INPATIENT MEDICATIONS

NURSE'S USER MANUAL

Version 5.0
January 2005

(Revised April 2011)

Department of Veterans Affairs
Product Development (PD)

Revision History

Each time this manual is updated, the Title Page lists the new revised date and this page describes the changes. If the Revised Pages column lists "All," replace the existing manual with the reissued manual. If the Revised Pages column lists individual entries (e.g., 25, 32), either update the existing manual with the Change Pages Document or print the entire new manual.

Date	Revised Pages	Patch Number	Description
04/2011	i	PSJ*5*181	Updated Revision History
	v-vi		Updated Table of Contents
	12		New Example: Patient Information Screen
	13		New Example: Non-Verified/Pending Orders
	15-16d		Updated: Example: Short Profile, HOURS OF RECENTLY DC/EXPIRED field (#7) and INPATIENT WARD PARAMETERS file (#59.6) information, and Example: Profile.
	18		Updated "Select DRUG:"
	20		New Example: Dispense Drug with Possible Dosages and New Example: Dispense Drug with Local Possible Dosages
	26-27		New Example: New Order Entry
	33-34b		New Example: New Order Entry (Clinic Location)
	35-39		New Examples of all the New Interventions
	40-40d		Updated the View Profile and New Example: Profile View
	46		New Medication Profile Discontinue Type Codes
	67		New Example: Flagged Order
	71		New Example: Inpatient Profile
	72-73		Updated Order Checks
	74		New Example: Local Outpatient Order Display and New Example: Remote Outpatient Order Display
	74a-74c		Duplicate Therapy
	74d-74f		Drug-Drug Interaction
	74f-74g		CPRS Order Checks
	105		Updated Example: Authorized Absence/Discharge Summary (continued)
	119-120		CPRS Order checks: How they work
	121-122		Error Messages
	123-136		Glossary - fix page numbering
	137-140		Index - new entries and fix page numbering
			REDACTED

Date	Revised Pages	Patch Number	Description
06/2010	i-vi, 22-23, 23a-23b, 24, 24a-24b, 74a-74b, 74e-74f, 133, 136-137 77, 100, 103, 108-110, 112, 114	PSJ*5*113	Added new Order Validation Requirements. Removed Duplicate Order Check Enhancement functionality, PSJ*5*175 (removed in a prior patch). Miscellaneous corrections. REDACTED
12/2009	60a, 60b vi	PSJ*5*222	Added description of warning displayed when finishing a Complex Unit Dose Order with overlapping admin times. Corrected page numbers in Table of Contents. REDACTED
07/2009	48	PSJ*5*215	When Dispense Drug is edited for an active Unit Dose, an entry is added to the activity log. REDACTED
02/2009	125	PSJ*5*196	Update to IV Duration REDACTED
08/2008	19-37, 58-59, 65, 134	PSJ*5*134	Inpatient Medication Route changes added, plus details on IV type changes for infusion orders from CPRS, pending renewal functions, and expected first dose changes. REDACTED
10/2007	iv, 74a-74d 5, 12, 16- 17, 26, 34-38, 41-42, 72-73	PSJ*5*175 PSJ*5*160	Modified outpatient header text for display of duplicate orders. Added new functionality to Duplicate Drug and Duplicate Class definitions. Modifications for remote allergies, to ensure all allergies are included when doing order checks using VA Drug Class; Analgesic order checks match against specific class only; check for remote data interoperability performed when entering patient's chart; and list of remote allergies added to Patient Information screen. REDACTED
07/2007	79a-79b, 86a-86b, 92a-92b	PSJ*5*145	On 24-Hour, 7-Day, and 14-Day MAR Reports, added prompt to include Clinic Orders when printing by Ward or Ward Group. Also added prompt to include Ward Orders when printing by Clinic or Clinic Group. REDACTED

Date	Revised Pages	Patch Number	Description
05/2007	24	PSJ*5*120	Modified Inpatient Medications V. 5.0 to consider the duration the same way as all other stop date parameters, rather than as an override. REDACTED
12/2005	1, 73-74b	PSJ*5*146	Remote Data Interoperability (RDI) Project: Removed document revision dates in Section 1. Introduction. Updated Section 4.9. Order Checks, to include new functionality for remote order checking. REDACTED
01/2005	All	PSJ*5*111	Reissued entire document to include updates for Inpatient Medications Orders for Outpatients and Non-Standard Schedules. REDACTED

(This page included for two-sided copying.)

Table of Contents

Since the documentation is arranged in a topic oriented format and the screen options are not, a menu tree is provided below for the newer users who may need help finding the explanations to the options.

Menu Tree		Topic-Oriented Section
	Align Labels (Unit Dose)	Output Options
	Clinic Stop Dates	Maintenance Options
	Discontinue All of a Patient's Orders	Order Options
EUP	Edit Inpatient User Parameters	Maintenance Options
	Hold All of a Patient's Orders	Order Options
IOE	Inpatient Order Entry	Order Options
IPF	Inpatient Profile	Order Options
	INQuiries Menu…	Inquiries Option
	Dispense Drug Look-Up	Inquiries Option
	Standard Schedules	Inquiries Option
	Label Print/Reprint	Output Options
	Non-Verified/Pending Orders	Order Options
	Order Entry	Order Options
	PAtient Profile (Unit Dose)	Output Options
	Reports Menu…	Output Options
	24 Hour MAR	Output Options
	7 Day MAR	Output Options
	14 Day MAR	Output Options
	Action Profile #1	Output Options
	Action Profile #2	Output Options
	AUthorized Absence/Discharge Summary	Output Options
	Extra Units Dispensed Report	Output Options
	Free Text Dosage Report	Output Options
	INpatient Stop Order Notices	Output Options
	Medications Due Worksheet	Output Options
	Patient Profile (Extended)	Output Options

(This page included for two-sided copying.)

4 Order Options

The *Unit Dose Medications* option is used to access the order entry, patient profiles, and various reports, and is the main starting point for the Unit Dose system.

Example: Unit Dose Menu

```
Select Unit Dose Medications Option: ?

          Align Labels (Unit Dose)
          Discontinue All of a Patient's Orders
   EUP    Edit Inpatient User Parameters
   ESD    Edit Patient's Default Stop Date
          Hold All of a Patient's Orders
   IOE    Inpatient Order Entry
   IPF    Inpatient Profile
          INQuiries Menu ...
          Label Print/Reprint
          Non-Verified/Pending Orders
          Order Entry
          PAtient Profile (Unit Dose)
          PIck List Menu ...
          Reports Menu ...
          Supervisor's Menu ...
```

Within the Inpatient Medications package there are three different paths the nurse can take to enter a new order or take action on an existing order. They are (1) *Order Entry*, (2) *Non-Verified/Pending Orders* and (3) *Inpatient Order Entry*. Each of these paths differs by the prompts that are presented. Once the nurse has reached the point of entering a new order or selecting an existing order, the process becomes the same for each path.

Note: When the selected order type (non-verified or pending) does not exist (for that patient) while the user is in the *Non-Verified/Pending Orders* option, the user cannot enter a new order or take action on an existing order for that patient.

Patient locks and order locks are incorporated within the Inpatient Medications package. When a user (User 1) selects a patient through any of the three paths, *Order Entry*, *Non-Verified/Pending Orders,* or *Inpatient Order Entry*, and this patient has already been selected by another user (User 2), the user (User 1) will see a message that another user (User 2) is processing orders for this patient. This will be a lock at the patient level within the Pharmacy packages. When the other user (User 2) is entering a new order for the patient, the user (User 1) will not be able to access the patient due to a patient lock within the VistA packages. A lock at the order level is issued when an order is selected through Inpatient Medications for any action other than new order entry. Any users attempting to access this patient's order will receive a message that another user is working on this order. This order-level lock is within the VistA packages.

The three different paths for entering a new order or taking an action on an existing order are summarized in the following sections.

4.1 Order Entry

[PSJU NE]

The *Order Entry* option allows the nurse to create, edit, renew, hold, and discontinue Unit Dose orders while remaining in the Unit Dose Medications module.

The *Order Entry* option functions almost identically to the *Inpatient Order Entry* option, but does not include IV orders on the profile and only Unit Dose orders may be entered or processed.

After selecting the *Order Entry* option from the *Unit Dose Medications* option, the nurse will be prompted to select the patient. At the "Select PATIENT:" prompt, the user can enter the patient's name or enter the first letter of the patient's last name and the last four digits of the patient's social security number (e.g., P0001). The Patient Information Screen is displayed:

Example: Patient Information Screen

```
Patient Information           Feb 10, 2011@10:44:55          Page:    1 of    1
TESTYPATNM,TEST                   Ward: GEN MED                        A
   PID: 666-00-0423           Room-Bed:               Ht(cm):_______(_________)
   DOB: 01/01/50 (61)                                 Wt(kg):_______(_________)
   Sex: MALE                                    Admitted: 02/13/07
    Dx: OBSERVATION                      Last transferred: ********

Allergies - Verified: PENICILLIN, ASPIRIN
        Non-Verified:

   Adverse Reactions:
 Inpatient Narrative:
Outpatient Narrative:



          Enter ?? for more actions
PU Patient Record Update               NO New Order Entry
DA Detailed Allergy/ADR List           IN Intervention Menu
VP View Profile
Select Action: View Profile//
```

The nurse can now enter a Patient Action at the "Select Action: View Profile//" prompt in the Action Area of the screen.

4.2 Non-Verified/Pending Orders

[PSJU VBW]

The *Non-Verified/Pending Orders* option allows easy identification and processing of non-verified and/or pending orders. This option will also show pending and pending renewal orders, which are orders from CPRS that have not been finished by Pharmacy Service. Unit Dose and IV orders are displayed using this option.

If this is the first time into this option, the first prompt will be: Select IV ROOM NAME. If not, then the first prompt is "Display an Order Summary? NO// ". A **YES** answer will allow the nurse to view an Order Summary of Pending/Non-Verified Order Totals by Ward Group, Clinic Group, and Clinic. The Pending IV, Pending Unit Dose, Non-Verified IV, and Non-Verified Unit Dose totals are then listed by Ward Group, Clinic Group, and Clinic. The nurse can then specify whether to display Non-Verified Orders, Pending Orders or both.

A ward group indicates inpatient nursing units (wards) that have been defined as a group within Inpatient Medications to facilitate processing of orders. A clinic group is a combination of outpatient clinics that have been defined as a group within Inpatient Medications to facilitate processing of orders.

Example: Non-Verified/Pending Orders

```
Non-Verified/Pending Orders
Select IV ROOM NAME:    TST ISC ROOM

You are signed on under the TST ISC ROOM IV ROOM

Enter IV LABEL device: HOME//   COMPUTER ROOM


Enter IV REPORT device: HOME//   COMPUTER ROOM

Display an Order Summary? NO// YES

Searching for Pending and Non-Verified orders.....................................

                 Pending/Non-Verified Order Totals by Ward Group/Clinic Location

                                    Pending                Non-Verified
Ward Group/Clinic Location    IV         UD              IV           UD

Ward Groups

GEN MED                         5          5               0           3
TST 1 Group                     1          3               0           0
TST 3                           0          2               0           0
^OTHER                          5         27               1           5

Clinics

45 CLINIC PATTERN               5          0               0           0


1) Non-Verified Orders
2) Pending Orders

Select Order Type(s) (1-2):
```

Note: The Ward Group of ^OTHER includes all orders from wards that do not belong to a ward group. Use the *Ward Group Sort* option to select ^OTHER.

Next, the nurse can select which packages to display: Unit Dose Orders, IV Orders, or both, provided this user holds the PSJ RNFINISH and the PSJI RNFINISH keys. If the user holds only one of the RNFINISH keys, then either Unit Dose or IV orders will be displayed.

The next prompt allows the nurse to select non-verified and/or pending orders for a group (**G**), ward (**W**), clinic (**C**), or patient (**P**). When group is selected, a prompt to select by ward group (**W**) or clinic group (**C**) displays. If ward or ward groups is selected, patients will be listed by wards and then by teams. The nurse will then select the patient from the list.

```
1) Unit Dose Orders
2) IV Orders

Select Package(s) (1-2): 1-2

Select by GROUP (G), WARD (W), CLINIC (C), or PATIENT (P): PATIENT <Enter>

Select by WARD GROUP (W) or CLINIC GROUP (C): WARD <Enter>

Select PATIENT:    PSJPATIENT1,ONE        000-00-0001  08/18/20    B-12 1 EAST

Select PATIENT: <Enter>

SHORT, LONG, or NO Profile? SHORT// <Enter>  SHORT
```

A profile prompt is displayed asking the nurse to choose a profile for the patient. The nurse can choose a short, long, or no profile. If **NO** profile is chosen, the orders for the patient selected will be displayed, for finishing or verification, by login date with the earliest date showing first. When a pending Unit Dose order has a STAT priority, this order will always be displayed first in the profile view and will be displayed in blinking reverse video. If a profile is chosen, the orders will be selected from this list for processing (any order may be selected). The following example displays a short profile.

Example: Short Profile

```
Select Unit Dose Medications Option: Non-Verified/Pending Orders
Display an Order Summary? NO// y  YES

Searching for Pending and Non-Verified orders.................................
..................................................


               Pending/Non-Verified Order Totals by Ward Group/Clinic Location

                                  Pending               Non-Verified
Ward Group/Clinic Location    IV        UD             IV          UD

Ward Groups

BCMA                          56        75             10          30
GEN MED                        5         5              0           0
TEST AGAIN                     1        18              2           4
TST 1 GROUP                    1         4              0           0
TST 2 GROUP                    0        10              0           0
TST 3                          0         2              0           0
^OTHER                         6        32              0           4

Clinics

45 CLINIC PATTERN              5         0              0           0
BARBARA'S CLINIC               1         0              0           0
BECKY'S CLINIC                 1         0              0           0


1) Non-Verified Orders
2) Pending Orders


Select Order Type(s) (1-2): 1

1) Unit Dose Orders
2) IV Orders


Select Package(s) (1-2): 1

Select by GROUP (G), WARD (W), CLINIC (C), or PATIENT (P): gROUP

Select by WARD GROUP (W) or CLINIC GROUP (C): wARD

Select WARD GROUP: bcma
PHARMACY
...a few moments, please.....................................

ORDERS NOT VERIFIED BY A PHARMACIST - BCMA

 No.   TEAM                     PATIENT
-------------------------------------------------------------------------------------------------------------------
   1  Not Found            BCMA,EIGHTY-PATIENT (0080)
   2  Not Found            BCMA,EIGHTYEIGHT-PATIENT (0088)
   3  Not Found            BCMA,EIGHTYFIVE-PATIENT (0085)
   4  Not Found            BCMA,EIGHTYSIX-PATIENT (0086)
   5  Not Found            BCMA,EIGHTYTHREE-PATIENT (0083)
   6  Not Found            BCMA,EIGHT (0008)
   7  Not Found            BCMA,FIFTEEN-PATIENT (0015)
   8  Not Found            BCMA,FIFTYTHREE-PATIENT (0053)
   9  Not Found            BCMA,FIFTYTWO-PATIENT (0052)
  10  Not Found            BCMA,FORTYTWO-PATIENT (0042)
  11  Not Found            BCMA,FOUR-PATIENT (0004)
  12  Not Found            BCMA,FOURTEEN-PATIENT (0014)
  13  Not Found            BCMA,NINETY-PATIENT (0090)
  14  Not Found            BCMA,NINETYTWO-PATIENT (0092)
  15  Not Found            BCMA,ONE HUNDRED-PATIENT (0100)
```

```
  16  Not Found            BCMA,SEVENTYSEVEN-PATIENT (0077)
  17  Not Found            BCMA,SIXTEEN-PATIENT (0016)
  18  Not Found            BCMA,TEN-PATIENT (0010)
Select 1 - 18: 1
Do you want to print a profile for the patient? NO// y YES

SHORT, LONG, or NO Profile?  SHORT//   SHORT

Select PRINT DEVICE: home;80;9999 COMPUTER ROOM

               I N P A T I E N T   M E D I C A T I O N S       03/16/11 10:32
                        VAMC: ZZ ALBANY-PRRTP (500PA)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 BCMA,EIGHTY-PATIENT               Ward: BCMA
    PID: 666-33-0080      Room-Bed: 12-B             Ht(cm): 167.64 (03/30/09)
    DOB: 04/07/35  (75)                              Wt(kg): 90.00 (03/30/09)
    Sex: FEMALE                                    Admitted: 02/07/02
     Dx: HIGH FEVER
 Allergies: CODEINE, ASPIRIN, CAFFEINE, STRAWBERRIES
       ADR:
 - - - - - - - - - - - - - - - N O N - V E R I F I E D - - - - - - - - - - - - - - -
   1     ENOXAPARIN 30MG/0.3ML/SYR INJ            ? ***** ***** N
           Give: XXX SC XXX@09-13
   2     MULTIVITAMINS/MINERALS TAB               ? ***** ***** N
           Give: ONE TABLET PO QAM
   3     PREDNISONE TAB                           ? ***** ***** N
           Give: 2000MG PO NOW
 - - - - - - - - - - - - - - - - - P E N D I N G - - - - - - - - - - - - - - - - -
   4     DOCUSATE NA CAP,ORAL                     ?  *****  *****  P
           Give: 100MG PO QAM
   5     ACETAMINOPHEN TAB                        ?  *****  *****  P
           Give: 325MG PO Q6H
   6     in CISPLATIN 250MG IN 0.9% NACL 250 ML   ?  *****  *****  P
   7    in CISPLATIN 250MG IN 0.9% NACL 250 ML 10?  *****  *****  P
   8    in CISPLATIN 250MG IN 0.9% NACL 250 ML 10?  *****  *****  P
   9 in DOPAMINE 400MG/D5W 1600MCG/ML 250 ML ? ***** *****  P
  10     in DOPAMINE IN 200ML D5W 200 ML 50MCG/KG/? ***** *****  P
  11     HEPARIN/SODIUM CHLORIDE INJ,SOLN      ?   *****   *****   P
           Give: IV CONTINUOUS DRIP

View ORDERS (1-11): 1

     ------------------------------------------------------------------------------------------------
Patient: BCMA,EIGHTY-PATIENT                    Status: NON-VERIFIED
Orderable Item: ENOXAPARIN 30MG/0.3ML/SYR INJ
  Instructions:
Dosage Ordered: XXX
      Duration:                                  Start: 04/05/10  13:00
     Med Route: SUBCUTANEOUS (SC)
                                                 Stop: 07/14/10  24:00
 Schedule Type: NOT FOUND
      Schedule: XXX@09-13
   (No Admin Times)
      Provider: PHARMACIST,ONE [w]
                                                Units   Units   Inactive
 Dispense Drugs                             U/D  Disp'd  Ret'd   Date
-------------------------------------------------------------------------------------------------------
 ENOXAPARIN 30MG/0.3ML INJ SYRINGE 0.3ML   1    0       0

ORDER NOT VERIFIED
Self Med: NO

Entry By: PHARMACIST,ONE                        Entry Date: 04/05/10  14:36
Enter RETURN to continue or '^' to exit:

Select profile type for order processing.

SHORT, LONG, or NO Profile?  SHORT//   SHORT
```

```
Non-Verified/Pending Orders   Mar 16, 2011@10:33:08          Page:    1 of    2
BCMA,EIGHTY-PATIENT               Ward: BCMA                    A
   PID: 666-33-0080           Room-Bed: 12-B          Ht(cm): 167.64 (03/30/09)
   DOB: 04/07/35 (75)                                 Wt(kg): 90.00 (03/30/09)
   Sex: FEMALE                                     Admitted: 02/07/02
    Dx: HIGH FEVER                          Last transferred: ********
-------------------------------------------------------------------------------------------
 - - - - - - - - - - - - - - - - N O N - V E R I F I E D - - - - - - - - - - - - - - - -
   1    ENOXAPARIN 30MG/0.3ML/SYR INJ            C 04/05 07/14 N
          Give: XXX SC XXX@09-13
   2    MULTIVITAMINS/MINERALS TAB               C 09/21 12/20 N
          Give: ONE TABLET PO QAM
   3    PREDNISONE TAB                           O 09/21 10/21 N
          Give: 2000MG PO NOW
 - - - - - - - - - - - - - - - - - P E N D I N G - - - - - - - - - - - - - - - - -
   4    DOCUSATE NA CAP,ORAL                     ? ***** ***** P
          Give: 100MG PO QAM
   5    ACETAMINOPHEN TAB                        ? ***** ***** P
          Give: 325MG PO Q6H
+         Enter ?? for more actions
PI  Patient Information                SO Select Order
PU  Patient Record Update              NO New Order Entry
Select Action: Next Screen//
```

