

# **Pharmacy Information System (PhIS) and Clinic Pharmacy System (CPS)**

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**Full Based**

## **User Manual Medication Administration Record (MAR)**

<b>Version</b>	<b>: 8<sup>th</sup> EDITION</b>
<b>Document ID</b>	<b>: FB_U. MANUAL_MAR</b>



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*Application reference: PhIS & CPS v1.8.1*



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## 1.0 Introduction

### 1.1 Overview of PhIS

Pharmacy Information System or better known as PhIS, is a complete and comprehensive system that integrates pharmacy related services geared towards pharmacy excellence. PhIS implementation would transform most of current manual process to electronic system would benefit facility end user in the health care sector.

There are 12 modules to assist services delivery by the health care sector which comprises of:

1. Order Management
2. Inpatient Pharmacy
3. Outpatient Pharmacy
4. Medication Counselling
5. Ward Pharmacy
6. Pharmacy Inventory
7. Manufacturing of Cytotoxic Drug Reconstitution, Parenteral Nutrition, IV Admixture & Eye Drop, Radiopharmaceuticals and Extemporaneous
8. Adverse Drug Reaction & Drug Allergic (ADR & DAC)
9. Clinical Pharmacokinetics Services (TDM)
10. Drug Information & Consumer Education (DICE)
11. Medication Therapy Adherence Clinic (MTAC)
12. Data Mining (PhARM)

### 1.2 Purpose and Objectives

This user manual outlines the medication administration record (MAR) sub-module and its key features and functionalities. The primary objective is to help guide user through the process of completing PhIS application process.

User will understand the following activities in details:

- Charting and record patient administration in ward based on drug and time
- To view all medication administration details in a chart
- Time range to record the administration
- Different types of administration form non-infusion and infusion
- To view active inpatient record only

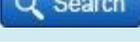
### 1.3 Organised Sections

These are the sections within this document:

- Section 1 : Introduction
- Section 2 : Application Standard Features
- Section 3 : MAR
- Section 4 : Acronyms
- Section 5 : Links to Clinical Modules

## 2.0 Application Standard Features

### 2.1 PhIS Legend

Standard Legend			
	Login to PhIS		Logout from PhIS
	Close All Open Tabs		Refresh Screen
	Expand Menu		Collapse Menu
	Expand Module		Collapse Module
	Add/Create New Record		Save
	Close Window		Calendar Icon
	Save Transaction		Delete Record
	Export Report From PDF file to Excel file		OK Button
	Yes Button		No Button
	Radio Button	<input type="checkbox"/>	Checkbox
	System Automatic Generate Record No.		Automatically Display/Retrieve Box
	Reset Login Screen		Show Help
	Display Home Tab		Search Record
	Cancel		Dropdown Box
	Search Icon	*	Mandatory Field
	Edit Record		Empty Text Box
	Cancel Button		

Medication Administration Record (MAR) Module Legend			
<input type="checkbox"/>	Medication Served On time	Not Administered <input checked="" type="checkbox"/>	Medication Not Serve
Late Administered <input checked="" type="checkbox"/>			

**Note**

To learn more about Login Information, kindly click [Login Information](#) module for descriptive steps.

## 3.0 Medical Administration Record (MAR)

### Overview

The Medication Administration Record (MAR) module handles all of the active in-patient charting medication administration record for nurses in safe, organized and efficient way.

### User Group

This module is intended for registered staff nurses (RN). (subject to the user assigned by the facility).

