




## Using the MAR system


### MAR System

HQ™ provides a quick and effective method of entering patient medications and tracking medication administration called the Medication Administration Report (MAR) system. This is a two-step process that uses the Medications–Prescribed form for recording medications and the Medications–MAR forms and reports for administering these medications.

### Part I - Prescribed Medications

To enter new current medications, be sure that you are logged in. You may check who is logged in by consulting the dashboard at the top of the screen. There will be a time greeting, such as Good Morning or Good Afternoon, followed by the first name of the individual who is currently logged in. *If this is not you, click the Logout link, then enter your username and password on the resulting screen.* **Note:** You will be asked to Logout at the end of your session.


Navigate to the patient for whom you wish to enter a medication. Select the Medications–Prescribed form from the navigation menu (left side of the screen). Click the New Entry button  at the upper right of the resulting list screen. Using information from the written prescription or verbal instructions from the prescriber, fill in the fields as follows:

- \* Medication – enter the name of the medication. Specific medication names (Guaifenesen, Drixoral, etc.) are capitalized; generic or chemical names (calcium, multivitamin) are not.
- \* Dosage – type in a numerical amount and identifier, such as mg, oz, ml, etc. **Note:** If a medication is prescribed in two or more different dosages, create a new Medication–Prescribed entry for each dosage. For instance, if a resident may have Ibuprofen in 200 mg dosage and also in 600 mg dosage, use the New Entry button to enter each as a separate medication.
- \* Rt of Admin – select the appropriate route of administration from the drop-down list
- \* PRN – check either No or Yes for this medication, as directed by prescriber
- Scheduled Administration Times – select every administration time that will be used for this medication. If the medication is PRN, do not select any schedule administration times. **Note:** Medications with multiple administration times should NOT be recorded as multiple 'New Entry' records, but with all administration times listed on the same entry.
- \* Start Date – click the small calendar icon  to navigate to the desired date or type in the date the medication is scheduled to start. **Note:** Since the MARs are created at 12:30 AM Mountain Time (just after midnight) each day, the medication will appear on the MAR on the start date, displaying the earliest scheduled administration time. If a medication is started on the same day as it is entered, the MAR will be updated at 12:30 AM Mountain Time to include it for the next day.


- \* Assistance Needed – (may not appear on your version of the Medications-Prescribed screen) – check the appropriate assistance level
- 3<sup>rd</sup> Party Pharmacy Name – enter the name of any non-4Care pharmacy providing this medication.
- \* Entered By – This checkbox is a signature field. When checked and saved, every signature field records the name of the logged-in individual, the date and exact time (down to the second) that the information was saved.


## Resident - Medications - Prescribed

\* Required


<b>Medication</b>	* <input type="text" value="Guaifenesen"/>
<b>Dosage</b>	* <input type="text" value="600 mg"/>
<b>Route of Administration</b>	* <input type="text" value="By mouth (PO)"/>
<b>PRN Medication</b>	* <input checked="" type="radio"/> Regularly scheduled medication <input type="radio"/> Non-scheduled (will not appear on MARs)
<b>Scheduled Admin Time</b>	<input type="checkbox"/> Breakfast <input type="checkbox"/> Afternoon <input checked="" type="checkbox"/> Bedtime <input checked="" type="checkbox"/> Lunch <input type="checkbox"/> Dinner
<b>Dispensing Instructions</b> <i>Appears on the MARs</i>	* <input type="text" value="Give with food"/>
<b>Administration Start Date</b>	* <input type="text" value="05/16/2006"/> 
<b>Administration End Date DC this medication</b>	[no data]
<b>Assistance needed</b>	* <input type="checkbox"/> Staff signature <input type="checkbox"/> Self-Administer <input type="checkbox"/> Refill reminder <input type="checkbox"/> Self-Directed <input type="checkbox"/> Family/Designated Person <input checked="" type="checkbox"/> Reminder to take <input type="checkbox"/> Significant/Total <input type="checkbox"/> Opening of container
<b>3rd Party Pharmacy Name</b> <i>Non-4Care provider of Rx</i>	<input type="text"/>
<b>Entered by</b> <i>Does not place an order</i>	* <input checked="" type="checkbox"/> I certify that this prescription is complete and correct

When the fields appropriate for this medication are complete, the screen should appear similar to the example above, excluding those fields not configured for your application. Review the entries for accuracy.