The orders on the profile are sorted first by status (ACTIVE, NON-VERIFIED, NON-VERIFIED COMPLEX, PENDING RENEWALS, PENDING COMPLEX, PENDING, RECENTLY DISCONTINUED/EXPIRED), then alphabetically by SCHEDULE TYPE. Pending orders with a priority of STAT are listed first and are displayed in a bold and blinking text for easy identification. After SCHEDULE TYPE, orders are sorted alphabetically by DRUG (the drug name listed on the profile), and then in descending order by START DATE.

Example: Short Profile

```
Inpatient Order Entry         Jun 12, 2006@23:12:54          Page:    1 of    1
PSJPATIENT11, ONE              Ward: 2ASM
   PID: 000-55-3421           Room-Bed: 102-1         Ht(cm):_______(_________)
   DOB: 12/02/23 (82)                                 Wt(kg): 100.00 (06/24/03)
   Sex: MALE                                       Admitted: 12/11/01
    Dx: HE IS A PAIN.                       Last transferred: 12/11/01

 - - - - - - - - - - - - - - - - - A C T I V E - - - - - - - - - - - - - - - - -
   1    CEFAZOLIN 1 GM                           C 06/12 06/22  H
        in 5% DEXTROSE 50 ML Q8H
   2    CIMETIDINE TAB                           C 06/12 07/12  A
          Give: 300MG PO BID
   3    FUROSEMIDE TAB                           C 06/01 06/15  HP
          Give: 40MG PO QAM
- - - - - - - - - - - - - - - N O N - V E R I F I E D - - - - - - - - - - - - - - -
   4    CAPTOPRIL TAB                            C 06/14 06/28  N
          Give: 25MG PO BID

- - - - - - - - - - - - - P E N D I N G   R E N E W A L S - - - - - - - - - - - - -
   5    HALOPERIDOL TAB                          ?  *****  *****  P    06/14
          Give: 5MG PO BID
- - - - - - - - - - - - - - - - - P E N D I N G - - - - - - - - - - - - - - - - -
   6    HEPARIN/DEXTROSE INJ,SOLN                ? ***** *****  P
          Give: IV
   7    LACTULOSE SYRUP                          ? ***** ***** P NF
          Give: 10GM/15ML PO BID PRN

- - - - - - - - - - - RECENTLY DISCONTINUED/EXPIRED (LAST X HOURS) - - - - - - - - - - -
   8    FOLIC ACID TAB            C 06/14 06/16  D
          Give: 1MG PO QAM
   9    GENTAMICIN 80 MG                         C  06/12  06/12  D
        in 5% DEXTROSE 100 ML Q8H
  10    ISONIAZID TAB                            C  04/03  04/17  DF
```

```
          Give: 300MG PO QD
  11    POTASSIUM CHLORIDE 10MEQ                C  06/12  06/12  DA
        in 5% DEXTROSE 1000 ML Q8H
  12    POTASSIUM CHLORIDE 40 MEQ               C  06/12  06/12  DD
        in 5% DEXTROSE 250 ML 120 ml/hr
  13    PROPRANOLOL TAB                         C  06/15  06/20  DP
          Give: 40MG PO Q6H
  14    THIAMINE TAB                            C  04/03  04/17  E
          Give: 100MG PO BID

X - Represents the value set in either the ward or system parameter

       Enter ?? for more actions
PI Patient Information                 SO Select Order
PU Patient Record Update               NO New Order Entry
```

The HOURS OF RECENTLY DC/EXPIRED field (#7) has been created in the INPATIENT WARD PARAMETERS file (#59.6). The Inpatient Medications profiles will display the recently discontinued/expired orders that fall within the number of hours specified in this field. The value defined in this field will take precedence over the Inpatient System parameter. The inpatient ward parameter allows for a minimum value of one (1) hour and a maximum value of one hundred twenty (120) hours. The Inpatient Ward Parameters Edit [PSJ IWP EDIT] option allows the user to edit this new ward parameter. If this parameter is not set the software will use the value in the HOURS OF RECENTLY DC/EXPIRED field (#26.8) in the PHARMACY SYSTEM file (#59.7). If neither parameter is set the software will default to twenty-four (24) hours.

The HOURS OF RECENTLY DC/EXPIRED field (#26.8) has been created in the PHARMACY SYSTEM file (#59.7). The Inpatient Medications profiles will display the recently discontinued/expired orders that fall within the number of hours specified in this field. This parameter allows for a minimum value of one (1) hour and a maximum value of one hundred twenty (120) hours. The Systems Parameters Edit [PSJ SYS EDIT] option includes the ability for a user to edit this inpatient site parameter. If neither parameter is set the software will default to twenty-four (24) hours.

On the medication profile in the status column the codes and the action they represent are as follows: Order Status: The current status of the order. These statuses include:

- A Active
- N Non-Verified
- O On Call (IV orders only)
- I Incomplete
- HP Placed on hold by provider through CPRS
- H Placed on hold via backdoor Pharmacy
- E Expired
- DP Discontinued by provider through CPRS
- DE Discontinued due to edit via backdoor Pharmacy (Unit Dose orders only)
- D Discontinued via backdoor Pharmacy (IV & UD); discontinued due to edit via backdoor Pharmacy (IV)

The Status column will also display some additional discontinue type actions performed on the order. The codes and the action they represent are as follows:

- DF Discontinued due to edit by a provider through CPRS
- DD Auto discontinued due to death
- DA Auto discontinued due to patient movements

Example Profile

```
Inpatient Order Entry         Jun 12, 2006@23:12:54          Page:    1 of    1
PSJPATIENT11, ONE              Ward: 2ASM
   PID: 000-55-3421           Room-Bed: 102-1         Ht(cm):_______(_________)
   DOB: 12/02/23 (82)                                 Wt(kg): 100.00 (06/24/03)
   Sex: MALE                                      Admitted: 12/11/01
    Dx: HE IS A PAIN.                     Last transferred: 12/11/01

 - - - - - - - - - - - - - - - - - A C T I V E - - - - - - - - - - - - - - - - -
   1    CEFAZOLIN 1 GM                              C 06/12 06/22  H
        in 5% DEXTROSE 50 ML Q8H
   2    CIMETIDINE TAB                              C  06/12  07/12  A
          Give: 300MG PO BID
   3    FUROSEMIDE TAB                              C  06/01  06/15  HP
          Give: 40MG PO QAM
- - - - - - - - - - - - - - - N O N - V E R I F I E D - - - - - - - - - - - - - - -
   4    CAPTOPRIL TAB                               C 06/14 06/28 N
          Give: 25MG PO BID

- - - - - - - - - - - - - P E N D I N G   R E N E W A L S - - - - - - - - - - - - -
   5    HALOPERIDOL TAB                             ?  *****  *****  P    06/14
          Give: 5MG PO BID
- - - - - - - - - - - - - - - - - P E N D I N G - - - - - - - - - - - - - - - - -
   6    HEPARIN/DEXTROSE INJ,SOLN                   ? ***** *****  P
          Give: IV
   7    LACTULOSE SYRUP                             ? ***** ***** P NF
          Give: 10GM/15ML PO BID PRN

- - - - - - - - - - - RECENTLY DISCONTINUED/EXPIRED (LAST 24 HOURS) - - - - - - - - -
   8    FOLIC ACID TAB              C 06/14 06/16 D
          Give: 1MG PO QAM
   9    GENTAMICIN 80 MG                            C  06/12  06/12  D
        in 5% DEXTROSE 100 ML Q8H
  10    ISONIAZID TAB                               C  04/03  04/17  DF
          Give: 300MG PO QD
  11    POTASSIUM CHLORIDE 10MEQ                    C  06/12  06/12  DA
        in 5% DEXTROSE 1000 ML Q8H
  12    POTASSIUM CHLORIDE 40 MEQ                   C  06/12  06/12  DD
        in 5% DEXTROSE 250 ML 120 ml/hr
  13    PROPRANOLOL TAB                             C  06/15  06/20  DP
          Give: 40MG PO Q6H
  14    THIAMINE TAB                                C  04/03  04/17  E
          Give: 100MG PO BID

       Enter ?? for more actions
PI Patient Information                 SO Select Order
PU Patient Record Update               NO New Order Entry
```

The nurse can enter a Patient Action at the “Select Action: Quit//” prompt in the Action Area of the screen or choose a specific order or orders.

 When the nurse holds the PSJ RNURSE key, it will be possible to take any available actions on selected Unit Dose or IV orders and verify non-verified orders.

The following keys may be assigned if the user already holds the PSJ RNURSE key:

 PSJ RNFINISH key will allow the nurse to finish Unit Dose orders.

 PSJI RNFINISH key will allow the nurse to finish IV orders.

4.3 Inpatient Order Entry

[PSJ OE]

The *Inpatient Order Entry* option, if assigned, allows the nurse to create, edit, renew, hold, and discontinue Unit Dose and IV orders, as well as put existing IV orders on call for any patient, while remaining in the Unit Dose Medications module.

When the user accesses the *Inpatient Order Entry* option from the Unit Dose Medications module for the first time within a session, a prompt is displayed to select the IV room in which to enter orders. When only one active IV room exists, the system will automatically select that IV room. The user is then given the label and report devices defined for the IV room chosen. If no devices have been defined, the user will be given the opportunity to choose them. If this option is exited and then re-entered within the same session, the current label and report devices are shown. The following example shows the option re-entered during the same session.

Example: Inpatient Order Entry

```
Select Unit Dose Medications Option: IOE Inpatient Order Entry
You are signed on under the BIRMINGHAM ISC IV ROOM
Current IV LABEL device is: NT TELNET TERMINAL
Current IV REPORT device is: NT TELNET TERMINAL
Select PATIENT: PSJPATIENT1
```

At the "Select PATIENT:" prompt, the user can enter the patient's name or enter the first letter of the patient's last name and the last four digits of the patient's social security number (e.g., P0001). The Patient Information Screen is displayed:

Example: Patient Information Screen

```
Patient Information           Sep 12, 2000 10:36:38          Page:    1 of    1
PSJPATIENT1,ONE                  Ward: 1 EAST
   PID: 000-00-0001          Room-Bed: B-12        Ht(cm):       (         )
   DOB: 08/18/20 (80)                              Wt(kg):_______(_________)
   Sex: MALE                                    Admitted: 05/03/00
    Dx: TESTING                           Last transferred: ********

 Allergies/Reactions: No Allergy Assessment
 Remote:
 Adverse Reactions:
 Inpatient Narrative: INP NARR...
 Outpatient Narrative:




          Enter ?? for more actions
PU Patient Record Update               NO New Order Entry
DA Detailed Allergy/ADR List           IN Intervention Menu
VP View Profile
Select Action: View Profile//
```

The nurse can now enter a Patient Action at the "Select Action: View Profile//" prompt in the Action Area of the screen.

4.4 Patient Actions

The Patient Actions are the actions available in the Action Area of the List Manager Screen. These actions pertain to the patient information and include editing, viewing, and new order entry.

4.4.1 Patient Record Update

The Patient Record Update action allows editing of the Inpatient Narrative and the Patient's Default Stop Date and Time for Unit Dose Order entry.

Example: Patient Record Update

```
Patient Information           Sep 12, 2000 14:39:07          Page:    1 of    1
PSJPATIENT1,ONE                  Ward: 1 EAST
   PID: 000-00-0001          Room-Bed: B-12        Ht(cm):       (          )
   DOB: 08/18/20 (80)                              Wt(kg):_______(__________)
   Sex: MALE                                    Admitted: 05/03/00
    Dx: TESTING                              Last transferred: ********

 Allergies/Reactions: No Allergy Assessment
 Remote:
 Adverse Reactions:
 Inpatient Narrative: INP NARR …
 Outpatient Narrative:



          Enter ?? for more actions
PU Patient Record Update                NO New Order Entry
DA Detailed Allergy/ADR List            IN Intervention Menu
VP View Profile
Select Action: View Profile// PU
INPATIENT NARRATIVE: INP NARR...// Narrative for Patient PSJPATIENT1
UD DEFAULT STOP DATE/TIME: SEP 21,2000@24:00//
```

The "INPATIENT NARRATIVE: INP NARR...//" prompt allows the nurse to enter information in a free text format, up to 250 characters.

The "UD DEFAULT STOP DATE/TIME:" prompt is the date and time entry to be used as the default value for the STOP DATE/TIME of the Unit Dose orders during order entry and renewal processes. This value is used only if the corresponding ward parameter is enabled. The order entry and renewal processes will sometimes change this date and time.

Note: If the Unit Dose order, being finished by the nurse, is received from CPRS and has a duration assigned, the UD DEFAULT STOP DATE/TIME is displayed as the Calc Stop Date/Time.

When the SAME STOP DATE ON ALL ORDERS parameter is set to Yes, the module will assign the same default stop date for each patient. This date is initially set when the first order is entered for the patient, and can change when an order for the patient is renewed. This date is shown as the default value for the stop date of each of the orders entered for the patient.

Note: If this parameter is not enabled, the user can still edit a patient's default stop date. Unless the parameter is enabled, the default stop date will not be seen or used by the module.

Examples of Valid Dates and Times:

- JAN 20 1957 or 20 JAN 57 or 1/20/57 or 012057
- T (for TODAY), T+1 (for TOMORROW), T+2, T+7, etc.
- T-1 (for YESTERDAY), T-3W (for 3 WEEKS AGO), etc.
- If the year is omitted, the computer uses CURRENT YEAR. Two-digit year assumes no more than 20 years in the future, or 80 years in the past.
- If only the time is entered, the current date is assumed.
- Follow the date with a time, such as JAN 20@10, T@10AM, 10:30, etc.
- The nurse may enter a time, such as NOON, MIDNIGHT, or NOW.
- The nurse may enter NOW+3' (for current date and time plus 3 minutes--the apostrophe following the number indicates minutes).
- Time is REQUIRED in this response.

4.4.2 New Order Entry

Unit Dose

The New Order Entry action allows the nurse to enter new Unit Dose and IV orders for the patient depending upon the order option selected (*Order Entry*, *Non-Verified Pending Orders*, or *Inpatient Order Entry*). Only one user is able to enter new orders on a selected patient due to the patient lock within the VistA applications. This minimizes the chance of duplicate orders.

For Unit Dose order entry, a response must be entered at the "Select DRUG:" prompt. The nurse can select a particular drug or enter a pre-defined order set.

Depending on the entry in the "Order Entry Process:" prompt in the *Inpatient User Parameters Edit* option, the nurse will enter a regular or abbreviated order entry process. The abbreviated order entry process requires entry into fewer fields than regular order entry. Beside each of the prompts listed below, in parentheses, will be the word regular, for regular order entry and/or abbreviated, for abbreviated order entry.

- **"Select DRUG:"** (Regular and Abbreviated)

Nurses select Unit Dose medications directly from the DRUG file. The Orderable Item for the selected drug will automatically be added to the order, and all Dispense Drugs entered for the order must be linked to that Orderable Item. If the Orderable Item is edited, data in the DOSAGE ORDERED field and the DISPENSE DRUG field will be deleted. If multiple Dispense Drugs are needed in an order, they may be entered by selecting the DISPENSE DRUG field from the edit list before accepting the new order. After each Dispense Drug is selected, it will be checked against the patient's current medications for duplicate therapy, drug-drug/drug-allergy interactions, dangerous meds for patient >64, Aminoglycoside ordered, and Glucophage lab results order checks. (See Section 4.9 Order Checks for more information.)

Note: No special order checks are performed for specific drugs (e.g., Clozapine). Orders for Clozapine or similar special meds entered through Inpatient Medications will not yield the same results that currently occur when the same order is entered through Outpatient Pharmacy (including eligibility checks and national roll up to the National Clozapine Coordinating Center (NCCC). Any patients requiring special monitoring should also have an order entered through Outpatient Pharmacy at this time.