### Functional Diagram

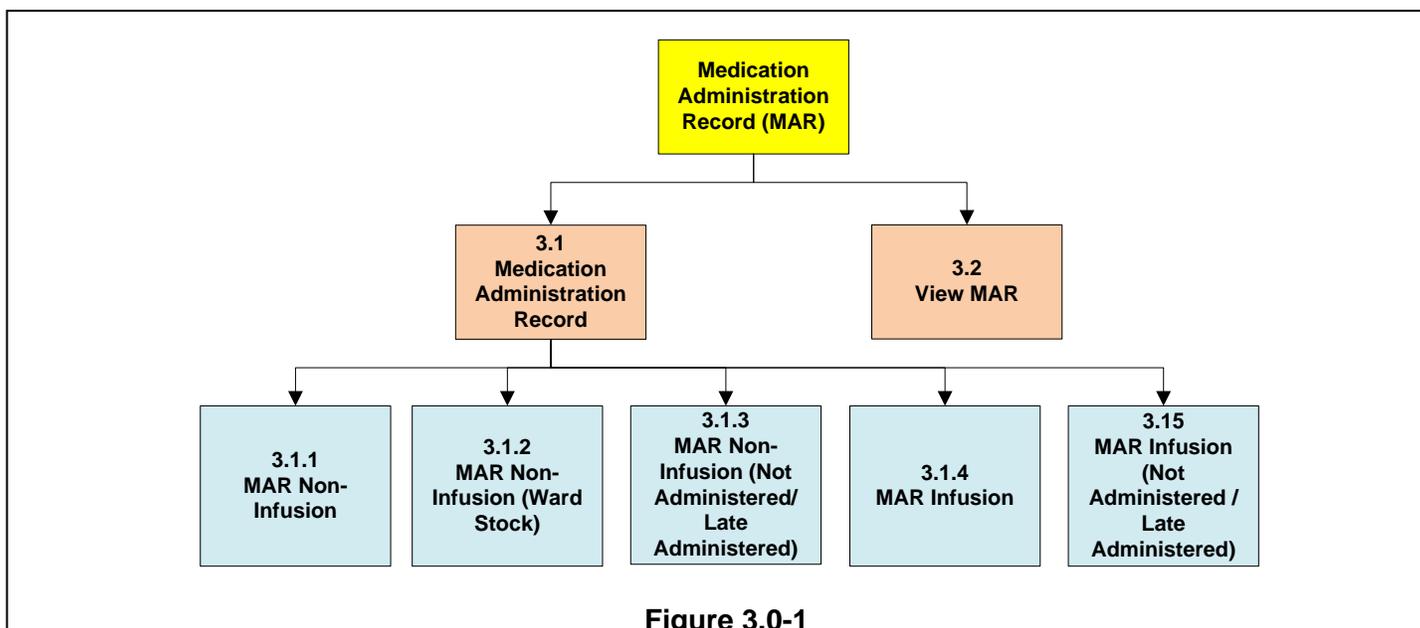


Figure 3.0-1

### Functional Description

Medication Administration Record comprises of two (2) main functions:

- **Medication Administration Record**

Medication Administration Record function allows Nurses to chart and record the administration of patient in ward based on drug and time. The time range to record the administration is set to within of thirty (30) hour before and thirty (30) minutes after. If the time recorded is 1 hour more than scheduled time, recording will not be allowed without any remarks.

- **View MAR**

This function allows user to view all medication administration details in a chart. It will only show for active in-patient visit.

### 3.1 Medication Administration Record (MAR)

#### 3.1.1 MAR Non- Infusion

This function is used to administer the medication to patient within the time range (on time)

