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# **Electronic Medication Administration Record**

## **Troubleshooting Guide**

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# Troubleshooting Medication Administration Record

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## Understanding the Troubleshooting Process

### Overview of the Troubleshooting Process

1. Identify the problem.
2. Perform troubleshooting steps.
3. Resolve the problem or log a service request.

#### Identify the Problem

You have just received an error; you should ask the following questions:

- Can you reproduce it?
- Are you the only user who receives the error?
- Do you receive the error on multiple computers?
- Can you reproduce the error in another environment?
- What type of installation does the PC have: local, network, or Citrix?
- What type of error is it?

Types of errors include script errors, illegal operation errors, and information errors. If you receive a script error, note the script name. If the error contains multiple tabs, copy the data on each tab, or print a report from the error if the print option is available. This information could be useful if you need to log a service request.

#### Perform Troubleshooting Steps

You have determined the error is reproducible. To reproduce an error, you must use the exact keystrokes that were used when the error was initially received. Begin troubleshooting by asking the following questions:

- If you alter the steps slightly, do you still receive the error?
- Is this the intended use of the tool or application or tool?
- Did you check CKR?
- Are all servers running?

If you anticipate logging a service request, please provide a screen print of the errors, as this will aid in troubleshooting.

### **Resolve or Log a Service Request.**

You find that a server was dead, so you start the server and retest. Most of the time you will be able to resolve your own issues; however, you may require assistance to achieve resolution.

## **IRC/IAC Support**

If you are unable to resolve an issue, Cerner's Immediate Answer Center (IAC) and Immediate Response Center (IRC) are available to assist you.

- The IAC is staffed Monday through Friday from 0800 to 1700 (Central Time). You can contact the IAC at (816) 221-9009.
- The IRC is staffed 24 hours a day, 7 days a week. The IRC handles critical system issues or noncritical issues that occur when the IAC is not staffed. You can contact the IRC at (816) 221-8877.

For noncritical issues, you also can send a service request in an e-mail to [SVCREQ@cerner.com](mailto:SVCREQ@cerner.com) (a request is logged by a call coordinator and a request number is returned to you), or you can log the request through Cerner Knowledge Network (CKN).

## **Troubleshooting Workshop**

### **eMAR Data Model**

A Data Model represents how information is stored in your system. In a data model, information of similar type and content is stored in a table, and each table is composed of fields.

You can use Discern Explorer to find definitions of Cerner's tables – both in Visual Explorer and from CCLGLOS in the Discern Explorer command line version. Your system includes the correct version of table and field definitions based on your current software environment. Use these tools to view the table and field definitions online.

The Cerner Millennium data model is the foundation upon which all Cerner Millennium applications are built. The tables within the data model typically can be categorized as Reference, Activity, or Clinical Event.

- The Reference tables and fields are used to store the information about how your system works. Parameters that you build in the various reference database tools are stored in the reference table.

- The Activity tables and fields are used to store information and data about the daily activity and workflow for which the system is used.
- The Clinical Event tables and fields also are known as Open Clinical Foundation (OCF) and are the long-term storage for clinically significant data.

You can access data model information is on Cerner Knowledge Network (CKN). The Cerner HNA Millennium Production Data Model Reports are available via CKN → Content Areas → General Information → Data Management. A specific table can be selected and a report generated. The Table Report provides table, column, and index information with a link to the Data Model. The Data Model is an Entity Relationship Diagram in a PDF format.

## Reference - Medication Specific Fields and Values

### **order\_catalog**

**catalog\_type\_cd:** Code Set 6000. Used as a filtering mechanism for rows on the ORDER CATALOG table. All pharmacy items have the code value with cdf\_meaning of PHARMACY.

**oe\_format\_Id:** The internal identifier for the order entry format to be used by order entry applications.

**orderable\_type\_flag:** Indicates to which type of orderable procedure the item has been assigned. Valid values include:

- 0 or 1 Normal
- 2 Care Set – Supergroup
- 3 Care Plan
- 4 AP Special
- 5 Dept. Only
- 6 Care Set - Order Set
- 7 Home Health Problem
- 8 Multi-ingredient
- 9 Interval Test
- 10 Free Text

***primary\_mnemonic:*** The abbreviated description for the synonym flagged as the primary synonym on the ORDER\_CATALOG\_SYNONYM table.

***ref\_text\_mask:*** Value to define what online reference manual information has been built.

***CKI:*** Cerner Knowledge Index. It is three parts, source.domain!identifier (for example, MUL.ORD!d123456).

***stop\_type\_cd:*** Code Set 4009. Defines the stop policy for the order catalog item. The two different types are SOFT and HARD.

***stop\_type\_duration:*** If stop type is defined, this contains the value of the stop duration.

***stop\_type\_duration\_unit\_cd:*** The duration units from Code Set 54.

***dc\_interaction\_day:*** Number of days to be included in interaction checks after the order has reached its end state.

## order\_catalog\_synonym

***mnemonic:*** The display mnemonic of this orderable.

***mnemonic\_type\_cd:*** Code Set 6011. Defines the mnemonic type. Valid values for medication synonyms are: Primary, Brand Name, Topical, IV Nickname.