The nurse can enter an order set at this prompt. An order set is a group of pre-written orders. The maximum number of orders is unlimited. Order sets are created and edited using the *Order Set Enter/Edit* option found under the *Supervisor's Menu*.

Order sets are used to expedite order entry for drugs that are dispensed to all patients in certain medical practices or for certain procedures. Order sets are designed to be used when a recognized pattern for the administration of drugs can be identified. For example:

- A pre-operative series of drugs administered to all patients undergoing a certain surgical procedure.
- A certain series of drugs to be dispensed to all patients prior to undergoing a particular radiographic procedure.
- A certain group of drugs, prescribed by a provider for all patients, that is used for treatment on a certain medical ailment or emergency.

Order sets allow rapid entering of this repetitive information, expediting the whole order entry process. Experienced users might want to set up most of their common orders as order sets.

Order set entry begins like other types of order entry. At the "Select DRUG:" prompt, **S.NAME** should be entered. The **NAME** represents the name of a predefined order set. The characters **S.** tell the software that this will not be a single new order entry for a single drug, but a set of orders for multiple drugs. The **S.** is a required prefix to the name of the order set. When the user types the characters **S.?**, a list of the names of the order sets that are currently available will be displayed. If **S.** (<**Spacebar**> and <**Enter**>) is typed, the previous order set is entered.

After the entry of the order set, the software will prompt for the Provider's name and Nature of Order. After entry of this information, the first order of the set will automatically be entered. The options available are different depending on the type of order entry process that is enabled– regular, abbreviated, or ward. If regular or abbreviated order entry is enabled, the user will be shown one order at a time, all fields for each order of the order set and then the "Select Item(s): Next Screen //" prompt. The user can then choose to take an action on the order. Once an action is taken or bypassed, the next order of the order set will be entered automatically. After entry of all the orders in the order set, the software will prompt for more orders for the patient. At this point the user can proceed exactly as in new order entry, and respond accordingly.

When a drug is chosen, if an active drug text entry for the Dispense Drug and/or Orderable Item linked to this drug exists, then the prompt, "Restriction/Guideline(s) exist. Display?:" will be

displayed along with the corresponding defaults. The drug text indicator will be <**DIN**> and will be displayed on the right hand corner on the same line as the Orderable Item. This indicator will be highlighted.

If the Dispense Drug or Orderable Item has a non-formulary status, this status will be displayed on the screen as "*N/F*" beside the Dispense Drug or Orderable Item.

- **"DOSAGE ORDERED:"** (Regular and Abbreviated)

To allow pharmacy greater control over the order display shown for Unit Dose orders on profiles, labels, MARs, etc., the DOSAGE ORDERED field is not required if only one Dispense Drug exists in the order. If more than one Dispense Drug exists for the order, then this field is required.

When a Dispense Drug is selected, the selection list/default will be displayed based on the Possible Dosages and Local Possible Dosages.

Example: Dispense Drug with Possible Dosages

```
Select DRUG: BACLOFEN
  Lookup: GENERIC NAME
BACLOFEN 10 MG TAB MS200
         ...OK? Yes//   (Yes)



Now Processing Enhanced Order Checks!   Please wait...

Press Return to continue......

Available Dosage(s)
 1. 5MG
 2. 10MG
 3. 15MG
 4. 20MG
 5. 30MG
 6. 40MG

Select from list of Available Dosages or Enter Free Text Dose:
```

All Local Possible Dosages will be displayed within the selection list/default.

Example: Dispense Drug with Local Possible Dosages

```
Select DRUG:  GENTAMICIN SULFATE 0.1% CREAM    DE101    DERM CLINIC ONLY
  ...OK? Yes//   (Yes)



Now Processing Enhanced Order Checks!   Please wait...

Press Return to continue......

Available Dosage(s)
 1.
 2. SMALL AMOUNT
 3. THIN FILM
 4. MODERATE AMOUNT
 5. LIBERAL AMOUNT

Select from list of Available Dosages or Enter Free Text Dose:
```

Note: If an order contains multiple Dispense Drugs, Dosage Ordered should contain the total dosage of the medication to be administered.

The user has the flexibility of how to display the order view on the screen. When the user has chosen the drug and when no Dosage Ordered is defined for an order, the order will be displayed as:

Example: Order View Information when Dosage Ordered is not Defined

```
DISPENSE DRUG NAME
Give: UNITS PER DOSE MEDICATION ROUTE  SCHEDULE
```

(This page included for two-sided copying.)

- **"STOP DATE/TIME:" (Regular)**

This is the date and time the order will automatically expire. The system calculates the default Stop Date/Time for order administration based on the STOP TIME FOR ORDER site parameter. The default date shown is the least of (1) the <IV TYPE> GOOD FOR HOW MANY DAYS site parameter (where <IV TYPE> is LVPs, PBs, etc.), (2) the NUMBER OF DAYS FOR IV ORDER field (found in the IV ADDITIVES file) for all additives in this order, (3) the DAY (nD) or DOSE (nL) LIMIT field (found in the PHARMACY ORDERABLE ITEM file) for the orderable item associated with this order or (4) the duration received from CPRS (if applicable). The Site Manager or Application Coordinator can change any fields. This package initially calculates a default Stop Date/Time, depending on the INPATIENT WARD PARAMETERS file except for one-time orders and Inpatient orders for Outpatients.

For a one-time order, the ward parameter, DAYS UNTIL STOP FOR ONE-TIME, is accessed. When this parameter is not available, the system parameter, DAYS UNTIL STOP FOR ONE-TIME, will be used to determine the stop date. When neither parameter has been set, the ward parameter, DAYS UNTIL STOP DATE/TIME, will be used instead of the start and stop date being equal.

- **"PROVIDER:"** (Regular and Abbreviated)

This identifies the provider who authorized the order. Only users identified as active Providers, who are authorized to write medication orders, may be selected.

- **"SELF MED:"** (Regular and Abbreviated)

Identifies the order as one whose medication is to be given for administration by the patient. This prompt is only shown if the 'SELF MED' IN ORDER ENTRY field of the INPATIENT WARD PARAMETERS file is set to On.

- **"NATURE OF ORDER:"** (Regular and Abbreviated)

This is the method the provider used to communicate the order to the user who entered or took action on the order. Nature of Order is defined in CPRS. Written will be the default for new orders entered. When a new order is created due to an edit, the default will be Service Correction. The following table shows some Nature of Order examples.

Nature of Order	Description	Prompted for Signature in CPRS	Chart Copy Printed?
Written	The source of the order is a written doctor's order	No	No
Verbal	A doctor verbally requested the order	Yes	Yes
Telephoned	A doctor telephoned the service to request the order	Yes	Yes
Service Correction	The service is discontinuing or adding new orders to carry out the intent of an order already received	No	No

Nature of Order	Description	Prompted for Signature in CPRS	Chart Copy Printed?
Duplicate	This applies to orders that are discontinued because they are a duplicate of another order	No	Yes
Policy	These are orders that are created as a matter of hospital policy	No	Yes

The Nature of Order abbreviation will display on the order next to the Provider's Name. The abbreviations will be in lowercase and enclosed in brackets. Written will display as [w], telephoned as [p], verbal as [v], policy as [i], electronically entered as [e], and service correction as [s]. If the order is electronically signed through the CPRS package AND the CPRS patch OR*3*141 is installed on the user's system, then [es] will appear next to the Provider's Name instead of the Nature of Order abbreviation.

Example: New Order Entry

```
Patient Information           Feb 10, 2011@11:35:43          Page:    1 of    1
TESTYPATNM,TEST                   Ward: GEN MED                        A
   PID: 666-00-0423           Room-Bed:               Ht(cm):_______(_________)
   DOB: 01/01/50 (61)                                 Wt(kg):_______(_________)
   Sex: MALE                                    Admitted: 02/13/07
    Dx: OBSERVATION                      Last transferred: ********

Allergies - Verified: PENICILLIN, ASPIRIN
        Non-Verified:

   Adverse Reactions:
 Inpatient Narrative:
Outpatient Narrative:



          Enter ?? for more actions
DA Detailed Allergy/ADR List            IN Intervention Menu
VP View Profile
Select Action: View Profile//    View Profile

SHORT, LONG, or NO Profile?  SHORT//   SHORT

                     NO ORDERS FOUND FOR SHORT PROFILE.
Enter RETURN to continue or '^' to exit:
```

Example: New Order Entry (continued)

```
NON-VERIFIED UNIT DOSE        Feb 10, 2011@11:36:50          Page:    1 of    2
TESTYPATNM,TEST                   Ward: GEN MED                        A
   PID: 666-00-0423           Room-Bed:               Ht(cm):_______(__________)
   DOB: 01/01/50 (61)                                 Wt(kg):_______(__________)
------------------------------------------------------------------------------------------------------------------------
*(1)Orderable Item: ASPIRIN CAP,ORAL                                          <DIN>
      Instructions:
*(2)Dosage Ordered: 25MG
          Duration:                                    (3)Start: 02/13/07  17:11
*(4)     Med Route: ORAL
                                                       (5) Stop: 02/15/07  24:00
 (6) Schedule Type: ONE TIME
*(8)      Schedule: ONCE
 (9)   Admin Times: 1711
*(10)     Provider: PROVIDER,TEST [w]
 (11) Special Instructions:

 (12) Dispense Drug                                    U/D        Inactive Date
      ASPIRIN BUFFERED 325MG TAB                       1
+         Enter ?? for more actions
DC  Discontinue           ED  Edit                 AL Activity Logs
HD  (Hold)                RN  (Renew)
FL  (Flag)                VF (Verify)
Select Item(s): Next Screen//  VF   Verify
...a few moments, please.....

Pre-Exchange DOSES:

ORDER VERIFIED.

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

IV

For IV order entry, the nurse must bypass the "Select DRUG:" prompt (by pressing <**Enter**>) and then choosing the IV Type at the "Select IV TYPE:" prompt. The following are the prompts that the nurse can expect to encounter while entering a new IV order for the patient.

 This option is only available to those nurses who have Inpatient Order Entry access.

- **"Select IV TYPE:"**

IV types are admixture, piggyback, hyperal, syringe, and chemotherapy. An admixture is a Large Volume Parenteral (LVP) solution intended for continuous parenteral infusion. A piggyback is a small volume parenteral solution used for intermittent infusion. Hyperalimentation (hyperal) is long-term feeding of a protein-carbohydrate solution. A syringe IV type order uses a syringe rather than a bottle or a bag. Chemotherapy is the treatment and prevention of cancer with chemical agents.

When an order is received from CPRS, Inpatient Medications will accept and send updates to IV Types from CPRS. When an IV type of Continuous is received, Inpatient Medications defaults to an IV type of Admixture. However, when an IV type of Intermittent is received, Inpatient Medications defaults to an IV type of piggyback.

- **"Select ADDITIVE:"**

There can be any number of additives for an order, including zero. An additive or additive synonym can be entered. If the Information Resources Management Service (IRMS) Chief/Site Manager or Application Coordinator has defined it in the IV ADDITIVES file, the nurse may enter a quick code for an additive. The quick code allows the user to pre-define certain fields, thus speeding up the order entry process. The **entire** quick code name must be entered to receive all pre-defined fields in the order.

 **Note:** Drug inquiry is allowed during order entry by entering two question marks (??) at the STRENGTH prompt for information on an additive or solution.

When an additive is chosen, if an active drug text entry for the Dispense Drug and/or Orderable Item linked to this additive exists, then the prompt, "Restriction/Guideline(s) exist. Display?:" will be displayed along with the corresponding defaults. The drug text indicator will be <**DIN**> and will be displayed on the right side of the IV Type on the same line. This indicator will be highlighted.

If the Dispense Drug tied to the Additive or the Orderable Item has a non-formulary status, this status will be displayed on the screen as "*N/F*" beside the Additive or Orderable Item.

Example: New Order Entry

```
Select ADDITIVE: MULT
     1   MULTIVITAMIN INJ

     2   MULTIVITAMINS

CHOOSE 1-2: 2  MULTIVITAMINS

(The units of strength for this additive are in ML)
Strength: 2 2 ML
Select ADDITIVE:
Select SOLUTION: 0.9
     1   0.9% SODIUM CHLORIDE    100 ML
              BCMA
     2   0.9% SODIUM CHLORIDE    50 ML
              BCMA
CHOOSE 1-2: 1  0.9% SODIUM CHLORIDE    100 ML
               BCMA


Now Processing Enhanced Order Checks! Please wait...
================================================================================
This patient is receiving the following orders(s) that have a Drug
Interaction with MULTIVITAMINS 2 ML:

WARFARIN INJ            C  02/22  03/01   N
Give: 5MG/1VIAL PO 3ID

***Significant*** Vitamin E may increase the pharmacologic effects of
anticoagulants.
================================================================================


Display Professional Interaction Monograph(s)? NO// YES
DEVICE: HOME// COMPUTER ROOM



Professional Monograph
Drug Interaction with WARFARIN and MULTIVITAMINS

This information is generalized and not intended as specific medical
advice. Consult your healthcare professional before taking or
discontinuing any drug or commencing any course of treatment.

MONOGRAPH TITLE: Selected Anticoagulants/Alpha Tocopheryl

SEVERITY LEVEL: 2-Severe Interaction: Action is required to reduce the
risk of severe adverse interaction.

MECHANISM OF ACTION:  Unknown.

CLINICAL EFFECTS: Vitamin E may increase the pharmacologic effects of
anticoagulants.

PREDISPOSING FACTORS: None determined.

PATIENT MANAGEMENT: Coadministration of vitamin E and anticoagulants

Press Return to continue...

should be avoided. If both drugs are administered, monitor
hypoprothrombinemic response to warfarin and adjust the dose of the
anticoagulants as indicated. The time of highest risk for a coumarin-type
drug interaction is when the precipitant drug is initiated or
discontinued.  Contact the prescriber before initiating, altering the
dose or discontinuing either drug.
```

```
DISCUSSION: Vitamin E doses of 800 International Units/day and more
have been reported to increase the hypoprothrombinemic effect of
warfarin: while doses of 42 International units/day of vitamin E for 30
days have increased the hypoprothrombinemic effect of dicumarol.
Agenerase brand of amprenavir capsules and oral solution contain a
significant amount of vitamin E. Each 150 mg capsule contains 109
International Units vitamin E, with a total of 1744 International Units
of vitamin E in the recommended daily adult dose. Each mL of oral
solution contains 46 International Units of vitamin E.

REFERENCES:

1.Corrigan JJ Jr, Marcus FI. Coagulopathy associated with vitamin E
ingestion. JAMA 1974 Dec 2:230(9):1300-1.

Press Return to continue...

2.Schrogie JJ. Letter: Coagulopathy and fat-soluble vitamins. JAMA 1976
Apr 7:232(1):19.
3.Corrigan JJ Jr, Ulfers LL. Effect of vitamin E on prothrombin levels
in warfarin-induced vitamin K deficiency. Am J Clin Nutr 1981 Sep:
34(9):1701-5.
4.Anonymous. Vitamin K, vitamin E and the coumarin drugs. Nutr Rev 1982
Jun: 40(6):180-2.
5.Agenerase (amprenavir) Capsules US prescribing information.
GlaxoSmithKline February, 2004.

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Do you want to Intervene with MULTIVITAMINS 2 ML? NO//
INFUSION RATE: 125   INFUSE OF 125 MINUTES
MED ROUTE: IV//
SCHEDULE: QID
ADMINISTRATION TIMES: 09-13-17-21//
REMARKS:
OTHER PRINT INFO:
START DATE/TIME: FEB 26,2010@18:51//   (FEB 26, 2010@18:51)
STOP DATE/TIME: MAR 27,2010@23:59
PROVIDER: PROVIDER,ONE
     1   PROVIDER,ONE      NEW YORK OP 10BA1/ADP   Scholar Extra
ordinaire
     2   PROVIDER,ONEHUNDRED     TZB        10BA1/ADP   Scholar Extraord
ordinaire
     3   PROVIDER,ONEHUNDREDFIVE          10BA1/ADP   Scholar Extraor
dordinaire
     4   PROVIDER,ONEHUNDREDNINETYONE              BM     10BA1/ADP   Schol
ar Extraordinaire
     5   PROVIDER,ONEHUNDREDSIXTYSEVEN               10BA1/ADP    Scholar E
xtraordinaire
Press <RETURN> to see more, '^' to exit this list, OR
CHOOSE 1-5: 1   PROVIDER,ONE     NEW YORK OP  10BA1/ADP   Scholar E
xtraordinaire

Orderable Item: MULTIVITAMINS INJ
Give: IV QID

100716
[1]0808 7A GEN MED 02/25/10
EIGHT,INPATIENT  726-B

MULTIVITAMINS 2 ML
0.9% SODIUM CHLORIDE 100 ML

INFUSE OVER 125 MINUTES
QID
09-13-17-21
1[1]

Start date; FEB 25,2010 18:51   Stop date: MAR 27,2010 23:59
```

```
Expected First Dose: FEB 25,2010@21:00

Is this O.K.: YES// YES
NATURE OF ORDER: WRITTEN//    W
...transcribing this non-verified order....
NON-VERIFIED IV               Feb 25, 2010@18:54:08          Page:    1 of    2
EIGHT,INPATIENT                   Ward: 7A GEN
   PID: 666-00-0808           Room-Bed: 726-B         Ht(cm):_______(__________)
   DOB: 01/01/50 (61)                                 Wt(kg):_______(__________)
------------------------------------------------------------------------------------------------------------
*(1)  Additives:              Type: PIGGYBACK
       MULTIVITAMINS 2 ML
 (2)  Solutions:
       0.9% SODIUM CHLORIDE 100 ML
           Duration:                              (4)     Start: 02/26/10  18:51
 (3)  Infusion Rate: INFUSE OVER 125 MINUTES
*(5)      Med Route: IV                           (6)      Stop: 03/27/10  23:59
*(7)       Schedule: QID                             Last Fill: ********
 (8)    Admin Times: 09-13-17-21                     Quantify: 0
*(9)       Provider: PROVIDER,ONE [w]                Cum. Doses:
*(10)Orderable item: MULTIVITAMINS INJ
       Instructions:
 (11)   Other Print:

+------------Enter ?? for more actions-----------------------------------------------------------------
DC   Discontinue          RN   (Renew)             VF   Verify
HD   (Hold)               OC   (On Call)           FL   Flag
ED   Edit        AL   Activity Logs
Select Item(s): Next Screen//
```

After entering the data for the order, the system will prompt the nurse to confirm that the order is correct. The IV module contains an integrity checker to ensure the necessary fields are answered for each type of order. The nurse must edit the order to make corrections if all of these fields are not answered correctly. If the order contains no errors, but has a warning, the user will be allowed to proceed.

4.4.3 Detailed Allergy/ADR List

The Detailed Allergy/ADR List action displays a detailed listing of the selected item from the patient's Allergy/ADR List. Entry to the *Edit Allergy/ADR Data* option is provided with this list also.

- **Enter/Edit Allergy/ADR Data**
  Provides access to the Adverse Reaction Tracking (ART) package to allow entry and/or edit of allergy adverse reaction data for the patient. See the Allergy package documentation for more information on Allergy/ADR processing.

- **Select Allergy**
  Allows the user to view a specific allergy.

4.4.4 Intervention Menu

 This option is only available to those users who hold the PSJ RPHARM key.

The Intervention Menu action allows entry of new interventions and existing interventions to be edited, deleted, viewed, or printed. Each kind of intervention will be discussed and an example will follow.

- **New**: This option is used to add an entry into the APSP INTERVENTION file.

Example: New Intervention

```
Patient Information           Feb 11, 2011@11:17:44          Page:    1 of    1
BCMAPATIENT,FIVE                  Ward: 3 NORTH
   PID: 000-00-5555           Room-Bed: 1-2           Ht(cm):_______(_________)
   DOB: 09/16/45 (65)                                 Wt(kg):_______(_________)
   Sex: MALE                                    Admitted: 12/05/08
    Dx: FLUID IN LUNGS                   Last transferred: ********

 Allergies/Reactions: NKA
 Inpatient Narrative:
Outpatient Narrative:




          Enter ?? for more actions
PU Patient Record Update                NO New Order Entry
DA Detailed Allergy/ADR List            IN Intervention Menu
VP View Profile
Select Action: View Profile// IN   Intervention Menu



                           --- Intervention Menu ---

DI   Delete Pharmacy Intervention       PO   Print Pharmacy Intervention
ED   Edit Pharmacy Intervention         VP   View Pharmacy Intervention
NE   Enter Pharmacy Intervention

Select Item(s): NE   Enter Pharmacy Intervention
Select APSP INTERVENTION INTERVENTION DATE: T   FEB 11, 2011
  Are you adding 'FEB 11, 2011' as a new APSP INTERVENTION (the 526TH)? No// Y
  (Yes)
   APSP INTERVENTION PATIENT:    PRETST,PATTHREE        8-1-61    000009677
NO     NSC VETERAN
   Combat Vet Status: ELIGIBLE                          End Date: 02/12/2015
   APSP INTERVENTION DRUG:    CIMETIDINE 200MG TAB         GA301
PROVIDER: PHARMACIST,LINDA JLP
INSTITUTED BY: PHARMACY//   PHARMACY
INTERVENTION: ?
 Answer with APSP INTERVENTION TYPE, or NUMBER
 Do you want the entire 22-Entry APSP INTERVENTION TYPE List? N (No)
INTERVENTION: ALLERGY
RECOMMENDATION: NO CHANGE
WAS PROVIDER CONTACTED: NO NO
RECOMMENDATION ACCEPTED: Y YES
FINANCIAL COST:
REASON FOR INTERVENTION:
  No existing text
  Edit? NO//
ACTION TAKEN:
  No existing text
  Edit? NO//
CLINICAL IMPACT:
```

```
  No existing text
  Edit? NO//
FINANCIAL IMPACT:
  No existing text
  Edit? NO//
Select APSP INTERVENTION INTERVENTION DATE:
```

- **Edit**: This option is used to edit an existing entry in the APSP INTERVENTION file.

Example: Edit an Intervention

```
Patient Information           Feb 11, 2011@11:52:02          Page:    1 of    1
PRETST,PATTHREE                   Ward:
   PID: 000-00-9677           Room-Bed:               Ht(cm):_______(_________)
   DOB: 08/01/61 (49)                                 Wt(kg):_______(_________)
   Sex: MALE                                    Admitted:
    Dx:                                  Last transferred: ********

 Allergies/Reactions: NKA
 Inpatient Narrative:
Outpatient Narrative:



          Enter ?? for more actions
PU Patient Record Update                NO New Order Entry
DA Detailed Allergy/ADR List            IN Intervention Menu
VP View Profile
Select Action: View Profile// IN   Intervention Menu

                           --- Intervention Menu ---

DI   Delete Pharmacy Intervention       PO   Print Pharmacy Intervention
ED   Edit Pharmacy Intervention         VP   View Pharmacy Intervention
NE   Enter Pharmacy Intervention

Select Item(s): ED   Edit Pharmacy Intervention

Select INTERVENTION:T   SEP 22, 2000       PRETST,PATTHREE    WARFARIN 10MG
INTERVENTION DATE: SEP 22,2000// <Enter>
PATIENT: PRETST,PATTHREE// <Enter>
PROVIDER: PSJPROVIDER,ONE // <Enter>
PHARMACIST: PSJNURSE,ONE // <Enter>
DRUG: WARFARIN 10MG// <Enter>
INSTITUTED BY: PHARMACY// <Enter>
INTERVENTION: ALLERGY// <Enter>
OTHER FOR INTERVENTION:
  1>
RECOMMENDATION: NO CHANGE// <Enter>
OTHER FOR RECOMMENDATION:
  1>
WAS PROVIDER CONTACTED: NO// <Enter>
PROVIDER CONTACTED:
RECOMMENDATION ACCEPTED: YES// <Enter>
AGREE WITH PROVIDER: <Enter>
FINANCIAL COST:
REASON FOR INTERVENTION:
  No existing text
Edit? NO//
ACTION TAKEN:
  No existing text
Edit? NO//
CLINICAL IMPACT:
  No existing text
Edit? NO//
FINANCIAL IMPACT:
  No existing text
Edit? NO//
```

- **Delete**: This option is used to delete an entry from the APSP INTERVENTION file. The nurse may only delete an entry that was entered on the same day.

Example: Delete an Intervention

```
Patient Information           Feb 11, 2011@11:52:02          Page:    1 of    1
PRETST,PATTHREE                   Ward:
   PID: 000-00-9677           Room-Bed:               Ht(cm):_______(_________)
   DOB: 08/01/61 (49)                                 Wt(kg):_______(_________)
   Sex: MALE                                     Admitted:
    Dx:                                   Last transferred: ********

 Allergies/Reactions: NKA
 Inpatient Narrative:
Outpatient Narrative:




          Enter ?? for more actions
PU Patient Record Update                NO New Order Entry
DA Detailed Allergy/ADR List            IN Intervention Menu
VP View Profile
Select Action: View Profile// IN   Intervention Menu

                            --- Intervention Menu ---

DI   Delete Pharmacy Intervention       PO   Print Pharmacy Intervention
ED   Edit Pharmacy Intervention         VP   View Pharmacy Intervention
NE   Enter Pharmacy Intervention

Select Item(s): de   Delete Pharmacy Intervention
You may only delete entries entered on the current day.

Select APSP INTERVENTION INTERVENTION DATE: t   FEB 11, 2011
     1   2-11-2011       PRETST,PATTHREE     CIMETIDINE 200MG TAB
     2   2-11-2011       PRETST,PATTHREE     CIMETIDINE 200MG TAB
CHOOSE 1-2: 1  2-11-2011     PRETST,PATTHREE     CIMETIDINE 200MG TAB
SURE YOU WANT TO DELETE THE ENTIRE ENTRY? y  YES
Select APSP INTERVENTION INTERVENTION DATE:
```

- **View**: This option is used to display Pharmacy Interventions in a captioned format.

Example: View an Intervention

```
Patient Information           Feb 11, 2011@11:52:02          Page:    1 of    1
PRETST,PATTHREE                   Ward:
   PID: 000-00-9677           Room-Bed:               Ht(cm):_______(_________)
   DOB: 08/01/61 (49)                                 Wt(kg):_______(_________)
   Sex: MALE                                     Admitted:
    Dx:                                   Last transferred: ********

 Allergies/Reactions: NKA
 Inpatient Narrative:
Outpatient Narrative:




          Enter ?? for more actions
PU Patient Record Update                NO New Order Entry
DA Detailed Allergy/ADR List            IN Intervention Menu
VP View Profile
Select Action: View Profile// IN   Intervention Menu
```

```
                          --- Intervention Menu ---

DI   Delete Pharmacy Intervention       PO   Print Pharmacy Intervention
ED   Edit Pharmacy Intervention         VP   View Pharmacy Intervention
NE   Enter Pharmacy Intervention

Select Item(s): VP   View Pharmacy Intervention
Select APSP INTERVENTION INTERVENTION DATE: T   FEB 11, 2011       PRETST,PATTHR
EE     CIMETIDINE 200MG TAB
ANOTHER ONE:
INTERVENTION DATE: FEB 11, 2011         PATIENT: PRETST,PATTHREE
  PROVIDER: PROVIDER,LINDA J            PHARMACIST: PHARMACIST,CHRIS
  DRUG: CIMETIDINE 200MG TAB            INSTITUTED BY: PHARMACY
  INTERVENTION: ALLERGY                 RECOMMENDATION: NO CHANGE
  WAS PROVIDER CONTACTED: NO            RECOMMENDATION ACCEPTED: YES

Select APSP INTERVENTION INTERVENTION DATE:
```

- **Print:** This option is used to obtain a captioned printout of Pharmacy Interventions for a certain date range. It will print out on normal width paper and can be queued to print at a later time.

Example: Print an Intervention

```
Select Unit Dose Medications Option: Inpatient Order Entry

Select PATIENT:    BCMA,EIGHTEEN-PATIENT  666-33-0018  04/07/35    7A GEN MED

Patient Information           Mar 16, 2011@12:37:20          Page:    1 of    1
BCMA,EIGHTEEN-PATIENT             Ward: 7A GEN                          A
   PID: 666-33-0018           Room-Bed:               Ht(cm): 175.26 (12/15/08)
   DOB: 04/07/35 (75)                                 Wt(kg): 100.00 (12/15/08)
   Sex: FEMALE                                    Admitted: 01/31/02
    Dx: UPSET                                Last transferred: 06/04/10
-------------------------------------------------------------------------------------------------------------------------
Allergies - Verified: AMPICILLIN, PENICILLIN, STRAWBERRIES
        Non-Verified:

   Adverse Reactions:
 Inpatient Narrative:
Outpatient Narrative:



          Enter ?? for more actions
PU Patient Record Update                NO New Order Entry
DA Detailed Allergy/ADR List            IN Intervention Menu
VP View Profile
Select Action: View Profile// IN   Intervention Menu

                          --- Intervention Menu ---

DI   Delete Pharmacy Intervention       PO   Print Pharmacy Intervention
ED   Edit Pharmacy Intervention         VP   View Pharmacy Intervention
NE   Enter Pharmacy Intervention

Select Item(s): PO   Print Pharmacy Intervention
  * Previous selection: INTERVENTION DATE from Jun 1,2010
  START WITH INTERVENTION DATE: Jun 1,2010// T-1 (MAR 15, 2011)
  GO TO INTERVENTION DATE: LAST// T (MAR 16, 2011)
DEVICE: home;80;9999 COMPUTER ROOM
PHARMACY INTERVENTION LISTING                  MAR 16,2011  12:37    PAGE 1
-------------------------------------------------------------------------------------------------------------------------
```

```
INTERVENTION: CRITICAL DRUG INTERACTION

INTERVENTION DATE: MAR 16,2011          PATIENT: BCMA,EIGHTEEN-PATIENT
PROVIDER: PROVIDER,ONE                  PHARMACIST: PHARMACIST,TWO
DRUG: INDINAVIR SULFATE 400MG CAP       INSTITUTED BY: PHARMACY
RECOMMENDATION: NO CHANGE
WAS PROVIDER CONTACTED:                 RECOMMENDATION ACCEPTED:
PROVIDER CONTACTED:

INTERVENTION DATE: MAR 16,2011          PATIENT: BCMA,EIGHTEEN-PATIENT
PROVIDER: PROVIDER,ONE                  PHARMACIST:  PHARMACIST,TWO
DRUG: SIMVASTATIN 20MG TAB              INSTITUTED BY: PHARMACY
RECOMMENDATION: NO CHANGE
WAS PROVIDER CONTACTED:                 RECOMMENDATION ACCEPTED:
PROVIDER CONTACTED:
                                                  ---------------------------------------
SUBTOTAL                                                          0
SUBCOUNT                                          2
                                                  ---------------------------------------
TOTAL                                                             0
COUNT                                             2

Patient Information           Mar 16, 2011@12:37:57          Page:    1 of    1
BCMA,EIGHTEEN-PATIENT             Ward: 7A GEN                          A
   PID: 666-33-0018           Room-Bed:               Ht(cm): 175.26 (12/15/08)
   DOB: 04/07/35 (75)                                 Wt(kg): 100.00 (12/15/08)
   Sex: FEMALE                                    Admitted: 01/31/02
    Dx: UPSET                                  Last transferred: 06/04/10
-------------------------------------------------------------------------------------------------------------------------
Allergies - Verified: AMPICILLIN, PENICILLIN, STRAWBERRIES
        Non-Verified:

   Adverse Reactions:
 Inpatient Narrative:
Outpatient Narrative:

          Enter ?? for more actions

PU Patient Record Update                NO New Order Entry
DA Detailed Allergy/ADR List            IN Intervention Menu
VP View Profile
Select Action: View Profile//
```

4.4.5 View Profile

The View Profile action allows selection of a Long, Short, or NO profile for the patient. The profile displayed in the *Inpatient Order Entry* and *Non-Verified/Pending Orders* options will include IV and Unit Dose orders. The long profile shows all orders, including discontinued and expired orders. The short profile displays recently discontinued or expired orders based on parameter values found in the System parameter and inpatient ward parameter files.

Example: Profile View

```
Inpatient Order Entry         Oct 19, 2010@16:41:35          Page:    1 of    3
PSJPATIENT,ELEVEN                 Ward: 7AS
   PID: 666-00-2921           Room-Bed:              Ht(cm):_______(_________)
   DOB: 08/09/54 (56)                                Wt(kg):_______(_________)
   Sex: MALE                                     Admitted: 06/09/10
    Dx: RESPIRATORY DISTRESS              Last transferred: ********

 - - - - - - - - - - - - - - - - - A C T I V E - - - - - - - - - - - - - - - - -
   1  ->AMIODARONE TAB                           C 10/19 11/18 A
          Give: 400MG PO TID
   2    CIMETIDINE TAB                           C 10/19 11/18 R
          Give: 300MG PO QHS
 - - - - - - - - - - - - - - - N O N - V E R I F I E D - - - - - - - - - - - - - -
   3    LOVASTATIN TAB                           C 10/19 11/18 N NF
          Give: 20MG PO QPM
 - - - - - - - - - - N O N - V E R I F I E D C O M P L E X - - - - - - - - - - -
   4    HALOPERIDOL TAB                          C  10/19  11/18 N
          Give: 10MG PO BID
        HALOPERIDOL TAB                          C  10/19  11/18 N
         Give: 15MG PO QHS
 - - - - - - - - - - - - P E N D I N G  R E N E W A L S - - - - - - - - - - - - -
   5    CIMETIDINE TAB                           ?  *****  ***** P     10/19
          Give: 300MG PO QHS
 - - - - - - - - - - - - - - - P E N D I N G  C O M P L E X - - - - - - - - - - - - - -
   6    PREDNISONE TAB                           ? ***** ***** P
          Give: 20MG PO QAM
        PREDNISONE TAB                           ?  *****  ***** P
          Give: 10MG PO QOD
        PREDNISONE TAB                           ?  *****  ***** P
          Give: 5MG PO QD
 - - - - - - - - - - - - - - - - -  P E N D I N G - - - - - - - - - - - - - - - - -
7    ACETAMINOPHEN TAB                         ? ***** ***** P
          Give: 650MG PO Q4H PRN
 - - - - - - - - RECENTLY DISCONTINUED/EXPIRED (LAST 120 HOURS) - - - - - - - - -
   8    ASPIRIN TAB,EC                           C  10/19  10/19 D
          Give: 325MG PO QHS
   9  ->NAPROXEN TAB                             C  10/19  10/19 D
          Give: 250MG PO BID
+         Enter ?? for more actions
PI  Patient Information                SO Select Order
PU  Patient Record Update              NO New Order Entry
Select Action: Next Screen//
```

The orders on the profile are sorted first by status (ACTIVE, NON-VERIFIED, NON-VERIFIED COMPLEX, PENDING RENEWALS, PENDING COMPLEX, PENDING, RECENTLY DISCONTINUED/EXPIRED), then alphabetically by SCHEDULE TYPE. Pending orders with a priority of STAT are listed first and are displayed in a bold and blinking text for easy identification. After SCHEDULE TYPE, orders are sorted alphabetically by DRUG (the drug name listed on the profile), and then in descending order by START DATE.

Example: Short Profile

```
Inpatient Order Entry         Jun 12, 2006@23:12:54          Page:    1 of    1
PSJPATIENT11, ONE              Ward: 2ASM
   PID: 000-55-3421           Room-Bed: 102-1         Ht(cm):_______(_________)
   DOB: 12/02/23 (82)                                 Wt(kg): 100.00 (06/24/03)
   Sex: MALE                                      Admitted: 12/11/01
    Dx: HE IS A PAIN.                      Last transferred: 12/11/01

 - - - - - - - - - - - - - - - - - A C T I V E - - - - - - - - - - - - - - - - -
   1    CEFAZOLIN 1 GM                              C 06/12 06/22  H
        in 5% DEXTROSE 50 ML Q8H
   2    CIMETIDINE TAB                              C 06/12 07/12  A
          Give: 300MG PO BID
   3    FUROSEMIDE TAB                              C 06/01 06/15  HP
          Give: 40MG PO QAM
- - - - - - - - - - - - - - N O N - V E R I F I E D - - - - - - - - - - - - - -
   4    CAPTOPRIL TAB                               C 06/14 06/28 N
          Give: 25MG PO BID