 If you need to make corrections, it is important to return to the incorrect data and edit the field before saving. Once information is saved in the system, it is very difficult to correct.

When you are satisfied with the entries, click the Save button  at the bottom of the screen. On the resulting page (the Medications-Prescribed list) you will see a line-item summary for the medication you have just entered and any others that were previously entered into the patient's prescribed medications. If you have additional medications to enter, repeat the above process. If you have completed all medication entry, click the Logout link at the top of the screen to end your session.

## Fixing Entry Problems

Inevitably data entry problems and errors will occur. In general, the edit icon  is used to access the form once again and make the needed corrections. If you discover an error on a specific



medication, access the Medications-Prescribed list and click the edit icon (far right) associated with the medication. Any fields to which your security level allows you editing privileges will appear in a field box and you will be able to make the desired changes.

To most users, only the End Date field will be available for correction. This is an important security function, as it offers a high level of functionality to prevent data from being accidentally erased, retroactively altered or erroneously edited and is geared towards satisfying regulatory requirements. However, users who are Organization Administrators for your organization will have the ability to make changes to data in any field, including unchecking the signature field, if necessary.

## Changing Prescriber Orders

A doctor or other prescriber may choose to end the administration of a particular medication early. If this occurs, select the intended medication from the Medications-Prescribed list. Click the edit icon and enter the new ending date. MARs creation is inclusive; the medication will appear on MARs through to the end of the ending day.

If a prescriber chooses to make other changes to the medication, the existing medication entry must be ended and the new changes entered as you would a new medication: Select the Medications-Prescribed form and the edit icon associated with the existing medication. Move the end date to the last date of expected administration. (The medication will be administered through the end of that day.) Click the Save button, then the New Entry button in the upper right of the resulting screen. Fill in all the fields with the new information provided by the prescriber (see field instructions, above). Check for accuracy, click the signature checkbox and the Save button. The old medication is now inactivated and the new medication will appear on the Medications-Prescribed list. These new orders will be reflected in the MAR created for the next day.

## Points to Remember

- Enter every prescribed medication on a Medications-Prescribed form. This applies even if the patient often takes the medication at home, refuses the medication or under any other circumstances.
- Do NOT enter the same medication into the Medications–Prescribed form more than once. There are three exceptions to this rule: 1) if the medication is prescribed in two (or more) different dosages, each dosage must be a separate entry, 2) if the end date for the medication has passed and the prescriber desires the patient to continue on the medication, it must be entered as a new medication from a new prescription, and 3) the prescriber makes any change to the administration orders other than ending administration early.
- If a prescriber makes any change to an existing medication (other than ending it early), the old medication must be discontinued by clicking the “DC this medication” checkbox and a new entry created with the New Entry button.
- Any checkboxes labeled as Entered By, Staff Signature or like nomenclature are signature fields. Clicking this checkbox permanently attaches the logged-in user’s name to the entered data. For this reason, it is important to be sure each individual using the system is logged in with his/her own username and password. Additionally, this field records the exact date and time (down to the second) that this information was saved by the user. Only an Organization Administrator can undo a signature.
- On this form and any others throughout the system, clicking the Save button with the mouse or pushing the Enter key on the keyboard posts the information to the database. To navigate between fields, use the mouse to point and click in the desired field or use the Tab key on the keyboard to step through the fields in order.



- Any field preceded by an asterisk \* is a required field and must be filled in before the form will save. Fields without asterisks may be left blank.

## Part II – Medication Administration Reports (MARs)

Medication Administration Reports or MARs allow users to quickly see all medications to be administered at specified times and conveniently record all such administration through a completely paperless, accurate and secure system.

There are three types of reports concerning medication administration: the individual MAR, the management MAR and the administration MAR used by the nursing staff.