***order\_sentence\_Id:*** The ID for the order sentence associated with this synonym.

***multiple\_ord\_sent\_ind:*** Indicator as to whether this synonym has multiple order sentences associated with it.

***rx\_mask:*** Indicates the various ways this item can be ordered. The valid types are Medication, Additive, Diluent, and Sliding Scale

***CKI:*** Cerner Knowledge Index. It is three parts, source.domain!identifier (for example, MUL.SYN!654443).

***virtual\_view:*** The offset used to determine whether to show the orderable or a facility

## order\_task

***task\_description:*** The description of the task.

***task\_type\_cd:*** Code Set 6026. Medication tasks have a code value with a cdf\_meaning of MED.

***overdue\_min:*** The number of minutes used to define when a task is considered overdue.

## **order\_task\_xref**

**order\_task\_seq:** Ordering sequence if there is more than one task associated with the order. In the case of medications, you will have one and only one task.

**order\_task\_type\_flag:** Defines where the discrete task assays (DTAs) associated with the task are stored. Valid values are 0 (profile\_task\_r) and 2 (task\_assay\_r).

### **profile\_task\_r**

**sequence:** Ordering sequence if there is more than one DTA associated with the order.

## **task\_assay\_r**

**sequence:** Ordering sequence if there is more than one DTA associated with the order.

## **order\_catalog\_item\_r**

**catalog\_cd:** The unique identifier for an order\_catalog item.

**item\_id:** The unique identifier for an item\_defintion.

## **medication\_definition**

**item\_id:** The unique identifier for an item\_defintion.

**price\_sched\_id:** Link to price schedule for this item.

**dispense\_category\_cd:** Code Set 4008. The category used for grouping this product, when ordered as a whole unit, on fill lists and batches for continuous dispensing.

## **item\_definition**

**item\_id:** The unique identifier for an item\_defintion

**base\_issue\_factor:** The factor in which an item's issue quantity can be broken down. For example, aspirin is tracked by the tablet, but it can be dispensed in half tablets. Therefore, the base issue factor will be  $\frac{1}{2}$ .

## **order\_product**

order\_id

action\_sequence

comp\_sequence

item\_id

dose\_quantity: The quantity of this product.

dose\_quantity\_unit\_cd: The quantity units for this product.

## **order\_dispense**

order\_id

price\_schedule\_id

dispense\_category\_cd

# **Activity - Medication Specific Fields and Values**

## **Orders**

Order\_id: Unique identifier for the order.

order\_status\_cd: Code Set 6004.

hna\_order\_mnemonic: The primary (generic) mnemonic for the medication order.

order\_mnemonic: The mnemonic of the drug dispensed by pharmacy. This should be the same as what is on the label.

ordered\_as\_mnemonic: The mnemonic selected at order entry time. Equal to the selected synonym mnemonic.

template\_order\_flag: Specifies if the order is a template, normal, or an instance and the type of the instance.

- |   |                           |
|---|---------------------------|
| 0 | None                      |
| 1 | Template                  |
| 2 | Order Based Instance      |
| 3 | Task Based Instance       |
| 4 | Rx Based Instance         |
| 5 | Future Recurring Template |
| 6 | Future Recurring Instance |

**template\_order\_id:** The order ID for the parent order if this order is an instance.

***prn\_ind:*** Indicates if the order is PRN (as needed).

***need\_rx\_verify\_ind:*** Indicates the status of the Pharmacy Verify for this order.

- |   |                      |
|---|----------------------|
| 0 | Verified             |
| 1 | Needs Verification   |
| 2 | Rejected by Pharmacy |

***need\_nurse\_review\_ind:*** Indicates the status of the Nurse Review for this order. Valid values are 0 and 1.

***need\_dr\_cosign\_ind:*** Indicates the status of the Dr. Cosign for this order. Valid values are 0 and 1.

***current\_start\_dt\_tm:*** The start date/time for the order.

***projected\_stop\_dt\_tm:*** The stop date/time for the order.

***suspend\_effective\_dt\_tm:*** Future suspend date/time for this order if it has a future suspend action.

***resume\_effective\_dt\_tm:*** Future resume date/time for this order if it has a future resume action.

***orig\_ord\_as\_flag:*** Flag to indicate if this type of order is special. Valid types are:

- |   |                                   |
|---|-----------------------------------|
| 1 | Prescription/Discharge Order      |
| 2 | Recorded (don't update)/Home Meds |
| 3 | Patient Owns Meds                 |

***clinical\_display\_line:*** Textual display of the details for the order.

***hide\_flag:*** Used on instances to indicate whether they are active.

***template\_core\_action\_sequence:*** The core action sequence for the template order if this is an instance order.

***frequency\_id:*** The frequency for this order.

***comment\_type\_mask:*** Indicates if the order has comments and the types of comments attached to the order.

## ***order\_action***

***order\_id:*** Unique identifier for the order.

***action\_sequence:*** The sequential record of this action. An order can have multiple actions.

***action\_type\_cd:*** Code Set 6003. Code value to identify the action that was performed.

***action\_dt\_tm:*** Date/time the action was performed.

***action\_personnel\_id:*** Identification of the person who performed the action.

***effective\_dt\_tm:*** Date/time of when the action will become effective if it is a future action.

***need\_verify\_ind:*** Indicates if the action requires pharmacy verification.

## **order\_ingredient**

***order\_id:*** Unique identifier for the order.

***action\_sequence:*** With order\_id, makes the unique identifier for the action.

***comp\_sequence:*** The sequence of the ingredient.

strength

strength\_unit

volume

volume\_unit

***freq\_cd:*** Code Set 4004. This applies for an IV order. It indicates the frequency of the additive in the bag, for example, Every Bag or Every Other Bag.