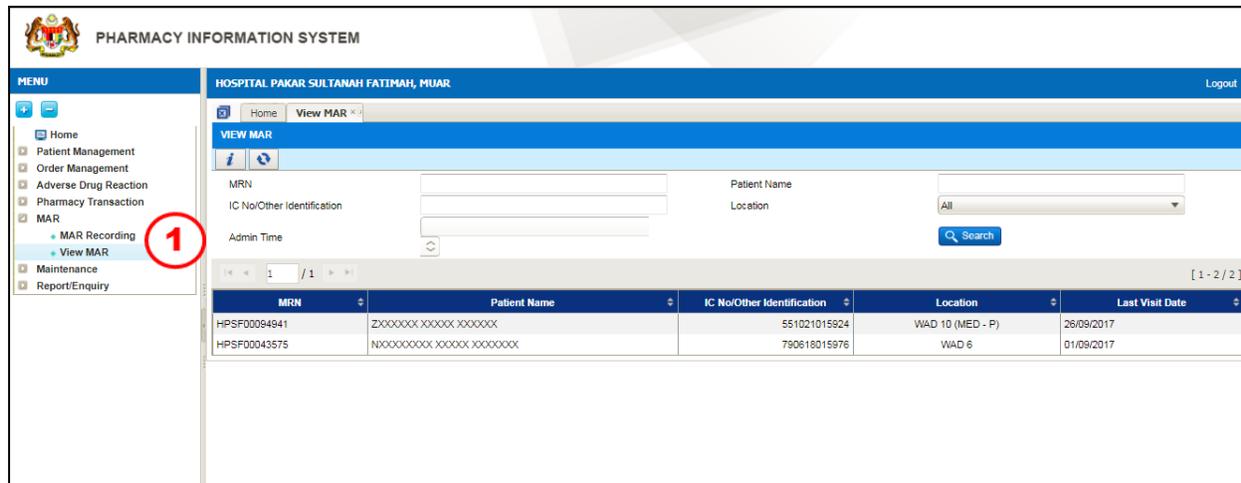


Figure 3.1.1-1 MAR Menu

#### Note

PhIS Screen menu/sub menu will be displayed according to user access right

#### STEP 1

Click on the MAR menu then click on the MAR recording sub menu

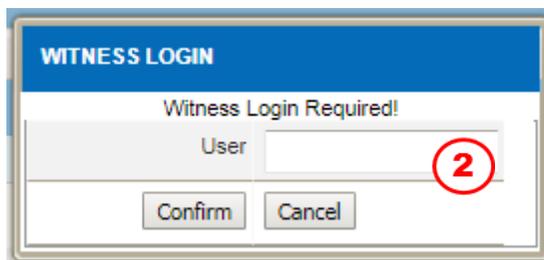


Figure 3.1.1-2 Witness Login

#### STEP 2

Enter **User ID** in the displayed Witness Login dialog box, then click on the confirm button

#### Note

- Witness must have system access login
- Witness must be different with user login
- Witness does not require to login for every patient.

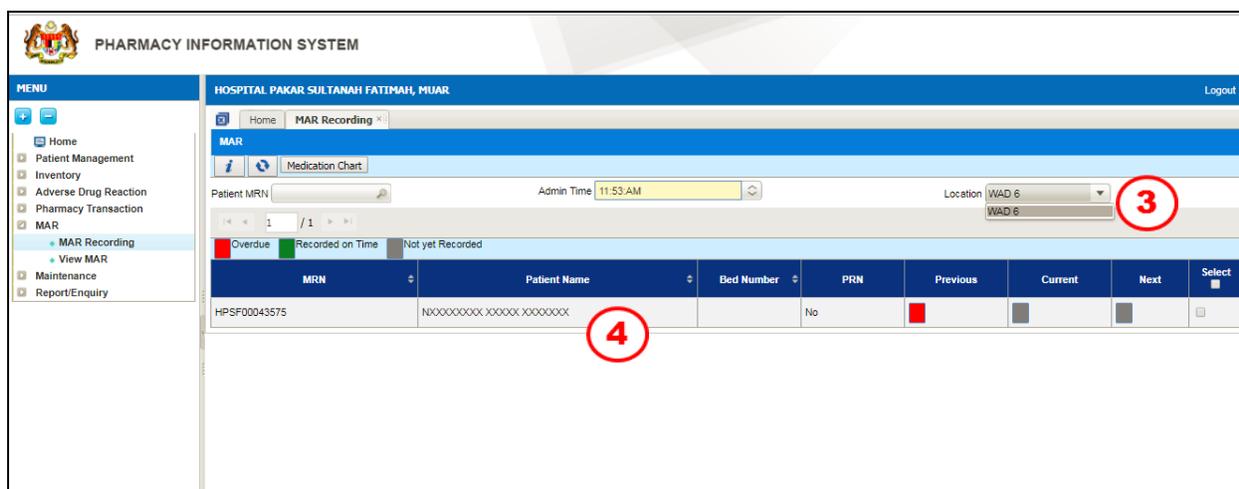


Figure 3.1.1-3 MAR Listing Page

**Note**

Search MAR record based :-

No	Field	Description	Remark
a	Patient MRN	Patient MRN	Allow to search by patient full or partial MRN No
b	Admin Time	Patient admission time	Allow to search patient by time admitted to ward
c	Location	Location assigned base on user Access	Allow to search patient by user assigned location

