special Instructions are provided on all three medication tabs:

- Right-click menu option entitled "Special Instructions / Other Print Info."
- Due List Menu option entitled "Special Instructions / Other Print Info."
- Shortcut function key (F6)

The following dialog boxes display Special Instructions:

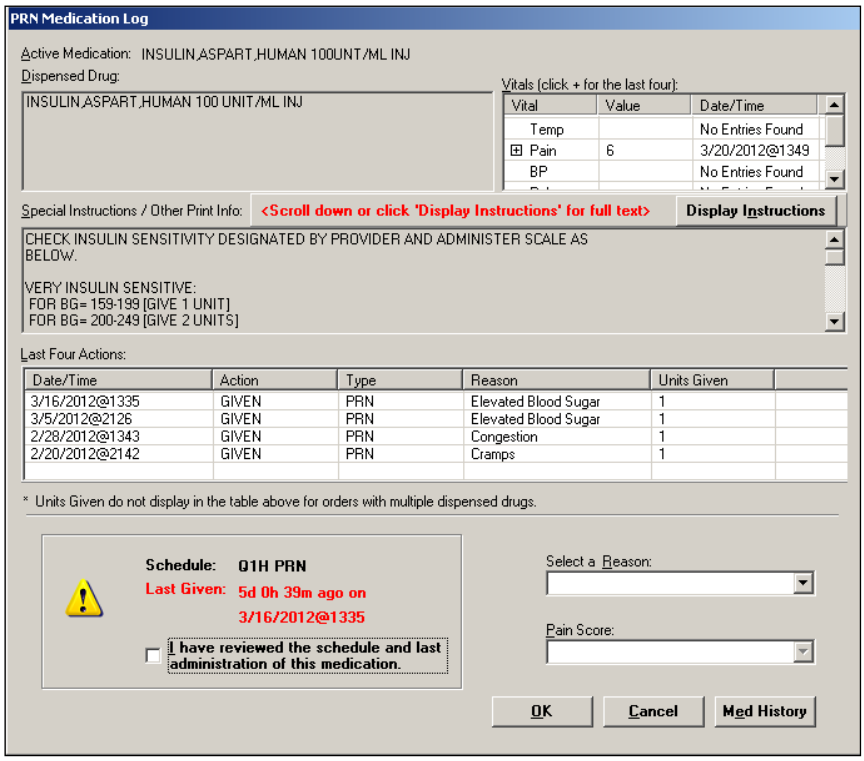
- PRN Effectiveness Log
- PRN Medication Log
- Unable to Scan
- Medication Log
- Multiple/Fractional Dose

Administering an Order with Special Instructions (cont.)

The vertical height of the Special Instructions display in the above dialog boxes is 6 lines. If text exceeds 6 lines, a scroll bar and "Display Instructions" button appear, and the following message displays in bold red text: **"<Scroll down or click 'Display Instructions' for full text>**." When the "Display Instructions" button is clicked, Special Instructions will display in the pop-up.

Following is an example of the PRN Medication Log dialog box with Special Instructions text that exceeds 6 lines.

Example: PRN Medication Log Dialog Box



To review Special Instructions from the Pharmacy

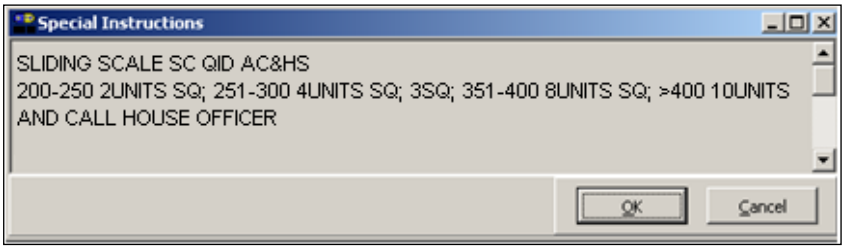
1 Review the Information message from the Pharmacy, and click OK to return to the patient's VDL.

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

Administering an Order with Special Instructions (cont.)

To review Special Instructions from the Pharmacy (cont.)

Example: Special Instructions Pop-up Box



2 Continue administering active Unit Dose medications to the patient.

Specifying the Medication Quantity and Units Given

TIP:

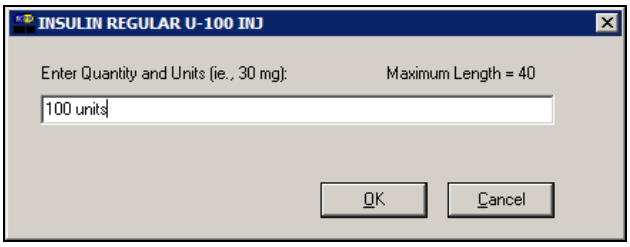
You may be required to specify the quantity and units given for cc's, milliliters, grams, milliequivalants, milligrams, millimoles, and units.

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 click **OK**. The maximum character length is 40. BCMA processes the information and 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 press **ENTER** to continue.

Example: Quantity and Units Dialog Box

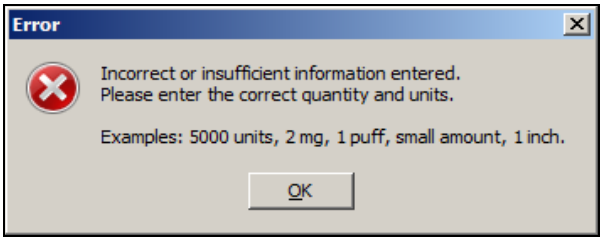


2 Continue administering active Unit Dose medications to the patient.

Note: BCMA will test for scanning of data into the Quantity and Units Dialog Box. The following criteria are tested and any input that matches is rejected: Integer only; a long numeric string that is out of range for an integer; an IV bag number – nnnVnn where n is a numeric digit; and number and units – nnnnnU or nnnnn U where n is a numeric digit. A single U is also rejected.

If a match is found for any of the first four conditions, BCMA will display the following error message.

Example: Quantity and Units Error Message

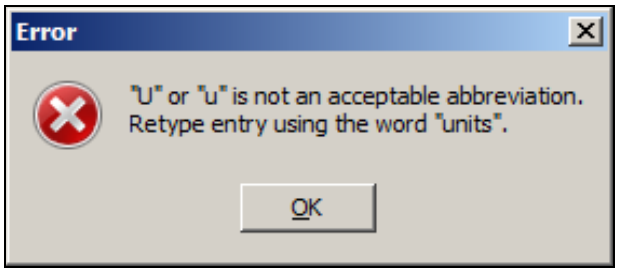


Specifying the Medication Quantity and Units Given (cont.)

To specify medication quantity and units given to patient (cont.)

If 'U' or 'u' is entered, BCMA will display the following error message.

Example: Quantity and Units Error Message



Specifying the Injection Site for the Medication

TIP:

If the administration is on the Unit Dose tab, the "PROMPT FOR INJ SITE IN BCMA" must be specified as "YES" in the MEDICATION ROUTES file (#51.2) for the administration's medication route.

To assist you in rotating injection sites, an expanded "Injection Site Needed" dialog displays during administration of applicable injectable medications, showing the injection site history information detailed below. Use this important information to determine the next injection site location on the patient, based on the previous injection sites shown for the selected orderable item, and all injection sites used for the patient within the timeframe indicated.

When prompted for the injection site, 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.

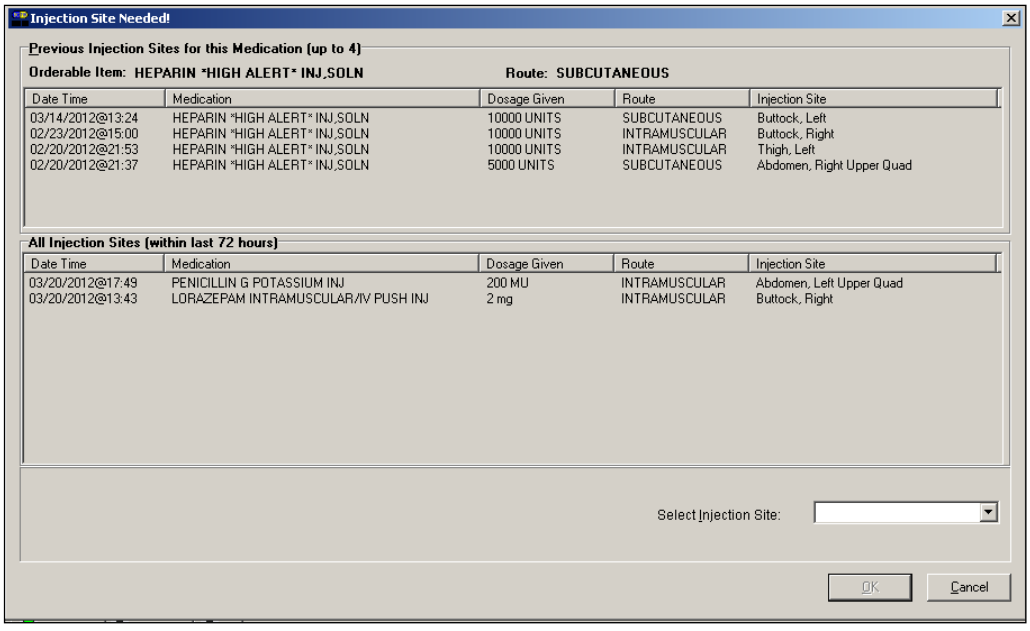
To specify an injection site for the medication

1. In the Select Injection Site drop-down list box, select the location where you are injecting the medication into the patient, and click OK. BCMA processes the information and 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 press **ENTER** to continue.

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

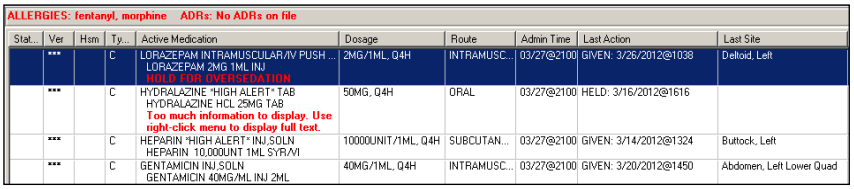
Example: Expanded Injection Site Needed Dialog



Displaying the Injection Site for the Medication

To assist you in rotating injection sites for applicable orders, the Last Site column on the VDL shows the location of the last injection site for the orderable item shown, and is only applicable to administrations that participate in injection site rotation. When BCMA "refreshes," it updates this column.

Example: Last Site Column

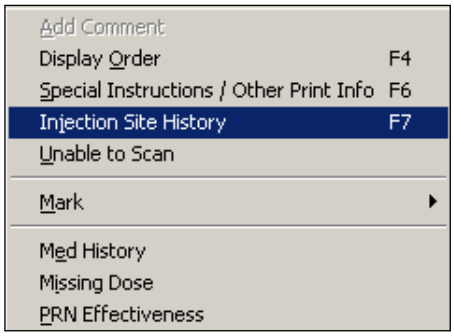


BCMA provides multiple ways to display the Injection Site History for administrations that participate in injection site rotation. This option is available on the Right-Click menu, Due List menu, or by using the F7 hotkey.

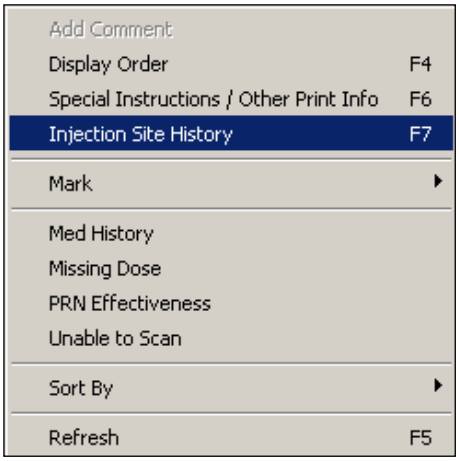
TIP:

If the administration is on the Unit Dose tab, the "PROMPT FOR INJ SITE IN BCMA" must be specified as "YES" in the MEDICATION ROUTES file (#51.2) for the administration's medication route.

Example: Right-Click Menu



Example: Due List Menu



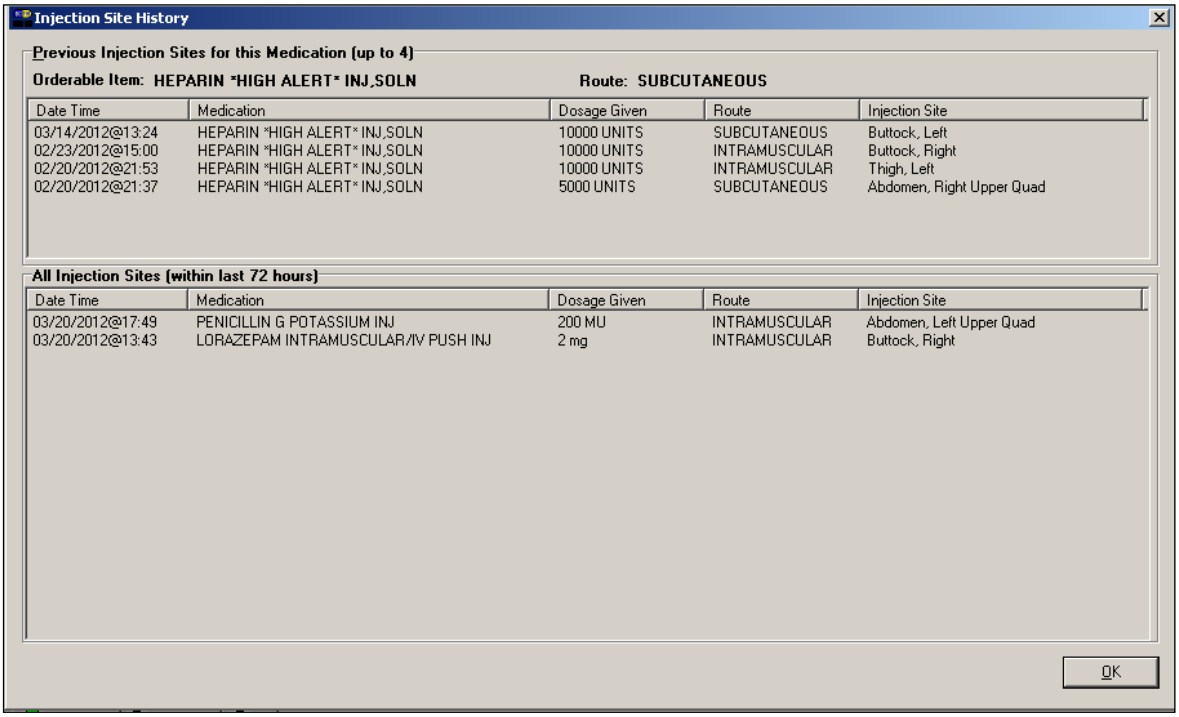
Displaying the Injection Site for the Medication (cont.)

The Injection Site History dialog provides two tables: Previous Injection Site for this Medication Table and All Injection Sites Table. The name of the Orderable Item and the Route are shown above the top table.

- The Previous Injection Sites for this Medication (up to 4) table shown at the top, lists up to the last four injection sites for the orderable item, displayed without time limits.
- The All Injection Sites Table (within last nn hours) shown at the bottom, lists all injection site entries for the patient within the time frame (nn), specified by the BCMA Site Parameter, "Injection Site History Max Hours." The default is 72 hours.
- The following data are displayed in each table: Date Time, Medication (Orderable item name), Dosage Given, Route, and Injection Site, sorted in reverse date/time order.

Note: If no data exists for either table, the message "<<No data to display>>" appears.

Example: Injection Site History Dialog



Marking a Patch As Removed

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.

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. The patch will fall off the display after the order's stop date if the "Patch Display Duration" site parameter value is set between 7 and 14 days. If an order (except a one-time order) has either Expired or been Discontinued and the patch has not been marked as "Removed," an alert displays and continues to pop up until the patch is marked 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.

Note: The action of marking an administration "Not Given" has been replaced by "Undo," which is applicable only to a patch marked as "Given" or "Removed." The wording opposite the Undo status will change, depending on the current status of the patient's medication. For example, changing a medication marked as Given to Undo will display as "Undo–Given" in the Mark drop-down menu.

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 Right Click or 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 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 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.

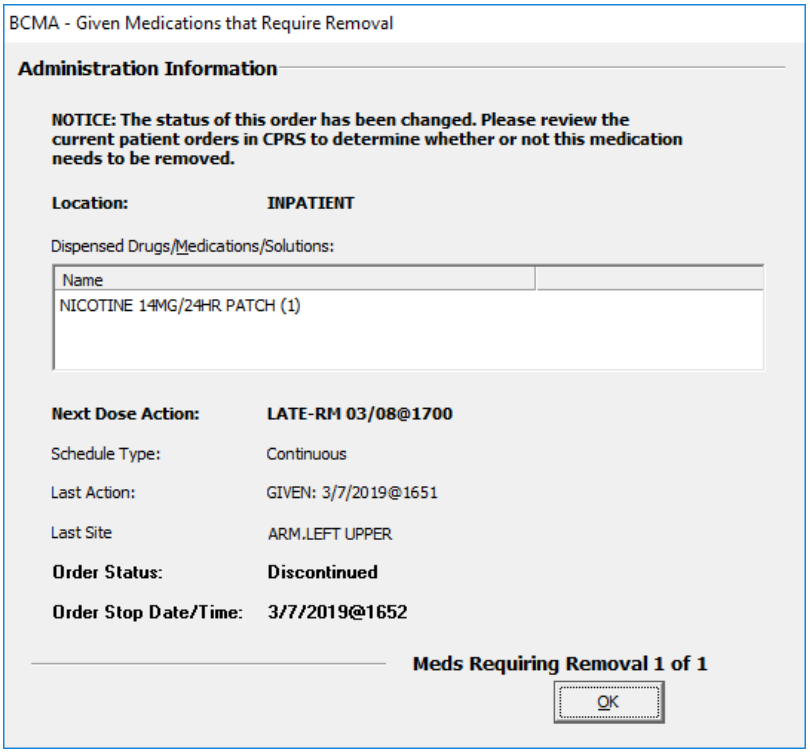
4. Continue administering active Unit Dose medications to the patient.

"Given" Patch that is Expired or Discontinued

When a patch marked as Given is Expired or Discontinued

When a patch has been "Given" and the order (except a one-time order) then expires or is discontinued, and the patch has not been marked as "Removed," an alert displays for Inpatient as well as Clinic Order patch administrations. The Location field, indicating INPATIENT for Inpatient administrations or the clinic name for Clinic Order administrations, displays in bold uppercase above the Medication.

Example: Given Patches that are Expired or Discontinued Alert



To satisfy the alert:

Select **OK** to temporarily remove the alert & continue as normal.

Note: If the **OK** button is selected, then the status of the patch administration will remain **Given**, and the alert will continue to pop up until the patch is marked as **Removed**.

1. Mark the patch as **Removed**, using the steps described in the, Marking the patch as removed section, on page 98.
2. The patch administration will be removed from the appropriate order mode, Inpatient or Clinic.
3. Enter comments as needed.

"Given" Patch that is Expired or Discontinued (cont.)

To automatically mark a patch as Removed (cont.)

1 Select one of the following options:

- **Next:** The Next button is enabled when there is more than one "Given" patch order that is expired or discontinued. You will see "Patch 1 of N," where N is the total number of "Given" Inpatient and Clinic Order patches that are discontinued or expired for this patient. Select the Next button to display the next "Given" patch order that is expired or discontinued.
- **Done:** The Done button is enabled when all "Given" patches that are discontinued or expired have been either "Marked Removed" or "Ignored." Click **Done** to return to the VDL.

Note: You can manually mark a patch as "Removed" from the VDL. Select a patch medication on the VDL in either Inpatient or Clinic order mode, and then select the Mark command from the Right Click drop-down menu, then select Removed.

Administering a PRN Order

TIP:

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

The PRN Medication Log dialog box, provided below, displays when you administer a PRN medication to a patient. BCMA checks for an active order and 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.

If you are administering a PRN medication using the Unable to Scan feature, the PRN Medication Log dialog box will display before the Unable to Scan dialog box, allowing you to determine whether it's too soon to give the PRN medication before continuing with the Unable to Scan process.

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

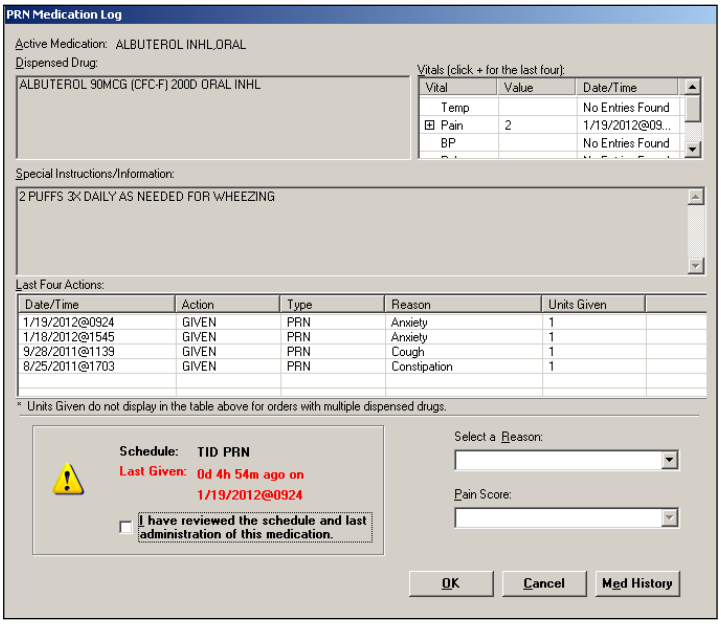
1 In the Select a Reason drop-down list box, select a site-defined reason that indicates why you are administering the PRN medication to the patient.

TIP:

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

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

Example: PRN Medication Log



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 In the Schedule area, select the check box to acknowledge that you, as the person administering the medication, have reviewed the schedule and last administration for the medication.

Note: To continue, you must check the box.

4 Click **OK** to accept your selection and return to the patient's VDL. BCMA processes the information, and 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 press **ENTER** to continue.

5 Continue administering active Unit Dose medications to the patient.

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 Right Click or 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 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.

Recording the Effectivness 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.

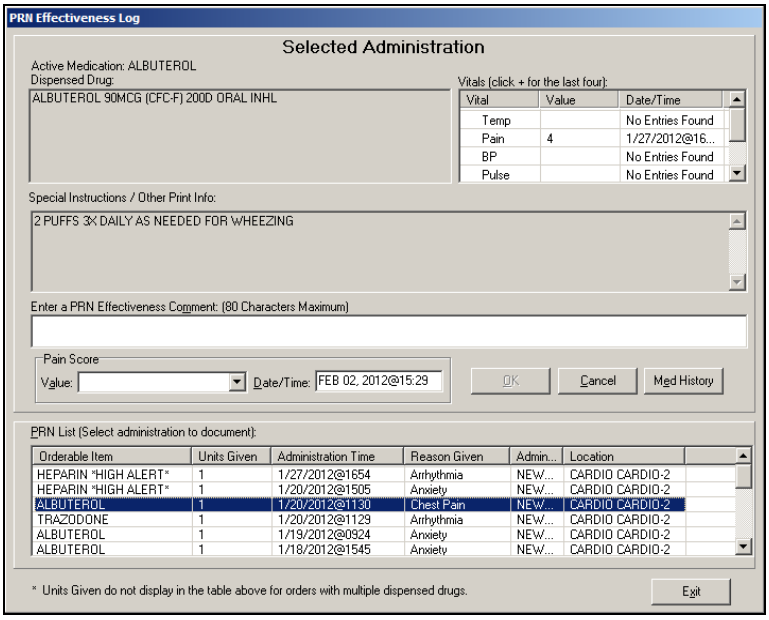
TIP:

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.)

4 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: PRN Effectiveness Log Dialog Box



5 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.

6 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.

7 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 press **ENTER** to continue.

Administering a Medication 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.

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.

To administer a medication early to a patient (only applicable to Inpatient administrations)

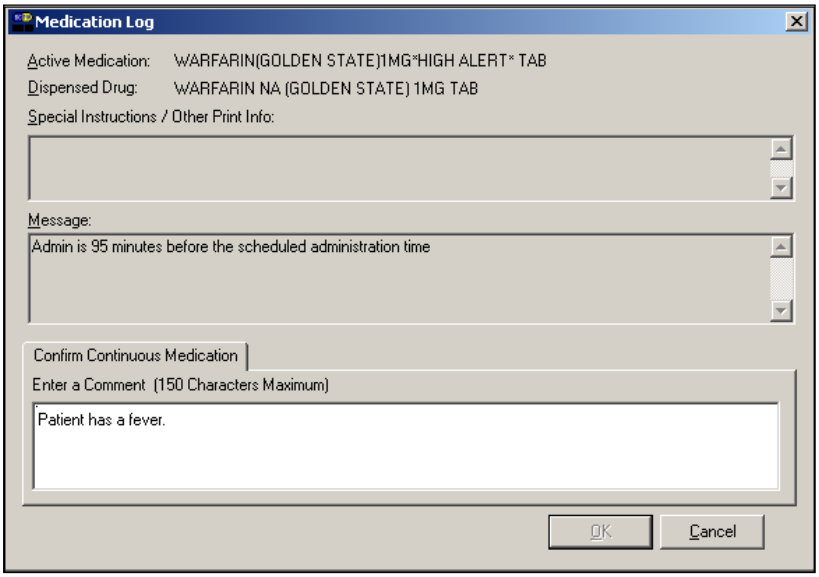
1 In the Comments area of the Medication Log dialog box, specify the reason that you are administering the medication early to the patient, and click OK. BCMA processes the information and displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the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

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

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.

Example: Medication Log Dialog Box for Early Dose

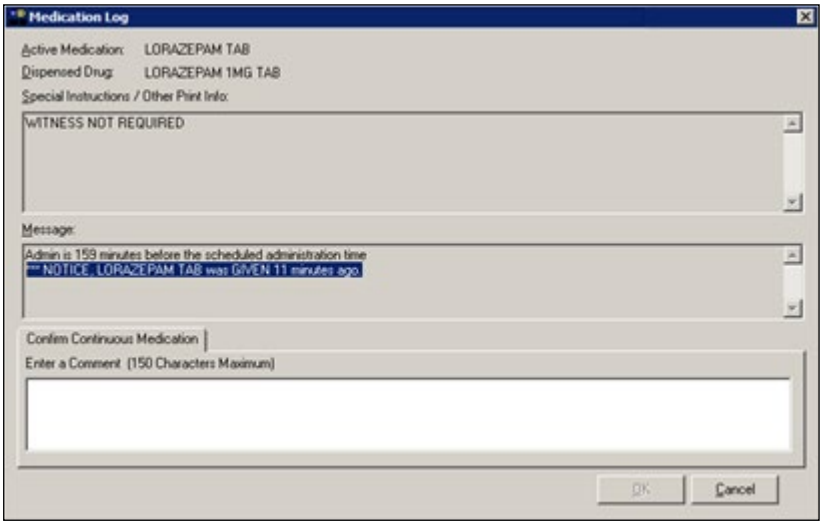


2 Continue administering active Unit Dose medications to the patient.

Administering a Medication Early (cont.)

Note: If the medication has been already given within the last 120 minutes, whether administered in Inpatient or Clinic order mode, a notice displays in the message box, indicating how long ago the medication was given. This is based on the orderable item for the medication. Example: *** NOTICE, LORAZEPAM tab was GIVEN 11 minutes ago.

Example: Message when Medication Already Given



Administering a Medication 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.

TIP:

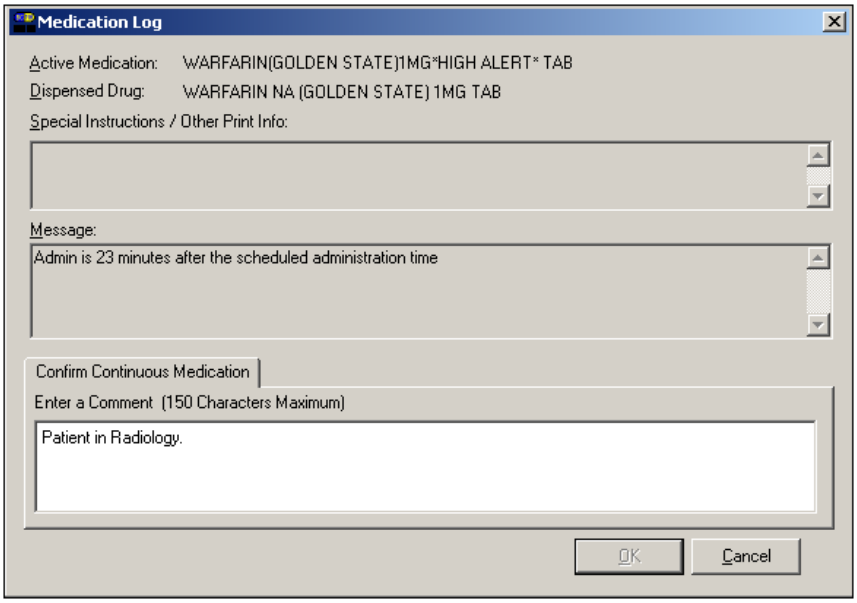
BCMA will *not* mark the medication as "Given" (with a "G"), in the Status column of the VDL, until you enter a "Comment" in the Medication Log dialog box.

To administer a medication late to a patient (only applicable to Inpatient administrations)

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 click **OK**. BCMA processes the information and 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 press **ENTER** to continue.

Example: Medication Log Dialog Box for Late Dose



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.

2 Continue administering active Unit Dose medications to the patient.

Marking Single Administration as Held or Refused

You can mark single administrations, 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. This is applicable to both Inpatient and Clinic administrations.

To mark single administrations as Held or Refused

1 Select the administration you want to mark as Held or Refused.

Note: The options available on the Mark menu will depend on the current Status and Type of medication order. PRN administrations cannot be marked as Held or Refused.

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

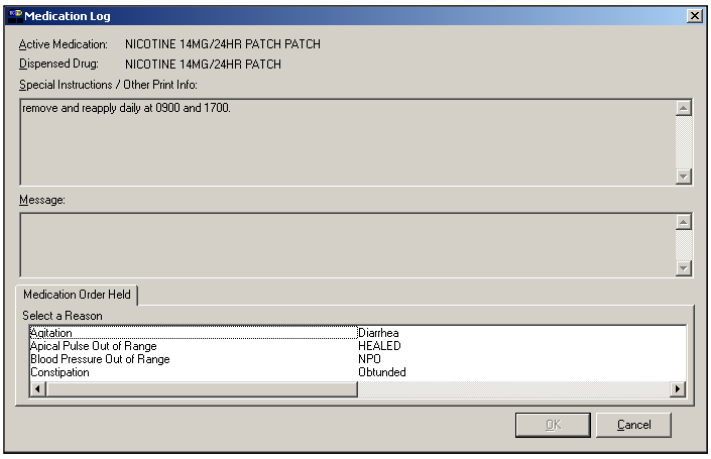
Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and press **M** to display the Mark drop-down menu.

3 Select Held or Refused from the Mark menu.

If a Warning message indicates that the order is not nurse verified, see section entitled, "If 'Allow Administration with Warning' or 'Prohibit Administration' parameter option is selected."