***ingredient\_type\_flag:*** The type of ingredient. Valid values are:

- |   |            |
|---|------------|
| 0 | Not Set    |
| 1 | Medication |
| 2 | Base       |
| 3 | Additive   |

## **order\_review**

***order\_Id:*** Unique identifier for the order.

***action\_sequence:*** Sequence from the ORDER\_ACTION table.

***review\_sequence:*** Sequential identifier for the order\_review record.

***review\_type\_flag:*** The type of review. Valid values are:

- |   |       |
|---|-------|
| 1 | Nurse |
|---|-------|

- 2 Doctor
- 3 Rx
- 4 Physician Activate (Student)

***review\_status\_flag:*** The review status indicating whether the action needs to be reviewed, superseded, or rejected.

- 0 Not Reviewed
- 1 Accepted
- 2 Rejected
- 3 No Longer Needing Review
- 4 Superseded
- 5 Reviewed

***review\_personnel\_id:*** The identification of the person who performed the review.

***review\_dt\_tm:*** Date/time the review happened.

***review\_reqd\_ind:*** Indicates whether a review needs to be performed.

## **order\_comment**

***order\_id:*** Unique identifier for the order.

***action\_sequence:*** Sequence from the ORDER\_ACTION table.

***comment\_type\_cd:*** Code Set 14. Type of comment, for example, Order Comment, MAR Notes.

***long\_text\_id:*** The ID pointing to the text in the LONG\_TEXT table.

## **order\_detail**

***order\_id:*** Unique identifier for the order.

***action\_sequence:*** Sequence from the ORDER\_ACTION table.

***detail\_sequence:*** Sequential order of the details.

***oe\_field\_id:*** ID of the field from the OE\_FORMAT\_FIELDS table.

***oe\_field\_value:*** The value of the detail.

## task\_activity

**task\_id:** Unique identifier for the task.

**order\_id:** Unique identifier for the order.

**task\_type\_cd:** Code Set 6026. Medication, Patient Care.

**task\_class\_cd:** Code Set 6025. Ad Hoc, PRN, Scheduled.

**task\_status\_cd:** Code Set 79. Pending, Overdue, Canceled, Deleted.

**med\_order\_type\_cd:** Denormalized from the ORDERS table.

## clinical\_event

**clinical\_event\_id:** Unique identifier for the clinical\_event.

**event\_id:** Uniquely identifies a logical clinical event row. There may be more than one row with the same event\_id, but only one of those rows will be current as indicated by the valid\_until\_dt\_tm field.

**valid\_until\_dt\_tm:** Contains the End Point of when a row in the table is valid. Current version of the result has an open Until Dt Tm value.

**event\_cd:** Code Set 72. It is the code that identifies the most basic unit of storage.

**event\_class\_cd:** Code Set 53. Coded value, which specifies how the event is stored in and retrieved from the EVENT table's subtables. For example, Event\_Class\_CDs identify events as numeric results, textual results, calculations, medications, and so on. For medication results, the event\_class\_cd = MED.

## ce\_med\_result

**event\_id:** Uniquely identifies a logical clinical event row. There may be more than one row with the same event\_id, but only one of those rows will be current as indicated by the valid\_until\_dt\_tm field.

**valid\_until\_dt\_tm:** Contains the End Point of when a row in the table is valid. Current version of the result has an open Until Dt Tm value.

**admin\_prov\_id:** Personnel ID of provider administering medication.

**admin\_route\_cd:** Code Set 96. Route of administration, for example, PO, TOP, or IM.

**admin\_site\_cd:** Code Set 97. For certain administration routes, a body site might be needed to fully describe the method of administration, for example, IM-Right Arm.

**admin\_dosage:** The numeric value for the dose, for example, 500.

***dosage\_unit\_cd:*** Code Set 54. The units for the administered dose, for example, mg.

***initial\_volume:*** The initial volume of the bag for an IV order.

***total\_intake\_volume:*** The accumulation for all the infusion events for one IV bag.

***infusion\_rate:*** For continuously administered medications, IV or IVP, the infusion rate and unit is used to capture the flow rate of the medication into the patient.

***infusion\_unit\_cd:*** Code Set 54. The unit for the infusion rate, for example, ml/hr.

***substance\_lot\_number:*** The bag number where this IV event came from.

***iv\_event\_cd:*** Code Set 180. Code to describe any change or activity on the IV for the patient. Valid values are: Begin, Rate Change, Site Change, Infuse, Bolus, and Waste.

## Reference - Special Code Sets

**Frequency:** Defines the kind of schedule this frequency is using to administer and dispense doses. Frequency types currently supported are:

- 1 = Time of Day, occurs at certain times every day (for example, BID)
- 2 = Day of Week, occurs at certain times on certain days (Q M-W-F)
- 3 = Interval, occurs at equal time intervals (Q4Hr)
- 4 = One Time, occurs once at a certain time (Now, Stat)
- 5 = Unscheduled, occurs at unspecified times (On Call for OR – PRN indicator =N, Q4Hr PRN – PRN indicator =Y)

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**Note:** Interval frequencies also can represent a preset time-of-day frequency. An example of this is the BID QWeek frequency, which stands for two times a day, every seven days. These frequencies are marked as an interval frequency, with the interval in this case being seven days.

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**Interval:** Defines the time interval of a frequency. Applicable only to interval frequency types.