Table 3.1.1

**STEP 3**

Select location from drop box

**STEP 4**

Click on the selected patient name and system will display as Figure 3.1.1-4

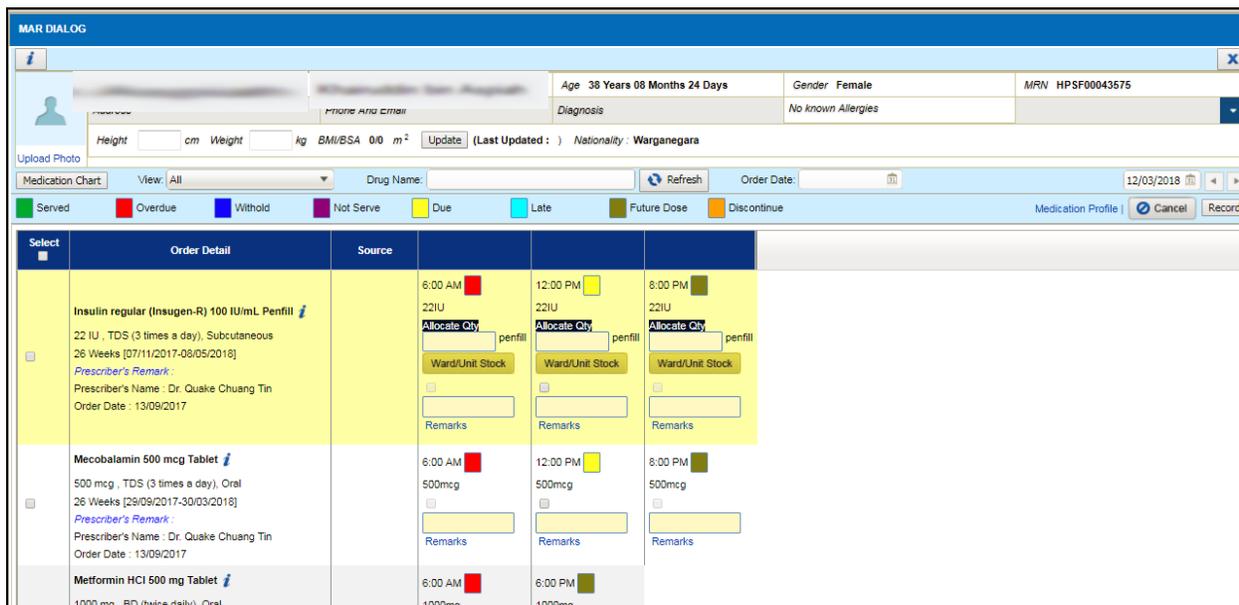
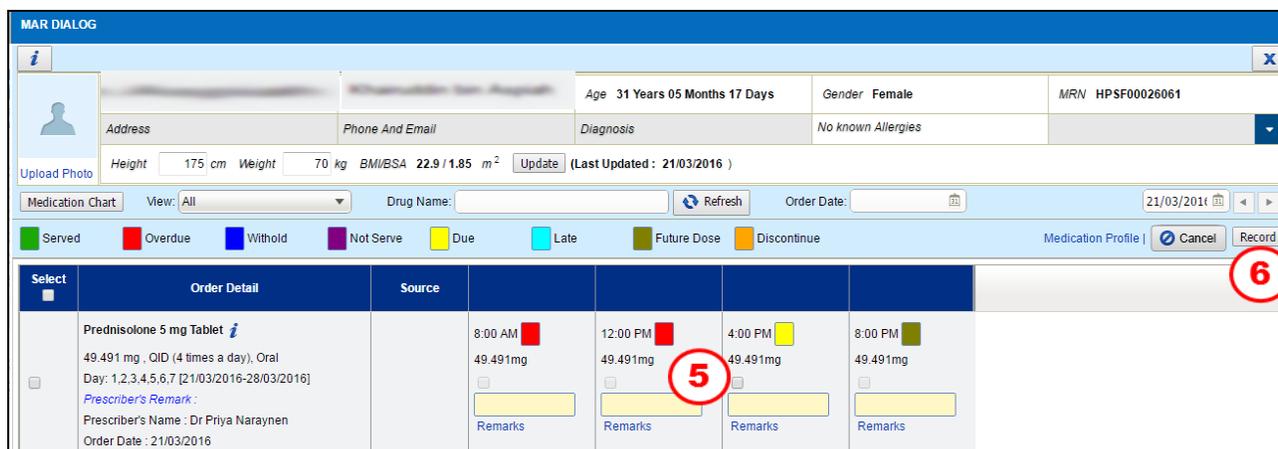


Figure 3.1.1-4 MAR Patient Screen

**Note**

- Screen will display these two (2) panel functions:
  - a) Non-Infusion
  - b) Infusion
  
- Administration status:
  - a) Due - Administration recorded
  - b) Overdue - Record 'Not Administered' checkbox
  - c) Served- Record the administration within time range
  - d) Late - Has not record the administration within time range
  - e) Withhold - Hold by doctors or pharmacist
  - f) Future Dose - Has not reach the schedule time
  - g) Not Serve - Did Not Serve
  - h) Discontinue - Discontinued by doctor



**Figure 3.1.1-5 Patient Medication List**

**STEP 5**

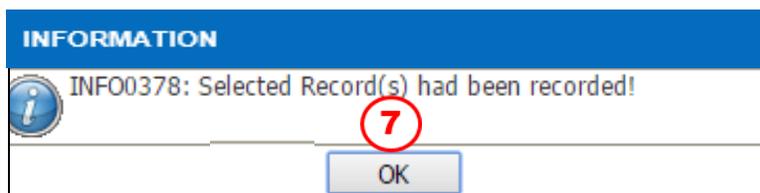
Click on the  checkbox to select the drugs

**Note**

- Allow to select multiple drugs.
- When the checkbox is selected, the current time will be recorded. However, user is allowed to change the current time.
- If the time is one (1) hour more than scheduled time, recording will not be allowed without any remarks.