4 Select a Reason from the List on the Medication Log and click **OK**. BCMA processes the information and displays a letter in the Status column of the BCMA VDL to document the action taken on the medications.

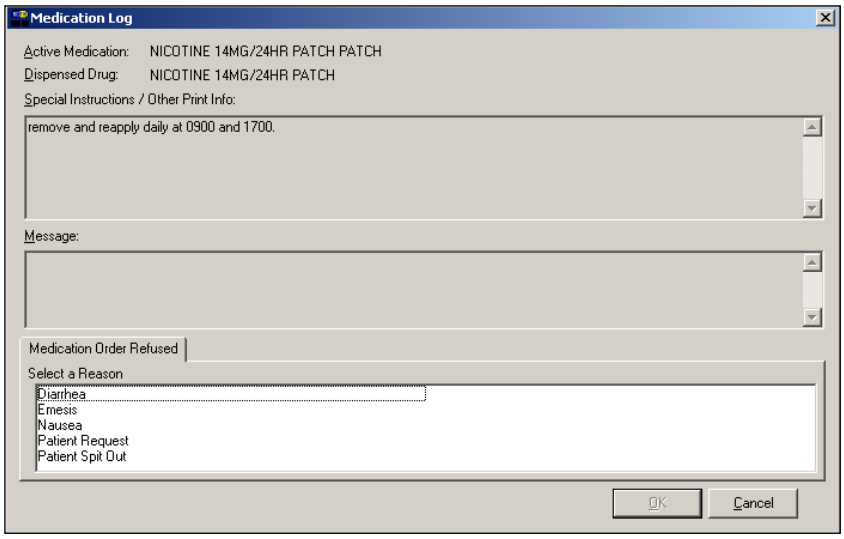
Example: Medication Log when Medication Order is Marked Held



Marking Single Administration as Held or Refused (cont.)

To mark single administrations as Held or Refused (cont.)

Example: Medication Log when Medication Order is Marked Refused



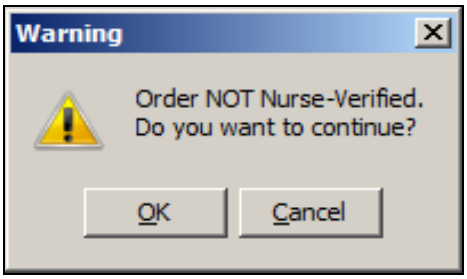
5 Continue administering active Unit Dose medications to the patient.

Marking Single Administration as Held or Refused (cont.)

To mark single administrations as Held or Refused (cont.)

If "Allow Administration with Warning" or "Prohibit Administration" parameter option is selected

Example: Warning Message when Marking Single Non-Nurse Verified Administration as Held or Refused



- Click **OK** to continue the selected action. The Medication Log with Held or Refused reasons will display as appropriate to the workflow for the selected action.
- Click **Cancel** to return to the VDL.

Marking Multiple Administrations as Held or Refused

You can select and mark multiple medications, for the patient, as "Held" or "Refused" on the BCMA VDL. This feature is particularly helpful for marking several administrations at once, for example, 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 Right Click or 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 press **M** to display the Mark drop-down menu.

3 Select Held or Refused from the Mark menu.

If a Warning message indicates that the order is not nurse verified, see section entitled, "If 'Allow Administration with Warning' or 'Prohibit Administration' parameter option is selected."

4 Select a Reason from the List on the Medication Log and click **OK**. BCMA processes the information and displays a letter in the Status column of the BCMA VDL to document the action taken on the medications.

5 Continue administering active Unit Dose medications to the patient.

TIP:

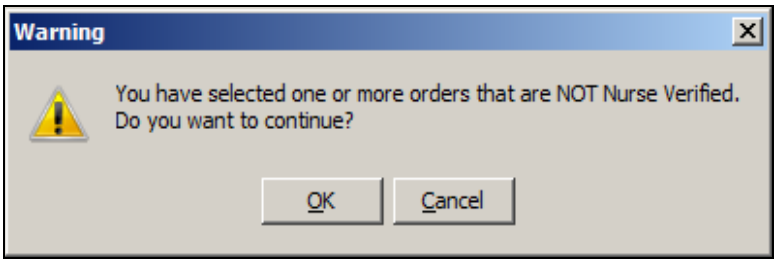
You can quickly mark multiple medications selected on the VDL, with the same "action," by selecting the Mark command from the Right Click drop-down menu.

Marking Multiple Administrations as Held or Refused (cont.)

To mark multiple medications on the VDL (cont.)

If "Allow Administration with Warning" or "Prohibit Administration" parameter option is selected

Example: Warning Message when Marking Multiple Non-Nurse Verified Administrations as Held or Refused



- Click **OK** to continue the selected action. The Medication Log with Held or Refused reasons will display as appropriate to the workflow for the selected action.
- Click **Cancel** to return to 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.

Changing the Status of a Unit Dose Medication

Use this section when you need to 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" by using the "Undo–Given" option – provided you are the individual who originally marked it as "Given," or you have been assigned the PSB MANAGER security key.

You can change a medication with the following status:

- Given to Not Given
- Removed to Given
- Held or Refused to Given
- Missing to Given, Held, or Refused
- Held to 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. The patch will fall off the display after the order's stop date if the "Patch Display Duration" site parameter value is set between 7 and 14 days.

TIP:

You can mark the status of a medication placed "On Hold" to "Held" althought it is not necessary that you do so unless required by your mediocal 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.
2. Select the Mark command from the Right Click or Due List menu. The Mark drop-down menu displays with the "actions" available for this medication.

TIP:

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

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 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 displays a letter in the Status column of the BCMA VDL to document the action taken on the medication.

TIP:

An "Unknown" status can only be changed to Given, Not Given, Held, or Refused– using the Edit Med Log option.

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.

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.

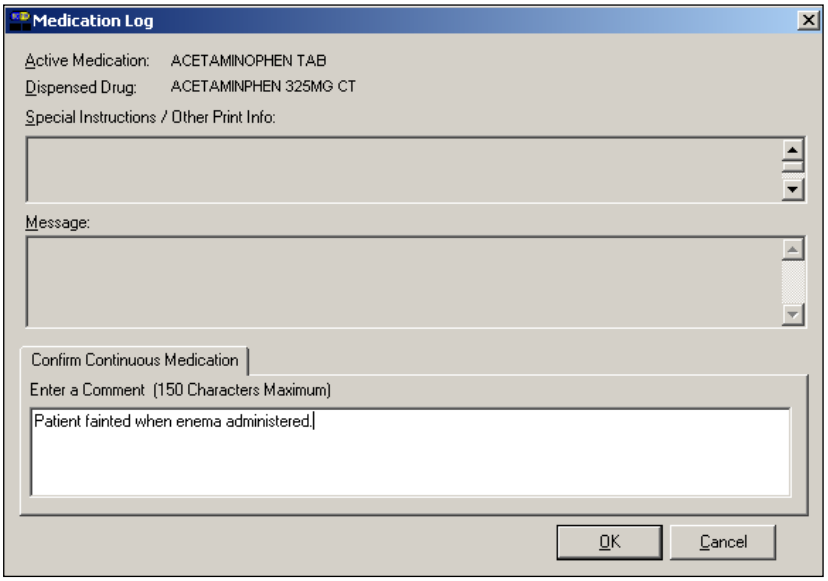
To add comments to a patient's medication record

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

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and 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



4. Click **OK** once you've read your entry and are satisfied with it.

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

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.)

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

```
==========================================================================
Medication Log Report for Jul 07, 2016@00:01 to Jul 07, 2016@24:00
Include Inpatient and Clinic Orders
Continuing/PRN/Stat/One Time Medication/Treatment Record (Detailed Log) (VAF 10-2970 B, C, D)
Run Date: JUL 08, 2016@14:35
Log Type: INDIVIDUAL PATIENT
Page: 1

Patient:  TESTPATNM,THREE          SSN:       000-00-0000          DOB:   OCT 10,1945 (70)
Sex:      FEMALE                   Ht/Wt:     */*                  Ward:  GEN MED Rm:
Dx:       ANEMIC                   Last Mvmt: DEC 16,2014@17:50    Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  POLLEN, STRAWBERRIES
==========================================================================
Location
Activity Date   Orderable Item                    Action Action
Start Date>     [Dose/Sched/Route/Body Site]      By     Date/Time       Drug/Additive/Solution
Stop Date<
--------------------------------------------------------------------------------------------------
   3E NORTH
07/07/16 09:10  WARFARIN [2MG Q4H PO]
                ARM, LEFT]                       RG     07/07/16 09:10
                                                        Given

--------------------------------------------------------------------------------------------------
   3E NORTH
07/07/16 09:05  NICOTINE [1 24H  Derm Site:
                ARM,LEFT UPPER]                  RG     07/07/16 21:08
                                                        Removed
                                                 RG     07/07/16 09:05
                                                        Given
7/02/16 09:00>                                                  NICOTINE 11MG/24HR PATCH

1.00    1.00 PATCH
                Comments:     07/07/16 09:05  NSS   Test patch administration comments
                              07/07/16 21:08  NSS   Removed:
                Witnessed by: BCMA,NURSE MGR on 7/7/16@09:06
7/10/16 08:00<
```

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 entitled, "Viewing and Printing BCMA Reports" for more information.

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 theTool 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 Right Click or Due List menu.

If an Error or Warning message indicates that the order is not nurse verified, see section entitled, "If Non-Nurse Verified Orders Site Parameter "Allow Administration with Warning."

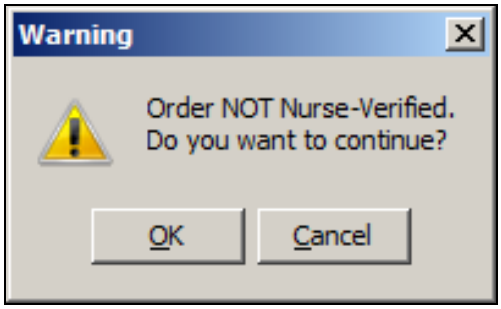
Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and press **I** (not "L") to display the Missing Dose Request dialog box.

Submitting a Missing Dose Request (cont.)

To submit a Missing Dose Request (cont.)

If Non-Nurse Verified Orders Site Parameter "Allow Administration with Warning" is selected the following warning message displays.

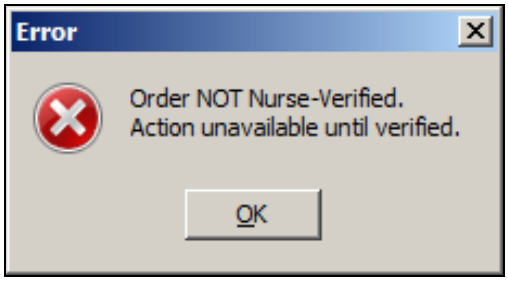
Example: Warning Message when submitting Missing Dose Request for Non-Nurse Verified Administration



- Click **OK** to acknowledge that the order has not been nurse verified. The Missing Dose Request dialog box will display. You may continue submitting the Missing Dose Request for the non-nurse verified order.
- Click **Cancel** to cancel the request.

If Non-Nurse Verified Orders Site Parameter "Prohibit Administration" is selected, the following error message displays.

Example: Error Message when submitting Missing Dose Request for Non-Nurse Verified Administration



- Click **OK** to return to the VDL without submitting the Missing Dose Request.

Note: Check your site policy to determine the correct workflow for verifying the order in CPRS.

Submitting a Missing Dose Request (cont.)

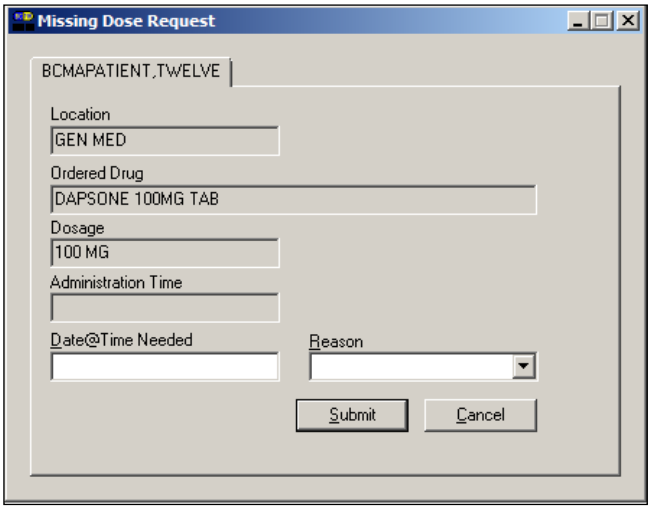
TIP:

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.

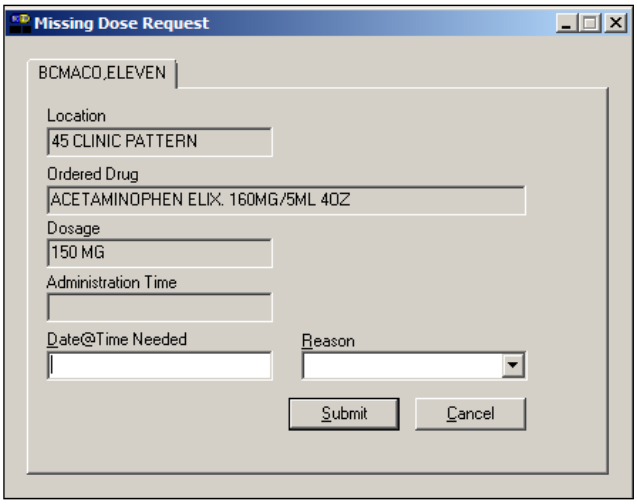
To submit a Missing Dose Request (cont.)

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 (Inpatient Order)



Example: Submitting a Missing Dose Request to the Pharmacy (Clinic Order)



Submitting a Missing Dose Request (cont.)

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, 2010, 01 MAY 10, 5/01/10, 050110
- 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.

Submitting a Missing Dose Request (cont.)

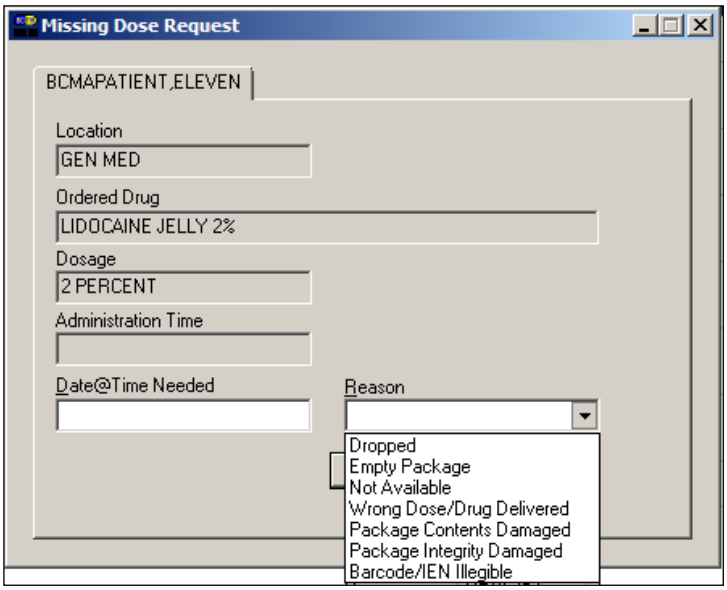
TIP:

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

To submit a Missing Dose Request (cont.)

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



6 Verify the information in the dialog box, and 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.

Note: Refer to Manager's Manual to see how Missing Dose Request printers are configured in Inpatient and Clinic settings.

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

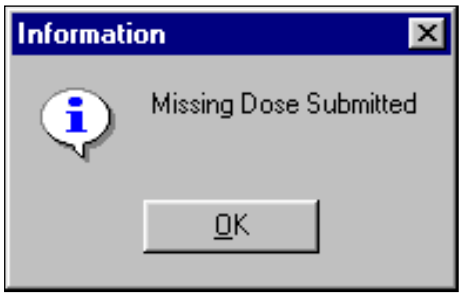
7 Read the Information message, and click **OK**. BCMA processes the request and displays the letter "M" (for "Missing") in the Status column.

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

Submitting a Missing Dose Request (cont.)

To submit a Missing Dose Request (cont.)

Example: Missing Dose Submission Message



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

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.

TIP:

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

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.

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."

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.

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

In order for active IV Push or IV Piggyback medication orders to display on the IVP/IVPB Medication Tab, all medication routes associated with these orders must have the option "DISPLY ON IVP/IVPB TAB IN BCMA?" specified as "YES" in the MEDICATION ROUTES file (#51.2). BCMA then displays the orders that fall within the Start and Stop Date/Times and Schedule Types selected on the VDL.

Orders that typically display on the IVP/IVPB tab include active Unit Dose orders with a medication route of 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.

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. A drug entry may contain multiple synonyms, which may include National Drug Code (NDC) and manufacturer bar code numbers.
- **Unique Identifer 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: If an IV bag is administered using Unable to Scan – Create WS, or Unable to Scan – Five Rights Override, BCMA generates a Ward Stock Number for the bag.

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

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" by using the "Undo–Given option." 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 or last had a medication removed for medications requiring removal 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 the order in which medications were given and removed for medications requiring removal 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" by using the "Undo–Given" option – 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
- Held to Refused

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, division, or clinic)
- 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 using the "Undo–Given" option 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.
  - "Unknown" Status: If an order created in BCMA CHUI *Manual Medication Entry* is not completed with a valid administration status, the Admin Status will be stored as null (blank), but will display as "U" (unknown) in the BCMA VDL Status column and "Unknown" in the Last Action column.
- 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
- Last Injection Site, for administrations that participate in injection site rotation.

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 provides important clinical information via a Confirmation dialog box and the patient's VDL.

If you experience a wristband scanning failure, you can select the Unable to Scan feature at the Scan Patient Wristband dialog box. After entering a reason for the failure and an optional comment, you can perform a patient lookup and confirm their identity on the Confirmation dialog box before opening 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 or when you use the Unable to Scan medication feature. 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.

How BCMA Validates Patient and Medication Information (cont.)

Unable to Scan Medication

If you experience a medication scanning failure, you can select the Unable to Scan feature to administer the medication and inform your support staff of the failure. After entering a reason for the failure and an optional comment, the Medication Verification dialog displays, where you can choose one of the following options:

- **Verify Medication:** This (default) option provides an entry field in which the user types the number from the bar code label on the medication or IV bag to verify the medication being administered to the patient. BCMA validates the entry against the order and displays the matching dispense drug or bag components. Best practice dictates that you always attempt to verify the medication first. You may retry if your entry does not result in a match.
- **Verify Five Rights:** This option provides a method for administering a medication in the event that Verify Medication failed, or, for example, when the number on the bar code label is not readable, or there is no label. You must confirm that each of the five rights of medication administration have been physically verified (right patient, right medication, right dose, right route, right time) before you can continue the administration process.

Note: Refer to your BCMA Coordinator and site policy for guidance on the use of the Verify Five Rights option.

Note: The Verify Five Rights option is only available if the Five Rights Override Parameters are enabled for Unit Dose and IV medications in the BCMA Site Parameters application. If the Five Rights Override Parameter is turned off, the option will be grayed out and you will not be able to administer the medication. Refer to your site policies regarding how to contact pharmacy to address the problem.

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.

TIP:

Press **F10** or click the IVP/IVPB Medication Tab to display active medication orders under this 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 IV Push, IV Piggyback, and intermittent syringe medications.

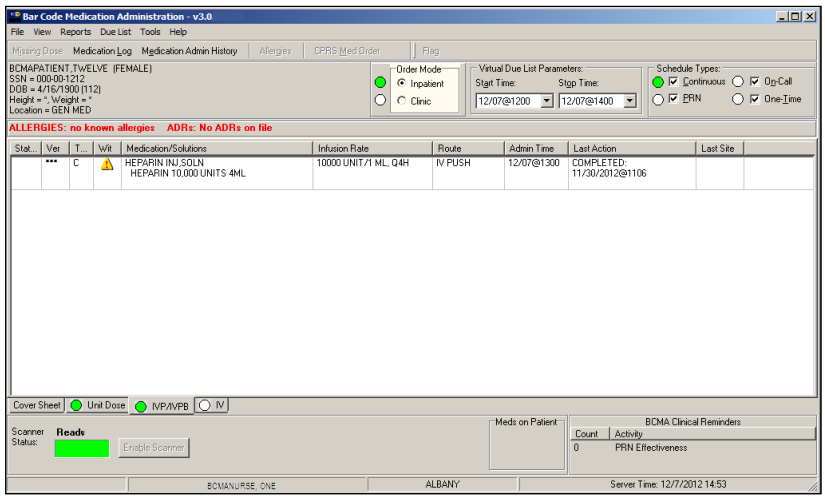
Viewing a Patient's Active IVP/IVPB Medications

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



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

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 Inpatient 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.

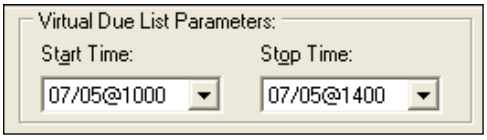
Note: The BCMA VDL Start and Stop Times display in one-hour increments, from the top of the nearest hour. For example, 1:15 displays as 1:00 and 1:45 displays as 2:00. You can expand the time range 12 hours before and 12 hours after NOW.

To change the Virtual Due List Parameters

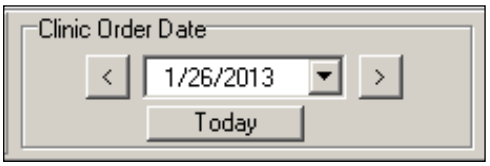
1 In the patient's VDL, select the Start and Stop Times in the Virtual Due List Parameters area. The BCMA VDL automatically refreshes and displays active medications for the newly selected administration window.

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 (When Inpatient Order Mode is Selected)



Example: VDL Parameters Area on VDL (When Clinic Order Mode is Selected)



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.

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.

Scanning and Verifying Medication Information

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 processes the scan and displays screens related to the medication order. If unable to scan, see the section entitled, "Unable to Scan IVP/IVPB Medication."

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.

2 Continue with the medication administration process for the patient's active IV Push or IV Piggyback medication.

If an Error or Warning message indicates that the order is non-nurse verified, see the section entitled, "If Non-Nurse Verified Orders Site Parameter "Prohibit Administration" is Selected."
If an Information pop-up box displays that indicates that Special Instructions/Other Print Info apply, see the section entitled, "Administering an Order with Special Instructions / Other Print Info."
If an Early Medication Log dialog box displays, see the section entitled, "Administering a Medication Early."
If a Late Medication Log dialog box displays, see the section entitled, "Administering a Medication Late."
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, see the section entitled, "If Drug IEN Code Not Found in DRUG file (#50) or Unique Identifier Number Not Located."
If an Error message indicates that the medication has already been given, or it's not time to give it yet, see the section entitled, "If Medication Already Given or Not Time to Give Yet."
If an Error message indicates that no order exists for the medication that you just scanned, see the section entitled, "If No Order Exists for Medication Scanned."

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.

Scanning and Verifying Medication Information (cont.)

If no bags are available for the medication displayed on the BCMA VDL, see the section entitled, "If No Bags Available for Medication Displayed on the VDL."

If IV Parameters fields set to "Warning" *and* a field is edited in Inpatient Medications V. 5.0, see the section entitled, "If IV Parameters Fields Set to "Warning" and Field Edited in Inpatient Medications V. 5.0."

If the "OTHER PRINT INFO:" prompt is edited in Inpatient Medications V. 5.0, see the section entitled, "If "OTHER PRINT INFO:" prompt is edited."

If the user attempts to take action on an IVP/IVPB administration with an Unknown Action status, see the section entitled, "If User Attempts to Take Action on an Administration with an Unknown Action Status."

If the user attempts to take action on an IVP/IVPB order that contains an administration with an unknown action status, see the section entitled, "If User Attempts to Take Action on an Order that Contains an Administration with an Unknown Action Status."

Scanning and Verifying Medication Information (cont.)

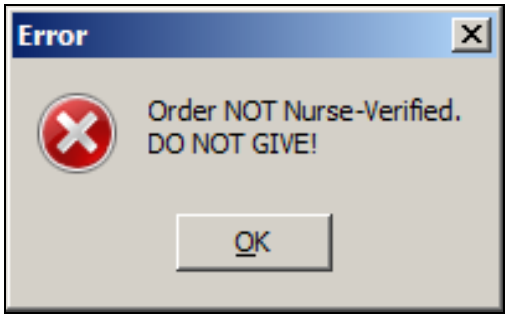
If Non-Nurse Verified Orders Site Parameter "Prohibit Administration" is Selected

The Error message provided below displays when administration of a non-nurse verified order is attempted.

- Click **OK** to acknowledge the message, then click **OK** at the "Order Administration Cancelled" dialog to acknowledge the cancellation and return to the VDL without administering the medication.

Note: Check your site policy to determine the correct workflow for verifying the order in CPRS.

Example: Error Message When "Prohibit Administration" Parameter is Selected



If Non-Nurse Verified Orders Site Parameter "Allow Administration with Warning" is Selected

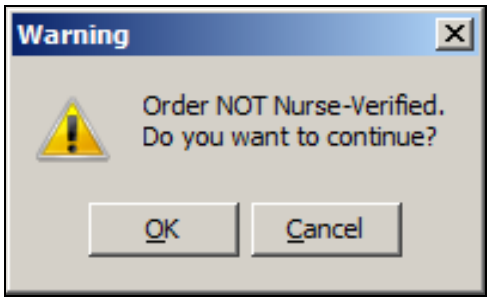
The Warning message provided below displays when administration of a non-nurse verified order is attempted.

- Click **OK** to acknowledge that the order has not been nurse verified and to continue the administration. All medication administration dialogs will display as appropriate to the workflow for the selected administration.
- Click **Cancel** to display the "Order Administration Cancelled" dialog. Click **OK** to acknowledge the cancellation and to return to the VDL.

Note: Check your site policy to determine the correct workflow for verifying the order in CPRS.

Scanning and Verifying Medication Information (cont.)

Example: Warning Message When "Allow Administration with Warning" Parameter is Selected



Note: When the "Allow Administration with Warning" or "Prohibit Administration" parameter setting is selected, the resulting warning/error pop-up message will usually precede other BCMA pop-ups during the medication administration process. Exceptions to this are:

- **Ward Stock Bags:** When the user scans bag components into the Ward stock dialog thus creating a ward stock bag, BCMA will not match the list of components to the order until the user selects **OK**. At that time, if the order is not nurse-verified, the Non-Nurse Verified pop-up will then display.
- **Multiple Orders for Scanned Drugs:** When the user scans a medication and there are multiple administrations available within the virtual due list parameters timeframe, the Multiple Orders for Scanned Drugs dialog displays before the Non-Nurse Verified pop-up.

Note: Site parameters for non-nurse verified orders do not affect the CPRS med order button functionality.

Scanning and Verifying Medication Information (cont.)

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

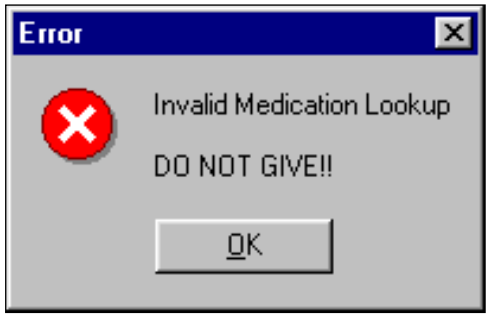
The Error message, provided below, displays when BCMA does not locate the Drug IEN Code in the DRUG file (#50), *or* the Unique Identifier Number is not located. This occurs if the DRUG file contains two entries for the same Drug IEN Code, *or* the code/number is invalid.

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

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

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

Scanning and Verifying Medication Information (cont.)

If No Bags Available for Medication Displayed on the VDL

The Information message, provided below, displays if the scanned bag number does not match one of the available bags on the order.

To review the Information message

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

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

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

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

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

Scanning and Verifying Medication Information (cont.)

If "OTHER PRINT INFO:" prompt is 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 click **OK** to return to the patient's VDL.

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

Scanning and Verifying Medication Information (cont.)

If User Attempts to Take Action on an Administration with an Unknown Action Status

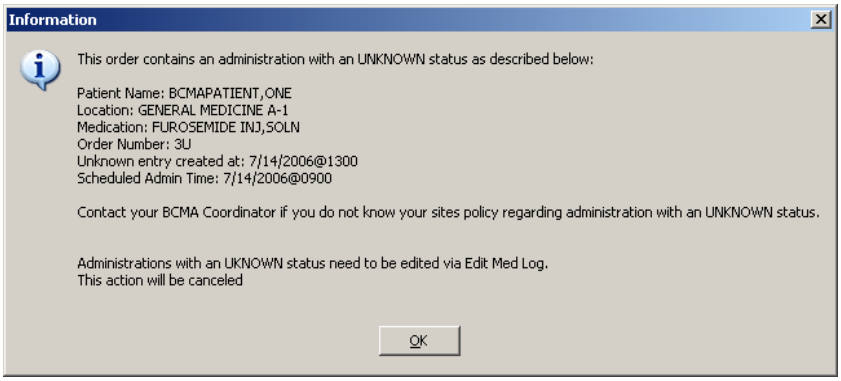
The Informational message, provided below, displays if the user attempts to administer or take action on an administration whose status is "Unknown." The user must confirm the message by clicking **OK**, but the action will be cancelled. Users are required to resolve the status of the administration using the Edit Med Log option.

To review the Error message

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

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

Example: Information Message for Unknown Action Status -- Administration Cancelled



2 Proceed to the Edit Med Log option to resolve the status of the administration.

Note: For information on using the Edit Med Log option, please refer to the chapter entitled, "Editing the Medication Log."

Scanning and Verifying Medication Information (cont.)

If User Attempts to Take Action on an Order that Contains an Administration with an Unknown Action Status

The informational message, provided below, displays if the user starts to administer or take action on an order in which one of the administrations associated with that order has an "Unknown" status. The user can choose to acknowledge the message and proceed with the administration or cancel the action.

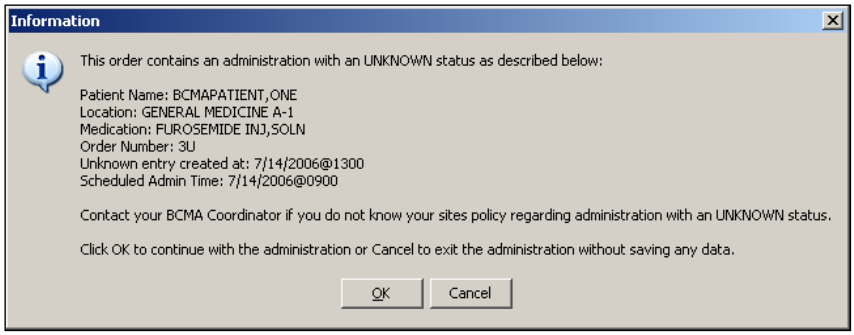
To review the Error message

1. Review the Error message, and perform one of the following actions:
   - To continue with the administration, click **OK**.
   - To cancel the administration without saving, click **CANCEL**. To resolve the status of the associated administration, use the Edit Med Log option.