**Interval Units:** Defines the time unit of the interval for a frequency. Applicable only to interval frequency types.

**Start Time Assignment-First Dose Method:** Defines the method used to calculate the start date/time for the order. First dose methods currently supported are:

- 1 = Current date/time Dose
- 2 = Previous Dose, applicable to time of day and day of week frequency types
- 3 = Next Dose, applicable to time of day and day of week frequency types
- 4 = Closest Dose, applicable to time of day and day of week frequency types

- 5 = Min Interval Dose (Next if within Dose). It will give a dose for current time (and the scheduled dose) if the next scheduled dose is **not** within the XXX setting.

**Round To:** Defines the rounding in minutes when a start time assignment of current time is selected.

**First Dose Range:** Defines the range to calculate the start date/time when start time assignment is set to “Next if within”.

**First Dose Range Units:** Defines the time frame for the range above.

**PRN Default In:** Defines the default behavior of a frequency, for example, PRN or Scheduled.

### Route

Code Set 4001. Code value extension defines if the route is PO, Piggyback, or IV.

### Units of Measure

Code Set 54. The code set extension defines the type of unit. Valid types are duration, strength, volume, quantity, and rate.

### Med Order Types

Code Set 18309. Valid values are Med, Intermittent, and IV.

### Ingredient Frequency

Code Set 4004. This applies for an IV order. It indicates the frequency of the additive in the bag, for example, Every Bag or Every Other Bag.

### Order Status

Code Set 6004. Valid values include the following:

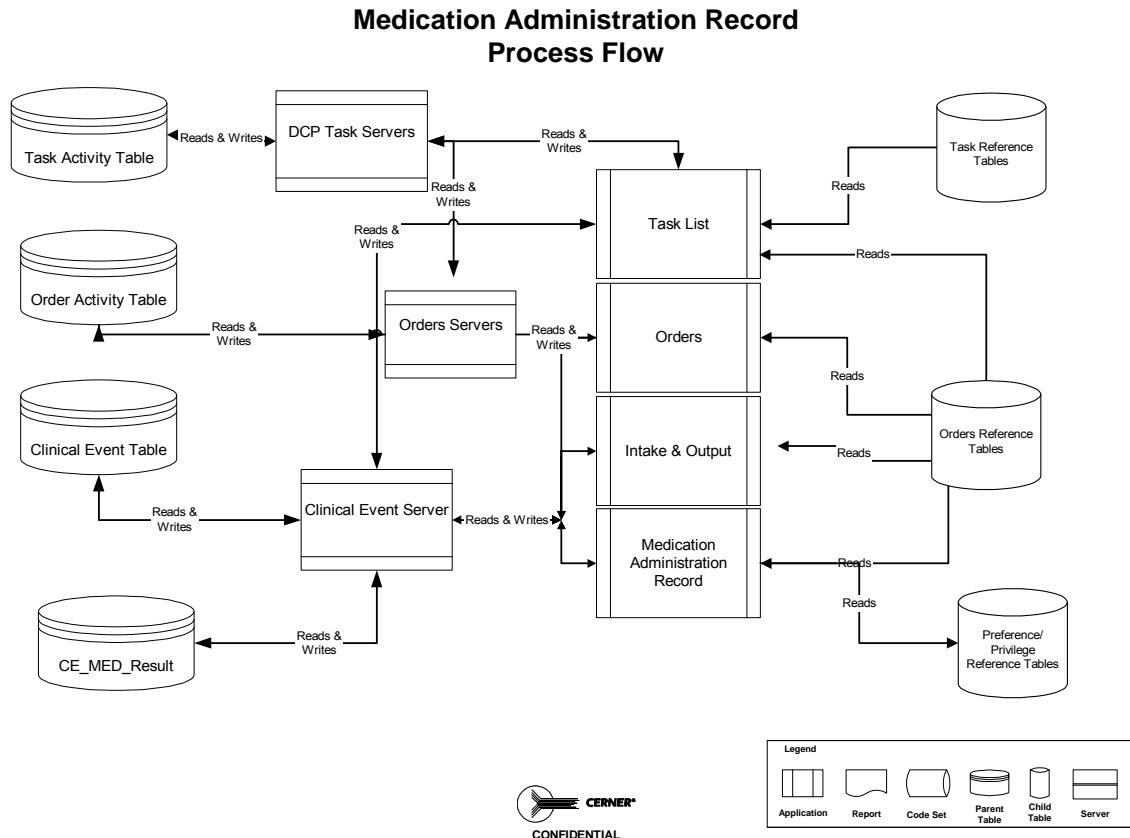
- CANCELED: An order that is canceled after it is ordered. No medications have been administered as a result of this order.
- COMPLETED: An order that has reached its duration, and all administration tasks for this order have been completed.
- VOIDEDWITHOUTRESULTS: An order that is put in the system by mistake. At the time of voiding, no administrations have been given to the patient as a result of this order.
- DISCONTINUED: An order that is canceled after it is ordered. There is a possibility that the medication was given to the patient as a result of this order.
- FUTURE: An order that is entered into the system prior to the patient's arrival. An order that has no encounter\_id.
- INCOMPLETE: An order that is partially entered into the system without all the required fields.