- - - - - - - - - - - - P E N D I N G   R E N E W A L S - - - - - - - - - - - -
   5    HALOPERIDOL TAB                             ?  *****  *****  P    06/14
          Give: 5MG PO BID
- - - - - - - - - - - - - - - - - P E N D I N G - - - - - - - - - - - - - - - - -
   6    HEPARIN/DEXTROSE INJ,SOLN                   ? ***** *****  P
          Give: IV
   7    LACTULOSE SYRUP                             ? ***** ***** P NF
          Give: 10GM/15ML PO BID PRN

- - - - - - - - - - - RECENTLY DISCONTINUED/EXPIRED (LAST X HOURS) - - - - - - - - - - -
   8    FOLIC ACID TAB              C 06/14 06/16  D
          Give: 1MG PO QAM
   9    GENTAMICIN 80 MG                            C  06/12  06/12  D
        in 5% DEXTROSE 100 ML Q8H
  10    ISONIAZID TAB                               C  04/03  04/17  DF
          Give: 300MG PO QD
  11    POTASSIUM CHLORIDE 10MEQ                    C  06/12  06/12  DA
        in 5% DEXTROSE 1000 ML Q8H
  12    POTASSIUM CHLORIDE 40 MEQ                   C  06/12  06/12  DD
        in 5% DEXTROSE 250 ML 120 ml/hr
  13    PROPRANOLOL TAB                             C  06/15  06/20  DP
          Give: 40MG PO Q6H
  14    THIAMINE TAB                                C  04/03  04/17  E
          Give: 100MG PO BID

X - Represents the value set in either the ward or system parameter

       Enter ?? for more actions
PI Patient Information                 SO Select Order
PU Patient Record Update               NO New Order Entry
```

Sets of Complex Orders with a status of “Pending” or “Non-Verified” will be grouped together in the Profile View. They appear as one numbered list item, as shown in the following examples. Once these orders are made active, they will appear individually in the Profile View, with a status of “Active”.

If an order has been verified by pharmacy but has not been verified by nursing, it will be listed under the ACTIVE heading with an arrow (->) to the right of its number. A CPRS Med Order will have a “DONE” priority and will display a “d” to the right of the number on the long profiles. These orders will display under the Non-Active header.

Orders may be selected by choosing the Select Order action, or directly from the profile using the number displayed to the left of the order. Multiple orders may be chosen by entering the numbers of each order to be included separated by commas (e.g., 1,2,3), or a range of numbers using the dash (e.g., 1-3).

The HOURS OF RECENTLY DC/EXPIRED field (#7) has been created in the INPATIENT WARD PARAMETERS file (#59.6). The Inpatient Medications profiles will display the recently discontinued/expired orders that fall within the number of hours specified in this field. The value defined in this field will take precedence over the Inpatient System parameter. The inpatient ward parameter allows for a minimum value of one (1) hour and a maximum value of one hundred twenty (120) hours. The Inpatient Ward Parameters Edit [PSJ IWP EDIT] option allows the user to edit this new ward parameter. If this parameter is not set the software will use the value in the HOURS OF RECENTLY DC/EXPIRED field (#26.8) in the PHARMACY SYSTEM file (#59.7). If neither parameter is set the software will default to twenty-four (24) hours.

The HOURS OF RECENTLY DC/EXPIRED field (#26.8) has been created in the PHARMACY SYSTEM file (#59.7). The Inpatient Medications profiles will display the recently discontinued/expired orders that fall within the number of hours specified in this field. This parameter allows for a minimum value of one (1) hour and a maximum value of one hundred twenty (120) hours. The Systems Parameters Edit [PSJ SYS EDIT] option includes the ability for a user to edit this inpatient site parameter. If neither parameter is set the software will default to twenty-four (24) hours.

On the medication profile in the status column the codes and the action they represent are as follows: Order Status: The current status of the order. These statuses include:

- A Active
- N Non-Verified
- O On Call (IV orders only)
- I Incomplete
- HP Placed on hold by provider through CPRS
- H Placed on hold via backdoor Pharmacy
- E Expired
- DP Discontinued by provider through CPRS
- DE Discontinued due to edit via backdoor Pharmacy (Unit Dose orders only)
- D Discontinued via backdoor Pharmacy (IV & UD); discontinued due to edit via backdoor Pharmacy (IV)

The Status column will also display some additional discontinue type actions performed on the order. The codes and the action they represent are as follows:

- DF Discontinued due to edit by a provider through CPRS
- DD Auto discontinued due to death
- DA Auto discontinued due to patient movements

Note: The START DATE and DRUG sort may be reversed using the INPATIENT PROFILE ORDER SORT prompt in the *Edit Inpatient User Parameters* option.

Example: Pending Complex Order in Profile View

```
Inpatient Order Entry         Mar 07, 2004@13:03:55          Page:    1 of    1
PSJPATIENT1,ONE                  Ward: 1 EAST
   PID: 000-00-0001          Room-Bed: B-12        Ht(cm):_______(_________)
   DOB: 08/18/20 (81)                              Wt(kg):_______(_________)
   Sex: MALE                                     Admitted: 03/03/04
    Dx: TESTING                             Last transferred: ********

- - - - - - - - - - - - - P E N D I N G  C O M P L E X - - - - - - - - - - -    - - - - -
  1     CAPTOPRIL TAB                                ? ***** *****  P
          Give: 25MG PO QDAILY
        CAPTOPRIL TAB                                ? ***** *****  P
          Give: 50MG PO BID
        CAPTOPRIL TAB                                ? ***** *****  P
          Give: 100MG PO TID




          Enter ?? for more actions
PI  Patient Information                 SO Select Order
PU Patient Record Update                NO New Order Entry
Select Action: Next Screen//
```

Example: Non-Verified Complex Order in Profile View

```
Inpatient Order Entry         Mar 07, 2004@13:03:55          Page:    1 of    1
PSJPATIENT1,ONE                  Ward: 1 EAST
   PID: 000-00-0001          Room-Bed: B-12        Ht(cm):_______(_________)
   DOB: 08/18/20 (81)                              Wt(kg):_______(_________)
   Sex: MALE                                     Admitted: 03/03/04
    Dx: TESTING                             Last transferred: ********

- - - - - - - - - - - - - N O N - V E R I F I E D  C O M P L E X - - - - - -   - - - - - -
  1     CAPTOPRIL TAB                                C 03/26 03/27  N
          Give: 25MG PO QDAILY
        CAPTOPRIL TAB                                C 03/28 03/29  N
          Give: 50MG PO BID
        CAPTOPRIL TAB                                C 03/30 03/31  N
          Give: 100MG PO TID




          Enter ?? for more actions
PI  Patient Information                 SO Select Order
PU Patient Record Update                NO New Order Entry
Select Action: Next Screen//
```

(*This page included for two-sided copying.)*

Example: Flagged Order

```
Inpatient Order Entry         Feb 11, 2011@13:05:49          Page:    1 of    1
------------------------------------------------------------------------------
ZZZRETFIVEEIGHTYSIX,PATIENT       Ward: ALB-PRR                          A
   PID: 000-00-1234           Room-Bed:                Ht(cm): 187.9  (05/03/10)
   DOB: 04/07/70 (40)                                  Wt(kg): 74.00 (05/03/10)
   Sex: MALE                                       Admitted: 07/02/97
    Dx: SICK                                Last transferred: ********
------------------------------------------------------------------------------
 - - - - - - - - - - - - - - - - - P E N D I N G - - - - - - - - - - - - - - - -
   1    ACETAZOLAMIDE INJ                        ? ***** ***** P
          Give: 500MG/1VIAL IV NOW
   2    ACETAZOLAMIDE INJ                        ? ***** ***** P
          Give: 500MG/1VIAL IV Q12H
   3    VINCRISTINE INJ                          ? ***** ***** P
          Give: 3MG/3ML IVP BID



          Enter ?? for more actions
------------------------------------------------------------------------------
PI  Patient Information                SO  Select Order
PU Patient Record Update               NO  New Order Entry
Select Action: Quit// SO   Select Order
```

4.5.9 Speed Actions

From the list of orders in the patient's profile, the nurse can select one or more of the orders on which to take action. The nurse can quickly discontinue this patient's orders by selecting Speed Discontinue, or quickly renewing an order by selecting Speed Renew. Other "quick" selections include Speed Finish and Speed Verify.

Note: Any orders placed through the Med Order Button cannot be Speed Discontinued.

Note: Complex orders cannot be speed finished because it may not be appropriate to assign the same stop date to all components of a complex order.

4.6 Discontinue All of a Patient's Orders

[PSJU CA]

The *Discontinue All of a Patient's Orders* option allows a nurse to discontinue all of a patient's orders. Also, it allows a ward clerk to mark all of a patient's orders for discontinuation. If the ALLOW USER TO D/C ORDERS parameter is turned on to take action on active orders, then the ward clerk will also be able to discontinue orders. This ALLOW USER TO D/C ORDERS parameter is set using the *Inpatient User Parameter's Edit* option under the *PARameter's Edit Menu* option, which is under the *Supervisor's Menu* option.

This option is then used to discontinue the selected orders. If a non-verified or pending order is discontinued, it is deleted completely from the system.

4.7 Hold All of a Patient's Orders

[PSJU HOLD ALL]

The *Hold All of a Patient's Orders* option allows a nurse to place all of a patient's active orders on hold in order to temporarily stop the medication from being dispensed, or take all of the patient's orders off of hold to restart the dispensing of the medication.

The option will take no action on individual orders that it finds already on hold. When this option is used to put all orders on hold, the system will print labels for each medication order newly put on hold, indicating on the label that the medication is on hold. Also, the profile will notify the user that the patient's orders have been placed on hold; the letter **H** will be placed in the Status/Info column on the profile for each formerly active order.

When the option is used to take all orders off of hold, the system will reprint labels for the medication orders that were taken off hold and indicate on the label that the medication is off hold. Again, this option will take no action on individual orders that it finds were not on hold. The profile will display to the user that the patient's orders have been taken off hold.

Example 1: Hold All of a Patient's Orders

```
Select Unit Dose Medications Option: Hold All of a Patient's Orders

Select PATIENT: PSJPATIENT2,TWO     000-00-0002   02/22/42   A-6

DO YOU WANT TO PLACE THIS PATIENT'S ORDERS ON HOLD? Yes// <Enter> (Yes)

HOLD REASON: SURGERY SCHEDULED FOR 9:00AM
...a few moments, please.....................DONE!
```

Example: Inpatient Profile

```
Select Unit Dose Medications Option: IPF Inpatient Profile

Select by WARD GROUP (G), WARD (W), or PATIENT (P): Patient  <Enter>
```

```
Select PATIENT: PSJPATIENT11,ONE                  000-55-3421   08/18/20   1 EAST

Select another PATIENT: <Enter>

SHORT, LONG, or NO Profile? SHORT// <Enter>  SHORT

Show PROFILE only, EXPANDED VIEWS only, or BOTH: PROFILE// BOTH

Show SHORT, LONG, or NO activity log? NO// SHORT

Select PRINT DEVICE: 0;80 NT/Cache virtual TELNET terminal
```

```
Inpatient Order Entry         Jun 12, 2006@23:12:54          Page:    1 of    1
PSJPATIENT11, ONE              Ward: 2ASM
   PID: 000-55-3421           Room-Bed: 102-1         Ht(cm):_______(_________)
   DOB: 12/02/23 (82)                                 Wt(kg): 100.00 (06/24/03)
   Sex: MALE                                       Admitted: 12/11/01
    Dx: Breathing Difficulty                 Last transferred: 12/11/01

 - - - - - - - - - - - - - - - - - A C T I V E - - - - - - - - - - - - - - - - -
   1    CEFAZOLIN 1 GM                             C 06/12 06/22  H
        in 5% DEXTROSE 50 ML Q8H
   2    CIMETIDINE TAB                             C 06/12 07/12 A
          Give: 300MG PO BID
   3    FUROSEMIDE TAB                             C 06/01 06/15 HP
          Give: 40MG PO QAM
- - - - - - - - - - - - - - - N O N - V E R I F I E D - - - - - - - - - - - - - - -
   4    CAPTOPRIL TAB                              C 06/14 06/28 N
          Give: 25MG PO BID

- - - - - - - - - - - - P E N D I N G   R E N E W A L S - - - - - - - - - - - - -
   5    HALOPERIDOL TAB                            ?  *****  *****  P    06/14
          Give: 5MG PO BID
- - - - - - - - - - - - - - - - P E N D I N G - - - - - - - - - - - - - - - - -
   6    HEPARIN/DEXTROSE INJ,SOLN                  ? ***** ***** P
          Give:  IV
   7    LACTULOSE SYRUP                            ? ***** ***** P NF
          Give: 10GM/15ML PO BID PRN

- - - - - - - - - - - RECENTLY DISCONTINUED/EXPIRED (LAST 24 HOURS) - - - - - - - - - - -
   8    FOLIC ACID TAB             C 06/14 06/16 D
          Give: 1MG PO QAM
   9    GENTAMICIN 80 MG                           C  06/12  06/12  D
        in 5% DEXTROSE 100 ML Q8H
  10    ISONIAZID TAB                              C  04/03  04/17  DF
          Give: 300MG PO QD
  11    POTASSIUM CHLORIDE 10MEQ                   C  06/12  06/12  DA
        in 5% DEXTROSE 1000 ML Q8H
  12    POTASSIUM CHLORIDE 40 MEQ                  C  06/12  06/12  DD
        in 5% DEXTROSE 250 ML 120 ml/hr
  13    PROPRANOLOL TAB                            C  06/15  06/20  DP
          Give: 40MG PO Q6H
  14    THIAMINE TAB                               C  04/03  04/17  E
          Give: 100MG PO BID

       Enter ?? for more actions
PI  Patient Information                SO Select Order
PU  Patient Record Update              NO New Order Entry
                           Entry Date: 09/19/00  09:55
```

4.9 Order Checks

Order checks (allergy/adverse drug reactions, drug-drug interactions, duplicate therapy, dangerous medications for patient over 64 years of age, Glucophage lab results, and Aminoglycosides ordered) are performed when a new medication order is placed through Inpatient Medications or when various actions are taken on medication orders through the Inpatient Medications application. This functionality will ensure the user is alerted to possible adverse drug reactions and will reduce the possibility of a medication error due to the omission of an order check when a non-active medication order is acted upon.

Note: The check for remote data availability is performed when entering a patient's chart, rather than on each order.

The following actions will initiate an order check:

- Action taken through Inpatient Medications to enter a medication order will initiate order checks (allergy, drug-drug interaction, and duplicate therapy) against existing medication orders.
- Action taken through Inpatient Medications to finish a medication order placed through CPRS will initiate order checks (allergy, drug-drug interaction, and duplicate therapy) against existing medication orders.
- Action taken through IV Menu to finish a medication order placed through CPRS will initiate order checks (allergy, drug-drug interaction, and duplicate therapy) against existing medication orders.
- Action taken through Inpatient Medications to renew a medication order will initiate order checks (allergy, drug-drug interaction, and duplicate therapy) against existing medication orders.
- Action taken through IV Menu to renew a medication order will initiate order checks (allergy, drug-drug interaction, and duplicate therapy) against existing medication orders.
- Action taken through IV Menu to copy a medication order, thereby creating a new order.

The following are the different items used for the order checks:

- Checks each Dispense Drug within the Unit Dose order for allergy/adverse drug reactions.
- Checks each Dispense Drug within the Unit Dose order against existing orders for drug-drug interaction, and duplicate therapy.
- Checks each additive within an IV order for drug-drug interaction, and duplicate therapy against solutions or other additives within the order.
- Checks each IV order solution for allergy/adverse reactions.
- Checks each IV order solution for drug-drug interaction against other solutions or additives within the order if they are defined as a PreMix.
- Checks each IV order additive for allergy/adverse reaction.
- Checks each IV order additive for drug-drug interaction, and duplicate therapy against existing orders for the patient.
- Checks each IV order solution for drug-drug interaction against existing orders for the patient.

Override capabilities are provided based on the severity of the order check, if appropriate.

Order Checks will be displayed/processed in the following order:

- System Errors
- Allergy/ADR (local & remote)
- CPRS checks generated backdoor (3 new checks)
- Drug Level Errors
- Inpatient Critical Drug Interaction
- Local & Remote Outpatient Critical Drug Interactions
- Inpatient Significant Drug Interactions
- Local & Remote Outpatient Significant Drug Interactions
- Order Level Error Messages – Drug Interactions
- Duplicate Therapy –Inpatient, Local & Remote Outpatient
- Order Level Error Messages – Duplicate Therapy

These checks will be performed at the Dispense Drug level. Order checks for IV orders will use Dispense Drugs linked to each additive/solution in the IV order. All pending, non-verified, active and renewed Inpatient orders, active Outpatient orders, and active Non-Veterans Affairs (VA) Meds documented in CPRS will be included in the check. In addition, with the release of OR*3*238, order checks will be available using data from the Health Data Repository Historical (HDR-Hx) and the Health Data Repository Interim Messaging Solution (HDR-IMS). This will contain both Outpatient orders from other VAMCs as well as from Department of Defense (DoD) facilities, if available. Any remote Outpatient order that has been expired for 30 days or less will be included in the list of medications to be checked.

There is a slight difference in the display of local Outpatient orders compared with remote Outpatient orders. Below are examples of the two displays:

Example: Local Outpatient Order Display

```
Duplicate Drug in Local Rx:

                 Rx #: 2608
                 Drug: ASPIRIN 81MG EC TAB
                  SIG: TAKE ONE TABLET BY MOUTH EVERY MORNING
                  QTY: 30              Refills remaining: 11
             Provider: PSOPROVIDER,TEN            Issued: 03/24/08
               Status: Active             Last filled on: 03/24/08
    Processing Status: Released locally on 3/24/08@08:55:32  (Window)
                                           Days Supply: 30
```

Example: Remote Outpatient Order Display

```
Duplicate Drug in Remote Rx:

        LOCATION NAME: <NAME OF FACILITY>
                 Rx #: 2608
                 Drug: ASPIRIN 81MG EC TAB
                  SIG: TAKE ONE TABLET BY MOUTH EVERY MORNING
                  QTY: 30
             Provider: PSOPROVIDER,TEN            Issued: 03/24/08
               Status: Active             Last filled on: 03/24/08
                                           Days Supply: 30
```

In the Remote Outpatient Order Display example above, notice the name of the remote location has been added. In addition, the number of refills is not available.

If the order is entered by the Orderable Item only, these checks will be performed at the time the Dispense Drug(s) is specified. The checks performed include:

- **Duplicate Therapy** - If the patient is already receiving orders containing a Dispense Drug in the same class as one of the Dispense Drugs in the new order, the orders containing the drug in that class are displayed. Inpatient duplicate orders of this kind are displayed in a numbered list. The user is first asked whether or not to continue the current order. If the user selects to continue the order then the user is prompted with which, if any, numbered Inpatient duplicate orders to discontinue. The user may enter a range of numbers from the numbered list of duplicate orders or bypass the prompt by selecting **<Enter>** and continue with the order. Entry of orders with duplicate drugs of the same class will be allowed.