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

Note: For information on using the Edit Med Log option, please refer to the chapter entitled, "Editing the Medication Log."

Example: Information Message for Unknown Action Status with Option to Continue Administration



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

Unable to Scan IVP/IVPB Medication

TIP:

You can report scanning failures without interrupting the medication administration process..

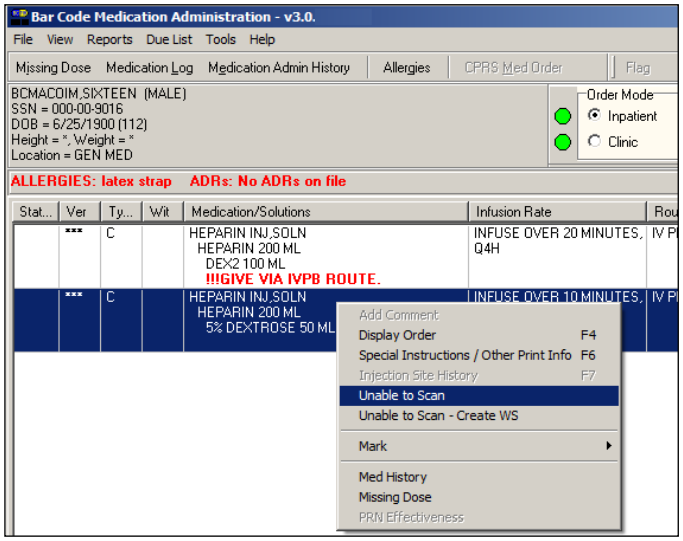
In the event of a medication scanning failure, you can use the Unable to Scan feature to administer IV Push and IV Piggyback medications. Since IV Push orders that display on the IVP/IVPB tab are treated as unit dose orders, the Unable to Scan IVP medication process is essentially the same as for unit dose medications. IV Piggyback orders displayed on the IVP/IVPB tab may be administered through the Unable to Scan option if the bags are labeled and sent from Pharmacy or via the Unable to Scan – Create WS option if the bag is to be administered as a Ward Stock.

To administer an IVP/IVPB medication using Unable to Scan

1 From the IVP/IVPB tab, select an administration for an IVP/IVPB order. Then select the Unable to Scan command from the right-click or the Due List menu.

Note: The Unable to Scan – Create WS is disabled and not applicable to IVP orders.

Example: Unable to Scan Right Click Option for IV Push Administration



If Non-Nurse Verified Orders Site Parameter "Prohibit Administration" is selected

The Error Message: "Order NOT Nurse-Verified! DO NOT GIVE!" displays.

Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVP/IVPB medication using Unable to Scan (cont.)

- Click **OK** to acknowledge the message and click **OK** at the "Order Administration Cancelled" dialog to acknowledge the cancellation and return to the VDL without administering the medication.

If Non-Nurse Verified Orders Site Parameter "Allow Administration with Warning" is selected,

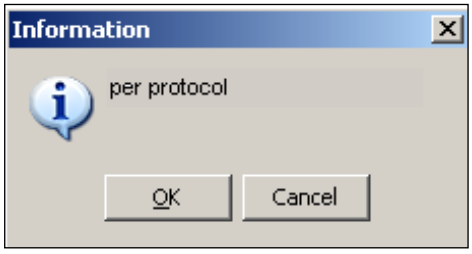
The Warning Message: "Order NOT Nurse-Verified! Do you want to continue?" displays.

- Click **OK** to acknowledge that the order has not been nurse verified to continue the administration. Or, click **Cancel** to display the "Order Administration Cancelled" dialog then click **OK** to acknowledge the cancellation and return to the VDL.

Note: Check your site policy to determine the correct workflow for verifying the order in CPRS.

2 If applicable, the Other Print Info message displays. Review the Information message and click **OK** to continue.

Example: Other Print Info Message

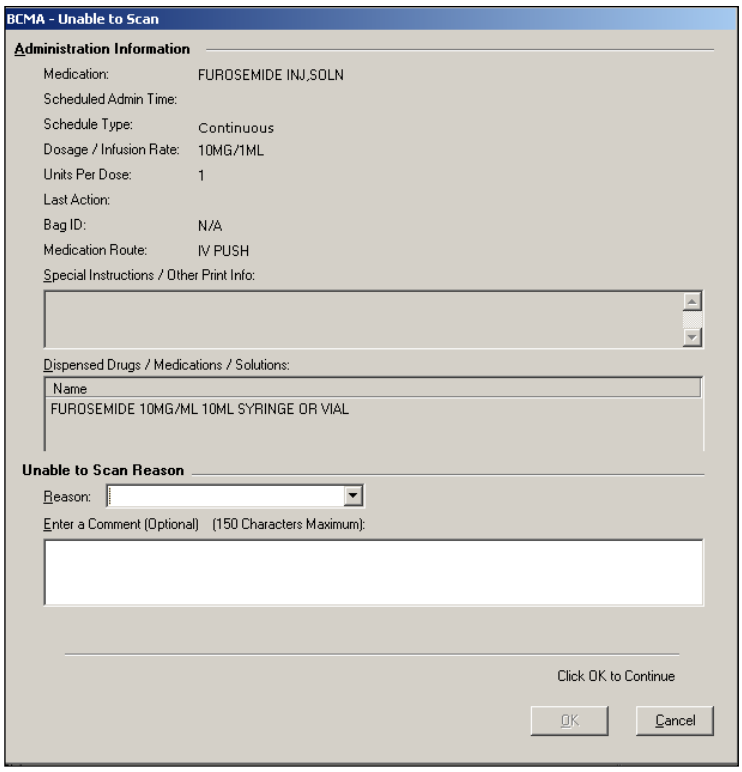


3 From the Unable to Scan dialog box, verify the administration information displayed at the top of the Unable to Scan dialog box including: Medication, Scheduled Admin Time, Schedule Type, Dosage/Infusion rate, units Per Dose, Last Action, Bag ID, Medication Route, and Dispensed Drugs/Medications/Solutions.

Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVP/IVPB medication using Unable to Scan (cont.)

Example: Unable to Scan Dialog Box for IV Push Administration

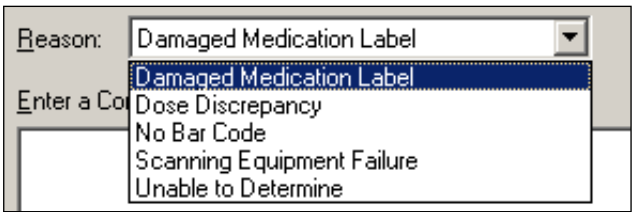


TIP:

If the Scanning failure is not an equipment problem, you can scan the problematic bar code directly into the Comment field. This may help your IRM and Pharmacy staff zero in on the source of the problem more quickly.

4 Select an "Unable to Scan Reason" from the drop-down list box. Selections include: Damaged Medication Label, Dose Discrepancy, No Bar Code, Scanning Equipment Failure, and Unable to Determine.

Example: Unable to Scan Medication Reasons



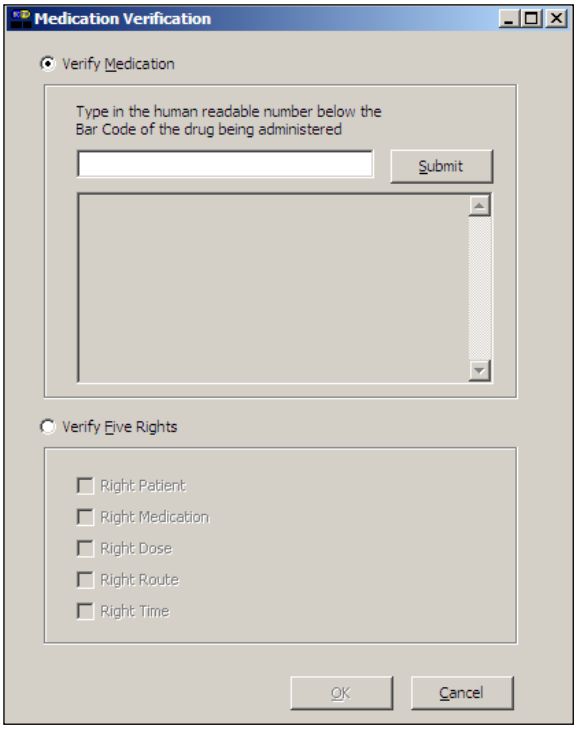
Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVP/IVPB medication using Unable to Scan (cont.)

Note: If you click **Cancel** at any point in the Unable to Scan process, the Unable to Scan event is not logged, an email is not sent, and the "Order Administration Cancelled" message displays. Click **OK** to return to the VDL

5 You may enter an optional text comment. Click **OK**. The Medication Verification dialog box displays with the Verify Medication option selected by default.

Example: Medication Verification Dialog Box (Verify Medication Option)



6 Perform one of the following actions:

- To verify the IVP medication being administered, enter the Drug IEN or the National Drug Code from the medication package into the entry field.
- To verify the IVPB medication being administered, enter the bag number that is printed on the label into the entry field.

Note: When entering the IEN or NDC number, remember that no letters, spaces, or punctuation marks are allowed.

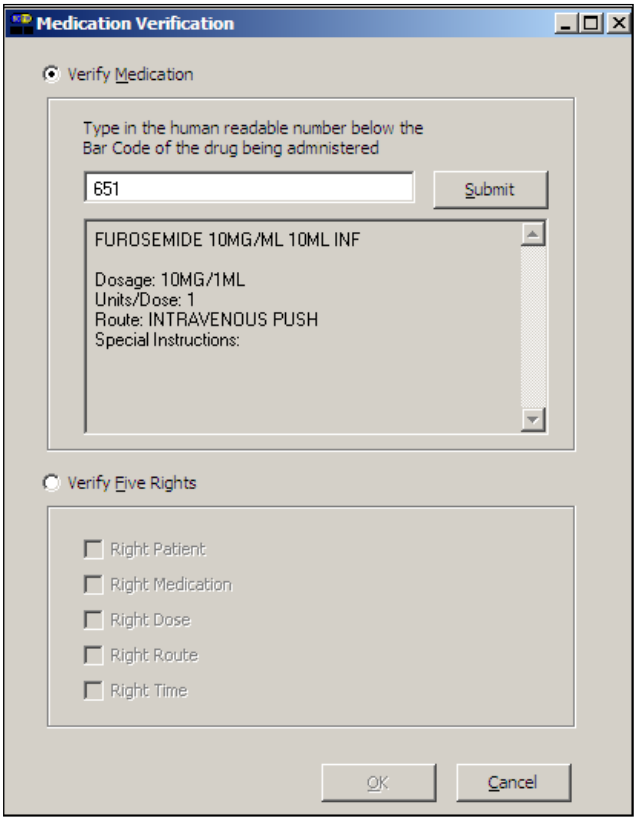
Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVP/IVPB medication using Unable to Scan (cont.)

7 Click **Submit**.

- If the number entered matches the dispense drug being administered for the selected order, the medication, dosage, units, route and special instructions will display. Verify that the information displayed matches the order. For IVPB orders, the IV bag components Confirmation dialog box displays, confirming the additives and solutions.

Example: Medication Verification Dialog Box (Verify Medication Option)



- If the number entered does not match the dispense drug being administered for the selected order:
  - An "Invalid Medication – Do not Give" error message displays. Click **OK** to return to the Medication Verification dialog box. You may reenter the bar code number to try again.

Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVP/IVPB medication using Unable to Scan (cont.)

Example: Error Message When Drug IEN Code Not Found

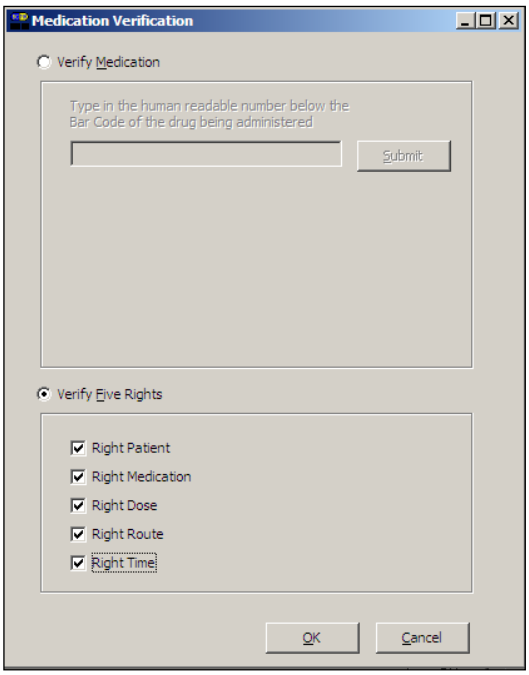
- If the number entered does not match, or the bar code number is not readable, or there is no label, you may select the Verify Five Rights option. Place a checkmark in each of the five checkboxes to document that the five rights of medication administration have been physically verified (right patient, right medication, right dose, right route, right time) and continue with the medication administration without entering a matching bar code number for the medication.

Note: This option is only available if the Five Rights Override Parameter is enabled for unit dose medications in the BCMA Site Parameters application. If the Five Rights Override Parameter is turned off, you will not be able to administer the medication. Refer to your site policies regarding how to contact pharmacy to address the problem.

Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVP/IVPB medication using Unable to Scan (cont.)

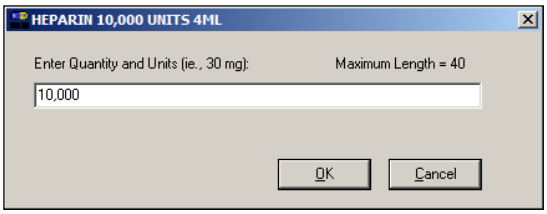
Example: Medication Verification Dialog Box (Verify Five Rights Option)



8 Review the contents of the Medication Verification dialog box and perform one of the following actions:

- Click **OK** to continue with the administration. The Quantity and Units dialog box displays for IVP orders.
- Click the **Cancel** button to cancel the Unable to Scan process without documenting the administration. The Unable to Scan event will not be recorded, nor will a MailMan message be sent.

Example: Quantity and Units Dialog Box



Unable to Scan IVP/IVPB Medication (cont.)

TIP:

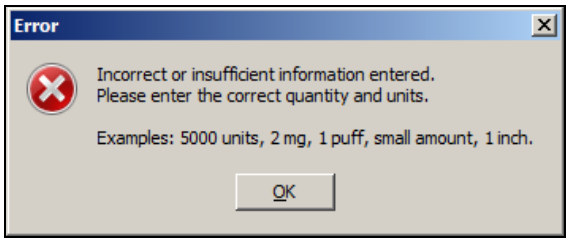
Email messages will be sent to the Unable to Scan email group that is defined in the BCMA Site Parameters application.

To administer an IVP/IVPB medication using Unable to Scan (cont.)

Note: BCMA will test for scanning of data into the Quantity and Units Dialog Box. The following criteria are tested and any input that matches is rejected: Integer only; a long numeric string that is out of range for an integer; an IV bag number – nnnVnn where n is a numeric digit; and number and units – nnnnnU or nnnnn U where n is a numeric digit. A single U is also rejected.

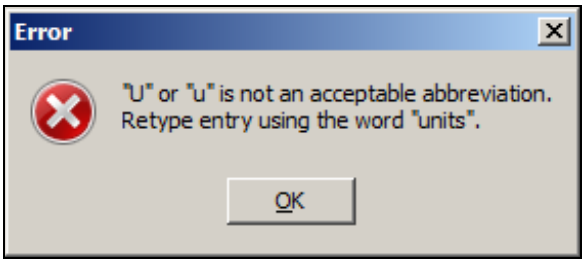
If a match is found for any of the first four conditions, BCMA will display the following error message.

Example: Quantity and Units Error Message



If 'U' or 'u' is entered, BCMA will display the following error message.

Example: Quantity and Units Error Message

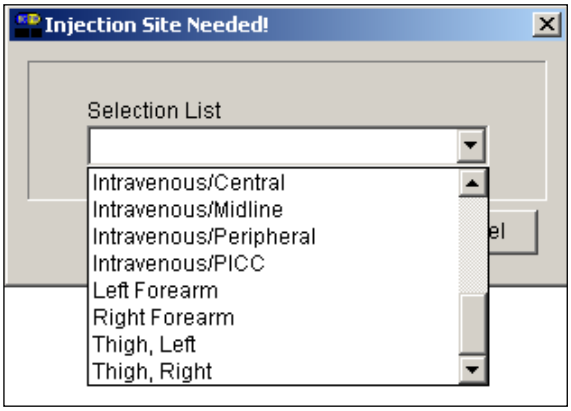


Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVP/IVPB medication using Unable to Scan (cont.)

9 If applicable, enter the quantity and units of the medication that you are administering to the patient and click **OK**. The Injection Site Selection dialog box displays.

Example: Injection Site Selection Dialog Box



Note: See note concerning "**Expanded Injection Site Needed Dialog**" for selecting the patient's injection site from the Expanded Injection Site Needed Dialog Box.

10 In the Injection Site Selection drop-down list box, select the location where you are injecting the medication into the patient.

11 Click **OK** to complete the Unable to Scan process and return to the VDL. BCMA processes the information and displays the letter "G" (for Given") in the Status column to document that you administered the medication to the patient. The Unable to Scan event is recorded, and a MailMan message is sent notifying IRM/Pharmacy staff of the medication bar code scanning failure.

Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVP/IVPB medication using Unable to Scan (cont.)

MailMan Message Sent After Medication Bar Code Scanning Failure

When you create a medication scanning failure entry, a MailMan message will be sent to the mail group you specified. The subject line of the message will indicate a medication scanning failure. The body of the message will contain the following information:

- User: Last name, First Name (for identifying system issues only/educational needs)
- Date/Time of event
- Patient: Last Name, First Name, and last four digits of patient's Social Security Number.
- Order Number
- Ward Location/Room
- Type of Bar Code issue: Medication
- Medication
  - Unit Dose orders will display dispense drug; drug IEN; dosage ordered
  - IV Orders will display: unique ID (Bag ID typed by User or Ward Stock); orderable item.
- Reason for scan failure
- User's comment

Note: Inclusion of the last four digits of the patient's SSN is currently allowed in VistA clinical alert messaging. If there are changes to this policy due to a future VHA directive, the format of this field is subject to change.

Unable to Scan IVP/IVPB Medication (cont.)

TIP:

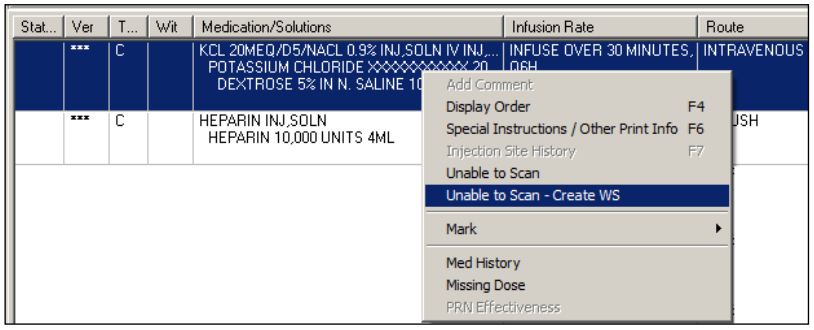
You can report scanning failures without interrupting the medication administration process.

If you experience a medication scanning failure while trying to administer a Ward Stock IV Piggyback medication, use the Unable to Scan – Create WS feature.

To administer an IVPB medication using Unable to Scan – Create WS

1 From the IVP/IVPB tab, select an administration for an IV Piggyback order. Then select the **Unable to Scan – Create WS** command from either the right click or the Due List menu.

Example: Unable to Scan – Create WS Right Click Option



2 If there are several orders for the same medication, the Multiple Orders for Scanned Drug dialog box will display. Select the appropriate order.

If Non-Nurse Verified Orders Site Parameter "Prohibit Administration" is selected

The Error Message: "Order NOT Nurse-Verified! DO NOT GIVE!" displays.

- Click **OK** to acknowledge the message and click **OK** at the "Order Administration Cancelled" dialog to acknowledge the cancellation and return to the VDL without administering the medication.

Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVPB medication using Unable to Scan – Create WS (cont.)

If Non-Nurse Verified Orders Site Parameter "Allow Administration with Warning" is selected

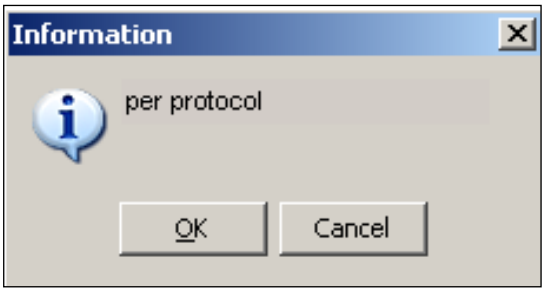
The Warning Message: "Order NOT Nurse-Verified! Do you want to continue?" displays.

- Click **OK** to acknowledge that the order has not been nurse verified and to continue the administration or click **Cancel** to display the "Order Administration Cancelled" dialog then click **OK** to acknowledge the cancellation and return to the VDL.

Note: Check your site policy to determine the correct workflow for verifying the order in CPRS.

3 If applicable, the Other Print Info message displays. Review the Information message and click **OK** to continue.

Example: Other Print Info Message

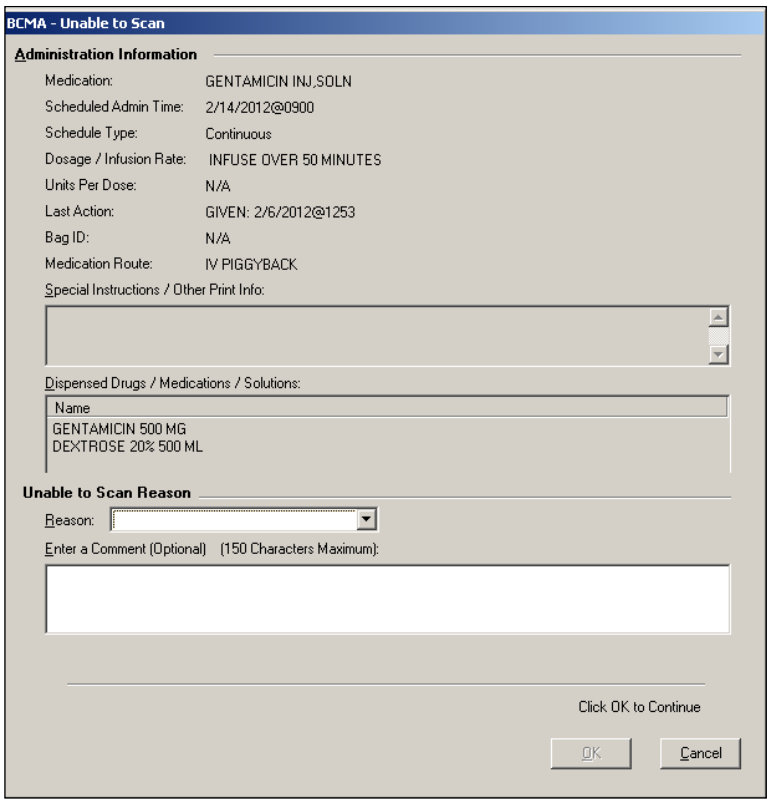


4 From the Unable to Scan dialog box, verify the administration information displayed at the top of the Unable to Scan dialog box including: Medication, Scheduled Admin Time, Schedule Type, Dosage/Infusion rate, units Per Dose, Last Action, Bag ID, Medication Route, and Dispensed Drugs/Medications/Solutions.

Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVPB medication using Unable to Scan – Create WS (cont.)

Example: Unable to Scan Dialog Box for an IV Piggyback Order

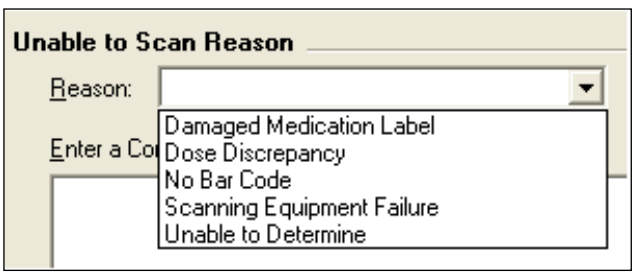


TIP:

If the Scanning failure is not an equipment problem, you can scan the problematic bar code directly into the Comment field. This may help your IRM and Pharmacy staff zero in on the source of the problem more quickly.

5 Select an "Unable to Scan Reason" from the drop-down list box. Selections include: Damaged Medication Label, Dose Discrepancy, No Bar Code, Scanning Equipment Failure, and Unable to Determine.

Example: Unable to Scan Medication Reasons



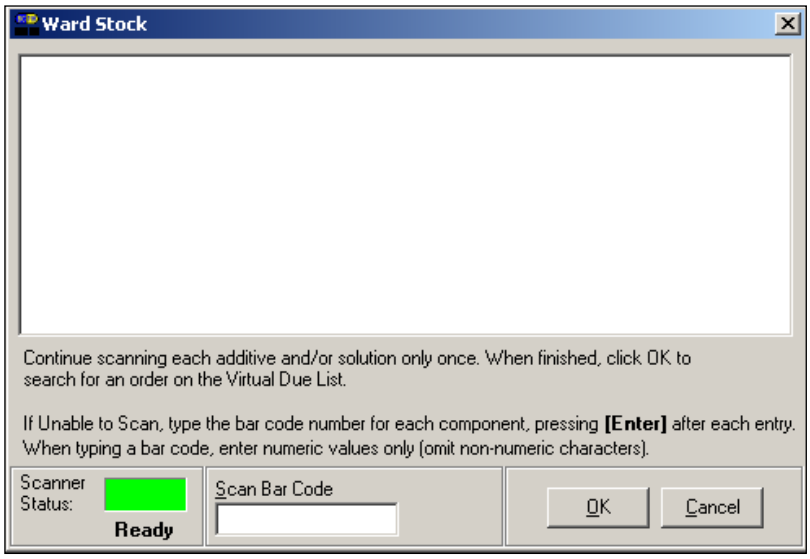
Unable to Scan IVP/IVPB Medication (cont.)

To administer an IVPB medication using Unable to Scan – Create WS (cont.)

Note: If you click **Cancel** at any point in the Unable to Scan process, the Unable to Scan event is not logged, an email is not sent, and the "Order Administration Cancelled" message displays.

6 You may enter an optional text comment. Click **OK**. The Ward Stock dialog box displays.

Example: Ward Stock Dialog Box



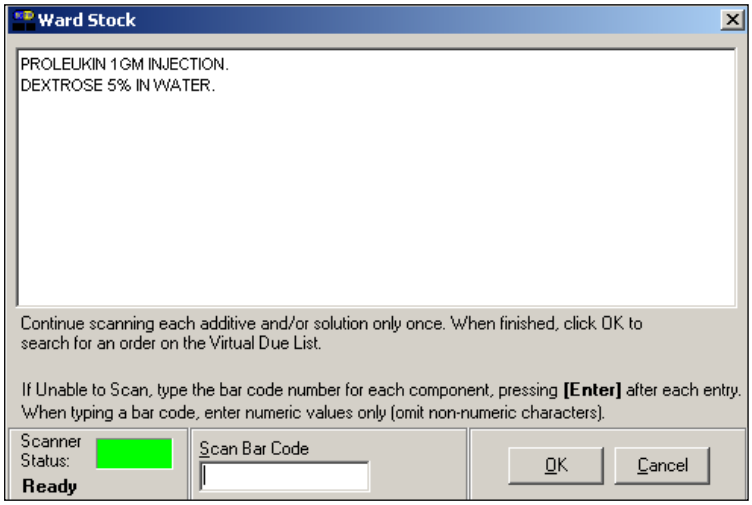
7 Enter the Drug IEN or the National Drug Code from the medication package for each Additive and Solution in the order in the Scan Bar Code field. Press **Enter** after each entry.

Note: When entering a bar code number, remember that no letters, spaces or punctuation marks are allowed.

Unable to Scan IVP/IVPB Medication (cont.)

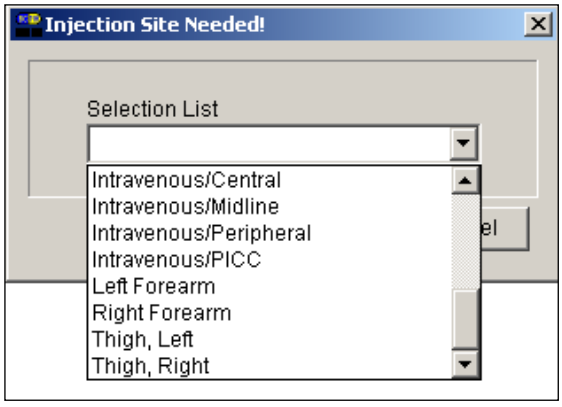
To administer an IVPB medication using Unable to Scan – Create WS (cont.)

Example: Ward Stock Dialog Box



8 Verify the information in the Ward Stock dialog box. It should contain all of the correct additives and solutions for the selected order. Click **OK**. The Injection Site Selection dialog box displays.

Example: Injection Site Selection Dialog Box



Note: See note concerning "Expanded Injection Site Needed Dialog" for selecting the patient's injection site from the Expanded Injection Site Needed Dialog Box

9 In the Injection Site Selection drop-down list, select the location where you are injecting the medication into the patient.

Unable to Scan IVP/IVPB Medication (cont.)

TIP:

Email messages will be sent to the Unable to Scan email group that is defined in the BCMA Site Parameters application.

To document an IVPB medication using Unable to Scan – create WS (cont.)

10 Perform one of the following actions:

- Click **OK** to complete the Unable to Scan process and continue with the administration. Upon completing the administration you will return to the VDL. BCMA processes the information and displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient. The Unable to Scan event is recorded, and a MailMan message is sent notifying IRM/Pharmacy staff of the medication bar code scanning failure.
- Click the **Cancel** button to cancel the Unable to Scan process without documenting the administration. The Unable to Scan event will not be recorded nor will a MailMan message be sent.

MailMan Message Sent After Medication Bar Code Scanning Failure

When you create a medication scanning failure entry, a MailMan message will be sent to the mail group you specified. The subject line of the message will indicate a medication scanning failure. The body of the message will contain the following information:

- User: Last name, First Name (for identifying system issues only/educational needs)
- Date/Time of event
- Patient: Last Name, First Name, and last four digits of patient's Social Security Number
- Order Number
- Ward Location/Room
- Type of Bar Code issue: Medication
- Medication
  - Unit Dose orders will display dispense drug; drug IEN; dosage ordered
  - IV Orders will display: unique ID (Bag ID typed by User or Ward Stock); orderable item
- Reason for scan failure
- User's comment

Note: Inclusion of the last four digits of the patient's SSN is currently allowed in VistA clinical alert messaging. If there are changes to this policy due to a future VHA directive, the format of this field is subject to change.