### Individual MAR

The individual MAR was created so that a history of all medication administration for a single patient may be viewed on one screen. Access this report by selecting the patient's resident record and clicking the Medication-MAR form in the navigation menu on the left side of the screen. This displays not only today's medications (whether administered or not), but also the summary of all medication administrations for this patient. Selecting the underlined medication name returns the Medication-Prescribed entry for that medication, as described above. Clicking on the edit icon produces a 'New Entry' MAR form (see details below).

### Management MAR

At least three management reports exist for the MAR system, but others may be created to meet the needs of your specific application. Generally, these will be located on an HQ page named "Medication Reports" or a similar title. The three basic reports are: "Medications Administered Today", "Medications Not Yet Administered" and "Yesterday's Missed Medications". These are designed to allow organization and nursing management to view the progress of daily medication administration and any missed medications on a single screen per report. Each report displays the patient name, medication name and other pertinent details. This information is grouped together by the scheduled administration time, so that difficulties with specific shifts or at specific times can be easily located and the problems addressed. Within each report, clicking the Select link accesses the patient's individual MAR and selecting the underlined medication name displays the Medication-Prescribed entry for that medication.

### Administration MAR

Administration MARs are for the use of the nursing staff in the actual administration of the medications. They can be configured in several different ways, but usually include a "Daily MARs (All)" or "Daily Meds (All)" report and a separate MAR or Meds Report for each shift or each administration time. Additionally, there may be a "Current PRNs" report for general reference.

Administering medications using the MARs can be as simple as three clicks. The system is designed so that a laptop computer associated with the med cart can easily log complete and immediate details on the administration, eliminating paper notes, reducing entry errors and streamlining the process.

### Administering Medications using MARs

Begin by logging in to the laptop (preferred) or desktop computer. You may check who is currently logged in by consulting the dashboard at the top of the screen. There will be a time greeting, such as Good Morning or Good Afternoon, followed by the first name of the individual who is logged in. *If this is not you, click the Logout link, then enter your username and password on the resulting screen.* **Note:** You will be asked to Logout at the end of your administration session.



From the HQ Home screen or the Medication Reports screen, select either the MAR for the entire day or the MAR for the selected shift or administration time. In the example below, the MAR for breakfast medications has been selected.

## Breakfast Meds Report Edit Export Print

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Select	Full Name	Medication	Dosage	Exception	Comments
<a href="#">Select</a>	Cahoon, Carmen	<a href="#">Wellbutrin</a>	150 mg		
<a href="#">Select</a>	Jacobson, Barry	<a href="#">Fibercon</a>	400 mg		
<a href="#">Select</a>	Jacobson, Barry	<a href="#">Multivitamin</a>	500 mg		
<a href="#">Select</a>	Nolan, Sondra	<a href="#">Calcium</a>	600 mg		
<a href="#">Select</a>	Nolan, Sondra	<a href="#">Effexor</a>	150 mg		

To administer these medications, click the [Select](#) link for the first individual's first medication. The resulting screen contains five (5) fields for each medication, as shown below.

## Breakfast MAR Edit Report Print

\* Required

### Breakfast Medications to be Administered

#### Medication MAR Detail

<a href="#">Wellbutrin</a>	<input type="checkbox"/> Staff signature	Dosage: <input type="text" value="150 mg"/> *	<input type="text"/>
	<input type="text"/>	Exception: <input type="text"/>	<input type="text"/>
<a href="#">Fibercon</a>	<input type="checkbox"/> Staff signature	Dosage: <input type="text" value="400 mg"/> *	<input type="text"/>
	<input type="text"/>	Exception: <input type="text"/>	<input type="text"/>

\* Required

Administer the designated medication, then click the Signature checkbox. *Unless there is a change in dosage, date/time administered, an exception or comments to be added, do not make any other entries.* If there is more than one medication, administer and sign for each one. Click the Save button.

Return to the daily or shift MAR screen. The medication just administered will no longer appear on the list. Select the next medication and repeat the process until all medications have been given to all patients. Go to the top of the screen and click the Logout link, ending your administration session.