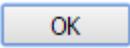
**STEP 6**

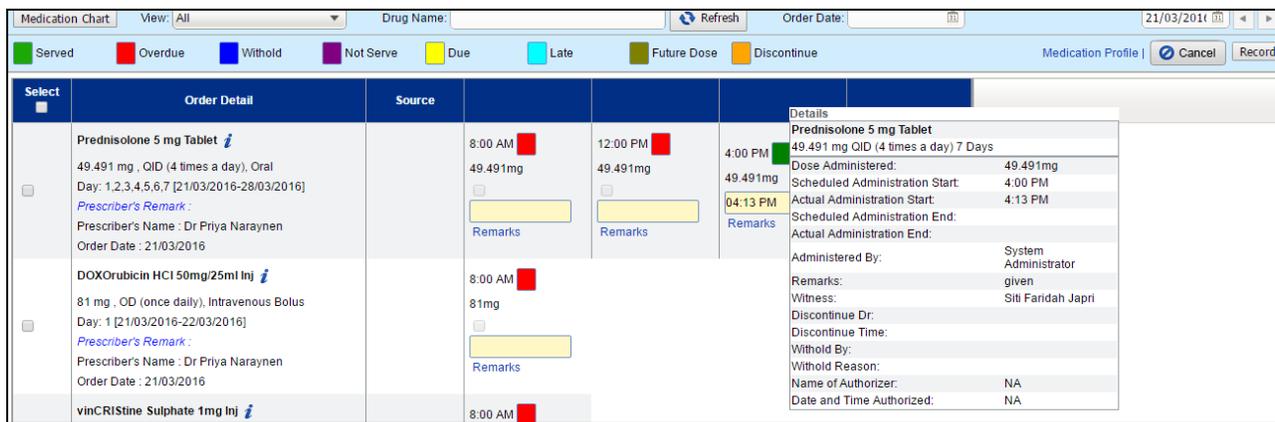
After select the drugs, click on record button  to confirm record



**Figure 3.1.1-6 Information Alert Message**

**STEP 7**

Click on the  button to confirm record



Select	Order Detail	Source	8:00 AM	12:00 PM	4:00 PM
<input type="checkbox"/>	<b>Prednisolone 5 mg Tablet</b> 49.491 mg , QID (4 times a day), Oral Day: 1,2,3,4,5,6,7 [21/03/2016-28/03/2016] <i>Prescriber's Remark :</i> Prescriber's Name : Dr Priya Naraynen Order Date : 21/03/2016		<input type="checkbox"/> 49.491mg <input type="text"/> Remarks	<input type="checkbox"/> 49.491mg <input type="text"/> Remarks	<input checked="" type="checkbox"/> 49.491mg <input type="text"/> 04:13 PM <input type="text"/> Remarks
<input type="checkbox"/>	<b>DOXOrubicin HCl 50mg/25ml Inj</b> 81 mg , OD (once daily), Intravenous Bolus Day: 1 [21/03/2016-22/03/2016] <i>Prescriber's Remark :</i> Prescriber's Name : Dr Priya Naraynen Order Date : 21/03/2016		<input type="checkbox"/> 81mg <input type="text"/> Remarks		
<input type="checkbox"/>	<b>vinCRISTine Sulphate 1mg Inj</b> 8:00 AM		<input type="checkbox"/> 8:00 AM		

**Details**

**Prednisolone 5 mg Tablet**  
 49.491 mg QID (4 times a day) 7 Days

Dose Administered: 49.491mg  
 Scheduled Administration Start: 4:00 PM  
 Actual Administration Start: 4:13 PM  
 Scheduled Administration End:  
 Actual Administration End:

Administered By: System Administrator  
 Remarks: given  
 Witness: Siti Faridah Japri  
 Discontinue Dr:  
 Discontinue Time:  
 Withhold By:  
 Withhold Reason:  
 Name of Authorizer: NA  
 Date and Time Authorized: NA

**Figure 3.1.1-7 MAR – View MAR notes**

**Note**

- *Checkbox will be available for drug with yellow colour box (due status)*
- *After drug has been recorded, the box will turn to green colour (served status)*
- *User can view the MAR notes by mouse over on the status box as shown in figure 3.1.1-7*

### 3.1.2 MAR Non-Infusion [Ward Stock (WS)]

This function is used to administer the medication to patient within the time range (on time) using ward stock.