Administering an Order with Multiple Admin Times

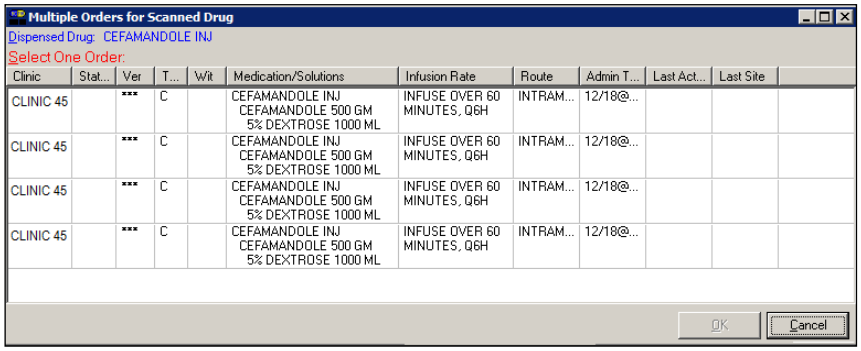
The Multiple Orders for Scanned Drug dialog box, provided below, displays *only* if the patient's order has multiple administration times for the medication that you scanned — using the Start and Stop time setting on the BCMA VDL.

To administer an order with multiple administration times

1. Select the order containing the administration time that you need, and click **OK**. BCMA processes the information and 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 press **ENTER** to accept the selection and display the patient's VDL.

Example: Multiple Orders for Scanned Drug Dialog Box



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

Note: Non-Nurse Verified messages will follow this dialog after an order is selected.

Administering an Order with Special Instructions / Other Print Info

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.

Special Instructions messages may include a sliding scale range written by the provider, so that you know how much insulin to administer to the patient, based on the patient's blood sugar level. Other examples include when to call the doctor, when to hold the medication based on patient vitals, and when to use standard protocols.

The title bar of the Special Instructions pop-up box reflects the type of information contained in the dialog, Special Instructions or Other Print Info. The default size of the Special Instructions / Other Print Info pop-up box is approximately 80 characters wide with a minimum height of 6 lines. The width cannot be changed, and the height will automatically resize to accommodate the length of the message. If the vertical height of the message exceeds the size of the screen, a vertical scroll bar displays.

If the total height of the administration row including Special Instructions / Other Print Info is equal to or greater than 19 lines, the following message displays in place of Special Instructions (bold red text): "**Too much information to display. Use right-click menu to display full text.**"

The following methods for displaying Special Instructions / Other Print Info are provided on all three medication tabs:

- Right-click menu option entitled "Special Instructions / Other Print Info."
- Due List Menu option entitled "Special Instructions / Other Print Info."
- Shortcut function key (F6)

The following dialog boxes display Special Instructions / Other Print Info:

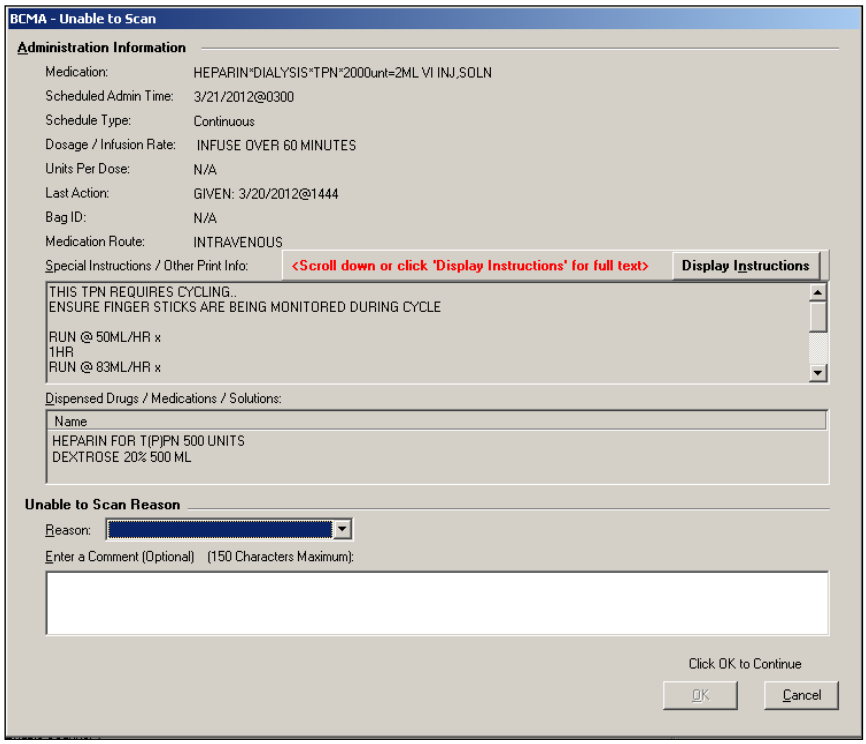
- PRN Effectiveness Log
- PRN Medication Log
- Unable to Scan
- Medication Log
- Multiple/Fractional Dose

Administering an Order with Special Instructions / Other Print Info.(cont.)

The vertical height of the Special Instructions / Other Print Info display in the above dialog boxes is 6 lines. If text exceeds 6 lines, a scroll bar and "Display Instructions" button appear, and the following message displays in bold red text: "**<Scroll down or click 'Display Instructions' for full text>.**" When the "Display Instructions" button is clicked, Special Instructions/Other Print Info will display in the pop-up.

Following is an example of the Unable to Scan dialog box with Special Instructions text that exceeds 6 lines.

Example: Unable to Scan Dialog Box



To review Special Instructions from the Pharmacy

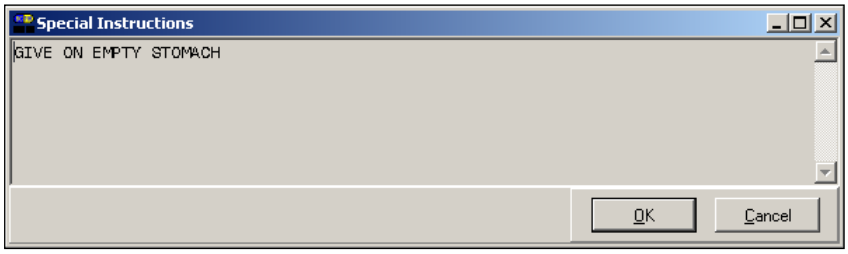
1 Review the Information message from the Pharmacy, and click **OK** to return to the patient's VDL.

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

Administering an Order with Special Instructions / Other Print Info.(cont.)

To review Special Instructions from the Pharmacy (cont.)

Example: Special Instructions Pop-up Box



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

Specifying the Medication Quantity and Units Given

TIP:

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

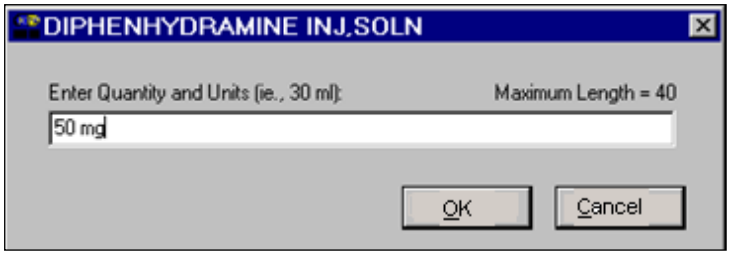
The Quantity and Units dialog box, provided below, displays when the medication order does not include the words "CAP" or "TAB" in the "DOSAGE ORDERED:" prompt of the patient's order from Inpatient Medications V. 5.0.

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 click **OK**. The maximum character length is 40. BCMA processes the information and 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 press **ENTER** to continue.

Example: Quantity and Units Dialog Box



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

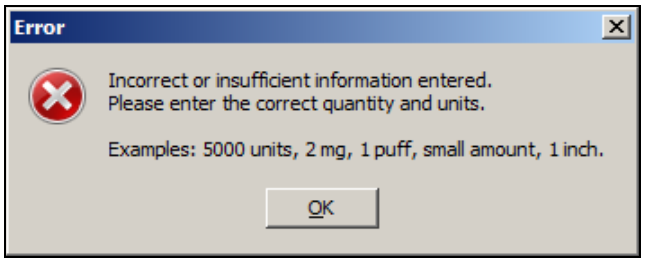
Note: BCMA will test for scanning of data into the Quantity and Units Dialog box. The following criteria are tested and input that matches is rejected: Integer only; a long numeric string that is out of range for an integer; an IV bag number – nnnVnn where n is a numeric digit; and number and units – nnnnnU or nnnnn U where n is a numeric digit. A single U is also rejected.

Specifying the Medication Quantity and Units Given (cont.)

To specify medication quantity and units given to patient (cont.)

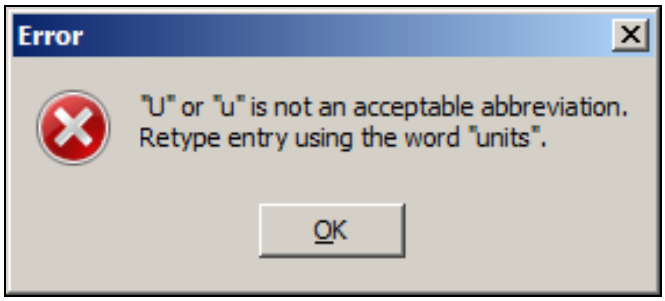
If a match is found for any of the first four conditions, BCMA will display the following error message.

Example: Quantity and Units Error Message



If 'U' or 'u' is entered, BCMA will display the following error message.

Example: Quantity and Units Error Message



Specifying the Injection Site for the Medication

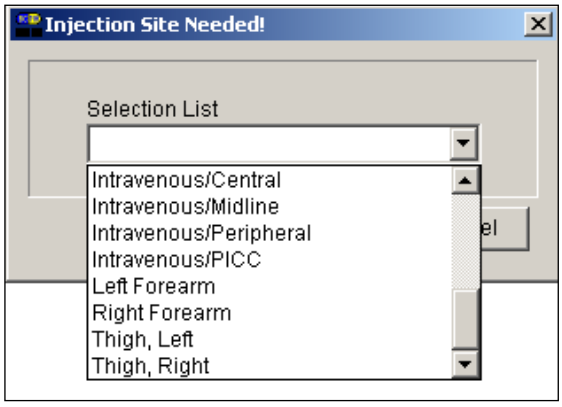
The Injection Site Selection dialog box, provided below, displays when an IV Push or IV Piggyback medication is injectable and when "PROMPT FOR INJ. SITE IN BCMA" is specified as "YES" in the MEDICATION ROUTES file (#51.2) for a particular route other than Intramuscular, Intradermal, or Subcutaneous. When prompted for the injection site, 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 click **OK**. BCMA processes the information, and 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 press **ENTER** to continue.

Example: Injection Site Selection Dialog Box



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

Specifying the Injection Site for the Medication (cont.)

TIP: If the administration is on the IVP/IVPB tab, the "PROMPT FOR INJ SITE IN BCMA" must be specified as "YES" in the MEDICATION routes file (#51.2) for the administration's medication route.

Note: At some facilities, pharmacists may choose to finish certain injectable medication orders (such as concentrated Insulin or Haldol) as an intermittent syringe, so that the medication will be drawn up in pharmacy and packaged with a patient and order specific label. This results in non-IV route injections displaying on the IVP/IVPB tab. When one of these orders is administered, the expanded Injection Site Needed dialog displays along with a required acknowledgement of the route. In addition, the injection site will display in the Last Site column for these administrations.

When you administer orders on the IVP/IVPB tab with a medication route of Intramuscular, Intradermal, or Subcutaneous, an expanded "Injection Site Needed" dialog displays showing injection site history and requiring acknowledgement of the medication route prior to selecting the injection site location. Use this important information to determine the next injection site location on the patient, based on the previous injection sites shown for the selected orderable item, and all injection sites used for the patient within the timeframe indicated.

To specify an injection site for the medication

1. In the lower left of the dialog, a checkbox is displayed with the statement: "I acknowledge this medication to be administered via route: _____." The medication route is displayed in bold uppercase red text. Confirm the statement by checking the checkbox.
2. In the Select Injection Site drop-down list box, select the location where you are injecting the medication into the patient, and click **OK**. BCMA processes the information and displays the letter "G" (for "Given") in the Status column to document that you administered the medication to the patient.

Note: The OK button remains disabled until the checkbox is checked, and an injection site is selected.

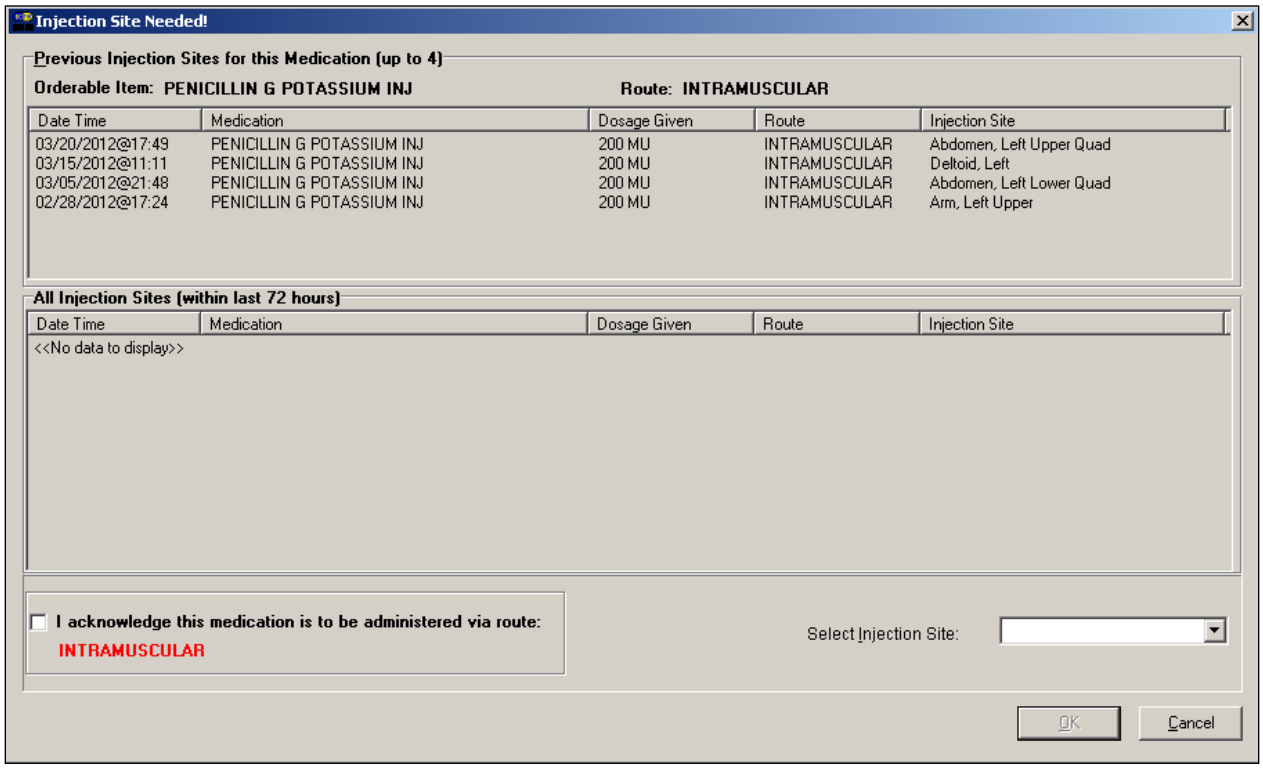
Keyboard Shortcut: Use the **ARROW** keys to select an injection "site" in the drop-down list box. Press **TAB** to activate the OK button, and press **ENTER** to continue.

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

Specifying the Injection Site for the Medication (cont.)

To specify an injection site for the medication (cont.)

Example: Expanded Injection Site Needed Dialog (invoked from IVP/IVPB tab)



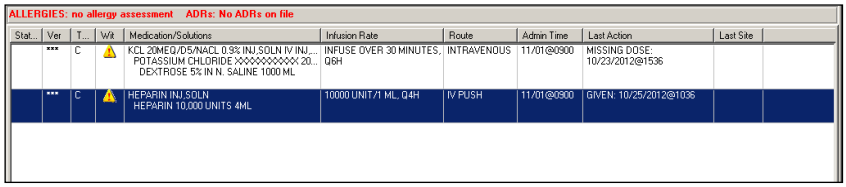
Note: The above dialog only displays from the IVP/IVPB tab.

Displaying the Injection Site for the Medication

TIP:
If the administration is on the IVP/IVPB tab, the "PROMPT FOR INJ SITE IN BCMA" must be specified as "YES" in the MEDICATION routes file (#51.2) for the administration's medication route.

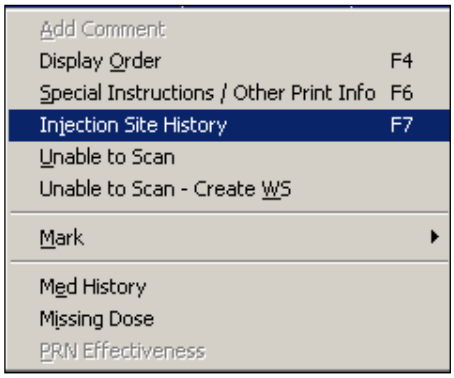
To assist you in rotating injection sites for applicable orders, the Last Site column on the VDL indicates the location of the last injection site for the orderable item shown, and is only applicable to administrations that participate in injection site rotation. When BCMA "refreshes" it updates this column.

Example: Last Site Column

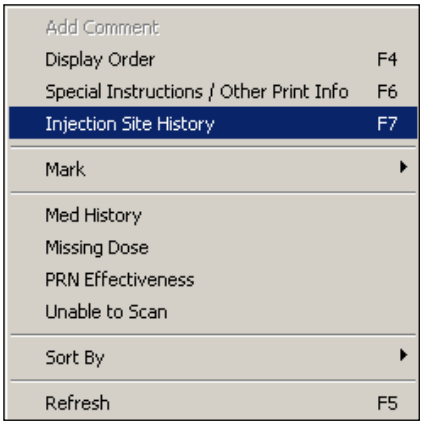


BCMA provides multiple ways to display the Injection Site History for administrations that participate in injection site rotation. This option is available on the Right-Click men, Due List menu, or by using the F7 hotkey.

Example: Right-Click Menu



Example: Due List Menu



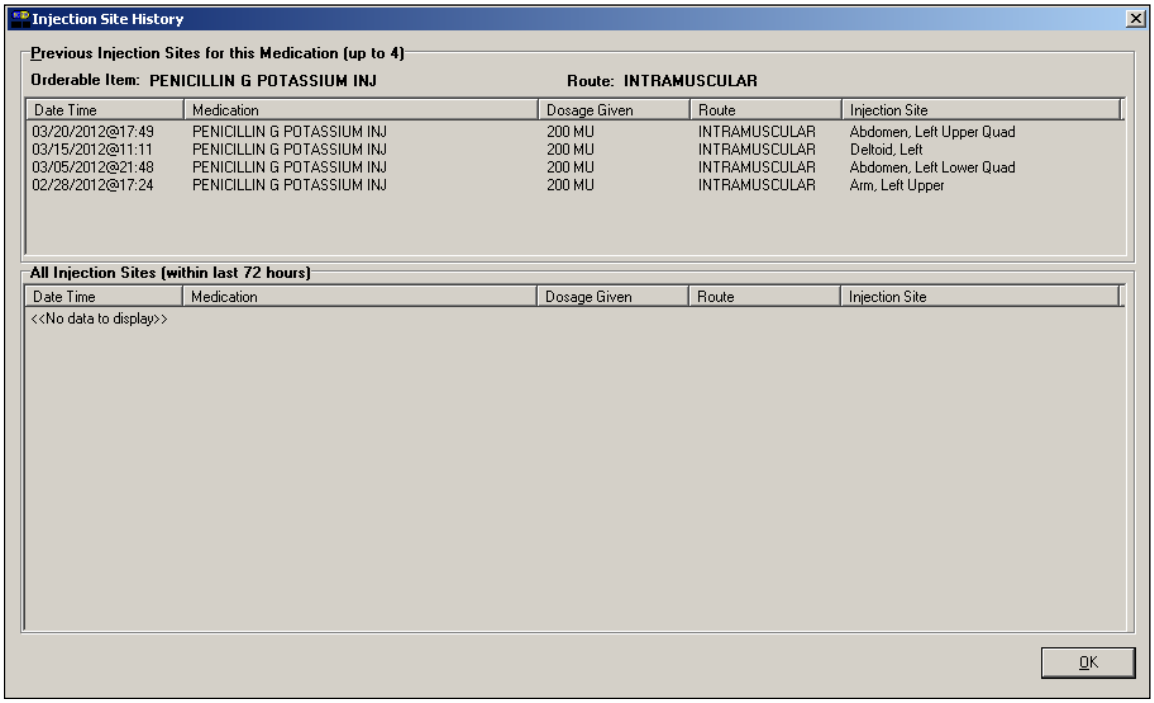
Displaying the Injection Site for the Medication (cont.)

The Injection Site History Dialog provides two tables: Previous Injection Site for this Medication Table and All Injection Sites Table. The name of the Orderable Item and the Route are shown above the top table.

- The Previous Injection Sites for this Medication Table (up to 4) shown at the top lists up to the last four injection sites for the orderable item, displayed without time limits.
- The All Injection Sites Table (within last nn hours) shown at the bottom, lists all injection site entries for the patient within the time frame (nn) specified by the BCMA Site Parameter, "Injection Site History Max Hours." The default is 72 hours.
- The following data are displayed in each table: Date Time, Medication (Orderable item name), Dosage Given, Route, and Injection Site sorted in reverse date/time order.

Note: If no data exists for the table, the message "<<No data to display>>" appears.

Example: Injection Site History Dialog



Administering a PRN Order

TIP:

If no administration times are listed in the PRN 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 PRN Medication Log dialog box, provided below, displays when you administer a PRN medication to a patient. BCMA checks for an active order, and 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.

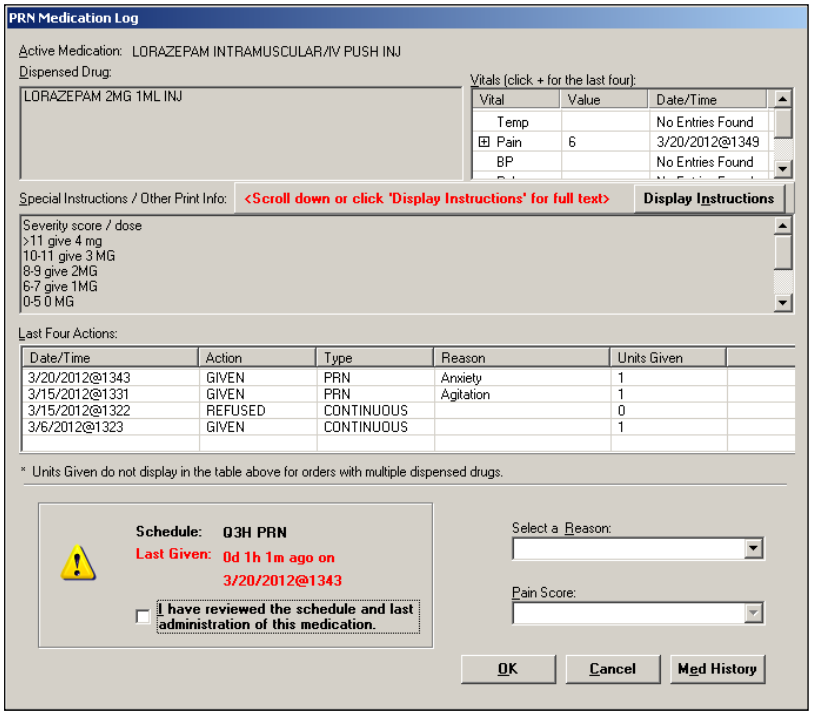
The dialog box also includes the Vitals area, which can display the four previous vitals entries for each of the Vital signs listed in the area. The "+" sign, to the left of a Vital sign, expands the row to reveal additional entries. The "-" sign collapses the row to hide all but the most recent entry.

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: PRN Medication Log Dialog Box



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 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 press **ENTER** to continue.

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

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 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.

Recording the Effectivness 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.

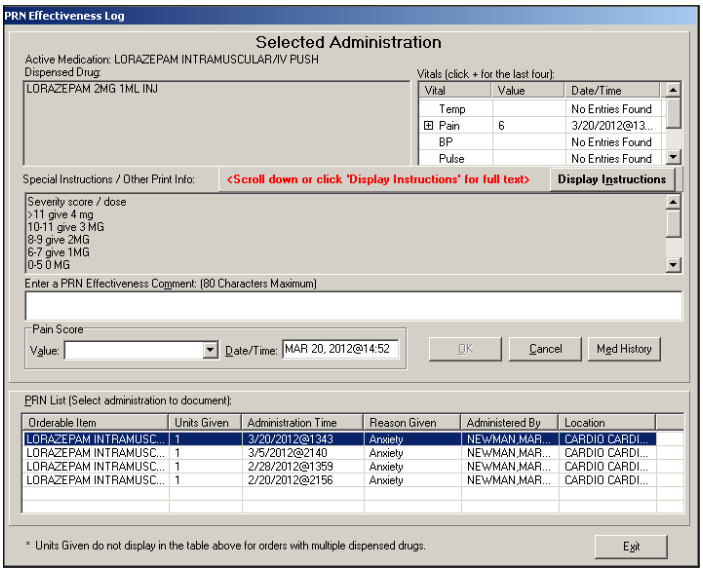
TIP:

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.)

4 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



5 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.

6 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.

7 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 press **ENTER** to continue.

Administering a Medication 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.

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.

To administer a medication early to a patient (only applicable to Inpatient administrations)

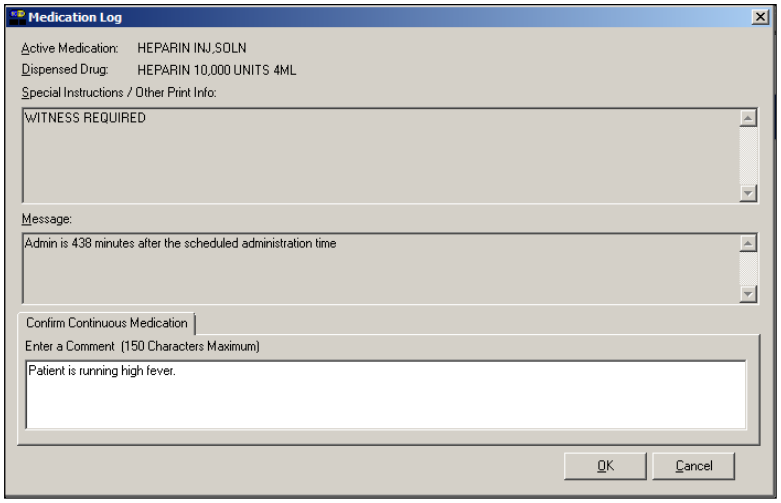
1 In the Comments area of the Message Log dialog box, specify the reason that you are administering the medication early to the patient, and click **OK**. BCMA processes the information and displays the letter "G" (for "Given") in the Status column to document that you administered the medication to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

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

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.

Example: Medication Log Dialog Box for Early Dose

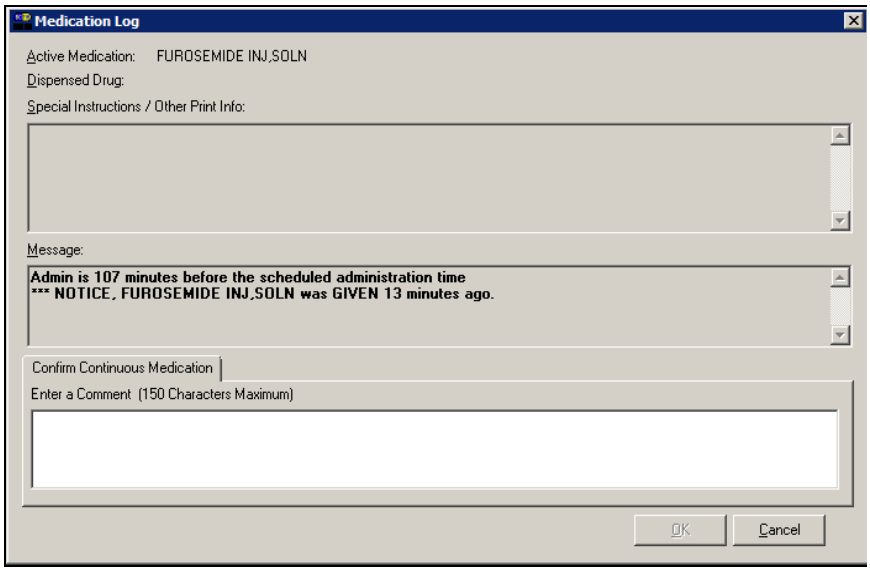


2 Continue administering active IV Push or IV Piggyback medications to the patient.

Administering a Medication Early (cont.)

Note: If the medication has been already given within the last 120 minutes, whether administered in Inpatient or Clinic order mode, a notice displays in the message box, indicating how long ago the medication was given. This is based on the orderable item for the medication. Example: *** NOTICE, FUROSEMIDE INJ, SOLN was GIVEN 13 minutes ago.

Example: Message when Medication Already Given



Administering a Medication 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.

TIP:

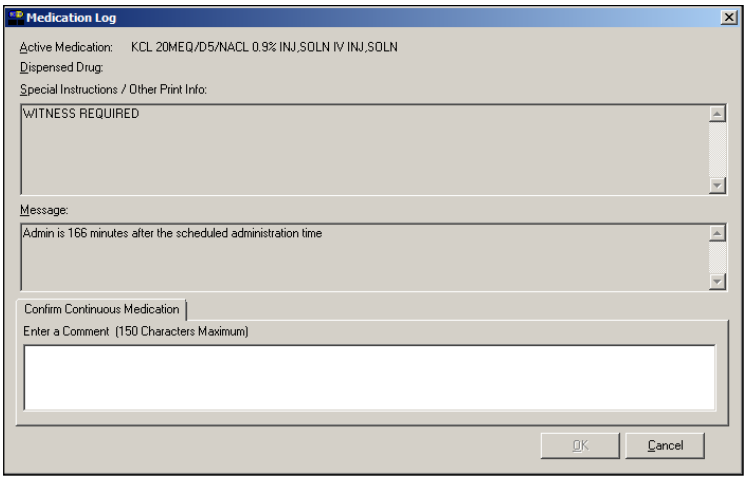
BCMA will *not* mark the medication as Given (with a "G"), in the Status column of the VDL, until you enter a "Comment" in the Medication Log dialog box.

To administer a medication late to a patient (only applicable to Inpatient administrations)

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 click **OK**. BCMA processes the information and 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 press **ENTER** to continue.

Example: Medication Log Dialog Box for Late Dose



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

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.

Changing the Status of an IVP or IVPB Medication

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" by using the "Undo–Given" option – 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
- Held to Refused

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.

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 Right Click or Due List menu. The Mark drop-down menu displays with the "actions" available for this medication.

TIP:

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

Note: Held and Refused IV bags as well as IV bags marked as Missing Dose can be set to the infusing state via scanning and via the Unable to Scan process.

Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and 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 displays a letter in the Status column of the BCMA VDL to document the action taken on the medication.