**To meet regulatory and record-keeping requirements, every MAR administration or attempted administration must be signed.** As the 'save' takes place, the signature field records the logged-in user's name, the date and exact time (down to the second on the screen and the millisecond in the database) this data was saved. This signature cannot be changed or removed except by an organization administrator.

## Recording a Medication Administration with Changes or Exceptions

### Delayed Recording of a Medication

In the event that you have not recorded the medication administration at the time given, you will need to use the date field (shown in the above illustration) to log the actual administration time. Select the patient and medication as described above. Click the Signature checkbox. Click the calendar icon and select the applicable date, then edit the time by clicking in the field near the time notation and entering the correct digits. Select the Save button.

### Variance in Dosage

If the medication administered is not the same dosage as that appearing in the Dosage field, you will need to edit the dosage. Whether you are entering the medication at the time administered or doing a delayed recording, select the medication as described in “Administering Medications using MARs”. Click the Signature checkbox, then click inside the Dosage field. Type in the new dosage, then click the Save button.

### Recording Exceptions



Exceptions in administration occur when a patient refuses the medication, is absent from your facility, is sleeping (and you have a ‘do not disturb’ directive for that patient) or any other reason that the medication was not given to the patient. If the medication is unavailable for administration, this also creates an exception. Whether you are entering the medication at the time administered or doing a delayed recording, select the medication as described in “Administering Medications using MARs”. Click the Signature checkbox and then click the arrow inside the Exception field. Highlight and click on the appropriate exception reason. If the ‘Other’ selection on the drop-down list is chosen, also click inside the memo field to the right of the screen. Enter an explanation of the ‘Other’ exception. Click the Save button.


### Entering Administration Comments

If there is additional information concerning the administration of this particular medication (examples would be noting patient difficulty in swallowing tablets, discussion of verbal or physical refusal to accept the medication, problems with IV, etc.), this should be noted in the comments memo field. Whether you are entering the medication at the time administered or doing a delayed recording, select the medication as described in “Administering Medications using MARs”. Click the Signature checkbox, then click inside the memo field on the right of the MAR screen. Type in the appropriate information, then click the Save button.

## Administering a PRN

Medications that are designated as PRN will also need to be recorded as they are administered. To do so, **be sure you are logged in** and navigate to the resident record of the patient who will be receiving the PRN. Select the Medications-MAR form in the left-side navigation menu. Select the New Entry button for the entry screen, as seen below.

 If the screen does not appear as shown below, click the Cancel button  and return to the Medications-MAR form. Click the edit icon at the right of any medication listed. Change the View Layout field on the upper right of the screen to read “Enhanced MAR Edit”. Click the Cancel button, then the New Entry button on the resulting screen. You will not need to do this in future PRN entries, as the system will remember your new view layout choice.

 Medication - MAR
View Layout: Enhanced MAR Edit   
Last Modified: Never

\* Required

Medication: \*    Staff signature   Dosage:  \*   
Exception:

## Medications Previously Administered Today


Sched Admin Time	Medication	Date/Time Administered	Exceptions	Signature	Edit
AM Meds	Calcium Carbonate	10/10/2005 7:43AM		Clark Monsen, R.N., 10/10/2005 7:43:08AM	
AM Meds	Multivitamin	10/10/2005 7:43AM		Clark Monsen, R.N., 10/10/2005 7:43:08AM	
AM Meds	Prozac	10/10/2005 7:43AM		Clark Monsen, R.N., 10/10/2005 7:43:08AM	

\* Required

Click the Medication field drop-down arrow and select the requested medication. If the requested medication is not on this list, it has either not been prescribed by the physician, has expired or has not been added to the Medications-Prescribed form. *It must be a current medication on the Medications-Prescribed form before you can proceed (see instructions above).*

Review the medications that have been previously administered today. If the requested PRN medication has not already been administered or enough time has elapsed that it may be given once more, proceed with the administration.

 If you are unsure of the frequency instructions for the requested PRN, click the Go button  next to the Medication field. When you have reviewed the frequency and other needed information, click the Cancel button and you will be returned to the Enhanced MAR screen.