```
Inpatient Order Entry         Mar 16, 2011@12:10:42          Page:    1 of    2
BCMA,EIGHTEEN-PATIENT             Ward: 7A GEN                        A
   PID: 666-33-0018           Room-Bed:               Ht(cm): 175.26 (12/15/08)
   DOB: 04/07/35 (75)                                 Wt(kg): 100.00 (12/15/08)
   Sex: FEMALE                                    Admitted: 01/31/02
    Dx: UPSET                                  Last transferred: 06/04/10
------------------------------------------------------------------------------------------
- - - - - - - - - - N O N - V E R I F I E D C O M P L E X - - - - - - - - - -
   1    LITHIUM TAB,SA                              C 10/13 10/15 N
          Give: 450MG PO QID
        LITHIUM TAB,SA                              C 10/13 10/15 N
          Give: 10000MG PO Q4H
   2    RILUZOLE TAB                                C 10/13 10/15 N
          Give: 50MG PO BID
+------------Enter ?? for more actions-----------------------------------------------
PI  Patient Information                 SO Select Order
PU  Patient Record Update               NO New Order Entry
Select Action: Next Screen// no   New Order Entry

Select DRUG: sim
    Lookup: DRUG GENERIC NAME
     1   SIMETHICONE 40MG CHEW TAB           GA900     N/F
     2   SIMETHICONE 40MG/0.6ML DROPS           GA900
     3   SIMETHICONE 80MG CHEW TAB           GA900
     4   SIMVASTATIN 10MG TAB           CV350
     5   SIMVASTATIN 20MG TAB           CV350
Press <RETURN> to see more, '^' to exit this list, '^^' to exit all lists, OR
CHOOSE 1-5: 5  SIMVASTATIN 20MG TAB         CV350

Now Processing Enhanced Order Checks! Please wait...
================================================================================
This patient is receiving the following order(s) that have a CRITICAL Drug
Interaction with SIMVASTATIN 20MG TAB:

INDINAVIR CAP,ORAL                       C 03/16 03/17 A
Give: 400MG PO QDAY

Concurrent administration may result in elevated HMG levels, which may
increase the risk of myopathy, including rhabdomyolysis. (1-16)

================================================================================
This patient is receiving the following order(s) that have a SIGNIFICANT Drug
Interaction with SIMVASTATIN 20MG TAB:

Local Rx #501932A (ACTIVE) for RISPERIDONE 0.5MG TAB
SIG: TAKE ONE TABLET BY MOUTH TWICE A DAY
Processing Status: Not released locally (Window)


*** REFER TO MONOGRAPH FOR SIGNIFICANT INTERACTION CLINICAL EFFECTS
================================================================================
```

```
Display Professional Interaction Monograph(s)? NO//

Do you want to Continue with SIMVASTATIN 20MG TAB? NO// y  YES

Now creating Pharmacy Intervention
For SIMVASTATIN 20MG TAB

PROVIDER:    PSJPROVIDER,ONE           TP
RECOMMENDATION: 8 NO CHANGE

See 'Pharmacy Intervention Menu' if you want to delete this
intervention or for more options.


Would you like to edit this intervention? N// no

================================================================================
This patient is already receiving the following INPATIENT and/or OUTPATIENT
order(s) for a drug in the same therapeutic class(es) as SIMVASTATIN 20MG
TAB:

Local Rx #501820A (ACTIVE) for SIMVASTATIN 10MG TAB
SIG: TAKE ONE TABLET BY MOUTH EVERY EVENING
Processing Status: Not released locally (Window)

Class(es) Involved in Therapeutic Duplication(s): HMGCo-A Reductase
   Inhibitors
================================================================================

Press Return to continue...

Available Dosage(s)
      1.    20MG
      2.    40MG
      3.    60MG

Select from list of Available Dosages or Enter Free Text Dose: 2  40MG

You entered 40MG is this correct? Yes//   YES
MED ROUTE: ORAL (BY MOUTH)//   PO
SCHEDULE: QPM//       2100
SCHEDULE TYPE: CONTINUOUS//   CONTINUOUS
ADMIN TIMES: 2100//
SPECIAL INSTRUCTIONS:
START DATE/TIME: MAR 16,2011@12:10//   MAR 16,2011@12:10
STOP DATE/TIME: MAR 18,2011@24:00//    MAR 18,2011@24:00
Expected First Dose: MAR 16,2011@21:00
PROVIDER: PHARMACIST,SEVENTEEN//         145


NON-VERIFIED UNIT DOSE        Mar 16, 2011@12:10:15          Page:    1 of    2
BCMA,EIGHTEEN-PATIENT             Ward: 7A GEN                    A
   PID: 666-33-0018           Room-Bed:               Ht(cm): 175.26 (12/15/08)
   DOB: 04/07/35 (75)                                 Wt(kg): 100.00 (12/15/08)
--------------------------------------------------------------------------------
 (1)Orderable Item: SIMVASTATIN TAB
      Instructions:
 (2)Dosage Ordered: 40MG
          Duration:                                    (3)Start: 03/16/11  12:10
 (4)     Med Route: ORAL (BY MOUTH)
                                                      (5) Stop: 03/18/11  24:00
 (6) Schedule Type: CONTINUOUS
 (8)       Schedule: QPM
 (9)    Admin Times: 2100
 (10)      Provider: PHARMACIST,SEVENTEEN
 (11) Special Instructions:

 (12) Dispense Drug                                 U/D        Inactive Date
      SIMVASTATIN 20MG TAB                          2
```

```
+         Enter ?? for more actions
ED  Edit                              AC  ACCEPT
Select Item(s): Next Screen// ac   ACCEPT
NATURE OF ORDER: WRITTEN//        W

...transcribing this non-verified order....

NON-VERIFIED UNIT DOSE        Mar 16, 2011@12:10:24          Page:    1 of    2
BCMA,EIGHTEEN-PATIENT             Ward: 7A GEN                          A
   PID: 666-33-0018           Room-Bed:               Ht(cm): 175.26 (12/15/08)
   DOB: 04/07/35 (75)                                 Wt(kg): 100.00 (12/15/08)
------------------------------------------------------------------------------------------------------------------------
*(1)Orderable Item: SIMVASTATIN TAB
      Instructions:
*(2)Dosage Ordered: 40MG
          Duration:                                    (3)Start: 03/16/11  12:10
*(4)     Med Route: ORAL (BY MOUTH)
                                                       (5) Stop: 03/18/11  24:00
 (6) Schedule Type: CONTINUOUS
*(8)      Schedule: QPM
 (9)   Admin Times: 2100
      SIMVASTATIN 20MG TAB                          2
+         Enter ?? for more actions
DC  Discontinue           ED  Edit                 AL Activity Logs
HD  (Hold)                RN  (Renew)
FL  Flag                  VF  Verify
Select Item(s): Next Screen// vf   Verify
...a few moments, please.....

Pre-Exchange DOSES:

ORDER VERIFIED.

Enter RETURN to continue or '^' to exit:

Select DRUG:

Select IV TYPE:

Inpatient Order Entry         Mar 16, 2011@12:10:42          Page:    1 of    2
BCMA,EIGHTEEN-PATIENT             Ward: 7A GEN                          A
   PID: 666-33-0018           Room-Bed:               Ht(cm): 175.26 (12/15/08)
   DOB: 04/07/35 (75)                                 Wt(kg): 100.00 (12/15/08)
   Sex: FEMALE                                    Admitted: 01/31/02
    Dx: UPSET                                Last transferred: 06/04/10
------------------------------------------------------------------------------------------------------------------------
 - - - - - - - - - - - - - - - - - A C T I V E - - - - - - - - - - - - - - - - -
   1    INDINAVIR CAP,ORAL                        C 03/16 03/17 A
          Give: 400MG PO QDAY
   2    SIMVASTATIN TAB                           C 03/16 03/18 A
          Give: 40MG PO QPM
 - - - - - - - - - - N O N - V E R I F I E D C O M P L E X - - - - - - - - - -
   3    LITHIUM TAB,SA                            C 10/13 10/15 N
          Give: 450MG PO QID
        LITHIUM TAB,SA                            C 10/13 10/15 N
          Give: 10000MG PO Q4H
   4    RILUZOLE TAB                              C 10/13 10/15 N
          Give: 50MG PO BID
+         Enter ?? for more actions
PI  Patient Information               SO Select Order
PU  Patient Record Update             NO New Order Entry
Select Action: Next Screen//
```

- **Drug-Drug Interactions** - Drug-drug interactions will be either critical or significant. If the Dispense Drug selected is identified as having an interaction with one of the drugs the patient is already receiving, the order the new drug interacts with will be displayed.

```
Inpatient Order Entry         Mar 16, 2011@12:04:33          Page:    1 of    2
BCMA,EIGHTEEN-PATIENT             Ward: 7A GEN                        A
   PID: 666-33-0018           Room-Bed:              Ht(cm): 175.26 (12/15/08)
   DOB: 04/07/35 (75)                                Wt(kg): 100.00 (12/15/08)
   Sex: FEMALE                                    Admitted: 01/31/02
    Dx: UPSET                              Last transferred: 06/04/10
------------------------------------------------------------------------------------------------------------------------
 - - - - - - - - - - N O N - V E R I F I E D C O M P L E X - - - - - - - - - -
   1    LITHIUM TAB,SA                              C 10/13 10/15 N
          Give: 450MG PO QID
        LITHIUM TAB,SA                              C 10/13 10/15 N
          Give: 10000MG PO Q4H
   2    RILUZOLE TAB                                C 10/13 10/15 N
          Give: 50MG PO BID
        RILUZOLE TAB                                C 10/15 10/16 N
          Give: 10000MG PO Q4H
 - - - - - - - - - - - - - - P E N D I N G C O M P L E X - - - - - - - - - - - -
   3    HALOPERIDOL TAB                             ? ***** ***** P
          Give: 40MG PO BID
          Enter ?? for more actions
PI  Patient Information                SO Select Order
PU  Patient Record Update              NO New Order Entry
Select Action: Quit// no   New Order Entry

Select DRUG: indinavi
    Lookup: DRUG GENERIC NAME
INDINAVIR SULFATE 400MG CAP           AM800
         ...OK? Yes//   (Yes)

Now Processing Enhanced Order Checks! Please wait...


Press Return to continue...

================================================================================
This patient is receiving the following order(s) that have a CRITICAL Drug
Interaction with INDINAVIR SULFATE 400MG CAP:

Local Rx #501820A (ACTIVE) for SIMVASTATIN 10MG TAB
SIG: TAKE ONE TABLET BY MOUTH EVERY EVENING
Processing Status: Not released locally (Window)

Concurrent administration may result in elevated HMG levels, which may
increase the risk of myopathy, including rhabdomyolysis. (1-16)

================================================================================

Display Professional Interaction Monograph(s)? NO//

Do you want to Continue with INDINAVIR SULFATE 400MG CAP? NO// y YES

Now creating Pharmacy Intervention
For INDINAVIR SULFATE 400MG CAP

PROVIDER: PSJPROVIDER,ONE              TP
RECOMMENDATION: ?
    Answer with APSP INTERVENTION RECOMMENDATION, or NUMBER
   Choose from:
   1            CHANGE DRUG
   2            CHANGE FORM OR ROUTE OF ADMINISTRATION
   3            ORDER LAB TEST
   4            ORDER SERUM DRUG LEVEL
   5            CHANGE DOSE
   6            START OR DISCONTINUE A DRUG
```

```
   7            CHANGE DOSING INTERVAL
   8            NO CHANGE
   9            OTHER

RECOMMENDATION: 8 NO CHANGE

See 'Pharmacy Intervention Menu' if you want to delete this
intervention or for more options.


Would you like to edit this intervention? N// O


Available Dosage(s)
      1.    400MG
      2.    800MG

Select from list of Available Dosages or Enter Free Text Dose: 1 400MG

You entered 400MG is this correct? Yes//   YES
MED ROUTE: ORAL (BY MOUTH)//   PO
SCHEDULE: QDAY//
     1   QDAY    0900
     2   QDAY-DIG    1300
     3   QDAY-WARF    1300
CHOOSE 1-3: 1      0900
SCHEDULE TYPE: CONTINUOUS//   CONTINUOUS
ADMIN TIMES: 0900//
SPECIAL INSTRUCTIONS:
START DATE/TIME: MAR 16,2011@12:08//   MAR 16,2011@12:08
STOP DATE/TIME: MAR 17,2011@24:00//    MAR 17,2011@24:00
Expected First Dose: MAR 17,2011@09:00
PROVIDER: PHARMACIST,SEVENTEEN//         145

NON-VERIFIED UNIT DOSE        Mar 16, 2011@12:07:46          Page:    1 of    2
BCMA,EIGHTEEN-PATIENT             Ward: 7A GEN                        A
   PID: 666-33-0018           Room-Bed:               Ht(cm): 175.26 (12/15/08)
   DOB: 04/07/35 (75)                                 Wt(kg): 100.00 (12/15/08)
-------------------------------------------------------------------------------------------------
 (1) Orderable Item: INDINAVIR CAP,ORAL
      Instructions:
 (2) Dosage Ordered: 400MG
          Duration:                                    (3)Start: 03/16/11  12:08
 (4)     Med Route: ORAL (BY MOUTH)
                                                      (5) Stop: 03/17/11  24:00
 (6) Schedule Type: CONTINUOUS
 (8)       Schedule: QDAY
 (9)   Admin Times: 0900
 (10)      Provider: PHARMACIST,SEVENTEEN
 (11) Special Instructions:

 (12) Dispense Drug                                  U/D        Inactive Date
      INDINAVIR SULFATE 400MG CAP                    1

+------------Enter ?? for more actions-----------------------------------------------------------
ED  Edit                              AC  ACCEPT
Select Item(s): Next Screen// ac   ACCEPT

Press Return to continue...


NATURE OF ORDER: WRITTEN//        W

...transcribing this non-verified order....


NON-VERIFIED UNIT DOSE        Mar 16, 2011@12:08:04          Page:    1 of    2
BCMA,EIGHTEEN-PATIENT             Ward: 7A GEN                        A
   PID: 666-33-0018           Room-Bed:               Ht(cm): 175.26 (12/15/08)
   DOB: 04/07/35 (75)                                 Wt(kg): 100.00 (12/15/08)
```

```
-------------------------------------------------------------------------------------------------
*(1)Orderable Item: INDINAVIR CAP,ORAL
      Instructions:
*(2)Dosage Ordered: 400MG
          Duration:                                    (3)Start: 03/16/11  12:08
*(4)     Med Route: ORAL (BY MOUTH)
                                                       (5) Stop: 03/17/11  24:00
 (6) Schedule Type: CONTINUOUS
*(8)      Schedule: QDAY
 (9)   Admin Times: 0900
*(10)     Provider: PHARMACIST,SEVENTEEN [w]
 (11) Special Instructions:

 (12) Dispense Drug                                  U/D        Inactive Date
      INDINAVIR SULFATE 400MG CAP                    1
+-----------Enter ?? for more actions-----------------------------------------------------------
DC  Discontinue           ED  Edit                 AL Activity Logs
HD  (Hold)                RN  (Renew)
FL  Flag                  VF  Verify
Select Item(s): Next Screen//    NEXT SCREEN
```

- Drug-Allergy Interactions – Drug allergy interactions will be either critical or significant. If the Dispense Drug selected is identified as having an interaction with one of the patient's allergies, the allergy the drug interacts with will be displayed.

Note: For a Significant Interaction, the user who holds the PSJ RPHARM key is allowed to enter an intervention, but one is not required. For a Critical Interaction, the user who holds the PSJ RPHARM key must enter an intervention before continuing.

- **CPRS Order Check: Aminoglycoside Ordered**

```
Trigger:   Ordering session completion.
Mechanism: For each medication order placed during this ordering session,
the CPRS Expert System requests the pharmacy package to determine if the
medication belongs to the VA Drug Class 'Aminoglycosides'.  If so, the
patient's most recent BUN results are used to calculate the creatinine
clearance then OERR is notified and the warning message is displayed.
[Note: The creatinine clearance value displayed in some order check
messages is an estimate based on adjusted body weight if patient height is
> 60 inches.  Approved by the CPRS Clinical Workgroup 8/11/04, it is based
on a modified Cockcroft-Gault formula and was installed with patch
OR*3*221.
For more information:
http://www.ascp.com/public/pubs/tcp/1999/jan/cockcroft.shtml
CrCl (male) = (140 - age) x (adj body weight* in kg)
-------------------------------------------------
(serum creatinine) x 72
      * If patient height is not greater than 60 inches, actual body weight
is used.

CrCl (female) = 0.85 x CrCl (male)

To calculate adjusted body weight, the following equations are used:
Ideal body weight (IBW) = 50 kg x (for men) or 45 kg x (for women) + 2.3 x
(height in inches - 60)

Adjusted body weight (Adj. BW) if the ratio of actual BW/IBW > 1.3 = (0.3 x
(Actual BW - IBW)) + IBW
```

```
Adjusted body weight if the ratio of actual BW/IBW is not > 1.3 = IBW or
Actual BW (whichever is less)]

Message:   Aminoglycoside - est. CrCl:  <value calculated from most recent
serum creatinine>. (CREAT: <result>  BUN: <result>).
Danger Lvl: This order check is exported with a High clinical danger level.
```

- **CPRS Order Check: Dangerous Meds for Patients >64**

```
DANGEROUS MEDS FOR PT > 64 – Yes
This is based on the BEERS list.  This order check only checks for three
drugs: Amitriptyline, Chlorpropamide and Dipyridamole. The workgroup felt
that the list of drugs should be expanded. A request can be sent to CPRS
for this.