- INPROCESS: Begun, and not completed. Continuing to advance in progress, but in between identified destinations.
- ONHOLDMEDSTUDENT: An order that is entered by a med student. This order is inactive and requires a physician to review and activate.
- ORDERED: An active order.
- PENDINGCOMPLETE: An order that has reached its duration. However, there are outstanding tasks that need to be completed.
- SUSPENDED: An order that is suspended for the time being.
- TRANSFERCANCELED: An order that has been canceled due to patient transfer. This order shows on a repeat list when the patient comes back to the unit.
- UNSCHEDULED: Applies to orders such as On Call to OR. There is not a scheduled time, but the medication is not PRN.
- VOIDEDWRSLT: An order that is put in the system by mistake. At the time of voiding, it is found that at least one dose was given to the patient as a result of this order

#### **Stop Type**

Code Set 4009. Defines the stop policy for the order catalog item. The two stop types are SOFT and HARD.

# Processing Flow



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# Application Specific Scenarios

## Scenario 1

The FUTURE\_CHARTING\_MINS preference has been set to 60 minutes. Users still are able to chart medication tasks that are scheduled greater than 60 minutes into the future, however.

## Resolution

With the new medication charting dialogue released in the August 2001 cumulative PowerChart OCD, PowerForms no longer are displayed when charting medications. The FUTURE\_CHARTING\_MINS and PAST\_CHARTING\_MINS preferences are applicable only to PowerForms and will not be honored by the medication charting dialogue. This

has been identified as requiring code correction and will be corrected in the next 2002 cumulative PowerChart OCD.

### **Scenario 2**

When charting a medication that has free text DTAs associated, it is not possible to chart in the free text DTA.

#### **Resolution**

A new medication charting dialogue was released with the August 2001 cumulative PowerChart OCD. If PowerForms were associated to the medication task (to capture clinical patient information), the DTAs included on the forms are displayed with the medication charting window and may be charted. With the September 2001 cumulative PowerChart OCD, a new tool was released, Discrete Task Builder, to associate DTAs to medication tasks.

This issue has been identified as requiring code correction. Currently only DTAs with a result type of alpha or numeric may be charted within the medication charting dialogue. This issue will be corrected in a future standard cumulative OCD.

### **Scenario 3**

A user charts a medication on the MAR that requires entry of additional clinical patient info. When the MAR is refreshed, the administration line is displayed, but the clinical information documented with the med is not. For example, the patient charts digoxin and documents the patient's heart rate with the administration. The administered dose is displayed on the MAR, but not the heart rate result.

#### **Resolution**

We have identified an issue with the new Discrete Task Builder tool. If the DTA is associated to the medication task via the Discrete Task Builder Tool, the clinical information is not displayed on the MAR with the administration. If the DTA was associated to the task prior to the Discrete Task Builder Tool's release (via associating to a form that was linked to the task), the result is displayed appropriately on the MAR. This issue requires code correction and will be corrected in a future standard cumulative OCD.

### **Scenario 4**

If a PRN medication is uncharted on the MAR, a new task is not displayed on the MAR.

#### **Resolution**

This could be caused by one of two issues:

There was an issue identified with the DCP Task server where new tasks were not being generated after an Unchart. This issue was resolved with the August 2001 cumulative servers OCD.

There also was a correction made to the MAR. The MAR did not refresh automatically after an Unchart; therefore, the pending PRN task would not display on the MAR until after the user clicked As Of. A change was made to the MAR in the October 2001 cumulative PowerChart OCD to refresh the MAR automatically after an Unchart.

### **Scenario 5**

When charting IVs on the MAR, the list of IV sites includes sites we do not want the end user to document. Can additional choices be added to this list? Can this list be filtered?

#### **Resolution**

The list for IV sites is pulled from Code Set 97. The site may add additional rows to this code set if desired. The code set may not be filtered. However, The site may remove or inactivate body sites they do not want to display as an IV site choice. This code set is used only by the MAR for IV documentation.

### **Scenario 6**

Medication orders and tasks have been built. The medication tasks are not displayed on the MAR, however.

#### **Resolution**

Check the TASK\_ACTIVITY table to determine if the medication task has been generated. If the medication task exists on the TASK\_ACTIVITY table, this is a filter issue for the MAR. If the medication task does not exist on the TASK\_ACTIVITY table, check the config prefs for the Orders server (104). The config pref of PHARM\_NOTASK should be set = 0 for medication tasks to be generated.

### **Scenario 7**

The MED\_DOSAGE\_PRECISION preference has been set = 4. When the medication is charted from the MAR, however, only two decimal places are displayed.

#### **Resolution**

The MED\_DOSAGE\_PRECISION preference no longer is honored and will be removed from PrefMaint. The decimal precision used when charting medications is determined by the order entry field on the medication's order entry format. If the site would like four decimal places to be displayed, the Dose or Strength Dose fields should have the NUMBER OF DECIMAL PLACES FOR A NUMERIC FIELD set equal to four.

### **Scenario 8**

Is it possible to do Nurse Review from the MAR? The Nurse Review icon (eyeglasses) is displayed, but nothing happens when I click it.

#### **Resolution**

It is not possible to do Nurse Review from the MAR. Nurse Review may be done from the PAL, Orders, or Review Queue tabs.

### **Scenario 9**

The alarm clock icon (Overdue) on the MAR is not displayed consistently with the alarm clock icon on the Task List. Sometimes there is an alarm clock icon displayed on the Task List, but not on the MAR

#### **Resolution**

The alarm clock icon displayed on the Task List is the Overdue icon, while the one that is displayed on the MAR is called the Pending icon. The alarm clock icon is displayed on the Task List when a specific task has become overdue. For example, a Vital Signs task is scheduled for 0900. At 1030 the 0900 task is overdue, and the Overdue icon is displayed

The MAR Pending icon is displayed next to orders that have reached an end state but still have uncompleted tasks associated with them. For example, a digoxin order has reached its stop date/time but has at least one task still Pending.