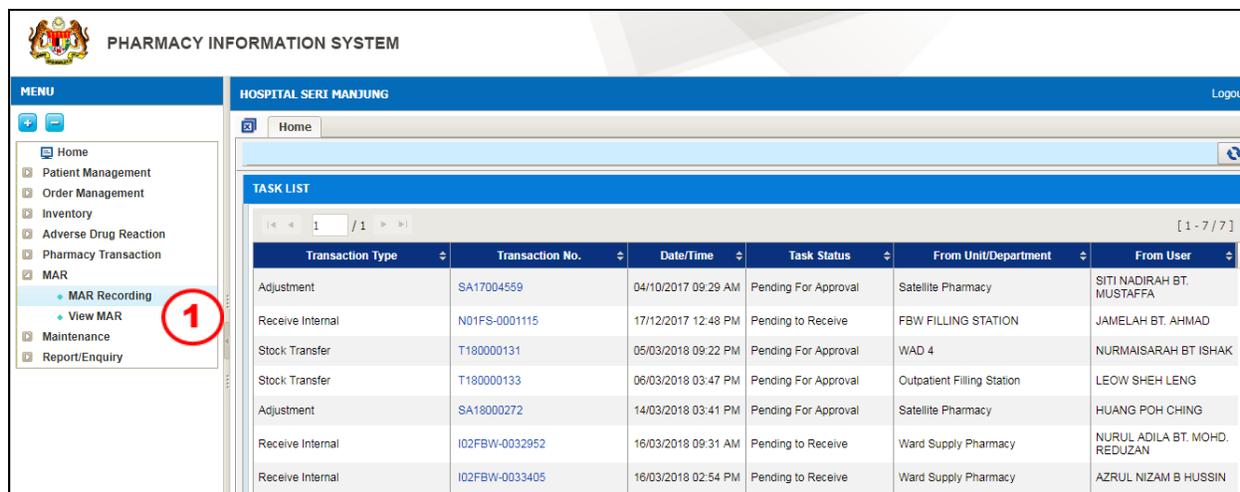


Figure 3.1.2-1 MAR Menu

#### STEP 1

Click on the MAR menu then click on the MAR Recording sub menu

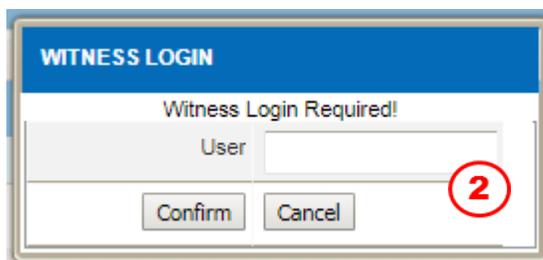


Figure 3.1.2-2 Witness Login

#### STEP 2

Enter **User ID** in the displayed Witness Login dialog box then click on the confirm button