TIP:

An "Unknown" status can only be changed to Given, Not Given, Held, or Refused– using the Edit Med Log option.

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.

Adding Comments to a Patient's Medication Record

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 Right Click or Due List menu. The Medication Log dialog box displays.

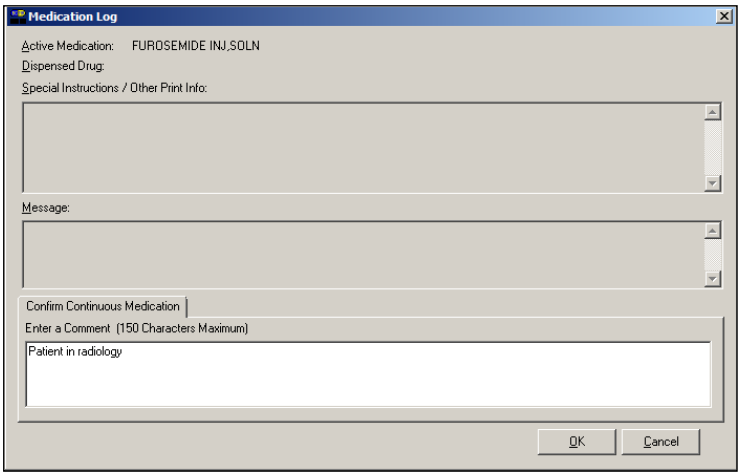
Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and press **A** to display the Medication Log dialog box.

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

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.

Example: Medication Log Dialog Box



4. Click **OK** once you've read your entry and are satisfied with it.

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

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.)

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

```
==========================================================================================
Medication Log Report for Jul 07, 2016@00:01 to Jul 07, 2016@24:00
Include Inpatient and Clinic Orders
Continuing/PRN/Stat/One Time Medication/Treatment Record (Detailed Log) (VAF 10-2970 B, C, D)
Run Date: JUL 08, 2016@14:35
Log Type: INDIVIDUAL PATIENT
Page: 1

Patient:  TESTPATNM,THREE          SSN:       000-00-0000          DOB:   OCT 10,1945 (70)
Sex:      FEMALE                   Ht/Wt:     */*                  Ward:  GEN MED Rm:
Dx:       ANEMIC                   Last Mvmt: DEC 16,2014@17:50    Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  POLLEN, STRAWBERRIES
==========================================================================================
Location
Activity Date   Orderable Item                   Action Action
Start Date>     [Dose/Sched/Route/Body Site]     By     Date/Time       Drug/Additive/Solution
Stop Date<
------------------------------------------------------------------------------------------
   3E NORTH
07/07/16 09:10  WARFARIN [2MG Q4H PO]
                ARM, LEFT]                       RG     07/07/16 09:10
                                                        Given
------------------------------------------------------------------------------------------
   3E NORTH
07/07/16 09:05  NICOTINE [1 24H  Derm Site:
                ARM,LEFT UPPER]                  RG     07/07/16 21:08
                                                        Removed
                                                 RG     07/07/16 09:05
                                                        Given
7/02/16 09:00>                                                          NICOTINE 11MG/24HR PATCH

1.00    1.00 PATCH
                Comments:     07/07/16 09:05  NSS   Test patch administration comments
                              07/07/16 21:08  NSS   Removed:
                Witnessed by: BCMA,NURSE MGR on 7/7/16@09:06
7/10/16 08:00<
```

Commen
entered b
a clinicia

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

Marking Single Administration as Held or Refused

You can mark single administrations, 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 single administrations as Held or Refused

1 Select the administration you want to mark as Held or Refused.

Note: The options available on the Mark menu will depend on the current Status and Type of medication order. PRN administrations cannot be marked as Held or Refused.

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

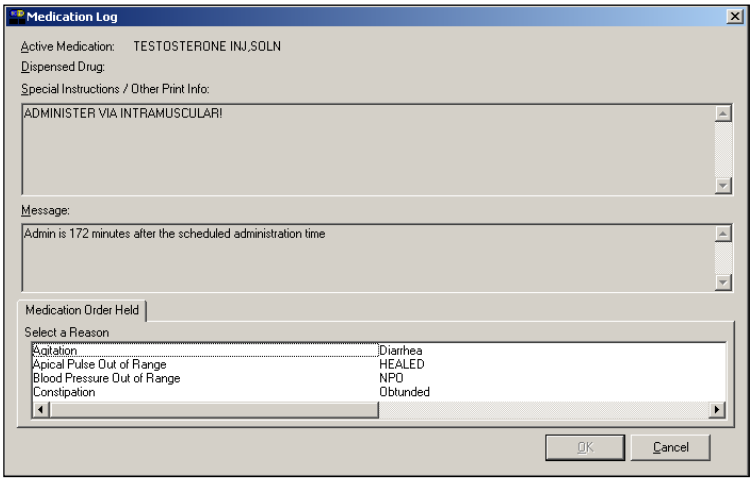
Keyboard Shortcut: Press **ALT+D** to display the Due List menu, and press **M** to display the Mark drop-down menu.

3 Select Held or Refused from the Mark menu.

If a Warning message indicates that the order is not nurse verified, see section entitled, "If 'Allow Administration with Warning' or 'Prohibit Administration' parameter option is selected."

4 Select a Reason from the List on the Medication Log and click **OK**. BCMA processes the information and displays a letter in the Status column of the BCMA VDL to document the action taken on the medications.

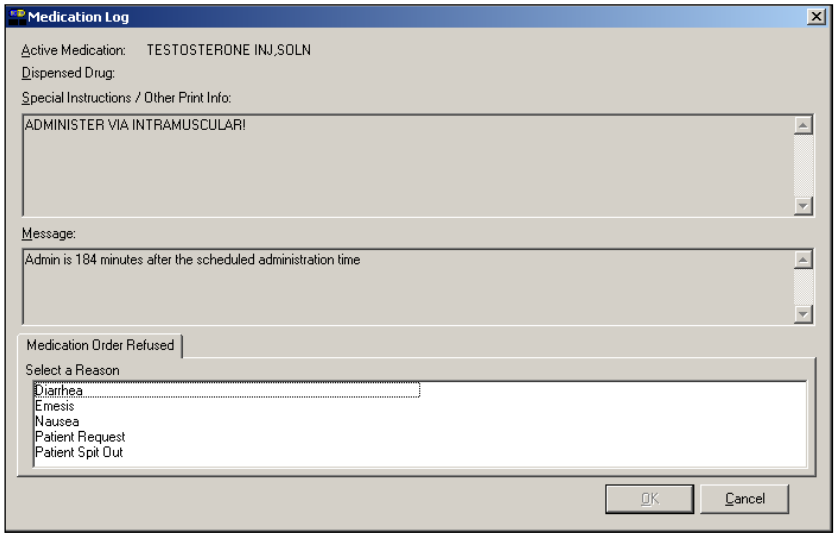
Example: Medication Log when Medication Order is Marked Held



Marking Single Administration as Held or Refused (cont.)

To mark single administrations as Held or Refused (cont.)

Example: Medication Log when Medication Order is Marked Refused



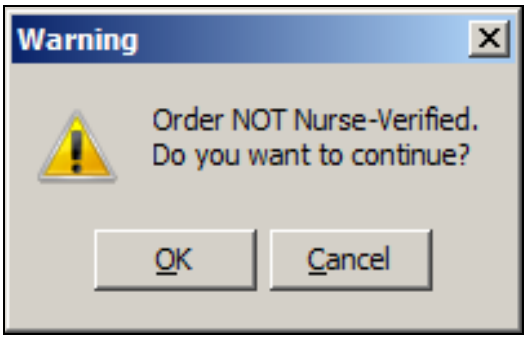
5 Continue administering active IV Push or IV Piggyback medications to the patient.

Marking Single Administration as Held or Refused (cont.)

To mark single administrations as Held or Refused (cont.)

If "Allow Administration with Warning" or "Prohibit Administration" parameter option is selected

Example: Warning Message when Marking Single Non-Nurse Verified Administration as Held or Refused



- Click **OK** to continue the selected action. The Medication Log with Held or Refused reasons will display as appropriate to the workflow for the selected action.
- Click **Cancel** to return to the VDL.

Marking Multiple Administrations as Held or Refused

You can select and mark multiple medications, for the patient, as "Held" or "Refused" on the BCMA VDL. This feature is particularly helpful for marking several administrations at once, for example, 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.

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.

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 Right Click or 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 press **M** to display the Mark drop-down menu.

3 Select Held or Refused from the Mark menu.

If a Warning message indicates that the order is not nurse verified, see section entitled, "If 'Allow Administration with Warning' or 'Prohibit Administration' parameter option is selected."

4 Select a Reason from the List on the Medication Log and click **OK**. BCMA processes the information and displays a letter in the Status column of the BCMA VDL to document the action taken on the medications.

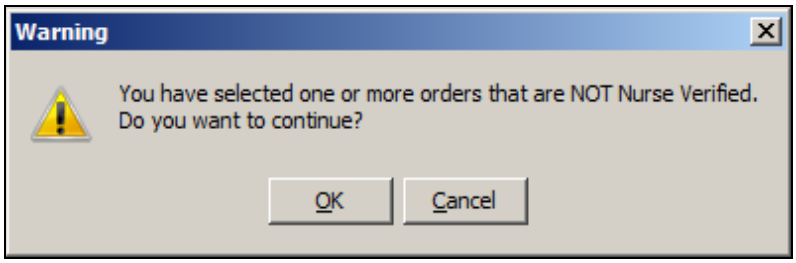
5 Continue administering active IVP/IVPB medications to the patient.

Marking Multiple Administrations as Held or Refused (cont.)

To mark multiple medications on the VDL (cont.)

If "Allow Administration with Warning" or "Prohibit Administration" parameter option is selected

Example: Warning Message when Marking Multiple Non-Nurse Verified Administrations as Held or Refused



- Click **OK** to continue the selected action. The Medication Log with Held or Refused reasons will display as appropriate to the workflow for the selected action.
- Click **Cancel** to return to the VDL.

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 Right Click or Due List menu.

If an Error or Warning message indicates that the order is not nurse verified, see section entitled, "If "Allow Administration with Warning" or "Prohibit Administration" parameter option is selected."

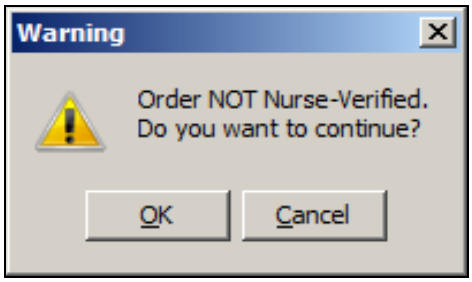
Keyboard Shortcut: Press ALT+D to display the Due List menu, and press i (not "L") to display the Missing Dose Request dialog box.

Submitting a Missing Dose Request (cont.)

To submit a Missing Dose Request (cont.)

If Non-Nurse Verified Orders Site Parameter "Allow Administration with Warning" is selected the following warning message displays.

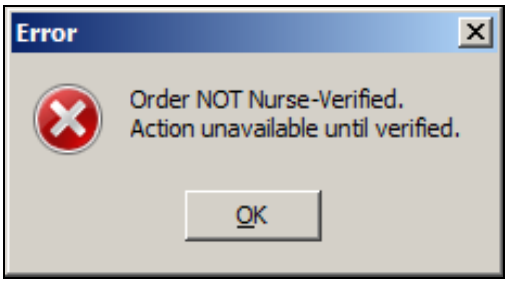
Example: Warning Message when submitting Missing Dose Request for Non-Nurse Verified Administration



- Click **OK** to acknowledge that the order has not been nurse verified. The Missing Dose Request dialog box will display. You may continue submitting the Missing Dose Request for the non-nurse verified order.
- Click **Cancel** to cancel the request.

If Non-Nurse Verified Orders Site Parameter "Prohibit Administration" is selected, the following error message displays.

Example: Error Message when submitting Missing Dose Request for Non-Nurse Verified Administration



- Click **OK** to return to the VDL without submitting the Missing Dose Request.

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:

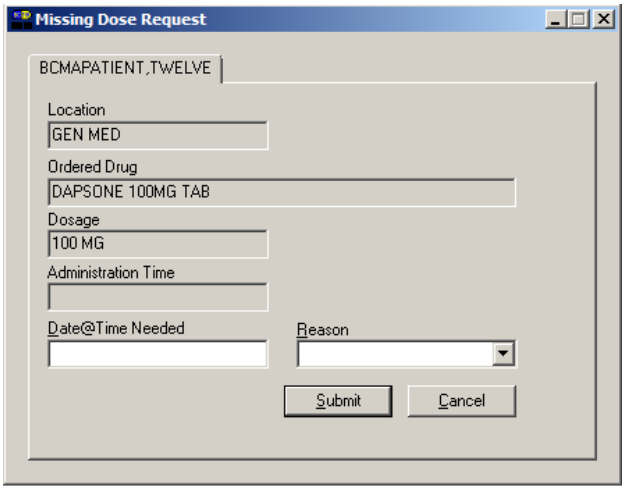
Enter "N" (for NOW) if you want BCMA to automatically enter the current date and time in the dialog box for you when you move to the Reason drop-down list box.

To submit a Missing Dose Request (cont.)

Note: Check your site policy to determine the correct workflow for verifying the order in CPRS.

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. The Location field will reflect whether the patient is located in a ward or clinic.

Example: Missing Dose Request Dialog Box



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, 2010, 01 MAY 10, 5/01/10, 050110
- 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.

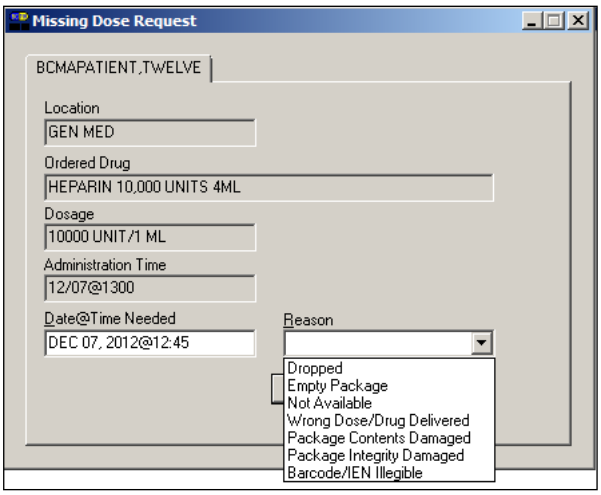
Submitting a Missing Dose Request (cont.)

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



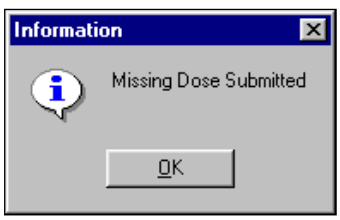
6 Verify the information in the dialog box and click **SUBMIT** to send the request to the Pharmacy, where it prints on a predefined printer. An Information message displays. A MailMan message will also be sent to a mail group if predefined using the GUI BCMA Site Parameters application.

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

Note: Refer to Manager's Manual to see how Missing Dose Request printers are configured in Inpatient and Clinic settings.

7 Read the Information message, and click **OK**. BCMA processes the request, and 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.

Displaying Clinic Orders in BCMA

TIP:

As a ward nurse, you can distinquish between Inpatient orders and Clinic orders in BCMA, so that you can view and administer inpatient medications using BCMA.

TIP:

As a clinic nurse, you can distinquish between Inpatient orders and Clinic orders in BCMA, so that you can view and administer clinic medications using BCMA.

BCMA displays clinic orders on the Cover Sheet, Unit Dose, IVP/IVPB and IV tabs. You may select between two mutually exclusive "Order Modes." See the following Inpatient/Clinic Order Mode Indicators Table for an explanation of possible display combinations.

Inpatient/Clinic Order Mode Indicators Table

Order Mode (•) Inpatient ( ) Clinic	No active Inpatient orders exist for this patient. No active Clinic orders exist for this patient. There are no discontinued/expired orders, in either mode, on which action can be taken. Inpatient Order Mode is selected.
Order Mode ( ) Inpatient (•) Clinic	No active Inpatient orders exist for this patient. No active Clinic orders exist for this patient. There are no discontinued/expired orders, in either mode, on which action can be taken. Clinic Order Mode is selected.
Order Mode (•) Inpatient ( ) Clinic	Active Inpatient orders exist for this patient and/or there are discontinued/expired Inpatient orders on which action can be taken. No active Clinic orders exist for this patient and there are no discontinued/expired Clinic orders on which action can be taken. Inpatient Order Mode is selected.
Order Mode ( ) Inpatient (•) Clinic	No active Inpatient orders exist for this patient and there are no discontinued/expired Inpatient orders on which action can be taken. Active Clinic orders exist for this patient and/or there are discontinued/expired Clinic orders on which action can be taken. Clinic Order Mode is selected.
Order Mode (•) Inpatient (•) Clinic	Active Inpatient orders exist for this patient and/or there are discontinued/expired Inpatient orders on which action can be taken. Active Clinic orders exist for this patient and/or there are discontinued/expired Clinic orders on which action can be taken. Inpatient Order Mode is selected.
Order Mode ( ) Inpatient (•) Clinic	Active Inpatient orders exist for this patient and/or there are discontinued/expired Inpatient orders on which action can be taken. Active Clinic orders exist for this patient and/or there are discontinued/expired Clinic orders on which action can be taken. Clinic Order Mode is selected.

Viewing a Patient's Clinic Order Medications

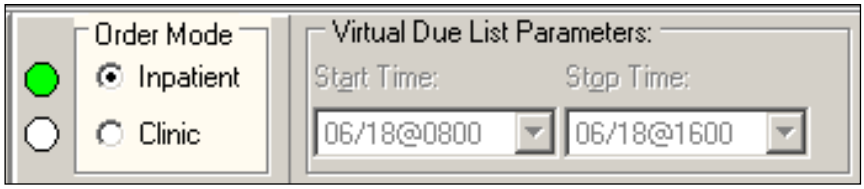
When Patient Status is Admitted

The system selects a default order mode based on the patient admission status when the patient record is opened. If the patient is admitted to a ward, BCMA selects the Inpatient order mode. An indicator displays next to the Inpatient order mode, showing green, when active inpatient orders exist for the patient and/or an action can be taken on an expired or discontinued order or white when no active clinic orders exist.

When the Inpatient order mode is selected, the Order Mode indicator shows Inpatient orders exist, and the Virtual Due List Parameters section displays.

Displaying Clinic Orders in BCMA (cont.)

Example: Inpatient Order Mode Selected

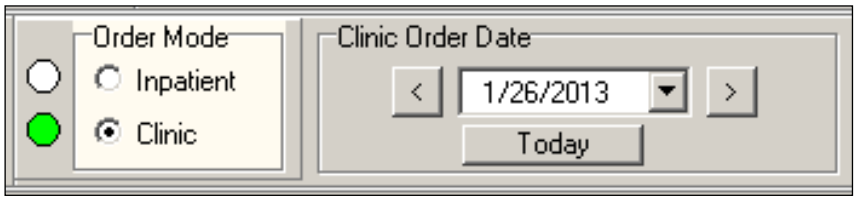


When Patient Status is Not Admitted

If the patient status is not admitted, the system defaults to the Clinic order mode. An indicator displays next to the Clinic order mode, showing green when active clinic orders exist for the patient or white when no active clinic orders exist.

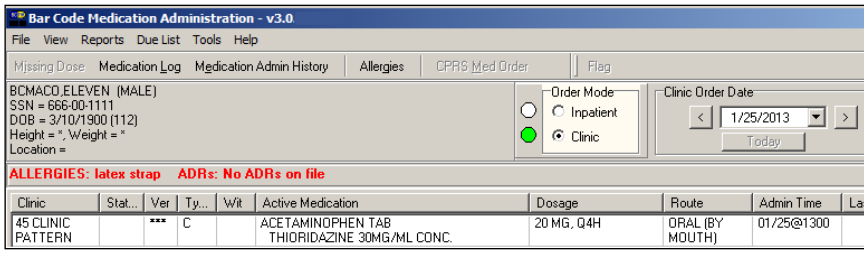
When Clinic mode is selected, the order mode indicator shows Clinic orders exist, and the Clinic Order Date area replaces the Virtual Due List Parameters area on the screen. Only clinic medication orders display on the Cover Sheet, Unit Dose, IVP/IVPB and IV tabs.

Example: Clinic Order Mode Selected



In the Clinic order mode, the column entitled "Clinic" displays the clinic name associated with the order on the Cover Sheet, Unit Dose, IVP/IVPB and IV tabs. The HSM column is removed from the Unit Dose tab. "Location" is blank for patients that are not admitted.

Example: Clinic Column



Displaying Clinic Orders in BCMA (cont.)

Note: If "AUTO-DC IMO ORDERS?" is set to "Yes" in the CLINIC DEFINITION (#53.46) file when a Clinic patient is admitted, Active Unit Dose and IVP/IVPB Clinic orders are discontinued, at which point they will not display on the VDL, except for Expired/Discontinued Patch orders that display for the number of days defined by the "Patch Display Duration" parameter or until removed by a nurse.

If "AUTO-DC IMO ORDERS?" is set to "No" in the CLINIC DEFINTION (#53.46) file, when a Clinic patient is admitted, Unit Dose and IVP/IVPB Clinic orders will remain displayed on the VDL in Clinic Order Mode.

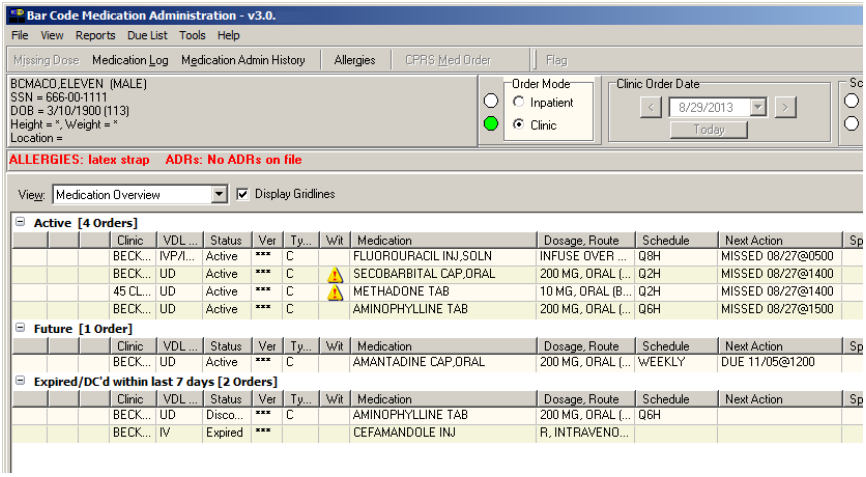
TIP:
The clinic column appears to the extreme left on the VDL.

Displaying Clinic Orders on the Cover Sheet

When Clinic order mode is selected, only Clinic Orders are displayed on the Medication Overview, PRN Overview, IV Overview, and Expired/DC'd/Expiring view of the Cover Sheet. When Clinic order mode and Cover Sheet are selected, the Clinic order date, calendar, navigation arrows, and Today button are disabled. When Clinic order mode is selected and focus goes from the Cover Sheet back to a medication tab (UD, IVP/IVPB), the Clinic order date field, Today button, and navigation arrows are re-enabled, and the previous date selected is active.

If you switch between Inpatient and Clinic order mode while on the cover sheet tab, the Medication Overview view displays as the initial default view. If you select Medication Overview or PRN Overview, orders that have expired or have been discontinued within the last 7 days are displayed in the Expired/DC'd orders section.

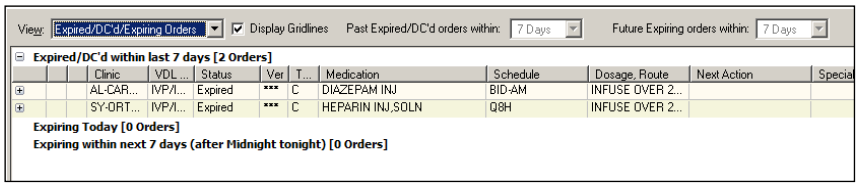
Example: Clinic Mode and Cover Sheet (Medication Overview)



Displaying Clinic Orders in BCMA (cont.)

If you select the Expired/DC'd/Expiring orders view, orders that have expired or have been discontinued within the last 7days are displayed in the Expired/DC'd orders section. Orders expiring within the next 7 days are displayed in the Expiring within next 7 days orders section.

Example: Clinic Mode and Cover Sheet (Expired/DC'd/Expiring Orders)



Note: The system ignores the parameters for Allowable Time Limits (Before Scheduled Admin Time and After Scheduled Admin Time) when displaying clinic orders on the cover sheet.

Note: Orders associated with outpatient clinics, that are not technically "Clinic Orders," will display in the Inpatient Order Mode in BCMA. Clinic Orders display within the Clinic Order Service in the Orders tab in CPRS.

The following BCMA Clinic Order definitions only apply to the BCMA VDL, not the Cover Sheet:

- ACTIVE ORDERS only display in BCMA Clinic order mode, if the order is active relative to TODAY, meaning the Order Start Date must be less than or equal to TODAY, and the Order Stop Date must be greater than or equal to TODAY.
- FUTURE ADMINISTRATIONS only display in BCMA Clinic order mode for an ACTIVE ORDER, as defined above, for a date in the future, only if the schedule and admin time matches the selected Clinic Order Date. You can take an action on a future Administration on an ACTIVE ORDER.
- PAST ADMINISTRATIONS only display in BCMA Clinic order mode for an ACTIVE ORDER, as defined above, for a date in the past, only if the schedule and admin time matches the selected Clinic Order Date. You can take an action on a PAST ADMINISTRATION on an ACTIVE ORDER.
- FUTURE ORDERS should never display in BCMA Clinic order mode since the order start date is greater that TODAY and you cannot take an action on a FUTURE ORDER.

Administering a Patient's Clinic Order Medications

Administering Clinic Orders in BCMA

You can access the BCMA VDL to view and administer clinic medications that are due each day. You can see active clinic orders that were due prior to today so that you can administer medications to a patient who arrives late for an appointment. You can also see active clinic orders that are due after today, so that you can administer medications to a patient who arrives early for an appointment.

You can access all features of the cover sheet for either clinic orders or inpatient orders, and then switch between inpatient and clinic orders while displaying the cover sheet.

The Clinic Order Date defaults to today's date, regardless of whether there are active orders to be administered today. If no active clinic orders display on the Unit Dose or the IVP/IVPB tabs for the selected date and/or selected schedule types, the following message displays on the VDL: "There are no administrations to display, based on your current Clinic Order Date and/or Schedule Type selections."

Display Alerts

The following alerts pertain to clinic order administrations and display in the Medication Log dialog prior to administration:

- An alert displays on the Medication Log dialog, requiring a comment, if you attempt to administer a clinic medication on a day other than the scheduled day.
- An alert, "You are about to give a medication that is scheduled for <Future Date>" in bold text in the Medication Log dialog message box, if you attempt to administer a clinic medication for a future administration of an active order. A comment is required before you are allowed to continue.
- An alert, "You are about to give a medication that was scheduled for <Past Date>" in bold text in the Medication Log dialog message box if you attempt to administer a clinic medication for a past administration of an active order. A comment is required before you are allowed to continue.
- An alert also displays on the Medication Log dialog, if you attempt to administer a medication (Orderable Item) that was already given within the last 120 minutes, whether the medication was given in Inpatient or Clinic order mode.

Note: The parameters for Allowable Time Limits (Before Scheduled Admin Time and After Scheduled Admin Time) are ignored when displaying and administering clinic orders on the VDL, meaning that alerts are not displayed when clinic orders are administered early or late.

Administering Clinic Orders in BCMA (cont.)

TIP:
As a Clinic nurse, BCMA alerts you when you attempt to administer a clinic medication on a day other than today to help prevent errors.

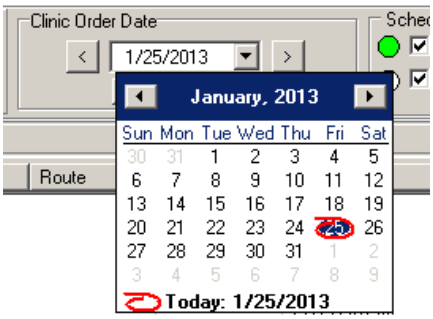
TIP:
BCMA alerts you when you attempt to administer a medication that was already given within the last 120 minutes.

To Administer Clinic Orders in BCMA

1 In the Clinic Order Date area on the Unit Dose and IVP/IVPB tabs of the BCMA VDL, select a single clinic date to display, using the left and right arrows in the pop-up calendar. Or you can click the drop-down arrow to the right of the date to display the calendar pop-up.

When you open a patient record, the Clinic Order date defaults to TODAY.

Example: Clinic Order Date Selection



2 A "Today" button allows you to return to today's date while in Clinic order mode. The button is enabled when the Clinic Order Date is set to a date other than today's date, and you have selected the Unit Dose or IVP/IVPB tab. It is disabled when the Clinic Order Date is set to today's date.

Example: Clinic Order "Today" Button

3 After a date is selected, all active Clinic Orders for the patient are displayed for a 24 hour period on the selected date (0001 to 2359), based on the Clinic Order's start date, stop date, schedule, and admin times.

Administering Clinic Orders in BCMA (cont.)

Note: Clinic orders, for which the Order Start Date/Time is in the future, do not display on the VDL.

Once a date is selected, and orders that are due are displayed, the administration workflow continues, such that you can scan the medication to be given or use Unable to Scan functionality.

Actions taken (Status) on non-PRN clinic order administrations on PREVIOUS or FUTURE DATES remain displayed on the VDL, as long as the order is still active, even after refresh.

After you refresh, the "Given" status of all PRN clinic orders (administered TODAY, administered on PREVIOUS dates, or administered on FUTURE dates) is cleared.

Note to BCMA Coordinators: The system excludes Unable to Scan data logging functionality when BCMA Clinic Orders are administered. Clinic patients may be retrieved using Unable to Scan functionality in the GUI, but Unable To Scan events for retrieval of clinic patients are not logged. Clinic medications may be administered using Unable to Scan functionality in the GUI, but Unable To Scan events for administration of medications are not logged. Unable to Scan Detailed and Summary reports only include data for Inpatient administrations.

Working with Large Volume IV Clinic Orders

TIP:
As a Ward nurse who has a patient who just came up from PACU or ED, where an IV bag was infused, you can go to the Clinic mode and mark the IV bag as completed.

You can see all available IV bags on active IV orders for both Inpatient and Clinic orders to infuse, monitor or take action on the bags as needed.

IV bags on active clinic orders for bags that have not been completed, display on the VDL until they are marked as completed. IV bags on Expired/Discontinued Clinic orders that have not been completed, display on the VDL for a maximum of 7 days or until they are marked as completed.