Trigger: Acceptance of pharmacy orderable items amitriptyline,
chlorpropamide or dipyridamole.
Mechanism: The CPRS Expert System determines if the patient is greater than
64 years old.  It then checks the orderable item of the medication ordered
to determine if it is mapped as a local term to the national term DANGEROUS
MEDS FOR PTS > 64.
Message: If the orderable item text contains AMITRIPTYLINE this message is
displayed:
   Patient is <age>. Amitriptyline can cause cognitive impairment and loss
of balance in older patients. Consider other antidepressant medications on
formulary.
   If the orderable item text contains CHLORPROPAMIDE this message is
displayed:
   Patient is <age>.  Older patients may experience hypoglycemia with
Chlorpropamide due do its long duration and variable renal secretion.  They
may also be at increased risk for Chlorpropamide-induced SIADH.
   If the orderable item text contains DIPYRIDAMOLE this message is
displayed:
   Patient is <age>.  Older patients can experience adverse reactions at
high doses of Dipyridamole (e.g., headache, dizziness, syncope, GI
intolerance.)  There is also questionable efficacy at lower doses.
Danger Lvl: This order check is exported with a High clinical danger level.
```

- **CPRS Order Check: Glucophage Lab Results**

```
Glucophage-Lab Results Interactions
Trigger: Selection of a Pharmacy orderable item.
Mechanism: The CPRS Expert System checks the pharmacy orderable item's
local text (from the Dispense Drug file [#50]) to determine if it contains
"Glucophage" or "metformin". The expert system next searches for a serum
creatinine result within the past x number of days as determined by
parameter ORK GLUCOPHAGE CREATININE.   If the patient's creatinine result
was greater than 1.5 or does not exist, OE/RR is notified and the warning
message is displayed.
Message: Metformin- no serum creatinine within past <x> days.   else:
   Metformin – Creatinine results: <creatinine greater than 1.5 w/in past
<x> days>
Danger Lvl: This order check is exported with a High clinical danger level.
```

4.9.1 Order Validation Checks

The following order validation checks will apply to Unit Dose orders and to intermittent IV orders.

Note: IV orders do not have Schedule Type.

- **Order Validation Check One**
  For intermittent IV orders, references to an order's Schedule Type will refer to either the TYPE OF SCHEDULE from the Administration Schedule file (#51.1), or PRN for schedule names in PRN format, or CONTINUOUS for schedule names in Day of Week format.

- **Order Validation Check Two**
  The system shall use the schedule type of the schedule from the Administration Schedule file independent of the schedule name when processing an order to determine if administration times are required for a particular order.

- **Order Validation Check Three**
  If an order has the Schedule Type of Continuous, the Schedule entered is NOT in Day of Week (Ex. MO-FR) or PRN (Ex. TID PC PRN) format, and the frequency associated with the schedule is one day (1440 minutes) or less, the system will not allow the number of administration times associated with the order to be greater than the number of administration times calculated for that frequency. The system will allow for the number of administration times to be LESS than the calculated administration times for that frequency but not less than one administration time. (For example, an order with a schedule of BID is associated with a frequency of 720 minutes. The frequency is divided into 1440 minutes (24 hours) and the resulting calculated administration time is two. For this order, the number of administration times allowed may be no greater than two, but no less than one. Similarly, a schedule frequency of 360 minutes must have at least one administration time but cannot exceed four administration times.)

  If an order has the Schedule Type of Continuous, the Schedule entered is NOT in Day of Week (Ex. MO-FR) or PRN (Ex. TID PC PRN) format, and the frequency associated with the schedule is **greater than one day** (1440 minutes) and evenly divisible by 1440, only one administration time is permitted. (For example, an order with a schedule frequency of 2880 minutes must have ONLY one administration time. If the frequency is greater than 1440 minutes and not evenly divisible by 1440, no administration times will be permitted.)

  The system shall present warning/error messages to the user if the number of administration times is less than or greater than the maximum admin times calculated for the schedule or if no administration times are entered. If the number of administration times entered is less than the maximum admin times calculated for the schedule, the warning message: "The number of admin times entered is fewer than indicated by the schedule." shall appear. In this case, the user will be allowed to continue after the

warning. If the number of administration times entered is greater than the maximum admin times calculated for the schedule, the error message: "The number of admin times entered is greater than indicated by the schedule." shall appear. In this case, the user will not be allowed to continue after the warning. If no admin times are entered, the error message: "This order requires at least one administration time." shall appear. The user will not be allowed to accept the order until at least one admin time is entered.

- **Order Validation Check Four**
  If an order has a Schedule Type of Continuous and is an Odd Schedule {a schedule whose frequency is not evenly divisible by or into 1440 minutes (1 day)}, the system shall prevent the entry of administration times. For example, Q5H, Q17H – these are not evenly divisible by 1440. In these cases, the system shall prevent access to the administration times field. No warning message is presented.

- **Order Validation Check Five**
  If an order has a Schedule Type of Continuous with a non-odd frequency of greater than one day, (1440 minutes) the system shall prevent more than one administration time, for example, schedules of Q72H, Q3Day, and Q5Day.

  If the number of administration times entered exceeds one, the error message: "This order requires one admin time" shall appear. If no administration times are entered, the error message: "This order requires at least one administration time." shall appear. The user will not be allowed to accept the order until at least one admin time is entered.

- **Order Validation Check Six**
  If an order has a Schedule Type of One Time, or if an order is entered with a schedule that is defined in the schedule file as One Time, the system shall prevent the user from entering more than one administration time.

  If more than one administration time is entered, the error message: "This is a One Time Order - only one administration time is permitted." shall appear. No administration times are required.

- **Order Validation Check Seven**
  For an order with a Schedule Type of Continuous where no doses/administration times are scheduled between the order's Start Date/Time and the Stop Date/Time, the system shall present a warning message to the user and not allow the order to be accepted or verified until the Start/Stop Date Times, schedule, and/or administration times are adjusted so that at least one dose is scheduled to be given.

  If the stop time will result in no administration time between the start time and stop time, the error message: "There must be an admin time that falls between the Start Date/Time and Stop Date/Time." shall appear.

(*This page included for two-sided copying.)*

Example: Authorized Absence/Discharge Summary (continued)

```
                      AUTHORIZED ABSENCE/DISCHARGE ORDERS              Page: 2
                             VAMC: REGION 5 (660)
 VA FORM: 10-7978M
 PSJPATIENT2,TWO                        000-00-0002         02/22/1942
-------------------------------------------------------------------------------------------------------------
                                                                Schedule        Cost per
 No.      Medication                                            Type            Dose
-------------------------------------------------------------------------------------------------------------
  2 BENZOYL PEROXIDE 10% GEL (2OZ)                              CONTINUOUS      3.78
    Inpt Dose: APPLY SMALL AMOUNT TOP QDAILY
    Special Instructions: TEST

    ___ TAKE NO ACTION (PATIENT WILL NOT RECEIVE MEDICATION)

    Outpatient Directions: _____________________________________________

Qty:_____   Refills: 0 1 2 3 4 5 6 7 8 9 10  11

    _____________________________________ _____________ Physician's Signature
                                        DEA #           Date AND Time
-------------------------------------------------------------------------------------------------------------
  3 RANITIDINE 150MG                                            CONTINUOUS      0.5
    Inpt Dose: 150MG PO BID

    ___ TAKE NO ACTION (PATIENT WILL NOT RECEIVE MEDICATION)

    Outpatient Directions: _____________________________________________

Qty:_____   Refills: 0 1 2 3 4 5 6 7 8 9 10  11

    _____________________________________ _____________ _____________________
    Physician's Signature               DEA #           Date AND Time
-------------------------------------------------------------------------------------------------------------
  4 THEO-24 200MG                                               CONTINUOUS      0.086
    Inpt Dose: 400MG PO QID
    Special Instructions: TESTING DO

    ___ TAKE NO ACTION (PATIENT WILL NOT RECEIVE MEDICATION)

    Outpatient Directions: _____________________________________________

Qty:_____   Refills: 0 1 2 3 4 5 6 7 8 9 10  11

    _____________________________________ _____________ _____________________
    Physician's Signature               DEA #           Date AND Time
=============================================================================
    OTHER MEDICATIONS:

  5 Medication:_____________________________________________________________

    Outpatient Directions: _____________________________________________

Qty:_____   Refills: 0 1 2 3 4 5 6 7 8 9 10  11

    _____________________________________ _____________ _____________________
    Physician's Signature               DEA #           Date AND Time
-------------------------------------------------------------------------------------------------------------
  6 Medication: _____________________________________________________________

    Outpatient Directions: _____________________________________________

Qty:         Refills: 0 1 2 3 4 5 6 7 8 9 10  11

    _____________________________________ _____________ Physician's Signature
                                        DEA #           Date AND Time

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

----------report continues----------

Example: Authorized Absence/Discharge Summary (continued)

```
                  AUTHORIZED ABSENCE/DISCHARGE INSTRUCTIONS 09/19/2000 12:43
                            VAMC: REGION 5 (660)
 VA FORM: 10-7978M
 Effective Date:
================================================================================
 PSJPATIENT2,TWO              Ward: 1 West
    PID: 000-00-0002      Room-Bed: A-6              Ht(cm): 167.64 (04/21/1999)
    DOB: 02/22/1942  (58)     Team: * NF *           Wt(kg):  85.00 (04/21/1999)
    Sex: MALE                                      Admitted: 09/16/1999
     Dx: TEST PATIENT
 Allergies: CARAMEL, CN900, LOMEFLOXACIN, PENTAMIDINE, PENTAZOCINE, CHOCOLATE,
            NUTS, STRAWBERRIES, DUST
 NV Aller.: AMOXICILLIN, AMPICILLIN, TAPE, FISH, FLUPHENAZINE DECANOATE
       ADR:

================================================================================

        Next scheduled clinic visit:
================================================================================
 DIETARY INSTRUCTIONS: (Check One)
 __ NO RESTRICTIONS __ RESTRICTIONS (Specify) _____________________________

 _____________________________________________________________________________

 _____________________________________________________________________________
================================================================================
 PHYSICAL ACTIVITY LIMITATIONS: (Check One)
 __ NO RESTRICTIONS __ RESTRICTIONS (Specify) _____________________________

 _____________________________________________________________________________

 _____________________________________________________________________________
================================================================================
 SPECIAL INSTRUCTIONS: (list print information, handouts, or other
 instructions pertinent to patient's condition)

 _____________________________________________________________________________

 _____________________________________________________________________________
================================================================================
 DIAGNOSES: _______________________________________________________________

 _____________________________________________________________________________

 _____________________________________________________________________________
Enter RETURN to continue or '^' to exit: <Enter>
----------------------------------------report continues-------------------------------
```

8. CPRS Order Checks: How They Work

8.1. CPRS Order Checks Introduction

In CPRS, Order Checks occur by evaluating a requested order against existing patient data. Most order checks are processed via the CPRS Expert System. A few are processed within the Pharmacy, Allergy Tracking System, and Order Entry packages. Order Checks are a real-time process that occurs during the ordering session and is driven by responses entered by the ordering provider. Order Check messages are displayed interactively in the ordering session.

Order Checks review existing data and current events to produce a relevant message, which is presented to patient caregivers. Order Checks use the CPRS Expert System (OCX namespace), to define logical expressions for this evaluation and message creation. In addition to the expert system Order Checks have some hard-coded algorithms. For example, the drug-drug interaction order check is made via an entry point in the pharmacy package whereas Renal Functions for Patients Over 65 is defined as a rule in the CPRS Expert System.

8.2. Order Check Data Caching

Data caching was recently added to improve the speed of order checks. Before data caching, order checks could be slow because each order check retrieved data from the other VISTA packages—even if the order checks used the same data. With data caching, the first order check in an ordering session retrieves data from other VISTA packages, uses the data to evaluate whether it should display a warning, and then stores the retrieved data in the ^XTMP("OCXCACHE" global for five minutes. The order checks that occur in the next five minutes can use the cached data, if it is the appropriate data, instead of retrieving data from the other packages. After five minutes, the cached data expires, and order checks must retrieve new data from the VISTA packages.

For example, before data caching was implemented, if an order check took 3 seconds to retrieve data from other VISTA packages, and there were 12 order checks, clinicians might wait 36 seconds to sign orders. With data caching, the first order check might take 3 seconds to retrieve the data, but subsequent order checks could use the cache and might take only .03 seconds each. That would be 3.33 seconds compared to 36 seconds. The numbers in this example are for illustration only and do not reflect real system speed. However, data caching should speed up order checks.

To avoid using all available disk space for storing data from order checks, there are several ways to clear the ^XTMP("OCXCACHE" global. ORMTIME removes data from the global when it runs. The suggested frequency for running ORMTIME is every 30 minutes, but not every site runs it that frequently. Kernel clean up utilities also remove data from the cache when they run, which is usually every 24 hours. If needed, users that have access to the programmer's prompt can manually clear the cache from that prompt by using PURGE^OCXCACHE.

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9. Error Messages

Error Level	Error Message	Reason	Why message is being displayed
System	No Enhanced Order Checks can be performed.	Vendor Database cannot be reached.	The connectivity to the vendor database has gone down. A MailMan message is sent to the G. PSS ORDER CHECKS mail group when the link goes down and when it comes back up.
System	No Enhanced Order Checks can be performed.	The connection to the vendor database has been disabled.	A user has executed the Enable/Disable Vendor Database Link [PSS ENABLE/DISABLE DB LINK] option and disabled the interface.
System	No Enhanced Order Checks can be performed	Vendor database updates are being processed	The vendor database (custom and standard data) is being updated using the DATUP (Data Update) process.
Drug	Enhanced Order Checks cannot be performed for Local or Local Outpatient Drug: <DRUG NAME>	Drug not matched to NDF	The local drug being ordered/ or on profile has not been matched to NDF. Matching the drug to a VA Product will eliminate this message.
Drug	Order Checks could not be done for Drug: <DRUG NAME>, please complete a manual check for Drug Interactions and Duplicate Therapy.		If this error message is displayed, it means that the VA product that the local drug being ordered/or on profile does not have a GCNSEQNO or in rare cases, the GCNSEQNO assigned to the VA Product does not match up with a GCNSEQNO in the vendor database.
Drug	Enhanced Order Checks cannot be performed for Orderable Item: <OI NAME>	No active Dispense Drug found	Highly unlikely that this error would be seen. At the time the order check was being performed the orderable item did not have an active dispense drug associated.
Drug	Enhanced Order Checks cannot be performed for Orderable Item: <OI NAME>	No active, marked for IV Fluid Order Entry IV Additive/Solution found	The orderable item associate with an IV Fluid order did not have an active IV Additive/IV Solution marked for IV fluid order entry use at the time the order check was executed. This is another error the user will probably not see.

9.1. Error Information

The text in the error message and reason column will be displayed to the user. The type of error is displayed in Column 1.

There are three levels of error messages:

System When such an error occurs, no drug interaction or duplicate therapy order checks will be performed. Other order checks that do not use the COTS database (FDB) will still be performed such as allergy/ADRs, duplicate drug (for outpatient only) and new CPRS order checks, etc.

Drug The second error level is for the drug and no drug interaction/duplicate therapy order checks will be performed for a specific drug. When you are processing an order, you may see a drug level error for a drug that is on the profile. This indicates that a drug interaction or duplicate therapy order check will not be performed for the drug in the order you are processing against this profile drug. Profile drug errors will only be shown once per patient session. So if you process several more orders, you will not see the error again. However, if you exit the option and at some later time reselect this patient to process new orders or take action on any existing orders, you will be shown the profile drug error once again.

If a drug level error occurs on the drug in the order you are processing, no profile drug errors will be displayed. No order checks (duplicate therapy or drug interaction) will occur for the processing drug (prospective drug). The only exception to this is when you are processing an IV order with multiple prospective drugs (i.e. multiple additives).

Order There is only one type of order level error for Drug Interactions and Duplicate Therapy Order checks that you will see. However, functionally it is treated as a drug level error and will be displayed with other drug level errors. Most of the order level errors that you will see will be generated when dosage order checks are performed.

10. Glossary

Action Prompts

There are three types of Inpatient Medications "Action" prompts that occur during order entry: ListMan, Patient/Order, and Hidden action prompts.

ListMan Action Prompts

+	Next Screen
-	Previous Screen
UP	Up a Line
DN	Down a Line
>	Shift View to Right
<	Shift View to Left
FS	First screen
LS	Last Screen
GO	Go to Page
RD	Re Display Screen
PS	Print Screen
PT	Print List
SL	Search List
Q	Quit
ADPL	Auto Display (on/off)

Patient/Order Action Prompts

PU	Patient Record Updates
DA	Detailed Allergy/ADR List
VP	View Profile
NO	New Orders Entry
IN	Intervention Menu
PI	Patient Information
SO	Select Order
DC	Discontinue
ED	Edit
FL	Flag
VF	Verify
HD	Hold

Patient/Order Action Prompts (continued)

RN	Renew
AL	Activity Logs
OC	On Call
NL	Print New IV Labels
RL	Reprint IV Labels
RC	Recycled IV
DT	Destroyed IV
CA	Cancelled IV

Hidden Action Prompts

LBL	Label Patient/Report
JP	Jump to a Patient
OTH	Other Pharmacy Options
MAR	MAR Menu
DC	Speed Discontinue
RN	Speed Renew
SF	Speed Finish
SV	Speed Verify
CO	Copy
N	Mark Not to be Given
I	Mark Incomplete
DIN	Drug Restr/Guide

Active Order

Any order which has not expired or been discontinued. Active orders also include any orders that are on hold or on call.

Activity Reason Log

The complete list of all activity related to a patient order. The log contains the action taken, the date of the action, and the user who took the action.

Activity Ruler

The activity ruler provides a visual representation of the relationship between manufacturing times, doses due, and order start times. The intent is to provide the on-the-floor user with a means of tracking activity in the IV room and determining when to call for doses before the normal delivery. The activity ruler can be enabled or disabled under the *SIte Parameters (IV)* option.