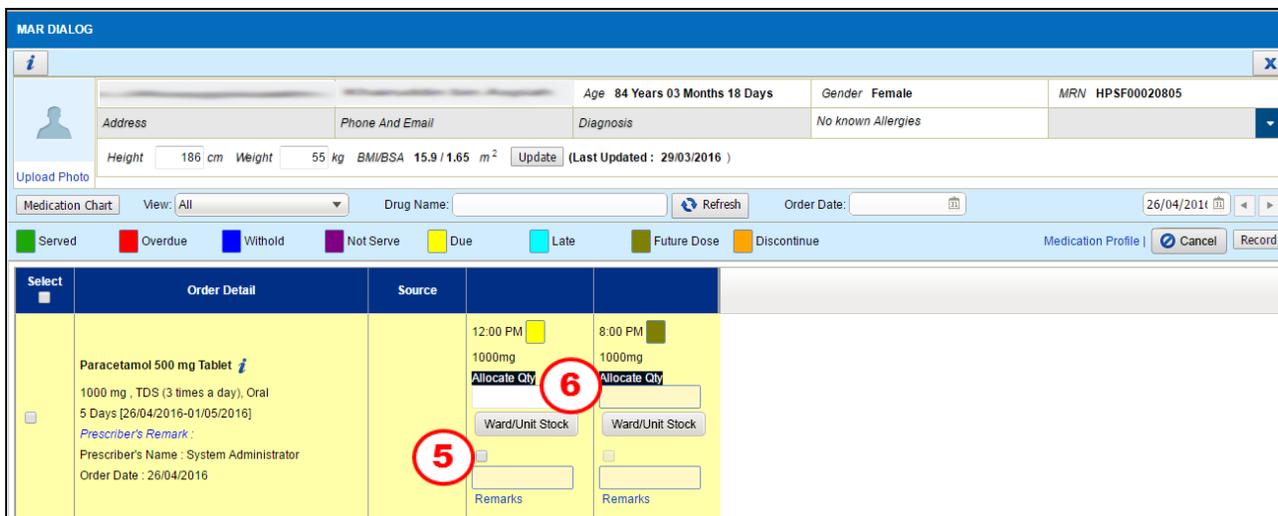
#### Note

- Witness must have system access login.
- Witness must be different with user login.
- Witness shall be from the same discipline and the grade of Jururawat must be U29 and above.
- Witness does not require to login for every patient.



**Note**

- Screen will display two (2) panel functions:
  - a) Non-Infusion
  - b) Infusion
- Administration status:
  - a) Due - Administration recorded
  - b) Overdue - Record 'Not Administered' checkbox
  - c) Served- Record the administration within time range
  - d) Late - Has not record the administration within time range
  - e) Withhold - Hold by doctors or pharmacist
  - f) Future Dose - Has not reach the schedule time
  - g) Not Serve - Did not Serve
  - h) Discontinue - Discontinued by doctor



The screenshot shows the 'MAR DIALOG' window. At the top, there's a patient information bar with fields for Age (84 Years 03 Months 18 Days), Gender (Female), MRN (HPSF00020805), Address, Phone And Email, Diagnosis, and No known Allergies. Below this is a medication chart area with filters for Served, Overdue, Withhold, Not Serve, Due, Late, Future Dose, and Discontinue. The main table has columns: Select, Order Detail, and Source. The 'Order Detail' column shows 'Paracetamol 500 mg Tablet' with dosage '1000 mg, TDS (3 times a day), Oral' and '5 Days [26/04/2016-01/05/2016]'. The 'Source' column shows two time slots: '12:00 PM' and '8:00 PM', each with a '1000mg' dose and an 'Allocate Qty' field. Red circles with numbers 5 and 6 highlight the 'Select' checkbox and the 'Allocate Qty' field respectively.

**Figure 3.1.2-5 Patient Medication List**

**STEP 5**

Click on the check box  to select the drugs.

**STEP 6**

Click on  and *WHAT* will display as shown in figure 3.1.2-5

**Note**

- User is allowed to select for multiple drugs.
- When the checkbox is selected, the current time will be recorded. However, user is allowed to change the current time.

**ITEM BATCH DETAILS**

**8**   

Drug Code: N02BE01000T1001XX      Order Detail: Paracetamol 500 mg Tablet  
1000 mg, TDS (3 times a day), Oral 5 days  
26/04/2016-01/05/2016

Default SKU: tablet

Batch Detail

1 / 1 [ 1 - 4 / 4 ]

Batch No	Expiry Date	Available Qty	Dispense UOM	Allocate Qty	Conv Factor
PA13L323	31/10/2017	9997	tablet	1 <b>7</b>	1
PA13L323	31/10/2017	9999	tablet	0	1
PA14B063	04/02/2018	9999	tablet	0	1
PA14G185	29/07/2018	9999	tablet	0	1

Figure 3.1.2-6 Ward Stock

**STEP 7**

Choose the batch no and insert the **Allocate Qty** field

**Note**

Batch nearest to expiration will be selected automatically and calculated for the drugs to be administered.

**STEP 8**

Click on save  button to save record

**CONFIRMATION**

 CONF0002: Are you sure you want to save?