When you are in the Clinic order mode and select the IV tab:

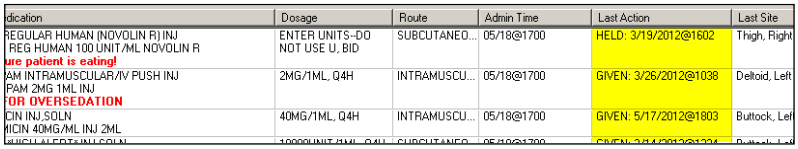
- The Clinic Order Date Selection field, navigation arrows, and Today button are disabled, as date selection and navigation are not applicable to large volume IV orders.
- Active IV Clinic orders display based on the order's start date/time and stop date/time.
- Expired IV Clinic orders no longer display unless the bag is still infusing or stopped.
- You may complete infusing IV bags on expired orders, regardless of whether they were infused in a Clinic or an Inpatient location.
- Clinic order IV bags only display on Expired/Discontinued IV Clinic orders if an IV bag on the order is Stopped or Infusing for a maximum of 7 days, or until you complete them.
- You may infuse or take action on bags on active IV orders and on Expired/Discontinued IV orders in both Clinic and Inpatient order modes.
- If "AUTO-DC IMO ORDERS?" is set to "Yes" in the CLINIC DEFINITION (#53.46) file, when a Clinic patient is admitted:
    - Active IV Clinic orders are discontinued.
    - Infusing and Stopped IV bags on Expired/Discontinued orders remain displayed in the clinic order mode for a maximum of 7 days, or until you complete them.
- If "AUTO-DC IMO ORDERS?" is set to "No" in the CLINIC DEFINITION (#53.46) file, any existing active IV Clinic orders display in the Clinic order mode.
- If there are no active IV clinic orders, and no action to be taken on Expired/Discontinued IV Clinic orders, the following message displays on the VDL: "There are no administrations to display."

Last Action and PRN/Effectiveness for Clinic Orders

You can verify that the last action taken on a particular administration reflects the status and date acted on that medication, whether the action was taken in an inpatient ward or in a clinic.

- The Last Action column on the Unit Dose and IVP/IVPB tabs is updated to reflect the action taken and date/time of the action on that orderable item, whether the action was taken in an inpatient ward or in a clinic.

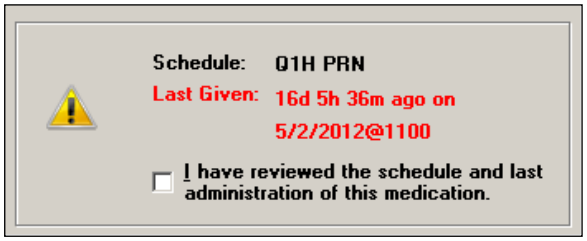
Example: Last Action Column on VDL



dication	Dosage	Route	Admin Time	Last Action	Last Site
REGULAR HUMAN (NOVOLIN R) INJ REG HUMAN 100 UNIT/ML NOVOLIN R ure patient is eating!	ENTER UNITS--DO NOT USE U, BID	SUBCUTANEO...	05/18@1700	HELD: 3/19/2012@1602	Thigh, Right
AM INTRAMUSCULAR/IV PUSH INJ PAM 2MG 1ML INJ 'OR OVERSEDATION	2MG/1ML, Q4H	INTRAMUSCU...	05/18@1700	GIVEN: 3/26/2012@1038	Deltoid, Left
CIN INJ,SOLN MICIN 40MG/ML INJ 2ML	40MG/1ML, Q4H	INTRAMUSCU...	05/18@1700	GIVEN: 5/17/2012@1803	Buttock, Lef

- The Last Given calculation and date are updated on the PRN Medication Log dialog to reflect the last date/time the orderable item was given and the elapsed time since it was last given, whether last given in an inpatient ward or in a clinic.

Example: Last Given Calculation and Date/time Given on PRN Med Log



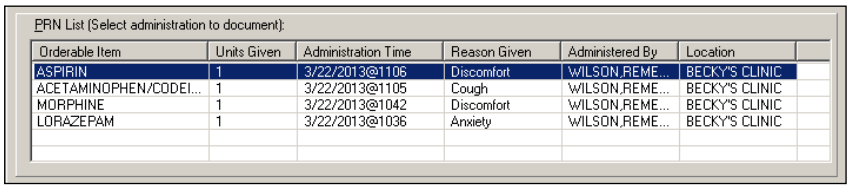
- You will see the date and time a PRN medication was last given, including the calculation of time elapsed, whether the medication was given in an inpatient ward or in a clinic.
- All pending PRN administrations that need effectiveness documentation, whether given in an inpatient ward or in a clinic, are displayed on the PRN Med Log.
- All pending PRN Effectiveness entries, along with the Location given, are displayed in the PRN Medication Log dialog, whether the PRN med was originally given in an inpatient ward or in a clinic. Ward names and clinic names display in the Location column.

TIP:
You can document and satisfy all pending PRN administrations that need effectiveness documentation, whether given in an inpatient ward or in a clinic.

Last Action and PRN/Effectiveness for Clinic Orders (cont.)

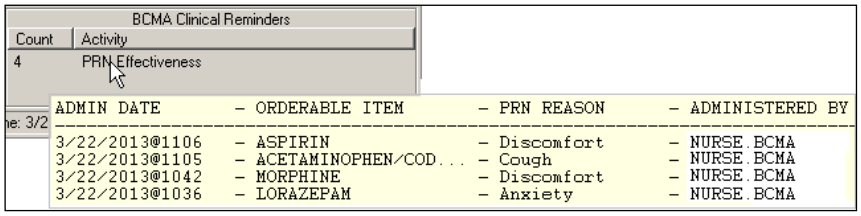
TIP:
See the last four PRN administrations that need effectiveness documentation.

Example: PRN Effectiveness Entries on the PRN Medication Log Dialog



- The Location column, on the PRN Effectiveness Log dialog, is updated to include the Clinic Name that is associated with the orderable item, when administered in a clinic.
- For non-admitted patients with Clinic Orders, the PRN Effectiveness Log dialog and BCMA Clinical Reminders marquee include up to the last four clinic administrations requiring PRN Effectiveness documentation for a period of 24 hours.
- For admitted patients with Clinic Orders, the BCMA Clinical Reminders marquee includes up to the last four administrations requiring PRN Effectiveness documentation, and the PRN Effectiveness Log dialog displays PRN administrations requiring effectiveness documentation based on the BCMA Site Parameter, PRN Documentation (in hours).
- The Last four PRN Effectiveness entries, under the BCMA Clinic Reminders marquee are updated, whether the PRN medication was originally given in an inpatient ward or in a clinic.

Example: Last Four PRN Effectiveness Entries under BCMA Clinical Reminders



Meds on Patient Indicators

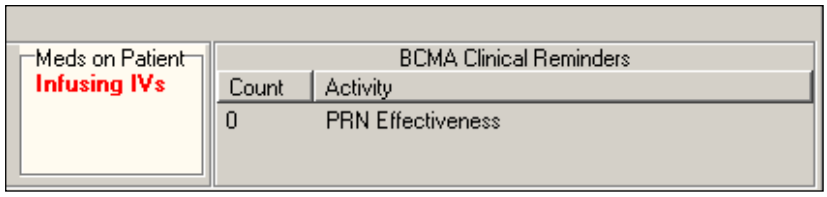
TIP: Meds on Patient Indicators alert you when your patient has Infusing or Stopped IVs or Patches that are not removed.

Three separate indicators display on the VDL to the left of BCMA Clinical Reminders, in a group entitled "Meds on Patient," when the patient has currently Infusing IV's, Stopped IV's, or Patches that are not removed. The indicators are applicable to active Inpatient or Clinic orders or if there is action that can be taken on an active, Expired, and/or Discontinued order.

Note: When Meds on Patient Indicators display, you may need to switch tabs or order mode to find Infusing IVs, Stopped IVs or Patches on which action can be taken.

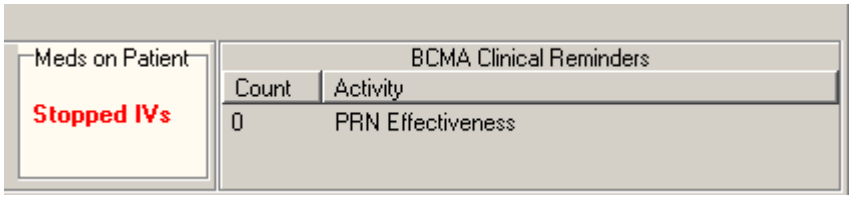
The Infusing IV indicator displays the words "Infusing IV's" in red bold text, only when there is one or more active, expired, and/or discontinued Infusing IV on the patient, in either Clinic or Inpatient order mode.

Example: Infusing IV Indicator



The Stopped IV indicator displays the words "Stopped IVs" in red bold text, only when there is one or more active, expired, and/or discontinued Stopped IVs on the patient, in either Clinic or Inpatient order mode.

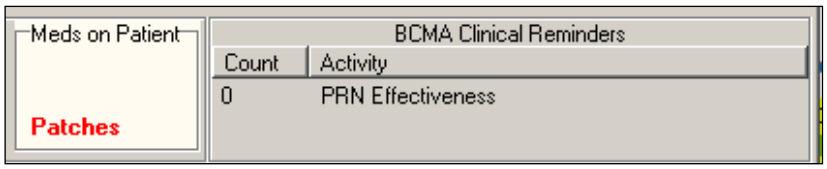
Example: Stopped IV Indicator



The Patches indicator displays the word "Patches" in red bold text, only when there are one or more active, Expired, and/or Discontinued patches that are not removed from the patient, in either Clinic or Inpatient order mode.

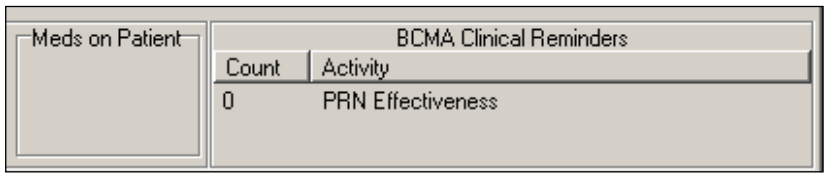
Meds on Patient Indicators (cont.)

Example: Patch Indicator

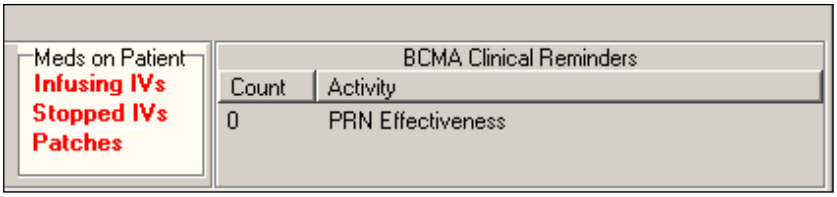


If any of the indicators are applicable, the system displays the "Meds on Patient" group box with a light colored background; otherwise, the box displays no indicators with a gray background. The "Meds on Patients" group box can be blank, or display up to a total of three indicators, when all three conditions are met.

Example: No Indicators



Example: Multiple Indicators



Patch Administrations Expired or Discontinued

TIP: You can distinguish whether an expired or discontinued patch was administered in a clinic or inpatient setting.

You can view clinic patch administrations as well as inpatient patch administrations that are expired or discontinued on the VDL.

- The system displays both clinic and inpatient patch administrations in the "Given Patches that are Expired or Discontinued" popup on the VDL.
- The count (Patch # of #) is updated to include the total number of patch administrations in the "Given Patches that are Expired or Discontinued" popup and whether they are clinic or inpatient.
- The Location (Ward name or Clinic name) where the patch was administered in the facility is displayed above the medication in the popup. The word "INPATIENT" is displayed for ward-based administrations, and the clinic name is displayed for clinic based administrations in bold uppercase.
- When you select "Mark Removed," the system marks the patch administration "Removed" from the appropriate order mode (Clinic or Inpatient).

Note: The BCMA site parameter "Patch Display Duration" applies to patches administered in both Inpatient and Clinic order modes. If "AUTO-DC IMO ORDERS?" is set to "Yes" in the CLINIC DEFINITION (#53.46) file, when a Clinic patient is admitted, Expired/Discontinued orders remain displayed in Clinic order mode for the number of days defined by the "Patch Display Duration" parameter, or until removed by a nurse. If "AUTO-DC IMO ORDERS?" is set to "No" in the CLINIC DEFINTION (#53.46) file, when a Clinic patient is admitted, any existing patch orders display in Clinic order mode.

Example: Given Patches Expired or Discontinued Popup

Viewing and Printing Clinic Order Reports

TIP: You can run reports and BCMA remembers the last mode you were in, Inpatient or Clinic, so that it defaults to the correct mode.

A variety of reports displaying Clinic Order data are available.

Some reports separate Inpatient data from Clinic order data. These reports are referred to as "Mutually Exclusive" reports. Other reports always include both Inpatient data and Clinic order data. These reports are referred to as "Combined" reports.

Mutually Exclusive Reports

Mutually Exclusive reports include the following:

- **Admin Times Report**
- **Due List Report**
- **Missed Meds Report**
- **Cover Sheet Reports**

You may run these reports for either Inpatient or Clinic orders for a single patient. You may also run these same reports for Clinic orders, only, for all patients in one or more selected Clinics. BCMA remembers the last order mode you were in, Inpatient or Clinic, so that when you run reports without a patient selected, the correct order mode defaults.

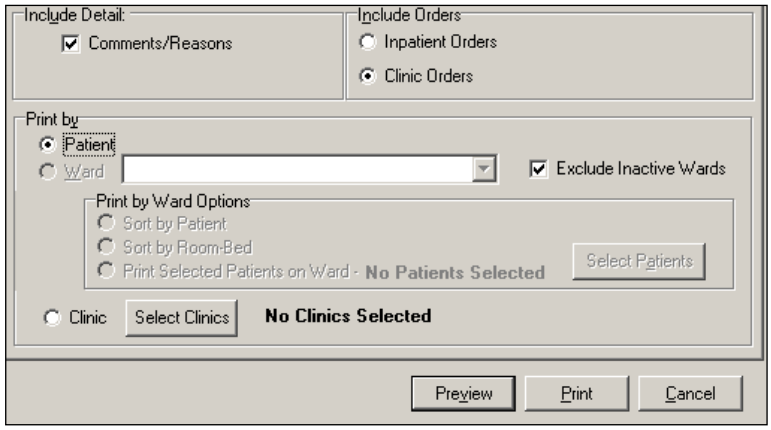
If you select the Print by "Clinic" option, you may select one or more clinics to include in the reports. See the "Mutually Exclusive Reports – Select Clinics Functionality" section.

- **If a patient record is open:**
  - The report dialog Print by selection always defaults to "Patient."
  - If you select the "Inpatient" order mode on the VDL, the report dialog Include Orders selection defaults to "Inpatient Orders." The Print by selection defaults to "Patient," Print by "Ward" is enabled, and Print by "Clinic" is disabled.

Viewing and Printing Clinic Order Reports(cont.)

- If you select the "Clinic" order mode on the VDL, the report dialog Include Orders selection defaults to "Clinic Orders." The Print by selection defaults to "Patient," Print by "Ward" is disabled, and Print by "Clinic" is enabled.

Example: Clinic Orders/Default to Print by Patient



- If you change the report dialog Include Orders selection from "Inpatient Orders" to "Clinic Orders" (or vice versa), the dependent corresponding Print by option must also change.

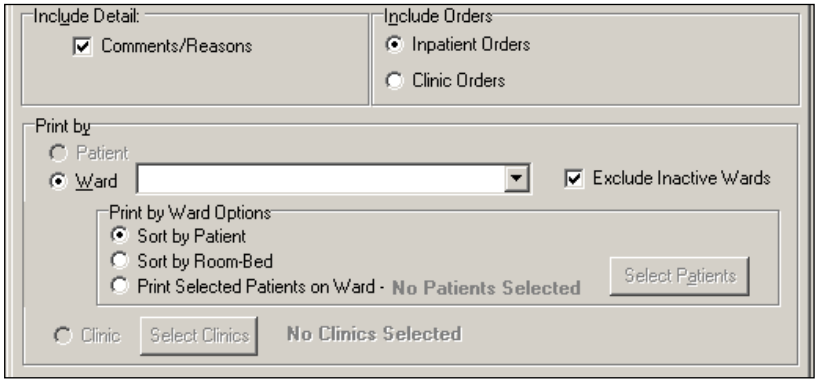
➢ **If no patient record is open:**

- The report dialog Print by selection defaults to "Ward" or "Clinic," based on user parameter that indicates the last mode that you selected, and Print by "Patient" is disabled.

Viewing and Printing Clinic Order Reports (cont.)

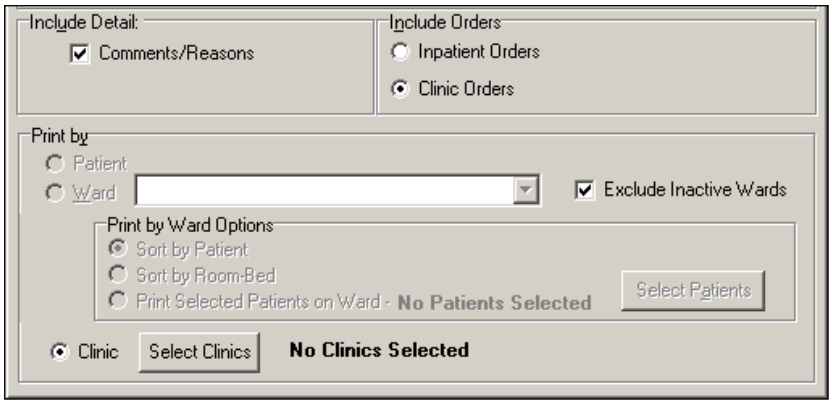
- If you choose "Inpatient Orders" for the Include Orders selection, the report dialog Print by selection defaults to "Ward."

Example: Include Inpatient Orders/Default to Print by Ward



- If you choose "Clinic Orders" for the Include Orders selection, the report dialog Print by selection defaults to "Clinic."

Example: Include Clinic Orders/Default to Print by Clinic



The report header displays "Include Clinic Orders Only" for reports that include only clinic order data. The report header displays "Include Inpatient Orders Only" for reports that include only Inpatient order data.

When printing mutually exclusive reports for clinic orders only, the system includes the Clinic Name associated with the clinic administration and displays the word "Location" in the header, where appropriate, to indicate where the administration took place.

Viewing and Printing Clinic Order Reports (cont.)

Example: Administration Times Report

```
PATIENT ADMINISTRATION TIMES
Run Date: JUL 08, 2016@15:20
Include Inpatient Orders Only
ADMINISTRATION DATE: JUL 06, 2016 to JUL 08, 2016                          Page: 3

Patient:  TESTPATNM,TWO                SSN:       000-00-0000          DOB:   OCT 10,1945
Sex:      MALE                         Ht/Wt:     */*                  Ward:  GEN MED Rm:
Dx:       Dizziness, nausea            Last Mvmt: DEC 16,2014@17:50    Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  POLLEN, STRAWBERRIES
================================================================================
Date/Time Self Med  Medication                      Dose/Route

JUL 08, 2016

5:00a               ACETAMINOPHEN TAB               Dosage: 325MG  Route: ORAL (BY MOUTH)

9:00a               ACETAMINOPHEN TAB               Dosage: 325MG  Route: ORAL (BY MOUTH)
9:00a (RM)          NITROGLYCERIN PATCH             Dosage: 1 PATCH  Route: TRANSDERMAL
9:00a               NICOTINE PATCH                  Dosage: 1  Route: TRANSDERMAL

1:00p               ACETAMINOPHEN TAB               Dosage: 325MG  Route: ORAL (BY MOUTH)

5:00p               ACETAMINOPHEN TAB               Dosage: 325MG  Route: ORAL (BY MOUTH)
5:00p               WARFARIN TAB                    Dosage: 2MG  Route: ORAL (BY MOUTH)

9:00p               ACETAMINOPHEN TAB               Dosage: 325MG  Route: ORAL (BY MOUTH)
9:00p(RM)           NICOTINE PATCH                  Dosage: 1  Route: TRANSDERMAL
9:00p               NITROGLYCERIN PATCH             Dosage: 1 PATCH  Route: TRANSDERMAL
9:00p               WARFARIN TAB                    Dosage: 2MG  Route: ORAL (BY MOUTH)
```

Viewing and Printing Clinic Order Reports (cont.)

TIP: Combined reports give you a completed picture of the medications that the patient has received.

Combined Reports

Combined reports include the following:

- **MAH Report**
- **Med Log Report**
- **Med History Report**
- **IV Bag Status Report**
- **Med Therapy Report**
- **PRN Effectiveness Report**

Both Inpatient and Clinic Order data for the selected patient are included in these reports. The inpatient nurse can see any IVs that were infused in Clinic that must be marked as completed. The clinic nurse can see any IVs that were infused in Inpatient that must be marked as completed.

The inpatient nurse can run a PRN Effectiveness report that combines both inpatient and clinic data for a single patient to help document PRN effectiveness for medications administered in the Clinic. The clinic nurse, likewise, can document PRN effectiveness for medications administered in the Ward.

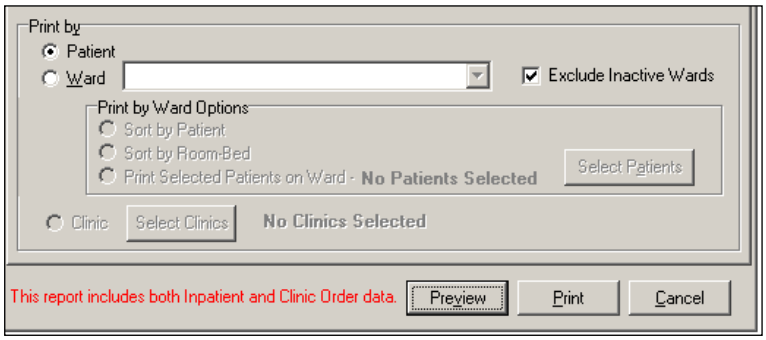
Each report dialog contains the following message: "This report includes both Inpatient and Clinic Order data."

The Print by "Clinic" option is disabled since selecting clinics is not allowed when printing these combined reports.

➢ **If a patient record is open:**

- The Print by "Patient" option is enabled, and the report dialog Print by selection defaults to "Patient."

Example: Default to Print by Patient

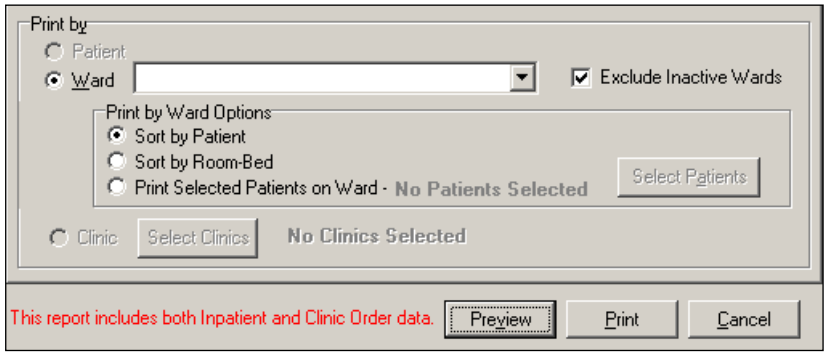


Viewing and Printing Clinic Order Reports (cont.)

➢ **If no patient record is open:**

- The Print by "Patient" option is disabled, and the report dialog Print by selection defaults to "Ward."

Example: Default to Print by Ward



The header of all reports displays the wording: "Includes Inpatient and Clinic Orders."

MAH Report

The Inpatient nurse may print this report by ward or by patient. The Clinic nurse will print this report by patient.

Note: 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.

MAH Report for a Single Patient

- If a patient has Inpatient orders, the header "**INPATIENT ORDERS**" is printed, followed by a list of all of the patient's Inpatient orders in two groups:

  Continuous Unit Dose and IV orders

  PRN, STAT, and One-Time orders

  The word "INPATIENT" is displayed above the Order Start Date for each medication administered in an inpatient ward.

- If a patient has Clinic Orders, the header "**CLINIC ORDERS**" is printed, followed by a list of all of the patient's Clinic orders in two groups:

  Continuous Unit Dose and IV orders

  PRN, STAT, and One-Time orders

  The Clinic name is displayed above the Order Start Date for each medication administered in a clinic.

Within each group, the orders are sorted alphabetically by medication name.

Viewing and Printing Clinic Order Reports (cont.)

A combined legend prints at the end of the report, containing nurse initials for both Inpatient and Clinic administrations, if applicable. The word “Location” displays above the “Start Date” in the left hand column header.

Example: MAH Report for Single Patient

Note: Because of its length, this report is in two (2) screens

MAH Report: Screen 1

```
MEDICATION ADMINISTRATION HISTORY for Jun 14, 2021 to Jun 19, 2021@23:59
Include Inpatient and Clinic Orders
Continuing/PRN/Stat/One Time Medication/Treatment Record (VAF 10-2970 B, C, D)                    Run Date: JUL 1

Patient:  CPRSPATIENT,NINETEEN          SSN:      666-44-5887          DOB:   DEC 14,2000 (20)
Sex:      MALE                          Ht/Wt:    */*                   Ward:  3 S (M) Rm:
Dx:       TEST                          Last Mvmt: APR 2,2020@10:10:15  Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  No Known Allergies

** INPATIENT ORDERS **
```

Location Start Date and Time	Stop Date and Time	Admin Times	06/14/2021	06/15/2021	06/16/2021	06/17/2021	06/18/2021	06/19/2021
INPATIENT								
06/17/2021	06/24/2021	0100						
@11:37	@15:00	0500						
		0900						
BACITRACIN INJ		1300				G1214 BP		
BACITRACIN 5 UNITS, LACTATED		1700						
RINGER'S 1000 ML Give: IVPB		2100						
Q4H INFUSE OVER 10ML/H MINUTES								
RPH: JP RN:			***	***	***			
INPATIENT								
06/17/2021	07/02/2021	0000				I0852 BP		
@08:46	@15:00					S0919 BP		
						I0923 BP		
CALCIUM GLUCONATE 10% INJ,SOLN						C1045 BP		
ONDANSETRON 10 MG IN BAG 5,						I1047 BP		
CALCIUM GLUCONATE 5 ML IN BAG						S1056 BP		
5, 1/2 NORMAL SALINE 1000 ML						I1056 BP		
Give: IVPB 10 ml/hr						S1217 BP		
RPH: JP RN:			***	***	***	I1217 BP		
Special Instructions:								
IP - Ward - IV Med								
INPATIENT								
06/17/2021	06/24/2021	0000				I1211 BP		
@13:03	@15:00					S1216 BP		
						I1217 BP		
MULTIVITAMIN INJ,SOLN								
MULTIVITAMIN INJ 5 ML IN BAG								
5, DEXTROSE 10% IN WATER 1000								
ML Give: IV 10ml/h								
RPH: JP RN:			***	***	***			

MAH Report: Screen 1 (Continued)

```
MEDICATION ADMINISTRATION HISTORY for Jun 14, 2021 to Jun 19, 2021@23:59
Include Inpatient and Clinic Orders
Continuing/PRN/Stat/One Time Medication/Treatment Record (VAF 10-2970 B, C, D)                    Run Date: JUL 12

Patient:  CPRSPATIENT,NINETEEN          SSN:      666-44-5887          DOB:   DEC 14,2000 (20)
Sex:      MALE                          Ht/Wt:    */*                   Ward:  3 S (M) Rm:
Dx:       TEST                          Last Mvmt: APR 2,2020@10:10:15  Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  No Known Allergies

** LEGEND **

Initial - Name Legend
BP        CPRSNURSE,BRANDT


Status Codes
C - Completed
G - Given
H - Held
I - Infusing
M - Missing Dose Requested
R - Refused
RM - Removed
S - Stopped
> - Scheduled administration times for the order have been changed
*** - Medication Not Due
```

MAH Report for a Selected Ward or Nurse Unit

All patients assigned to the selected ward or nurse unit are printed as a series of single patient reports as described above for a single patient.