### **Scenario 10**

The user is unable to chart medication tasks as Not Done on the MAR. The same user can chart medication tasks as Not Done from Task List.

#### **Resolution:**

There are two possible issues that may need to be addressed:

The preference DIRECT\_CHARTING needs to be turned on for the user or the position in PrefMaint.exe.

The medication task does not have the quick\_chart\_notdone\_ind set = 1. To set the quick\_chart\_notdone\_ind = 1, in CCL, enter: tsk\_all\_tasks\_not\_done. This sets the quick\_chart\_notdone\_ind =1 for all tasks on the ORDER\_TASK table.

### **Scenario 11**

When right-clicking the medication task on the MAR tab to view Task Info, the window is displayed blank. The Task Info is displayed correctly when accessing it from the Task List tab.

### **Resolution**

This is a task access issue. Ensure that task 600066 (Task List – Information Wnd) is granted for the user or position in taskaccess.exe. Cycle the CPM Application Authorization server.

### **Scenario 12**

Medication tasks displayed in Task List are backlit in gray, and the user is not able to right-click the task to chart it.

### **Resolution**

This is a task access issue. In taskaccess.exe, check to ensure that the user has access to task 600064

### **Scenario 13**

Charges are displayed with a status of Suspended, the Suspend Reason says No Interface ID, and no prices or CDMs are displayed in CS Charge Viewer.

### **Investigation**

Check the Suspend Reason and investigate using the back-end tables by completing the following steps:

1. Open CS Charge Viewer (CSChargeviewer.exe), right-click the Suspended status, and select Release Charge.
2. Select the suspended charge to view the Suspend Reason (No Interface ID).
3. In CCL, enter the following command to locate the interface\_file\_id for the tier:
4. Select \* from interface\_file go

If the interface\_file\_id is 0, the charge is suspended because the charge did not qualify on a row in the tier that specified to which interface file the charge should have been routed. The interface\_file\_id equals zero because the interface file was built on the first row in CS Miscellaneous Setup (CSMiscSetup.exe). You cannot build an interface on the first row on the Interface tab in CS Miscellaneous Setup.

The following steps resolve this issue:

### **Resolution**

Resolve the issue (the interface\_file\_id < 1) by completing the following steps:

5. 1. In CCL, enter the following command to deactivate the interface file:
    - a. Update into interface\_file set active\_ind = 0 where interface\_file\_id < 1 go
    - b. Once you have verified that interface file is inactive (active\_ind = 0), enter **commit go**.
  6. 2. Open Miscellaneous Setup (CSMiscSetup.exe) on the Interface tab and rebuild your interface file. Save the file and check the INTERFACE\_FILE table to make sure it has a value greater than zero. Add the extension DONOTDELETE to the end of the description of the old interface file.
- NOTE:** You do not have to change the name of the new interface, but it would help distinguish the two.
7. 3. Open CS Tier Maintenance (CSTierMaint.exe) in Edit mode by completing the following steps:
    - a. Right-click the executable and select Create Shortcut to put a shortcut on the desktop.
    - b. Right-click the shortcut and select Properties.
    - c. On the Shortcut tab, add /e to the end of the file name on the Target line.
  8. 4. Open the CS Tier Maintenance Edit module you created and attach the new interface file to the tier. (It should be a current matrix.)
  9. 5. Cycle the two Charge Services Servers (CS Charging Synch and CS Charging Async).
  10. 6. Test your new interface file by creating a charge to verify the interface file is functioning properly and charges are applied with the correct information.

11.

#### **Scenario 14**

The following message is displayed when charges are applied: Bill Item Not Found.

#### **Resolution**

Run the Load Pharmacy utility from CCL to create the bill items for Charge Services. The utility creates a row on the BILL\_ITEM table for each pharmacy row on the MANUFACTURER\_ITEM table.

PART I: Run AFC\_LOAD\_PHARMACY.

1. Access CCL.
2. Complete CCLSECLOGIN.
3. Enter **afc\_load\_pharmacy go**.
4. Enter **COMMIT go**.
5. Cycle the Charge Services Servers: CS Charging Sync and CS Charging Async.

PART II: Run TSK\_LOAD\_TASK\_INFO\_FOR\_AFC.

---

**NOTE:** This must be completed each time a new item is added to the formulary.

---

1. Log in to CCL.
2. Enter **tsk\_load\_task\_info\_for\_afc go**.
3. Enter **COMMIT go**.

Cycle the Charge Services Servers: CS Charging Sync and CS Charging Async.

### Scenario 15

If you are a Medication Process site that allows only selected users to charge on administration, you need to determine which administrations were performed by users who do not have privileges so you can capture a charge manually for orders for which the Dispense Category is set to Charge on Administration.

To find the positions that have the MED\_CHG\_ON\_ADMIN preference, run the following CCL command:

```
select * from APP_PREF where app_number = <your app number> and position_cd =  
<position for which you are searching> go
```

This query should return one row. Use the app\_pref\_id to run the following Select command:

```
select * from NAME_VALUE_PREFS where parent_entity_id = app_pref_id go
```

This query returns a list of all application-level preferences for this position. Because the user overrides the position, you need to verify the user level has the preference turned on. Use the same query as above, but set the position\_cd to zero and set the prsnl\_id equal to the user. See below for an example that will display both positions and personnel with the preference.