Additive	A drug that is added to an IV solution for the purpose of parenteral administration. An additive can be an electrolyte, a vitamin or other nutrient, or an antibiotic. Only an electrolyte or multivitamin type additives can be entered as IV fluid additives in CPRS.
ADMINISTRATION SCHEDULE File	File #51.1. This file contains administration schedule names and standard dosage administration times. The name is a common abbreviation for an administration schedule type (e.g., QID, Q4H, PRN). The administration time entered is in military time, with each time separated from the next by a dash, and times listed in ascending order.
Administering Teams	Nursing teams used in the administration of medication to the patients. There can be a number of teams assigned to take care of one ward, with specific rooms and beds assigned to each team.
Admixture	An admixture is a type of intravenously administered medication comprised of any number of additives (including zero) in one solution. It is given at a specified flow rate; when one bottle or bag is empty, another is hung.
APSP INTERVENTION File	File #9009032.4. This file is used to enter pharmacy interventions. Interventions in this file are records of occurrences where the pharmacist had to take some sort of action involving a particular prescription or order. A record would record the provider involved, why an intervention was necessary, what action was taken by the pharmacists, etc.
Average Unit Drug Cost	The total drug cost divided by the total number of units of measurement.
BCMA	A VistA computer software package named Bar Code Medication Administration. This package validates medications against active orders prior to being administered to the patient.

Calc Start Date	Calculated Start Date. This is the date that would have been the default Start Date/Time for an order if no duration was received from CPRS. Due to the existence of a duration, the default Start Date/Time of the order becomes the expected first dose.
Calc Stop Date	Calculated Stop Date. This is the date that would have been the default Stop Date/Time for an order if no duration was received from CPRS. Due to the existence of a duration, the default Stop Date/Time of the order becomes the expected first dose plus the duration.
Chemotherapy	Chemotherapy is the treatment or prevention of cancer with chemical agents. The chemotherapy IV type administration can be a syringe, admixture, or a piggyback. Once the subtype (syringe, piggyback, etc.) is selected, the order entry follows the same procedure as the type that corresponds to the selected subtype (e.g., piggyback type of chemotherapy follows the same entry procedure as regular piggyback IV).
Chemotherapy "Admixture"	The Chemotherapy "Admixture" IV type follows the same order entry procedure as the regular admixture IV type. This type is in use when the level of toxicity of the chemotherapy drug is high and is to be administered continuously over an extended period of time (e.g., hours or days).
Chemotherapy "Piggyback"	The Chemotherapy "Piggyback" IV type follows the same order entry procedure as the regular piggyback IV type. This type of chemotherapy is in use when the chemotherapy drug does not have time constraints on how fast it must be infused into the patient. These types are normally administered over a 30 - 60 minute interval.
Chemotherapy "Syringe"	The Chemotherapy "Syringe" IV type follows the same order entry procedure as the regular syringe IV type. Its administration may be continuous or intermittent. The pharmacist selects this type when the level of toxicity of the chemotherapy drug is low and needs to be infused directly into the patient within a short time interval (usually 1-2 minutes).

Child Orders	One or more Inpatient Medication Orders that are associated within a Complex order and are linked together using the conjunctions AND and OR to create combinations of dosages, medication routes, administration schedules, and order durations.
Clinic Group	A clinic group is a combination of outpatient clinics that have been defined as a group within Inpatient Medications to facilitate processing of orders.
Complex Order	An order that is created from CPRS using the Complex order dialog and consists of one or more associated Inpatient Medication orders, known as "child" orders.
Continuous IV Order	Inpatient Medications IV order not having an administration schedule. This includes the following IV types: Hyperals, Admixtures, Non-Intermittent Syringe, and Non-Intermittent Syringe or Admixture Chemotherapy.
Continuous Syringe	A syringe type of IV that is administered continuously to the patient, similar to a hyperal IV type. This type of syringe is commonly used on outpatients and administered automatically by an infusion pump.
Coverage Times	The start and end of coverage period designates administration times covered by a manufacturing run. There must be a coverage period for all IV types: admixtures and primaries, piggybacks, hyperals, syringes, and chemotherapy. For one type, admixtures for example, the user might define two coverage periods; one from 1200 to 0259 and another from 0300 to 1159 (this would mean that the user has two manufacturing times for admixtures).
CPRS	A VistA computer software package called Computerized Patient Record Systems. CPRS is an application in VistA that allows the user to enter all necessary orders for a patient in different packages from a single application. All pending orders that appear in the Unit Dose and IV modules are initially entered through the CPRS package.
Cumulative Doses	The number of IV doses actually administered, which equals the total number of bags dispensed less any recycled, destroyed, or cancelled bags.

Default Answer	The most common answer, predefined by the system to save time and keystrokes for the user. The default answer appears before the two slash marks (//) and can be selected by the user by pressing <**Enter**>.
Dispense Drug	The Dispense Drug is pulled from the DRUG file (#50) and usually has the strength attached to it (e.g., Acetaminophen 325 mg). Usually, the name alone without a strength attached is the Orderable Item name.
Delivery Times	The time(s) when IV orders are delivered to the wards.
Dosage Ordered	After the user has selected the drug during order entry, the dosage ordered prompt is displayed.
DRUG ELECTROLYTES file	File #50.4. This file contains the names of anions/cations, and their concentration units.
DRUG file	File #50. This file holds the information related to each drug that can be used to fill a prescription.
Duration	The length of time between the Start Date/Time and Stop Date/Time for an Inpatient Medications order. The default duration for the order can be specified by an ordering clinician in CPRS by using the Complex Dose tab in the Inpatient Medications ordering dialog.
Electrolyte	An additive that disassociates into ions (charged particles) when placed in solution.
Entry By	The name of the user who entered the Unit Dose or IV order into the computer.
Hospital Supplied Self Med	Self-medication, which is to be supplied by the Medical Center's pharmacy. Hospital supplied self med is only prompted for if the user answers Yes to the SELF MED: prompt during order entry.

Hyperalimentation (Hyperal)	Long term feeding of a protein-carbohydrate solution. Electrolytes, fats, trace elements, and vitamins can be added. Since this solution generally provides all necessary nutrients, it is commonly referred to as Total Parenteral Nutrition (TPN). A hyperal is composed of many additives in two or more solutions. When the labels print, they show the individual electrolytes in the hyperal order.
Infusion Rate	The designated rate of flow of IV fluids into the patient.
INPATIENT USER PARAMETERS file	File #53.45. This file is used to tailor various aspects of the Inpatient Medications package with regards to specific users. This file also contains fields that are used as temporary storage of data during order entry/edit.
INPATIENT WARD PARAMETERS file	File #59.6. This file is used to tailor various aspects of the Inpatient Medications package with regards to specific wards.
Intermittent Syringe	A syringe type of IV that is administered periodically to the patient according to an administration schedule.
Internal Order Number	The number on the top left corner of the label of an IV bag in brackets ([ ]). This number can be used to speed up the entry of returns and destroyed IV bags.
IV ADDITIVES file	File #52.6. This file contains drugs that are used as additives in the IV room. Data entered includes drug generic name, print name, drug information, synonym(s), dispensing units, cost per unit, days for IV order, usual IV schedule, administration times, electrolytes, and quick code information.
IV CATEGORY file	File #50.2. This file allows the user to create categories of drugs in order to run "tailor-made" IV cost reports for specific user-defined categories of drugs. The user can group drugs into categories.
IV Duration	The duration of an order may be entered in CPRS at the IV DURATION OR TOTAL VOLUME field in the IV Fluids order dialog. The duration may be specified in terms of volume (liters or milliliters), or time (hours or days). Inpatient Medications uses this value to calculate a default stop date/time for the order at the time the order is finished.

IV Label Action	A prompt, requesting action on an IV label, in the form of "Action ( )", where the valid codes are shown in the parentheses. The following codes are valid: P – Print a specified number of labels now. B – Bypass any more actions. S – Suspend a specified number of labels for the IV room to print on demand.
IV Room Name	The name identifying an IV distribution area.
IV SOLUTIONS file	File #52.7. This file contains drugs that are used as primary solutions in the IV room. The solution must already exist in the DRUG file (#50) to be selected. Data in this file includes: drug generic name, print name, status, drug information, synonym(s), volume, and electrolytes.
IV STATS file	File #50.8. This file contains information concerning the IV workload of the pharmacy. This file is updated each time the *COmpile IV Statistics* option is run and the data stored is used as the basis for the AMIS (IV) report.
Label Device	The device, identified by the user, on which computer-generated labels will be printed.
Local Possible Dosages	Free text dosages that are associated with drugs that do not meet all of the criteria for Possible Dosages.
LVP	Large Volume Parenteral — Admixture. A solution intended for continuous parenteral infusion, administered as a vehicle for additive(s) or for the pharmacological effect of the solution itself. It is comprised of any number of additives, including zero, in one solution. An LVP runs continuously, with another bag hung when one bottle or bag is empty.
Manufacturing Times	The time(s) that designate(s) the general time when the manufacturing list will be run and IV orders prepared. This field in the *SIte Parameters (IV)* option (IV ROOM file (#59.5)) is for documentation only and does not affect IV processing.
MEDICATION ADMINISTERING TEAM file	File #57.7. This file contains wards, the teams used in the administration of medication to that ward, and the rooms/beds assigned to that team.

MEDICATION INSTRUCTION file	File #51. This file is used by Unit Dose and Outpatient Pharmacy. It contains the medication instruction name, expansion, and intended use.
MEDICATION ROUTES file	File #51.2. This file contains medication route names. The user can enter an abbreviation for each route to be used at their site. The abbreviation will most likely be the Latin abbreviation for the term.
Medication Routes/ Abbreviations	Route by which medication is administered (e.g., oral). The MEDICATION ROUTES file (#51.2) contains the routes and abbreviations, which are selected by each VAMC. The abbreviation cannot be longer than five characters to fit on labels and the MAR. The user can add new routes and abbreviations as appropriate.
Non-Formulary Drugs	The medications that are defined as commercially available drug products not included in the VA National Formulary.
Non-VA Meds	Term that encompasses any Over-the-Counter (OTC) medications, Herbal supplements, Veterans Health Administration (VHA) prescribed medications but purchased by the patient at an outside pharmacy, and medications prescribed by providers outside VHA. All Non-VA Meds must be documented in patients' medical records.
Non-Verified Orders	Any order that has been entered in the Unit Dose or IV module that has not been verified (made active) by a nurse and/or pharmacist. Ward staff may not verify a non-verified order.
Orderable Item	An Orderable Item name has no strength attached to it (e.g., Acetaminophen). The name with a strength attached to it is the Dispense Drug name (e.g., Acetaminophen 325mg).
Order Sets	An Order Set is a set of N pre-written orders. (N indicates the number of orders in an Order Set is variable.) Order Sets are used to expedite order entry for drugs that are dispensed to all patients in certain medical practices and procedures.
Order View	Computer option that allows the user to view detailed information related to one specific order of a patient.

	The order view provides basic patient information and identification of the order variables.
Parenteral	Introduced by means other than the digestive track.
Patient Profile	A listing of a patient's active and non-active Unit Dose and IV orders. The patient profile also includes basic patient information, including the patient's name, social security number, date of birth, diagnosis, ward location, date of admission, reactions, and any pertinent remarks.
PECS	Pharmacy Enterprise Customization System. A Graphical User Interface (GUI) web-based application used to research, update, maintain, and report VA customizations of the commercial-off-the-shelf (COTS) vendor database used to perform Pharmacy order checks such as drug-drug interactions, duplicate therapy, and dosing.
Pending Order	A pending order is one that has been entered by a provider through CPRS without Pharmacy or Nursing finishing the order. Once Pharmacy or Nursing has finished and verified the order, it will become active.
PEPS	Pharmacy Enterprise Product System. A re-engineering of pharmacy data and its management practices developed to use a commercial off-the-shelf (COTS) drug database, currently First DataBank (FDB) Drug Information Framework (DIF), to provide the latest identification and safety information on medications.
PHARMACY SYSTEM file	File #59.7. This file contains data that pertains to the entire Pharmacy system of a medical center, and not to any one site or division.
Piggyback	Small volume parenteral solution for intermittent infusion. A piggyback is comprised of any number of additives, including zero, and one solution; the mixture is made in a small bag. The piggyback is given on a schedule (e.g., Q6H). Once the medication flows in, the piggyback is removed; another is not hung until the administration schedule calls for it.

Possible Dosages	Dosages that have a numeric dosage and numeric dispense units per dose appropriate for administration. For a drug to have possible dosages, it must be a single ingredient product that is matched to the VA PRODUCT file (#50.68). The VA PRODUCT file (#50.68) entry must have a numeric strength and the dosage form/unit combination must be such that a numeric strength combined with the unit can be an appropriate dosage selection.
Pre-Exchange Units	The number of actual units required for this order until the next cart exchange.
Primary Solution	A solution, usually an LVP, administered as a vehicle for additive(s) or for the pharmacological effect of the solution itself. Infusion is generally continuous. An LVP or piggyback has only one solution (primary solution). A hyperal can have one or more solutions.
Print Name	Drug generic name as it is to appear on pertinent IV output, such as labels and reports. Volume or Strength is not part of the print name.
Print Name{2}	Field used to record the additives contained in a commercially purchased premixed solution.
Profile	The patient profile shows a patient's orders. The Long profile includes all the patient's orders, sorted by status: active, non-verified, pending, and non-active. The Short profile will exclude the patient's discontinued and expired orders.
Prompt	A point at which the system questions the user and waits for a response.
Provider	Another term for the physician/clinician involved in the prescription of an IV or Unit Dose order for a patient.
PSJI MGR	The name of the *key* that allows access to the supervisor functions necessary to run the IV medications software. Usually given to the Inpatient Medications package coordinator.
PSJI PHARM TECH	The name of the *key* that must be assigned to pharmacy technicians using the IV module. This key allows the technician to finish IV orders, but not verify them.

PSJI PURGE	The *key* that must be assigned to individuals allowed to purge expired IV orders. This person will most likely be the IV application coordinator.
PSJI RNFINISH	The name of the *key* that is given to a user to allow the finishing of IV orders. This user must also be a holder of the PSJ RNURSE key.
PSJI USR1	The *primary menu option* that may be assigned to nurses.
PSJI USR2	The *primary menu option* that may be assigned to technicians.
PSJU MGR	The name of the *primary menu* and of the *key* that must be assigned to the pharmacy package coordinators and supervisors using the Unit Dose Medications module.
PSJU PL	The name of the *key* that must be assigned to anyone using the Pick List options.
PSJ PHARM TECH	The name of the *key* that must be assigned to pharmacy technicians using the Unit Dose Medications module.
PSJ RNFINISH	The name of the *key* that is given to a user to allow the finishing of a Unit Dose order. This user must also be a holder of the PSJ RNURSE key.
PSJ RNURSE	The name of the *key* that must be assigned to nurses using the Unit Dose Medications module.
PSJ RPHARM	The name of the *key* that must be assigned to a pharmacist to use the Unit Dose Medications module. If the package coordinator is also a pharmacist he/she must also be given this key.
Quick Code	An abbreviated form of the drug generic name (from one to ten characters) for IV orders. One of the three drug fields on which lookup is done to locate a drug. Print name and synonym are the other two. Use of quick codes will speed up order entry, etc.
Report Device	The device, identified by the user, on which computer-generated reports selected by the user will be printed.
Schedule	The frequency of administration of a medication (e.g., QID, QDAILY, QAM, STAT, Q4H).

Schedule Type	Codes include: **O** - one time (i.e., STAT - only once), **P** - PRN (as needed; no set administration times). **C**-continuous (given continuously for the life of the order; usually with set administration times). **R** - fill on request (used for items that are not automatically put in the cart - but are filled on the nurse's request. These can be multidose items (e.g., eye wash, kept for use by one patient and is filled on request when the supply is exhausted)). And **OC** - on call (one time with no specific time to be given, i.e., 1/2 hour before surgery).
Scheduled IV Order	Inpatient Medications IV order having an administration schedule. This includes the following IV Types: IV Piggyback, Intermittent Syringe, IV Piggyback Chemotherapy, and Intermittent Syringe Chemotherapy.
Self Med	Medication that is to be administered by the patient to himself.
Standard Schedule	Standard medication administration schedules stored in the ADMINISTRATION SCHEDULE file (#51.1).
Start Date/Time	The date and time an order is to begin.
Status	**A** - active, **E** - expired, **R** - renewed (or reinstated), **D** - discontinued, **H** - on hold, **I** - incomplete, or **N** - non-verified, **U** – unreleased, **P** – pending, **O** – on call, **DE** – discontinued edit, **RE** – reinstated, **DR** – discontinued renewal.
Stop Date/Time	The date and time an order is to expire.
Stop Order Notices	A list of patient medications that are about to expire and may require action.
Syringe	Type of IV that uses a syringe rather than a bottle or bag. The method of infusion for a syringe-type IV may be continuous or intermittent.
Syringe Size	The syringe size is the capacity or volume of a particular syringe. The size of a syringe is usually measured in number of cubic centimeters (ccs).

TPN	Total Parenteral Nutrition. The intravenous administration of the total nutrient requirements of the patient. The term TPN is also used to mean the solution compounded to provide those requirements.
Units per Dose	The number of Units (tablets, capsules, etc.) to be dispensed as a Dose for an order. Fractional numbers will be accepted.
VA Drug Class Code	A drug classification system used by VA that separates drugs into different categories based upon their characteristics. IV cost reports can be run for VA Drug Class Codes.
VDL	Virtual Due List. This is a Graphical User Interface (GUI) application used by the nurses when administering medications.
Ward Group	A ward group indicates inpatient nursing units (wards) that have been defined as a group within Inpatient Medications to facilitate processing of orders.
WARD GROUP file	File #57.5. This file contains the name of the ward group, and the wards included in that group. The grouping is necessary for the pick list to be run for specific carts and ward groups.
Ward Group Name	A field in the WARD GROUP file (#57.5) used to assign an arbitrary name to a group of wards for the pick list and medication cart.
WARD LOCATION file	File #42. This file contains all of the facility ward locations and their related data, i.e., Operating beds, Bed section, etc. The wards are created/edited using the *Ward Definition* option of the ADT module.

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