Example: MAH Report for a Ward

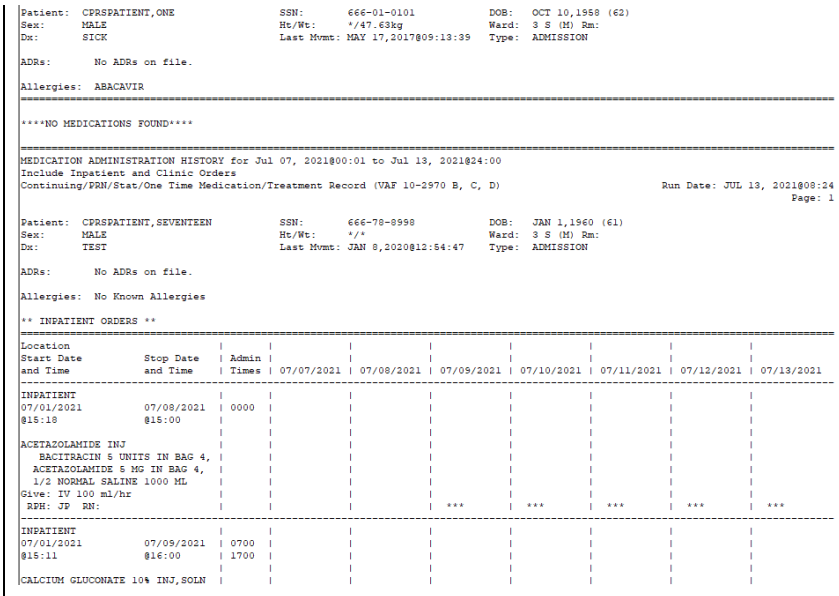
Note: Because of its length, this report is in three (3) screens

MAH Ward Report: Screen 1

```
Patient:  CPRSPATIENT,ONE               SSN:       666-01-0101          DOB:   OCT 10,1958 (62)
Sex:      MALE                          Ht/Wt:     */47.63kg            Ward:  3 S (M) Rm:
Dx:       SICK                          Last Mvmt: MAY 17,2017@09:13:39 Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  ABACAVIR
=============================================================================================================================

****NO MEDICATIONS FOUND****

=============================================================================================================================
MEDICATION ADMINISTRATION HISTORY for Jul 07, 2021@00:01 to Jul 13, 2021@24:00
Include Inpatient and Clinic Orders
Continuing/PRN/Stat/One Time Medication/Treatment Record (VAF 10-2970 B, C, D)                      Run Date: JUL 13, 2021@08:24
                                                                                                              Page: 1

Patient:  CPRSPATIENT,SEVENTEEN         SSN:       666-78-8998          DOB:   JAN 1,1960 (61)
Sex:      MALE                          Ht/Wt:     */*                  Ward:  3 S (M) Rm:
Dx:       TEST                          Last Mvmt: JAN 8,2020@12:54:47  Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  No Known Allergies

** INPATIENT ORDERS **
=============================================================================================================================
Location                  |       |           |            |            |            |            |            |
Start Date          Stop Date   | Admin |           |            |            |            |            |            |
and Time            and Time    | Times | 07/07/2021 | 07/08/2021 | 07/09/2021 | 07/10/2021 | 07/11/2021 | 07/12/2021 | 07/13/2021
-----------------------------------------------------------------------------------------------------------------------------
INPATIENT                 |       |           |            |            |            |            |            |
07/01/2021          07/08/2021  | 0000  |           |            |            |            |            |            |
@15:18              @15:00      |       |           |            |            |            |            |            |
                                |       |           |            |            |            |            |            |
ACETAZOLAMIDE INJ               |       |           |            |            |            |            |            |
   BACITRACIN 5 UNITS IN BAG 4, |       |           |            |            |            |            |            |
  ACETAZOLAMIDE 5 MG IN BAG 4,  |       |           |            |            |            |            |            |
  1/2 NORMAL SALINE 1000 ML     |       |           |            |            |            |            |            |
Give: IV 100 ml/hr              |       |           |            |            |            |            |            |
 RPH: JP  RN:                   |       |           |            |  ***       |  ***       |  ***       |  ***       |  ***
-----------------------------------------------------------------------------------------------------------------------------
INPATIENT                 |       |           |            |            |            |            |            |
07/01/2021          07/09/2021  | 0700  |           |            |            |            |            |            |
@15:11              @16:00      | 1700  |           |            |            |            |            |            |
                                |       |           |            |            |            |            |            |
CALCIUM GLUCONATE 10% INJ,SOLN  |       |           |            |            |            |            |            |
```

MAH Ward Report: Screen 2

```
Patient:  CPRSPATIENT,ONE               SSN:       666-01-0101          DOB:   OCT 10,1958 (62)
Sex:      MALE                          Ht/Wt:     */47.63kg            Ward:  3 S (M) Rm:
Dx:       SICK                          Last Mvmt: MAY 17,2017@09:13:39 Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  ABACAVIR
=============================================================================================================================

****NO MEDICATIONS FOUND****

=============================================================================================================================
MEDICATION ADMINISTRATION HISTORY for Jul 07, 2021@00:01 to Jul 13, 2021@24:00
Include Inpatient and Clinic Orders
Continuing/PRN/Stat/One Time Medication/Treatment Record (VAF 10-2970 B, C, D)                      Run Date: JUL 13, 2021@08:24
                                                                                                              Page: 1

Patient:  CPRSPATIENT,SEVENTEEN         SSN:       666-78-8998          DOB:   JAN 1,1960 (61)
Sex:      MALE                          Ht/Wt:     */*                  Ward:  3 S (M) Rm:
Dx:       TEST                          Last Mvmt: JAN 8,2020@12:54:47  Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  No Known Allergies

** INPATIENT ORDERS **
=============================================================================================================================
Location                  |       |           |            |            |            |            |            |
Start Date          Stop Date   | Admin |           |            |            |            |            |            |
and Time            and Time    | Times | 07/07/2021 | 07/08/2021 | 07/09/2021 | 07/10/2021 | 07/11/2021 | 07/12/2021 | 07/13/2021
-----------------------------------------------------------------------------------------------------------------------------
INPATIENT                 |       |           |            |            |            |            |            |
07/01/2021          07/08/2021  | 0000  |           |            |            |            |            |            |
@15:18              @15:00      |       |           |            |            |            |            |            |
                                |       |           |            |            |            |            |            |
ACETAZOLAMIDE INJ               |       |           |            |            |            |            |            |
   BACITRACIN 5 UNITS IN BAG 4, |       |           |            |            |            |            |            |
  ACETAZOLAMIDE 5 MG IN BAG 4,  |       |           |            |            |            |            |            |
  1/2 NORMAL SALINE 1000 ML     |       |           |            |            |            |            |            |
Give: IV 100 ml/hr              |       |           |            |            |            |            |            |
 RPH: JP  RN:                   |       |           |            |  ***       |  ***       |  ***       |  ***       |  ***
-----------------------------------------------------------------------------------------------------------------------------
INPATIENT                 |       |           |            |            |            |            |            |
07/01/2021          07/09/2021  | 0700  |           |            |            |            |            |            |
@15:11              @16:00      | 1700  |           |            |            |            |            |            |
                                |       |           |            |            |            |            |            |
CALCIUM GLUCONATE 10% INJ,SOLN  |       |           |            |            |            |            |            |
```



```
Patient:  CPRSPATIENT,ONE                SSN:       666-01-0101            DOB:   OCT 10,1958 (62)
Sex:      MALE                           Ht/Wt:     */47.63kg              Ward:  3 S (M) Rm:
Dx:       SICK                           Last Mvmt: MAY 17,2017@09:13:39   Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  ABACAVIR
==========================================================================================================

****NO MEDICATIONS FOUND****

==========================================================================================================
MEDICATION ADMINISTRATION HISTORY for Jul 07, 2021@00:01 to Jul 13, 2021@24:00
Include Inpatient and Clinic Orders
Continuing/PRN/Stat/One Time Medication/Treatment Record (VAF 10-2970 B, C, D)                    Run Date: JUL 13, 2021@08:24
                                                                                                                  Page: 1

Patient:  CPRSPATIENT,SEVENTEEN          SSN:       666-78-8998            DOB:   JAN 1,1960 (61)
Sex:      MALE                           Ht/Wt:     */*                    Ward:  3 S (M) Rm:
Dx:       TEST                           Last Mvmt: JAN 8,2020@12:54:47    Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  No Known Allergies

** INPATIENT ORDERS **
==========================================================================================================
Location                        |       |            |            |            |            |            |            |
Start Date          Stop Date   | Admin |            |            |            |            |            |            |
and Time            and Time    | Times | 07/07/2021 | 07/08/2021 | 07/09/2021 | 07/10/2021 | 07/11/2021 | 07/12/2021 | 07/13/2021
----------------------------------------------------------------------------------------------------------
INPATIENT                       |       |            |            |            |            |            |            |
07/01/2021          07/08/2021  | 0000  |            |            |            |            |            |            |
@15:18              @15:00      |       |            |            |            |            |            |            |
                                |       |            |            |            |            |            |            |
ACETAZOLAMIDE INJ               |       |            |            |            |            |            |            |
   BACITRACIN 5 UNITS IN BAG 4, |       |            |            |            |            |            |            |
  ACETAZOLAMIDE 5 MG IN BAG 4,  |       |            |            |            |            |            |            |
  1/2 NORMAL SALINE 1000 ML     |       |            |            |            |            |            |            |
Give: IV 100 ml/hr              |       |            |            |            |            |            |            |
 RPH: JP  RN:                   |       |            |            |  ***       |  ***       |  ***       |  ***       |  ***
----------------------------------------------------------------------------------------------------------
INPATIENT                       |       |            |            |            |            |            |            |
07/01/2021          07/09/2021  | 0700  |            |            |            |            |            |            |
@15:11              @16:00      | 1700  |            |            |            |            |            |            |
                                |       |            |            |            |            |            |            |
CALCIUM GLUCONATE 10% INJ,SOLN  |       |            |            |            |            |            |            |
```

Administering a Patient's Clinic Order Medications

Viewing and Printing Clinic Order Reports (cont.)

Med Log Report

The Inpatient nurse may print this report by ward or by patient-almost always by patient. If no patient is selected, the report defaults to by Ward, then the nurse can select one patient on the ward (typical).

The Clinic nurse will print this report by patient.

The Medication Log report displays the Inpatient Ward name (where the medication was administered) above the Start Date for each medication administered in an inpatient ward.

The report displays the Clinic name (where the medication was administered) above the Start Date for each medication administered in a clinic. The report displays the word "Location" above the "Activity Date" in the left hand column header.

Example: Medication Log Report

```
------------------------------------------------------------------------------
Medication Log Report for May 11, 2016@00:01 to May 12, 2016@24:00
Include Inpatient and Clinic Orders
Continuing/PRN/Stat/One Time Medication/Treatment Record (Detailed Log)  (VAF 10-2970 B,
Run Date: MAY 20, 2016@14:49
Log Type: INDIVIDUAL PATIENT
Page: 1

Patient:   TESTPATNM,TWO                    SSN:       666-23-2323          DOB:   DEC 1
Sex:       MALE                             Ht/Wt:     */*                  Ward:  GEN M
Dx:        AGITATED                         Last Mvmt: DEC 16,2015@17:48:10 Type:  ADMIS

ADRs:       No ADRs on file.

Allergies:  No Known Allergies

------------------------------------------------------------------------------
Location
Activity Date   Orderable Item                    Action Action
Start Date>     [Dose/Sched/Route/Body Site]      By     Date/Time         Drug/Additive
Stop Date<
------------------------------------------------------------------------------
   GEN MED B-4
05/11/16 17:55  ASPIRIN [325MG Q4H PO]           NSS    05/11/16 17:55
                                                       Given
5/11/16 10:00>                                                           ASPIRIN BUFFE
                Comments:     05/11/16 17:55  NSS   Test comment
5/16/16 18:14:07<
                Audits:       05/11/16 17:55  NSS   Field: ACTION DATE/TIME Set to 'MAY
                              05/11/16 17:55  NSS   Field: ACTION STATUS Set to 'GIVEN'
                              05/11/16 17:55  NSS   Field: DOSES GIVEN Set to '1'.
                              05/11/16 17:55  NSS   Field: UNIT OF ADMINISTRATION Set to
------------------------------------------------------------------------------
   GEN MED B-4
05/11/16 18:06  SELEGILINE [13J ONCE  Darm
                Site: ARM, LEFT UPPER]           NSS    05/11/16 21:07
                                                       Removed
                                                 NSS   05/11/16 09:06
                                                       Given
5/11/16 13:00>                                                           SELEGILINE 1Z
                Comments:     05/11/16 18:07  NSS   Removed: TEST
5/11/16 18:06:09<
                Audits:       05/11/16 18:06  NSS   Field: ACTION DATE/TIME Set to 'MAY
                              05/11/16 18:06  NSS   Field: ACTION STATUS Set to 'GIVEN'
                              05/11/16 18:06  NSS   Field: DOSES GIVEN Set to '1'.
                              05/11/16 18:06  NSS   Field: UNIT OF ADMINISTRATION Set to
                              05/11/16 18:07  NSS   Field: ACTION DATE/TIME 'MAY 11, 201
                              05/11/16 18:07  NSS   Field: ACTION DATE/TIME Set to 'MAY
                              05/12/16 09:06  NSS   Field: ACTION STATUS Set to 'REMOVED
------------------------------------------------------------------------------
```

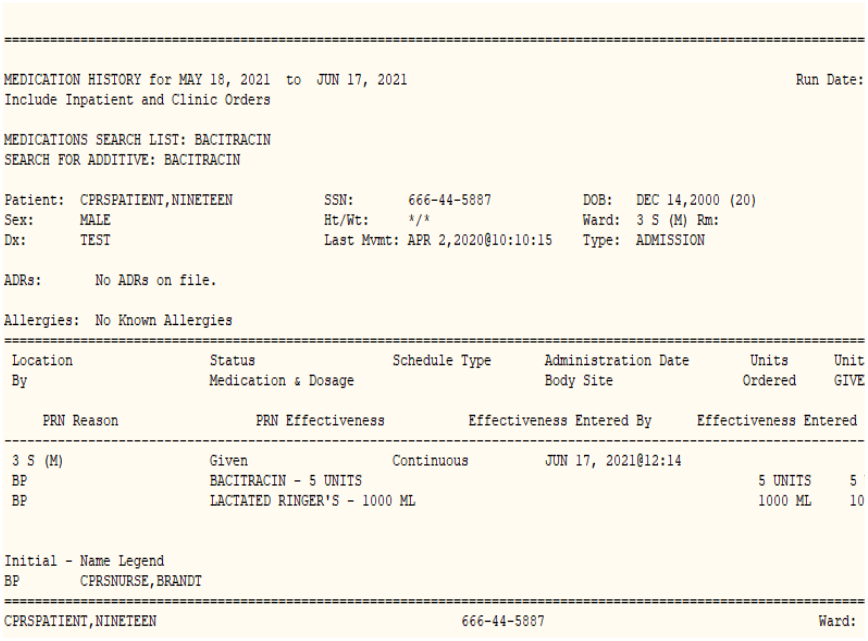
Med History Report

This report can only be printed by patient.

Note:

- The Status and Schedule Type will have their own columns with their values spelled out, e.g., G will be 'Given' and P will be 'PRN'
- Units Ordered is being added as a new column
- Previous statuses will be displayed in reverse chronological order

Example: Medication History Report



```
================================================================================================================
MEDICATION HISTORY for MAY 18, 2021  to  JUN 17, 2021                                              Run Date:
Include Inpatient and Clinic Orders

MEDICATIONS SEARCH LIST: BACITRACIN
SEARCH FOR ADDITIVE: BACITRACIN

Patient:  CPRSPATIENT,NINETEEN          SSN:       666-44-5887          DOB:   DEC 14,2000 (20)
Sex:      MALE                          Ht/Wt:     */*                  Ward:  3 S (M) Rm:
Dx:       TEST                          Last Mvmt: APR 2,2020@10:10:15   Type:  ADMISSION

ADRs:       No ADRs on file.

Allergies:  No Known Allergies
================================================================================================================
 Location                 Status                Schedule Type       Administration Date       Units      Unit
 By                       Medication & Dosage                       Body Site                Ordered     GIVE

     PRN Reason                PRN Effectiveness          Effectiveness Entered By      Effectiveness Entered
----------------------------------------------------------------------------------------------------------------
 3 S (M)                  Given                 Continuous          JUN 17, 2021@12:14
 BP                       BACITRACIN - 5 UNITS                                                 5 UNITS     5
 BP                       LACTATED RINGER'S - 1000 ML                                          1000 ML     10


Initial - Name Legend
BP        CPRSNURSE,BRANDT
================================================================================================================
CPRSPATIENT,NINETEEN                                  666-44-5887                                    Ward:
```

IV Bag Status Report

The Inpatient nurse may print this report by ward or by patient.

The Clinic nurse will print this report by patient.

Med Therapy Report

This report is very patient specific and is never used by Ward. The Inpatient nurse will print this report by patient.

The Clinic nurse will print this report by patient. If no patient is selected, the report will default to by Ward, and the nurse can select one patient on the ward (typical).

PRN Effectiveness Report

The Inpatient nurse may print this report by ward or by patient. The Clinic nurse will print this report by patient.

Viewing and Printing Clinic Order Reports (cont.)

Mutually Exclusive Reports – Select Clinics Functionality

You will be able to select one or more clinics for clinic-based mutually exclusive reports by specifying a search prefix entry for your division/location that searches from the beginning of the clinic name, and a search text entry that searches within the clinic name to filter the list of available clinics to a more manageable list.

When you select the "Clinic Orders" option in the Include Orders section of the report dialog, the "Select Clinics" button allows you to print reports by clinic.

To Print Reports by Clinic

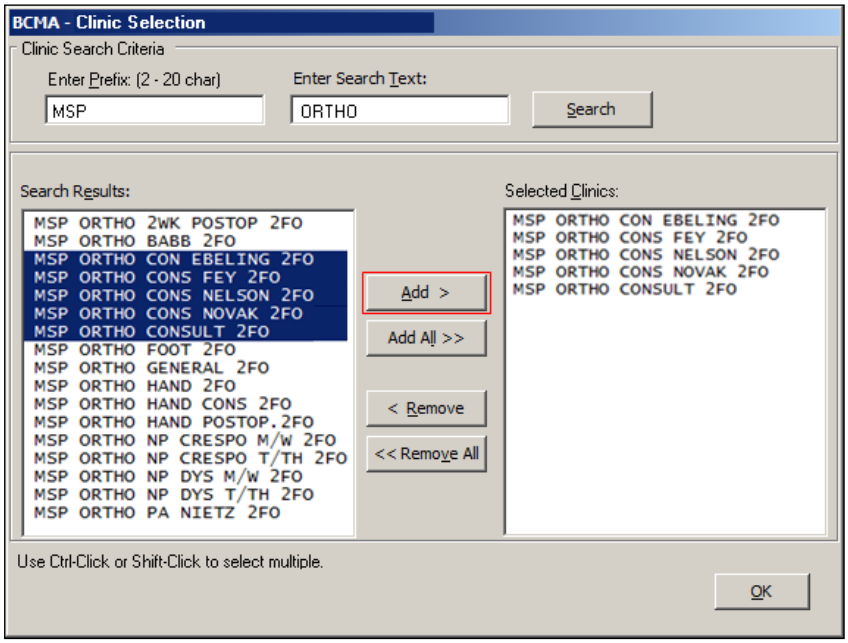
1. Click **Select Clinics** to display the Clinic Selection dialog.
2. Enter search criteria in the "Enter Search Prefix" field and click **Search** (example: AL – Albany), and/ or
3. Enter a clinic name in the "Enter Search Text" field (example: DERM) and click **Search.**
4. Select the clinic by clicking on it or use Shift-Click or Ctrl-click to select multiple clinics to include in the report.
5. Click **Add**, and the selected clinics move to the Selected Clinics box.
6. Click **OK,** and the data in the Selected Clinics window will be used for the report, and the number of clinics selected will be reflected on the requesting report dialog.

TIP:
Select one or more clinics from the search results by using the mouse or the keyboard with shift or control click.

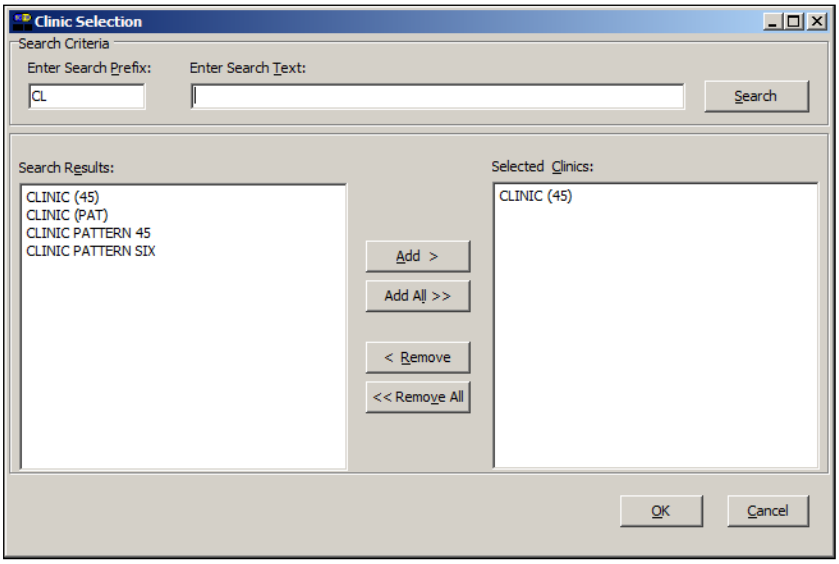
Viewing and Printing Clinic Order Reports (cont.)

To Print Reports by Clinic (cont.)

Example: Clinic Selection - Enter Search Prefix Field



Example: Clinic Selection - Enter Search Text Field



Viewing and Printing Clinic Order Reports (cont.)

To Print Reports by Clinic (cont.)

Note: Previous prefix and search entries are retained for the user from session to session. If either search entry is invalid or not found, the error message: "Invalid Clinic Lookup" displays.

Note: Although multiple searches that can result in duplicates displayed in the Selected Clinics window are allowed, all reports that allow clinic selection display the list of selected clinics sorted in alphanumeric order without duplicates in the "Search List" portion of the report header.

Example: Medication Due List Report

```
================================================================================================================================

MEDICATION DUE LIST for SEP 12, 2012@0001 to SEP 12,
2012@2400                                          Run Date: SEP 12, 2012@16:25
Include Clinic Orders Only
Schedule Type(s): Continuous / PRN / OnCall /
OneTime                                                                                    Page: 1
Order Type(s): IV / Unit Dose / Future Orders

CLINIC SEARCH LIST:  CLINIC (45), CLINIC (PAT), CLINIC PATTERN 45, CLINIC PATTERN SIX, CLINIC PATTERN TWO

Patient:  BCMACO,THREE                    SSN:       666-00-3333            DOB:   JAN 13,1900 (112)
```

Administering a Patient's High Risk/High Alert Drugs

Preparing to Witness High Risk/High Alert Drugs

TIP:
You can sort the icons in the witness column by clicking on the column heading "Wit," or by selecting the Due List menu, Sort by, then Witness. This will group all high risk/high alert administrations together on the VDL.

TIP:
Follow your local site policy to determine who is authorized to witness and when the witness is needed during the high risk/high alert administration.

BCMA provides functionality that allows the nurse to easily identify high risk/high alert medications that require/recommend a witness on the VDL and Cover Sheet, and prompts for witness credentials within the administration workflow.

The Icon appears in the "Alert" column on the Cover Sheet, Unit Dose, IVP/IVPB and IV tabs to alert the user that a High Risk/High Alert medication is to be administered, requiring/recommending a second signature from licensed personnel. When your cursor hovers over the icon, the following text displays: "High Risk/High Alert – Witness Required/Recommended."

The witness provides an independent double check for a high risk/high alert medication in BCMA and is automatically prompted for their credentials before the medication is administered and allowed to add an optional comment to the patient record. The witness name, the date/time witnessed, and the optional witness comment are stored in the Medication Log.

Local site policy dictates which High Risk/High Alert medications are to be marked as "Recommended to witness" versus "Required to witness" in BCMA. Sites should carefully consider which High Risk/High Alert medications are marked as "Recommended to witness," as those medications will be allowed to be administered without a witness in BCMA. Conversely, High Risk/High Alert medications that are marked as "Required to witness" must be administered with an authorized witness, and cannot be documented as Given or Infusing without the witness.

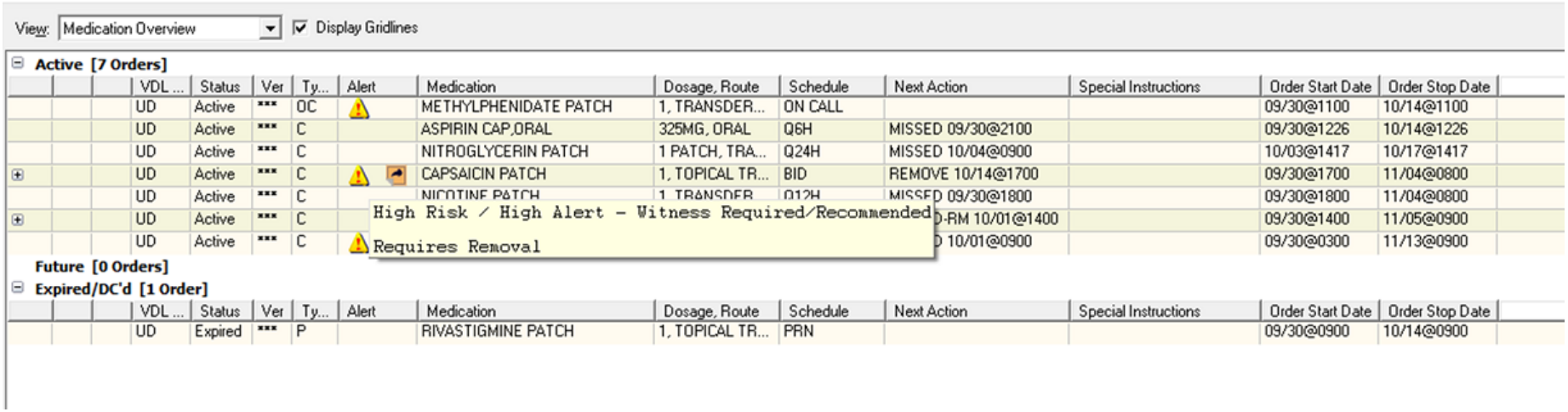
Your nursing and pharmacy staff will work together to assign a Witness HR Order Codes in the Drug file at the orderable item level to control whether a witness is required or recommended for a particular medication and the impact on the workflow. The four qualifying codes are as follows:

Code	Witness Required/Recommended
Code 0/Null:	Not a High Risk/High Alert drug (default)
Code 1:	High Risk/High Alert – Not required to witness in BCMA (Pharmacy use only)
Code 2:	High Risk/High Alert – Recommended to witness in BCMA
Code 3:	High Risk/High Alert – Required to witness in BCMA

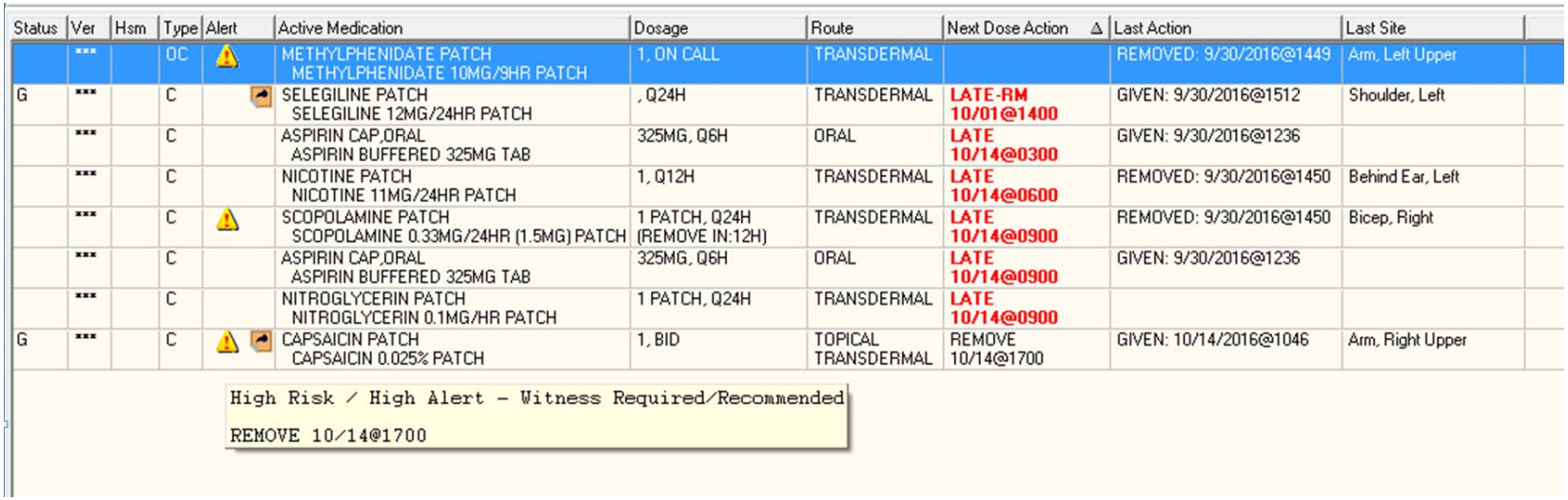
Administering a Patient's High Risk/High Alert Drugs

Note: All drugs flagged with a Code 2 or Code 3 will display the High Risk/High Alert icon and hover text in BCMA, and will display the witness sign-on prompt within the administration workflow.

Example: Hover Text on the Cover Sheet



Example: Hover Text on the VDL



The BCMA Witness Sign-On Dialog is displayed last in the administration workflow, just before the Give/Infuse action. The following administration information is displayed at the top of the dialog:

- Medication (Orderable Item)
- Scheduled Admin Time
- Schedule Type
- Dosage/Infusion Rate
- Units Per Dose
- Last Action, if applicable
- Bag ID or N/A
- Quantity and Units Documented, if applicable
- Medication Route
- Special Instructions/Other Print Info
- Dispense Drugs/Medications/Solutions

The following information displays at the bottom of the Witness Sign-On dialog in a group entitled “Witness Sign-On.”

- Witness Access Code field
- Witness Verify code field
- If Witness is recommended, the following message displays: “This drug is a High Risk/High Alert medication that recommends a second signature from licensed personnel for administration.”

If Witness is required, the following message displays: “This drug is a High risk/High Alert medication that requires a second signature from licensed personnel for administration.”

Witnessing High Risk/High Alert Drugs When a Witness is Required

TIP:
Your local site policy dictates which High Risk/High Alert medications are required versus recommended to be witnessed.

To Administer High Risk/High Alert Medications When a Witness is Required

1. When a medication is flagged with a Code 3 (Required to Witness), identify and obtain your witness, and have them perform the independent double check, according to your local site policy for High Risk/High Alert administrations.
2. At the BCMA Witness Sign-On dialog, your witness should review the administration information and enter their Access and Verify codes.

Note: The prompt for changing the user's Verify code is not supported.

3. The witness can enter an optional comment, up to 150 characters in length, and click **OK**.
4. The witness must click **OK** to complete the administration or click **Cancel** to display the "Order Administration Cancelled" confirmation dialog, then click **OK** to acknowledge the cancellation and to return to the VDL.

If the Witness Sign-On Credentials are valid:

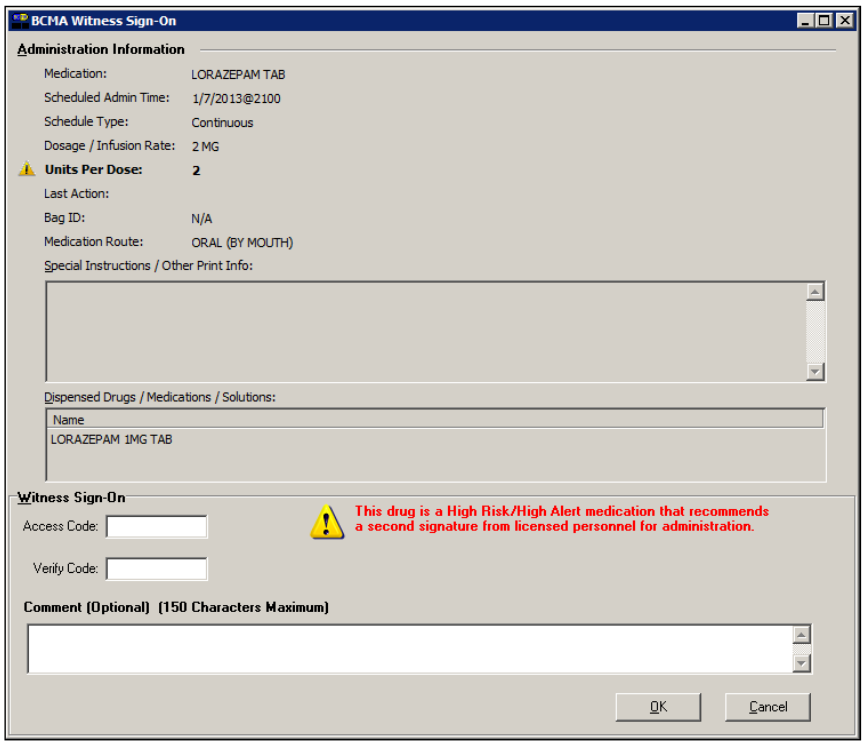
- You are returned to the VDL.
- The administration is marked as "Given" or "Infusing."

Note: The High Risk/High Alert Drug code values for each medication/additive/solution are included in the order. The Witness IEN, Date/Time, Optional Comment and Witness HR Order Code (the highest value of all High Risk/High Alert Drug code values in the order), are determined and stored. The "Witnessed?" flag is set to a value of Yes, indicating the administration was witnessed.

Witnessing High Risk/High Alert Drugs When a Witness is Required (cont.)

To Administer High Risk/High Alert Medications When a Witness is Required (cont.)