### Resolution

Run the following CCL command:

```
select  
ap.application_number,  
substring(1,20,app.description),  
nvp.pvc_name,  
substring(1,20,uar_get_code_display(ap.position_cd)),  
ap.position_cd,  
ap.prsonl_id,  
substring(1,30,p.name_full_formatted),  
substring(1,20,uar_get_code_display(p.position_cd)),  
p.position_cd  
from  
name_value_prefs nvp,  
app_prefs ap,  
prsonl p,  
application app
```

```
plan nvp
where nvp.pvc_name = "MED_CHG_ON_ADMIN" ;charge on admin
join ap
where nvp.parent_entity_id = ap.app_prefs_id
and ap.application_number = 600005;PowerChart
join p where ap.prsonl_id = p.person_id
join app where ap.application_number = app.application_number
go
```

## Troubleshooting PharmNet Orders

---

Pharmacy Utility Server #645 processes charges from Medications Charting and Pharmacist Verification. The Medication Dispense and Dose Server processes charges and deletes pending charges. All pending charges are stored on the RX\_PENDING\_CHARGES table per charting event and per charted ingredient.

### Scenario

Charge On Administration does not work.

### Investigation

1. Check all four preferences (Medication Charge on Administration, Dispense Category, Price Schedule, and Partial Credit) and verify the Pharmacy Utility Server is processing.
2. Retrieve the identifying information from the Clinical Event table. Enter the following CCL commands: Select \* from Clinical\_Event where order\_id = <order ID number>
3. Record the event\_ID and the admin\_dt\_tm for the order\_ID.

### Resolution

If Order\_id > 0 AND event\_id = 0

1. Select from Clinical\_event with order\_id to determine correct event\_id. Use event\_cd and admin\_dt\_tm to limit the list.
2. Select from Ce\_med\_result for specific Medication Administration results (Route, Dose, Dose\_unit).

If Event\_id > 0

1. Select from Dispense\_hx to determine if the Dispense History record exists.
2. If the record does exist, determine if the charge posted.
3. If the Dispense\_hx record does not exist, select from Rx\_pending\_charge using event\_id to determine if a Pending Chart record exists.
4. If a Pending Charge record does exist, review PhaChargeCredit to determine if the order is verified and if charges need to be assigned.

5. If a record does not exist, review the Order's Dispense Category charge point to determine if a charge should have occurred.

# System Messages

For information on system messages across Cerner Millennium, including information on Message Viewer and middleware system messages, see the [System Messages Guide](#).

## eMAR System Messages

The eMAR application will display a message to the user for various reasons. The message may direct the user to perform another required action before proceeding or may be informational indicating the selection the user has made is not valid. Some messages indicate a system error of some sort.

### Common Messages

Following are messages from the eMAR application. This is not a comprehensive list of messages. This list has been compiled to aid your troubleshooting if a user reports the message.

---

**An additional response task has been scheduled for <date and time>**

**Explanation:** More than one response task has been created for an intervention task. This can occur in any of the following situations:

A response task (medication or non-medication) has an In Process or Complete status, and you modify the performed date and time of the associated intervention task.

A medication response task is In Process or Complete, and you modify the administration route to a route that has a different number of minutes defined for a response task.

**Action:** Click OK. Two response tasks now are displayed. One will have to be charted, and the other will have to be charted as Not Done.

---

**Are you sure you want to cancel charting?**

**Explanation:** Occurs when the Cancel Charting toolbar icon is clicked or the Cancel Charting menu option is selected.

**Action:** Click Yes to cancel charting, or click No to continue charting.

---

**Failed to ensure results. Do you want to retry?**

**Explanation:** The system has failed to sign the result you entered.

**Action:** Try again later, or notify your system administrator.

---

**Invalid 'From' Date**

**Explanation:** A bad date was entered into the "From" date box.

**Action:** Enter a valid date into the "From" date box.

---

**Invalid To Date**

**Explanation:** A bad date was entered into the "To" date box.

**Action:** Enter a valid date into the "To" date box.

---

**Pharmacy has rejected this order. Check all order information before administration. Continue charting?**

**Explanation:** The order has been rejected by the pharmacy.

**Action:** Review the order information and history or talk to pharmacy before administration. Click Yes to continue charting.

---

**PRN Response Task> task scheduled at <date/time> was documented for this PRN intervention and also may need to be uncharted.**

**Explanation:** You uncharted an intervention task that was in a Complete or In Process status, and you may need to unchart the PRN response task as well.

**Action:** The message is informing you that you may need to unchart the PRN response task if one was charted previously. Click OK, and unchart the response task if necessary.

---

**The infusion solution you have selected to chart does not match with the previously documented solution. Continue?**

**Explanation:** You are attempting to chart an IV event and have selected ingredients for the bag that are different from a previously charted event.

**Example:** You charted a begin bag of dextrose and potassium chloride. You then chart an infuse event and say that potassium chloride is not in the bag. This message will warn you that either you checked the wrong box or forgot to chart the begin bag event for the bag without potassium chloride.

**Action:** If the information the user has entered is correct, select Yes. Otherwise, select No and modify the information.

---

**The From date/time is greater than the To date/time.**

**Explanation:** A "From" date/time combination was entered that is later than the "To" date/time combination.

**Action:** Ensure that the "From" date/time combination is a date/time that is earlier than the "To" date/time combination.