To record the administration of this PRN, check the Staff signature field and enter the dosage administered. Proceed just as you would for the administration of any other medication (see above). DO NOT enter a date/time unless this is a delayed recording of the administration. Click the Save button and the Logout link to end the administration session.

 Points to Remember

- It is important to remember that every MAR must be signed at the time the medication was administered or, if delay is unavoidable, at the delayed entry of the administration. If an attempt at administration was made, but the patient did not actually receive the medication, an exception should be noted and the MAR signed. Of course, if no attempt was made to give the medication, no signature should exist for that administration.
- If you have an assortment of administration issues (such as delayed recording and an exception or any other combination of conditions), you do not need to save after each edit. You may change the date and/or dosage, and/or choose an exception and/or enter a comment, then select the Save button. The database will record all elements you have entered.



## Step-by-Step in the MAR system

## Adding a new medication

- Login with your username and password
- Navigate to the patient's record



- Select the Medications–Prescribed form
- Click the New Entry button
- Enter the information provided by the prescriber
- Check for accuracy
- Click the signature checkbox
- Click the Save button
- Repeat for all medications to be entered
- Click the Logout link to end your session

### **Changing medication orders**

#### **Discontinuing a medication before the end date**

- Login with your username and password
- Navigate to the patient's record
- Select the Medications–Prescribed form
- Click the edit icon associated with the medication
- Click the “DC this medication” checkbox
- Click the Save button
- Repeat for all medications to be discontinued
- Click the Logout link to end your session

#### **Changing administration orders**

- Login with your username and password
- Navigate to the patient's record
- Select the Medications–Prescribed form
- Click the edit icon associated with the existing medication
- Click the “DC this medication” checkbox
- Click the Save button
- Click the New Entry button
- Enter the new information provided by the prescriber
- Check for accuracy
- Click the Signature checkbox
- Click the Save button
- Repeat for all medications to be changed
- Click the Logout link to end your session

### **Administering a medication**

- Login with your username and password
- Navigate to the Daily MARs (All) or one of the shift/administration time MARs
- Click the Select next to the first medication to be administered
- Administer the medication
- Click in the signature checkbox
- Click the Save button
- Repeat until all medications are given
- Click the Logout link to end your administration session

### **Recording a medication administration with changes or exceptions**

#### **Delayed recording of a medication**

- Login with your username and password
- Navigate to the Daily MARs (All) or one of the shift/administration time MARs
- Click the Select next to the first medication to be administered
- Click in the signature checkbox
- Click the calendar icon and select the date
- Click inside the date/time field and replace the default with the correct time
- Click the Save button





- Repeat for all medications to be recorded
- Click the Logout link to end your session

#### **Variance in dosage**

- Login with your username and password
- Navigate to the Daily MARs (All) or one of the shift/administration time MARs
- Click the Select next to the first medication to be administered
- Administer the medication
- Click in the signature checkbox
- Click in the Dosage field
- Type in the correct dosage
- Click the Save button
- Repeat for all medications to be recorded
- Click the Logout link to end your session

#### **Recording exceptions**

- Login with your username and password
- Navigate to the Daily MARs (All) or one of the shift/administration time MARs
- Click the Select next to the first medication to be administered
- Administer the medication
- Click in the signature checkbox
- Click the Exceptions drop-down arrow
- Select an exception reason
- If 'Other' is selected, enter the reason in the memo field
- Click the Save button
- Repeat for all medications to be recorded
- Click the Logout link to end your session

#### **Entering administration comments**

- Login with your username and password
- Navigate to the Daily MARs (All) or one of the shift/administration time MARs
- Click the Select next to the first medication to be administered
- Administer the medication
- Click in the signature checkbox
- Click in the comments memo field
- Enter any appropriate comments
- Click the Save button
- Repeat for all medications to be recorded
- Click the Logout link to end your session

#### **Administering a PRN**

- Login with your username and password
- Navigate to the patient record under Residents
- Select the Medications-MAR form
- Click the Medications drop-down and select the PRN medication
- If frequency or other information is needed, click the Go button
- Review the already administered medications
- Administer the medication, if appropriate
- Click the signature checkbox
- Enter the dosage given
- Click the Save button
- Click the Logout link to end recording