Example: BCMA – Initial Witness Sign-On Dialog for a High Risk/High Alert Administration when Witness is Required

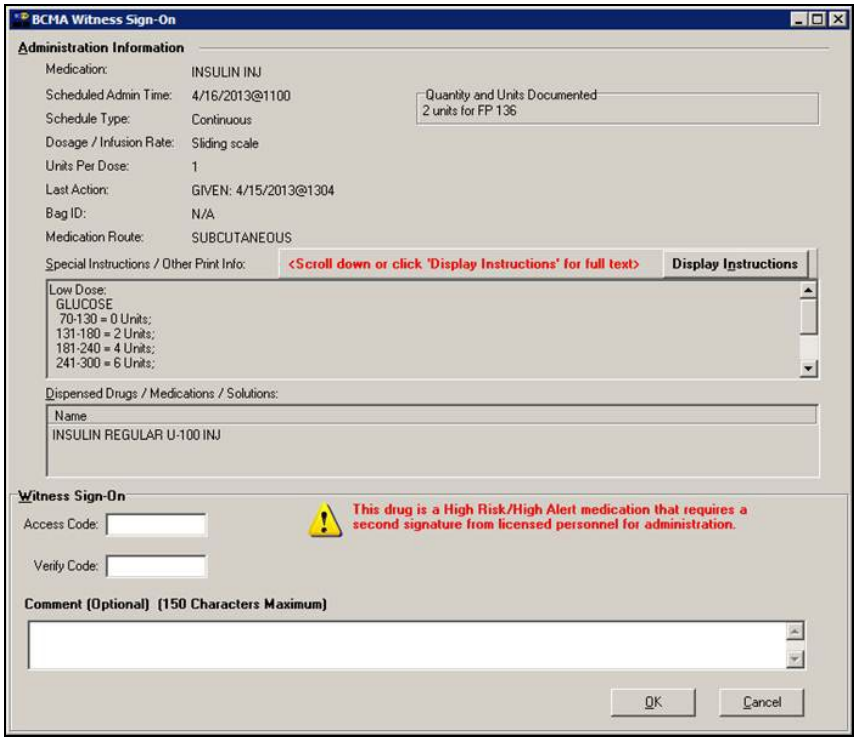


Witnessing High Risk/High Alert Drugs When a Witness is Required (cont.)

To Administer High Risk/High Alert Medications When a Witness is Required (cont.)

- If previously prompted for Quantity and Units, the BCMA Witness Sign dialog will display the Quantity and Units to be administered.

Example: BCMA – Witness Sign-On Dialog With Quantity and Units Display for a High Risk/High Alert Administration when Witness is Required



If the Witness Sign-On credentials are invalid:

- An Error message will display, based on the reason the credentials were not validated. Click **OK** to clear the error and return to the BCMA Witness Sign-On Dialog.

Note: See section entitled "**Error Messages for Witness Validation**" for all witness sign-on error messages.

- The administration workflow will not continue until the witness enters a valid Access and Verify code and has authority to be a witness.
- To cancel the administration, click **Cancel** to display the "Order Administration Cancelled" dialog, then click **OK** to acknowledge the cancellation and to return to the VDL.

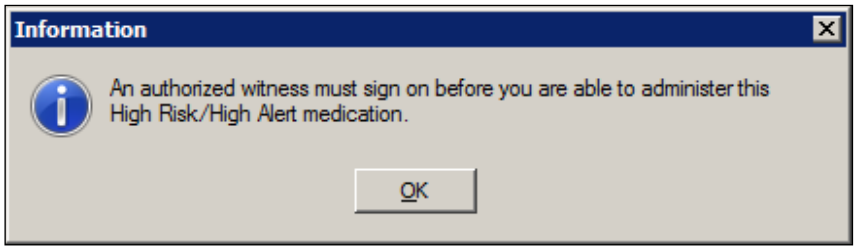
Witnessing High Risk/High Alert Drugs When a Witness is Required (cont.)

To Administer High Risk/High Alert Medications When a Witness is Required (cont.)

If Witness Sign-On credentials are blank:

- The Error message: "An authorized witness must sign on before you are able to administer this High Risk/High Alert medication" and the OK button displays.

Example: Information Message when User Attempts to Proceed without Authorized Witness Access and Verify Codes



- Click **OK** to clear the error and return to the BCMA Witness Sign-On Dialog to retry.
- The administration will not continue until the witness enters a valid Access and Verify code and has authority to be a witness.
- To cancel the administration, click **Cancel** to display the "Order Administration Cancelled" dialog, then click **OK** to acknowledge the cancellation and to return to the VDL.

Witnessing High Risk/High Alert Drugs When a Witness is Recommended and Witness is Provided

TIP:
Your local site policy dictates which High Risk/High Alert medications are required versus recommended to be witnessed.

To Administer High Risk/High Alert Medications When a Witness is Recommended and Witness is Provided

If witness is provided:

1. When a medication is flagged with a Code 2 (Recommended to Witness,) identify and obtain your witness, and have them perform the independent double check, according to your local site policy for High Risk/High Alert administrations.
2. At the BCMA Witness Sign-On dialog, your witness should review the administration information and enter their Access and Verify codes.
3. The witness may enter an optional comment, up to 150 characters in length.
4. The witness selects one of the following:
   - Click **OK** to complete the administration, or
   - Click **Cancel** to display the "Order Administration Cancelled" confirmation dialog. Click **OK** to acknowledge the cancellation and to return to the VDL.

If the Witness Sign-On Credentials are valid:

- You are returned to the VDL.
- The administration is marked as "Given" or "Infusing."

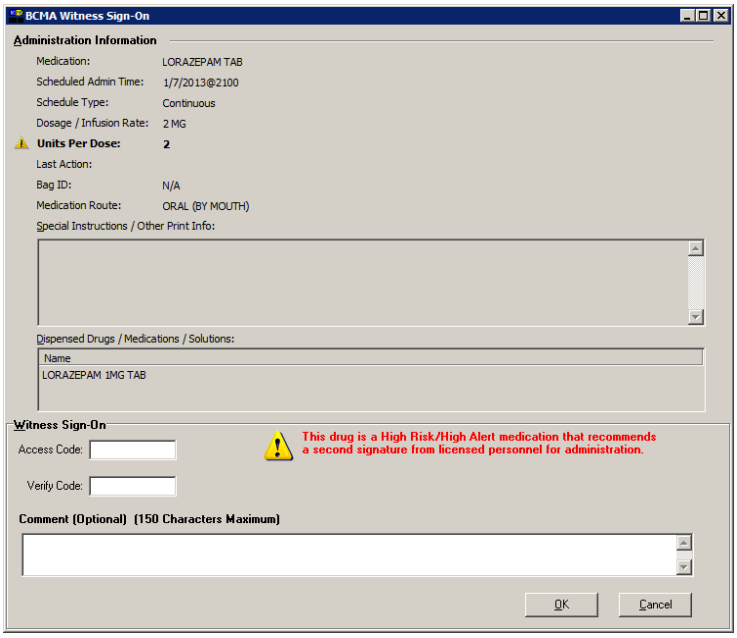
Note: The High Risk/High Alert Drug code values for each medication/additive/solution are included in the order. The Witness IEN, Date/Time, Optional Comment and Witness HR Order Code (the highest value of all High Risk/High Alert Drug code values in the order), are determined and stored. The "Witnessed?" flag is set to a value of Yes, indicating the administration was witnessed.

Note: The prompt for changing the user/s Verify Code is not supported.

Witnessing High Risk/High Alert Drugs When a Witness is Recommended and Witness is Provided (cont.)

To Administer High Risk/High Alert Medications When a Witness is Recommended and a Witness is Provided (cont.)

Example: BCMA Witness Sign-On Dialog for a High Risk/High Alert Administration when Witness is Recommended



If the Witness Sign-On credentials are invalid:

- An error message will display, based on the reason the credentials were not validated. Click **OK** to clear the error and return to the BCMA Witness Sign-On Dialog.

Note: See section entitled "**Error Messages for Witness Validation**" for all witness sign-on error messages.

- For High Risk/High Alert medications that are flagged as recommended to witness, if you have a witness available, the credentials entered must be valid.
- To cancel the administration, click **Cancel** to display the "Order Administration Cancelled" confirmation dialog, then click **OK** to acknowledge the cancellation and to return to the VDL.

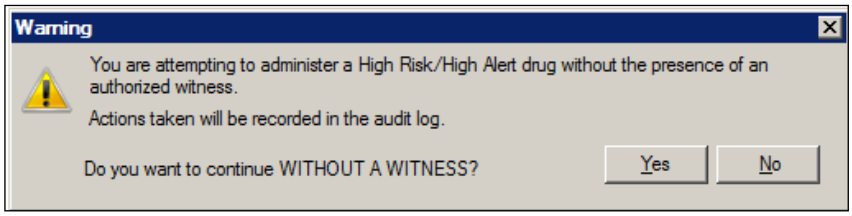
Witnessing High Risk/High Alert Drugs When a Witness is Recommended, but Not Provided

To Administer High Risk/High Alert Medications When a Witness is Recommended but Not Provided

If no witness is provided:

1. When a medication is flagged with a Code 2 (Recommended to Witness,) at the BCMA Witness Sign-On dialog, leave the Access and Verify codes blank and click **OK**.
2. The warning message: "You are attempting to administer a High Risk/High Alert drug without the presence of an authorized witness. Actions taken will be recorded in the audit log. Do you want to continue WITHOUT A WITNESS?" displays.

Example: Warning Message when Attempting to Administer a High Risk/High Alert Drug Without Witness

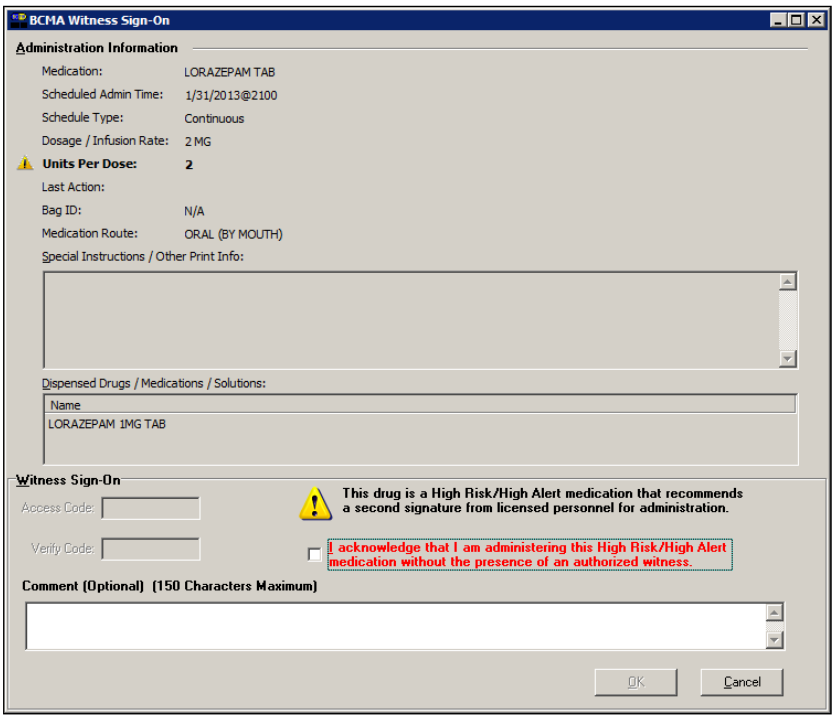


- Click **No** to return to the BCMA Witness Sign-On dialog to enter witness credentials.
- Click **Yes** to return to the BCMA Witness Sign-On dialog and acknowledge the message.
  - The Access Code and Verify Code fields are grayed out, and the **OK** button is disabled.

Witnessing High Risk/High Alert Drugs When a Witness is Recommended, but Not Provided (cont.)

To Administer High Risk/High Alert Medications When a Witness is Recommended but Not Provided (cont.)

Example: BCMA Witness Sign On Dialog with Acknowledgement of Administering a High Risk/High Alert Medication without a Witness



3 Read the acknowledgement message: "I acknowledge that I am administering this High Risk/High Alert medication without the presence of an authorized witness" and check the box. The OK button is enabled only after the acknowledgment checkbox is completed.

4 Enter an optional comment, up to 150 characters in length.

5 Select one of the following:

- Click **OK** to complete the administration and return to the VDL. The administration is marked as "Given" or "Infusing."
- Click **Cancel** to display the "Order Administration Cancelled" dialog. Click **OK** to acknowledge the cancellation and to return to the VDL.

.

Error Messages for Witness Validation When Witnessing High Risk/High Alert Drugs

Error Messages for Witness Validation:

BCMA authenticates witness credentials based on the witness' access and verify codes, security keys, and primary and secondary menu options. The conditions are checked in the sequence specified below, such that if more than one condition is applicable to the witness, the first matching condition will determine the error message displayed.

If the Witness Access and Verify Codes are not valid

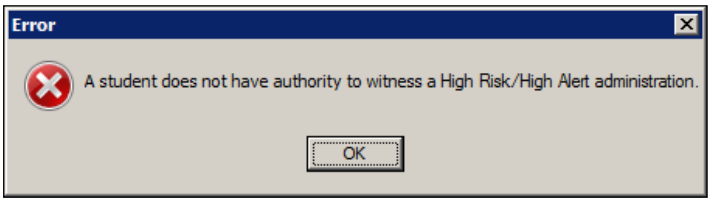
- The error message "Invalid Witness sign-on" displays.
- Click **OK** to clear the error and return to the BCMA Witness Sign-On dialog.

Example: Error Message when Witness Credentials are Not Valid

If the witness is a student holding the PSB STUDENT Key and is attempting to witness for self or any other user

- The error message: "A student does not have authority to witness a High Risk/High Alert administration" displays.
- Click **OK** to clear the error and return to the BCMA Witness Sign-On dialog.

Example: Error Message when Student User Attempts to Sign On as Witness



Error Messages for Witness Validation When Witnessing High Risk/High Alert Drugs (cont.)

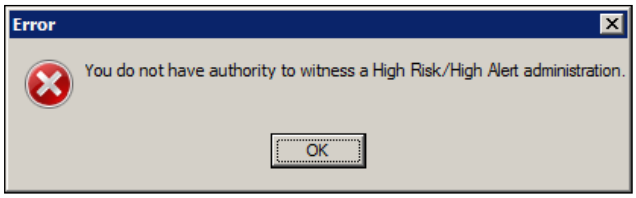
Error Messages for Witness Validation (cont.):

If the witness is a user holding the PSB NO WITNESS key, they are identified as unauthorized to witness high risk/high alert administrations.

- The error message: "You do not have authority to witness a High Risk/High Alert administration" displays.
- Click **OK** to clear the error and return to the BCMA Witness Sign-On dialog.

Note: The PSB NO WITNESS security key is assigned to personnel who are BCMA users, but are not authorized to witness High Risk/High Alert administrations such as Unlicensed Assistive Personnel and Respiratory Therapists.

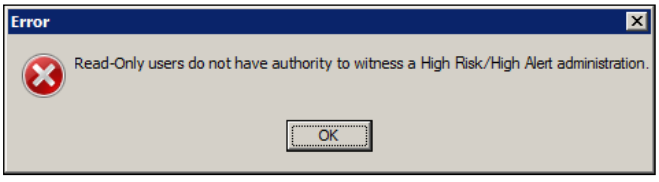
Example: Error Message when User holding PSB NO WITNESS key Attempts to Sign-On as Witness



If the witness is a Read-Only user holding the PSB READ ONLY Key:

- The error message "Read-Only users do not have authority to witness a high risk/high alert administration" displays.
- Click **OK** to clear the error and return to the BCMA Witness Sign-On dialog.

Example: Error Message when User holding PSB READ ONLY key Attempts to Sign-On as Witness



Error Messages for Witness Validation When Witnessing High Risk/High Alert Drugs (cont.)

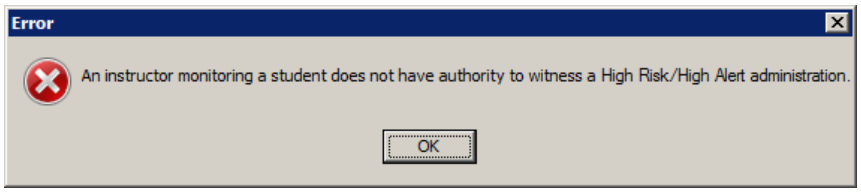
Error Messages for Witness Validation (cont.):

If the witness is a user holding the PSB INSTRUCTOR Key that is currently logged on with a student holding the PSB STUDENT key:

- The error message: "An instructor monitoring a student does not have authority to witness a High Risk/High Alert administration" displays.
- Click **OK** to clear the error and return to the BCMA Witness Sign-On dialog.

Note: Users holding the PSB INSTRUCTOR key may serve as a witness, if they are not the primary instructor that is currently signed on with a user holding the PSB STUDENT key for the purpose of monitoring that student.

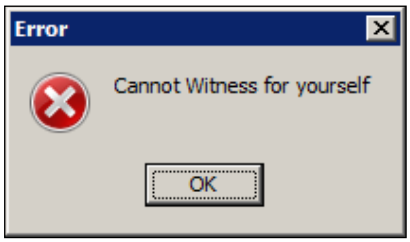
Example: Error Message when Instructor currently logged in with Student Attempts to Sign-On as Witness



If the witness Access Code and Verify Code are the same as the administering nurse user:

- The error message: "Cannot Witness for yourself" displays.
- Click **OK** to clear the error and return to the BCMA Witness Sign-On dialog.

Example: Error Message when Current User Attempts to Witness Own Administration



If the user does not have PSB GUI CONTEXT – USER menu option assigned to their primary or secondary menu:

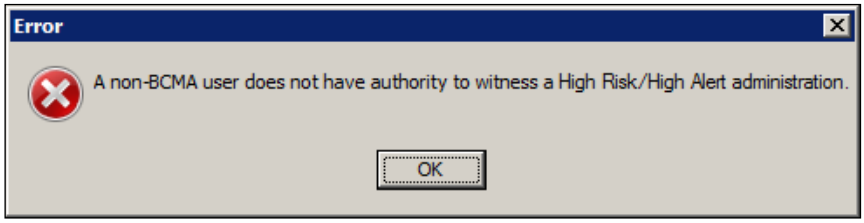
Error Messages for Witness Validation When Witnessing High Risk/High Alert Drugs (cont.)

Error Messages for Witness Validation (cont.):

- The error message: "A non-BCMA user does not have authority to witness a High Risk/High Alert administration" displays.
- Click **OK** to clear the error and return to the BCMA Witness Sign-On dialog.

Note: A witness must be a BCMA user and must have the PSB GUI CONTEXT – USER menu option assigned to their primary or secondary menu. The user is not prompted for Electronic Signature (eSig), even when a division sets the parameter to require eSig for sign-on to BCMA.

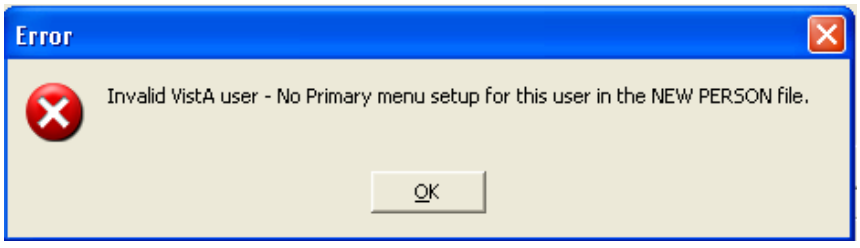
Example: Error Message when Non-BCMA User Attempts to Sign-On as Witness



If an invalid VistA user attempts to sign-on as witness:

- The error message: "Invalid VistA user – No Primary menu setup for this user in the New Person file."
- Click **OK** to clear the error and return to the BCMA Witness Sign-On dialog.

Example: Error Message when Invalid VistA User Attempts to Sign-On as Witness



Witness Information Stored in the Med Log Report

Med Log Report

The Medication Log report stores witness information for high risk/high alert medication administrations, including the witness name, date/time witnessed and optional witness comment, if the user selects to include comments on the Witness sign-on dialog. The witness information is captured in the Comments and Audits sections of the Medication Log.

If you choose to exclude comments from the report, the report will not display witness sign-on information or witness comments.

If you select to "Include Comments" on the Medication Log Report dialog, the following witness information appears in the body of the report:

- For High Risk/High Alert administrations (marked as Recommended or Required) that are witnessed: Witness Last Name, Witness First Name, Witnessed Date@Time, and Optional Comment.
- For High Risk/High Alert administrations marked as Recommended to witness, that are not witnessed: "Witnessed?: No" and Optional Comment.
- For High Risk/High Alert administrations that are marked as Given, then later marked as Undo Given, prior witness information and any witness comments are removed from the body of the Med Log report.

If you select "Include Audits" on the Med Log Report dialog, the following witness information is included in the Audits section of the report:

- For High Risk/High Alert administrations marked as Required (3) that are witnessed, the following is printed in the Audits section:

```
[DATE TIME][USER INITIALS] "Field: WITNESS DATE/TIME
Set to" '[WITNESSED DATE@TIME]'

[DATE TIME][USER INITIALS] "Field: WITNESSED BY Set
to" '[WITNESS LAST NAME, FIRST NAME]'

[DATE TIME][USER INITIALS] "Field: WITNESS HR ORDER
FLAG Set to" '[WITNESS HR ORDER FLAG]'
```

Witness Information Stored in the Med Log Report (cont.)

```
[DATE TIME][USER INITIALS] "Field: WITNESSED?" Set
to" '[WITNESSED?]'
```

- For high risk/high alert administrations marked as Recommended (2) to witness that are witnessed, the following is printed in the Audits section:

```
[DATE TIME][USER INITIALS] "Field: WITNESS DATE/TIME
Set to" '[WITNESSED DATE@TIME]'

[DATE TIME][USER INITIALS] "Field: WITNESSED BY Set
to" '[WITNESS LAST NAME, FIRST NAME]'

[DATE TIME][USER INITIALS] "Field: WITNESS HR ORDER
FLAG Set to" '[WITNESS HR ORDER FLAG]'

[DATE TIME][USER INITIALS] "Field: WITNESSED?" Set
to" '[WITNESSED?]'
```

- For High Risk/High Alert administrations marked as Recommended (2) to witness, that are not witnessed, the following is printed in the Audits section:

  Witnessed?:" NO
  [Required COMMENT] (on line below witness name, aligned with witness name)

```
[DATE TIME][USER INITIALS] "Field: WITNESS HR ORDER.

FLAG Set to" '[WITNESS HR ORDER FLAG]'

[DATE TIME][USER INITIALS] "Field: WITNESSED? Set to"
'[WITNESSED?]'

Example Audit entries:

10/15/12 01:32  GN    Field: WITNESS HR ORDER FLAG
Set to 'RECOMMEND WITNESS-HIGH RISK/ALERT'.

10/15/12 01:32  GN    Field: WITNESSED? Set to 'NO'.
```

- For High Risk/High Alert administrations marked as Required (3) or Recommended (2) to witness that were witnessed, then later marked as Undo Given, the following is printed in the Audits section:

```
[DATE TIME][USER INITIALS] "Field: WITNESS DATE/TIME
deleted."

[DATE TIME][USER INITIALS] "Field: WITNESSED BY
```

Witness Information Stored in the Med Log Report (cont.)

```
deleted."

[DATE TIME][USER INITIALS] "Field: WITNESS HR ORDER
FLAG deleted."

[DATE TIME][USER INITIALS] "Field: WITNESSED?"
deleted."
```

Note: See Med Log Report examples below.

Examples of Witness Information Included in the Med Log Report

The following Med Log Report example shows what displays in the comments and audits sections for an administration of a High Risk/High Alert medication marked as **Required to witness**.

Example: Med Log Report

```
   BECKY'S CLINIC
01/09/13 13:47  METHADONE [20 MG Q8H PO]          RKW    01/09/13 13:47
                                                         Given
1/3/13 10:07>                                                    METHADONE 10MG TAB              2.00    1.00 TAB
               Comments:     <No Comments>
               Witnessed by: BCMA,NURSE MGR on 1/9/13@13:47
6/24/13 12:00<
               Audits:       01/09/13 13:47  RKW   Field: ACTION DATE/TIME Set to 'JAN 09, 2013@13:47:43'.
                             01/09/13 13:47  RKW   Field: ACTION STATUS Set to 'GIVEN' by 'RKW'.
                             01/09/13 13:47  RKW   Field: WITNESS DATE/TIME Set to 'JAN 09, 2013@13:47:43'.
                             01/09/13 13:47  RKW   Field: ADMIN WITNESSED BY Set to 'BCMA,NURSE MGR'.
                             01/09/13 13:47  RKW   Field: WITNESS HR ORDER CODE Set to 'WITNESS REQUIRED IN BCMA-HIGH
                                                    RISK/ALERT'.
                             01/09/13 13:47  RKW   Field: WITNESSED? Set to 'YES'.
                             01/09/13 13:47  RKW   Field: DOSES GIVEN Set to '1'.
                             01/09/13 13:47  RKW   Field: UNIT OF ADMINISTRATION Set to 'TAB'.
```

Examples of Witness Information Included in the Med Log Report (cont.)

The following Med log Report example shows what displays in the comments and audits sections for an administration of a High Risk/High Alert medication marked as **Recommended to witness, when a witness is provided**.

Example: Med Log Report

```
---------------------------------------------------------------------------------------------------------------------------------
   BECKY'S CLINIC
02/07/13 15:26  LORAZEPAM [2 MG Q6H PO]          RKW    02/07/13 15:26
                                                        Given
1/3/13 10:06>                                                    LORAZEPAM 1MG TAB              2.00    1.00 TAB
               Comments:     <No Comments>
               Witnessed by: BCMA,NURSE MGR on 2/7/13@15:26
6/24/13 12:00<
               Audits:       02/07/13 15:26  RKW   Field: ACTION DATE/TIME Set to 'FEB 07, 2013@15:26:15'.
                             02/07/13 15:26  RKW   Field: ACTION STATUS Set to 'GIVEN' by 'RKW'.
                             02/07/13 15:26  RKW   Field: WITNESS DATE/TIME Set to 'FEB 07, 2013@15:26:15'.
                             02/07/13 15:26  RKW   Field: ADMIN WITNESSED BY Set to 'BCMA,NURSE MGR'.
                             02/07/13 15:26  RKW   Field: WITNESS HR ORDER CODE Set to 'RECOMMEND WITNESS IN BCMA-HIGH
                                                   RISK/ALERT'.
                             02/07/13 15:26  RKW   Field: WITNESSED? Set to 'YES'.
                             02/07/13 15:26  RKW   Field: DOSES GIVEN Set to '1'.
                             02/07/13 15:26  RKW   Field: UNIT OF ADMINISTRATION Set to 'TAB'.
---------------------------------------------------------------------------------------------------------------------------------
```

Examples of Witness Information Included in the Med Log Report (cont.)

The following Med log Report example shows what displays in the comments and audits sections for an administration of a High Risk/High Alert medication marked as **Recommended to witness, when a witness is not provided.**

Example: Med Log Report

```
   GEN MED
10/22/12 14:54  INSULIN [100 units Q4H PRN SC
                Inj Site: Abdomen, Right Lower
                Quad]                          MBN    10/22/12 14:54
                                                      Given
9/26/12 14:57>                                        INSULIN REG. U-100 INJ
                                                      (PORK)                    1.00    1.00 100 Units
                PRN Reason:   Elevated Blood Sugar
                PRN Effectiveness: <No PRN Effectiveness Entered>
                Comments:     <No Comments>
                Witnessed?    No
                              This is a comment from administering nurse-Witness was unavailable.
3/25/13 14:57<
                Audits:       10/22/12 14:54  MBN   Field: ACTION DATE/TIME Set to 'OCT 22, 2012@14:54:51'.
                              10/22/12 14:54  MBN   Field: ACTION STATUS Set to 'GIVEN' by 'MBN'.
                              10/22/12 14:54  MBN   Field: INJECTION SITE Set to 'Abdomen, Right Lower Quad'.
                              10/22/12 14:54  MBN   Field: PRN REASON Set to 'Elevated Blood Sugar'.
                              10/22/12 14:54  MBN   Field: WITNESS HR ORDER FLAG Set to 'RECOMMEND WITNESS-HIGH RISK/ALERT'
                              10/22/12 14:54  MBN   Field: WITNESSED? Set to 'No'
                              10/22/12 14:54  MBN   Field: DOSES GIVEN Set to '1'.
                              10/22/12 14:54  MBN   Field: UNIT OF ADMINISTRATION Set to '100 Units'.
```

Examples of Witness Information Included in the Med Log Report (cont.)

The following Med log Report example shows audits after an **Undo Given** is performed on a High Risk/High Alert medication for which a **witness was Required**.

Example: Med Log Report

```
   GEN MED
10/22/12 14:51  POTASSIUM CHLORIDE [2 MEQ/1 ML
                Q6H IM Inj Site: Abdomen, Right
                Upper Quad]                        MBN    10/22/12 14:52
                                                          Not Given
9/28/12 09:00>                                                POTASSIUM CHLORIDE
                                                              20MEQ/10ML INJ                  1.00    0.00 2 meq
                Comments:      10/22/12 14:52  MBN    Undo Given:
3/27/13 11:23<
                Audits:        10/22/12 14:51  MBN    Field: ACTION DATE/TIME Set to 'OCT 22, 2012@14:51'.
                               10/22/12 14:51  MBN    Field: ACTION STATUS Set to 'GIVEN' by 'MBN'.
                               10/22/12 14:51  MBN    Field: INJECTION SITE Set to 'Abdomen, Right Upper Quad'.
                               10/22/12 14:51  MBN    Field: WITNESS DATE/TIME Set to 'OCT 22, 2012@14:51'.
                               10/22/12 14:51  MBN    Field: ADMIN WITNESSED BY Set to 'BCMA,NURSE TWO'.
                               10/22/12 14:51  MBN    Field: WITNESS HR ORDER FLAG Set to 'WITNESS REQUIRED-HIGH RISK/ALERT'
                               10/22/12 14:51  MBN    Field: WITNESSED? Set to 'Yes'
                               10/22/12 14:51  MBN    Field: DOSES GIVEN Set to '1'.
                               10/22/12 14:51  MBN    Field: UNIT OF ADMINISTRATION Set to '2 meq'.
                               10/22/12 14:52  MBN    Field: ACTION DATE/TIME 'OCT 22, 2012@14:51' deleted.
                               10/22/12 14:52  MBN    Field: ACTION DATE/TIME Set to 'OCT 22, 2012@14:52:27'.
                               10/22/12 14:52  MBN    Field: ACTION STATUS 'GIVEN' by 'MBN' deleted.
                               10/22/12 14:52  MBN    Field: ACTION STATUS Set to 'NOT GIVEN' by 'MBN'.
                               10/22/12 14:52  MBN    Field: WITNESS DATE/TIME 'OCT 22, 2012@14:51' deleted.
                               10/22/12 14:52  MBN    Field: WITNESSED BY 'BCMA,NURSE TWO' deleted.
                               10/22/12 14:52  MBN    Field: WITNESS HR ORDER FLAG deleted.
                               10/22/12 14:52  MBN    Field: WITNESSED? Deleted.
                               10/22/12 14:52  MBN    Field: DOSES GIVEN '1' deleted.
                               10/22/12 14:52  MBN    Field: DOSES GIVEN Set to '0'.
```