---

**The medication task [task name] has not been verified.**

**Explanation:** You attempted to chart results on a medication order that has not been verified by the Pharmacy. The value for the APP\_PREF "MED\_VERIFY" determines whether charting is allowed (with a warning message) or charting is not allowed (with an error message).

**Action:** Contact the Pharmacy for order verification.

**Technical Description:** The system administrator may choose to adjust the setting for the APP\_PREF "MED\_VERIFY" or may choose to run the Order Catalog tool and configure the particular orderable not to require Pharmacy Verification.

---

**The medication task [task name] has not been verified. Continue?**

**Explanation:** You attempted to chart results on a medication order that has not been verified by the Pharmacy. The value for the APP\_PREF "MED\_VERIFY" determines whether charting is allowed (with a warning message) or charting is not allowed (with an error message).

**Action:** Either ignore the warning and chart, or contact the Pharmacy for order verification.

**Technical Description:** The system administrator may choose to adjust the setting for the APP\_PREF "MED\_VERIFY" or may choose to run the Order Catalog tool and configure the particular orderable not to require Pharmacy Verification.

---

**The result you are about to view has been marked as In Error. Do you want to continue viewing the result?**

**Explanation:** You drilled down on a result that has a result\_status\_cd of "In Error," and the IN\_ERROR\_WARNING\_DETAIL\_PREF is turned on.

**Action:** None.

**Technical Description:** If your facility decides not to warn users about "InError" results, the system administrator can set the value of the "IN\_ERROR\_WARNING" detail preference back to its default of "0" (off).

---

**The value you have entered is greater than the acceptable maximum value of 50.**

**Explanation:** You entered a value greater than 50 for the Column Width.

**Action:** The control automatically changes the entered value to 50. You may change it to another valid value or continue.

---

**The value you have entered is less than the acceptable minimum value of 5.**

**Explanation:** You entered a value less than 5 for the Column Width.

**Action:** The control automatically changes the entered value to 5. You may change it to another valid value or continue.

---

**This cell contains at least one result that has been marked as In Error. Do you want to continue viewing the results?**

**Explanation:** You drilled down on a result that has a result\_status\_cd of "In Error" and IN\_ERROR\_WARNING\_DETAIL\_PREF is turned on.

**Action:** None.

**Technical Description:** If your facility decides not to warn users about "InError" results, the system administrator can set the value of the "IN\_ERROR\_WARNING" detail preference back to its default of "0" (off).

---

**Unable to add a comment to the selected result.**

**Explanation:** Occurs when you right-click a cell containing multiple results (one of which meets the criteria for accepting comments), select "Add Comment..." from the context menu, and then select a result that cannot accept comments from the Select Result dialog.

---

**Action:** Click OK, and right click the cell again. When the Select Result dialog is displayed, select a different result this time.

**Technical Description:** The system administrator may choose to adjust the "strictness" of the ADD\_COMMENTS detail preference to allow comments to be added to more types of results.

---

**Unable to display IV history. The selected result is not associated with an IV.**

**Explanation:** Occurs when you right-click a cell containing multiple results (one of which is associated with an IV order), select "View IV History..." from the context menu, and then select a result that is not associated with an IV order from the Select Result dialog.

**Action:** Click OK, and right-click the cell again. When the Select Result dialog is displayed, select a different result.

---

**Unable to display Order Info. The result you have selected is not associated with an order.**

**Explanation:** Occurs when you right-click a cell containing multiple results (one of which is associated with an order), select "Order Info..." from the context menu, and then select a result that is not associated with an order when the Select Result dialog is displayed.

**Action:** Click OK, and right-click the cell again. When the Select Result dialog is displayed, select a different result.

---

**Unable to modify/unchart the selected result.**

**Explanation:** Occurs when you right-click a cell containing multiple results (one of which meets the criteria for accepting modification or uncharted), select "Modify..." or "Unchart..." from the context menu, and then select a result that cannot be modified/uncharted from the Select Result dialog.

**Action:** Click OK, and right click the cell again. When the Select Result dialog is displayed, select a different result.

**Technical Description:** The system administrator may choose to adjust the "strictness" of the MODIFY\_CHARTING detail preference to more results (such as results from feeds) to qualify for modification.

# Document Revision History

<b>Revision Number:</b>	<b>Date of Revision:</b>	<b>Changed by:</b>	<b>Description:</b>
001	March 2003	Gayle Nybakken	Initial release 2003.01.
002	April 2003	Gayle Nybakken	Updated Troubleshooting chapter.
003	May 2003	Gayle Nybakken	Updated Troubleshooting chapter.
004	October 2003	Jennifer Clark Brian Fish	Added Reference Data Domain Sync information to the Design and Build chapters. Added Placing Orders From PharmNet to the Build chapter. Added Troubleshooting PharmNet Orders section to Troubleshooting chapter.
005	November 2003	Brian Fish	Added Sorting by Task information to Build chapter.
006	April 2004	Stephanie Ladenthin and Margaret McCormick	Updated headers and footers and added a Validation chapter.
007	August 30, 2004	Siobhan Duffy and Margaret McCormick	Updated the Build guide with Release Details for the 2004.01 Cumulative Release Production Package (August 2004).
008	Sept. 26, 2005	Siobhan Duffy and Margaret McCormick	In the Build guide, provided a link to the special topic MSG, Medication Event Codes, and removed duplicated information from the Work Steps Summary and Build Event Codes sections of this Build guide. Published the Validation chapter.