**9**

Figure 3.1.2.7 Confirm Message

**STEP 9**

Click on the  button to confirm record

**MAR DIALOG**

Age 84 Years 03 Months 18 Days | Gender Female | MRN HPSF00020805

Address | Phone And Email | Diagnosis | No known Allergies

Height 186 cm | Weight 55 kg | BMI/BSA 15.9 / 1.65 m<sup>2</sup> | Update (Last Updated : 29/03/2016)

Medication Chart | View: All | Drug Name: | Refresh | Order Date: 26/04/2016

Served | Overdue | Withhold | Not Serve | Due | Late | Future Dose | Discontinue | Medication Profile | Cancel | Record

Select	Order Detail	Source	12:00 PM	8:00 PM
<input type="checkbox"/>	<b>Paracetamol 500 mg Tablet</b> 1000 mg , TDS (3 times a day), Oral 5 Days [26/04/2016-01/05/2016] <i>Prescriber's Remark :</i> Prescriber's Name : System Administrator Order Date : 26/04/2016		1000mg Allocate Qty: 1 Ward/Unit Stock: <input type="text"/> <input type="checkbox"/>	1000mg Allocate Qty: <input type="text"/> Ward/Unit Stock: <input type="text"/> <input type="checkbox"/>

Figure 3.1.2-8 Drug Served

**STEP 10**

Click on record button

Select	Order Detail	Source	8:00 AM
<input type="checkbox"/>	<b>Paracetamol 500 mg Tablet</b> 1000 mg , TDS (3 times a day), Oral 5 Days [26/04/2016-01/05/2016] <i>Prescriber's Remark :</i> Prescriber's Name : System Administrator Order Date : 26/04/2016		1000mg Allocate Qty: <input type="text"/> Ward/Unit: <input type="text"/> <input type="checkbox"/>

Paracetamol 500 mg Tablet

1000 mg TDS (3 times a day) 5 Days

Dose Administered: 1000mg

Scheduled Administration Start: 12:00 PM

Actual Administration Start:

Scheduled Administration End:

Actual Administration End:

Administered By:

Remarks:

Witness:

Discontinue Dr:

Discontinue Time:

Withhold By:

Withhold Reason:

Name of Authorizer: NA

Date and Time Authorized: NA

Figure 3.1.2-9 MAR – View MAR notes

**Note**

- Checkbox will be available for drug with yellow colour box (due status)
- After drug has been recorded, the box will turn to green colour (served status)
- User can view the MAR notes by mouse over on the status box as shown figure 3.1.2-9

### 3.1.3 MAR Non-Infusion (Late Administered/Not Administered)

This function is used to administer the medication to patient outside the time range (overdue) and for cancel administration (not served).

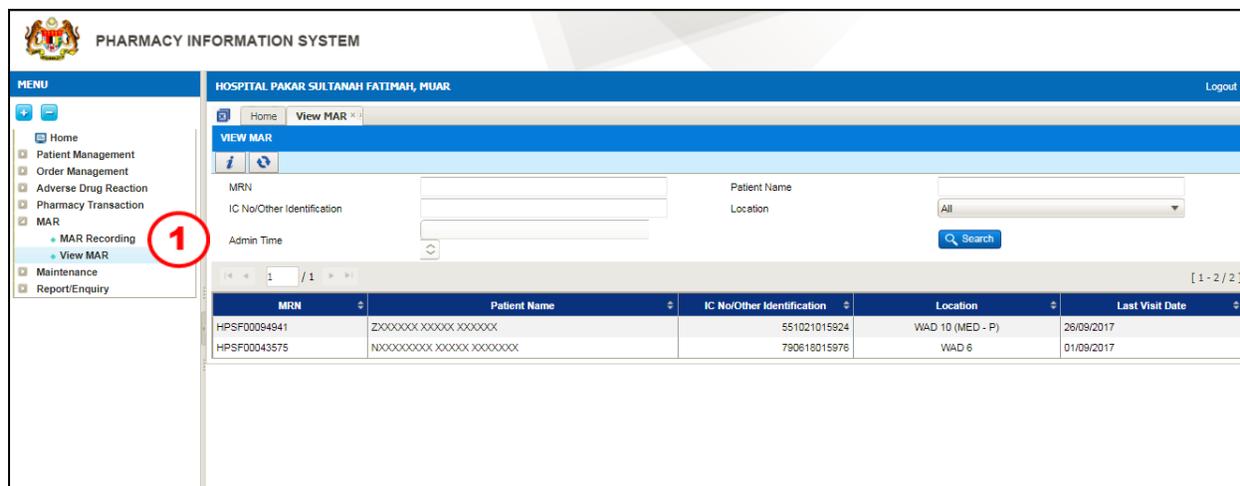


Figure 3.1.3-1 MAR Menu

#### STEP 1

Click on the MAR menu then click on the MAR Recording sub menu

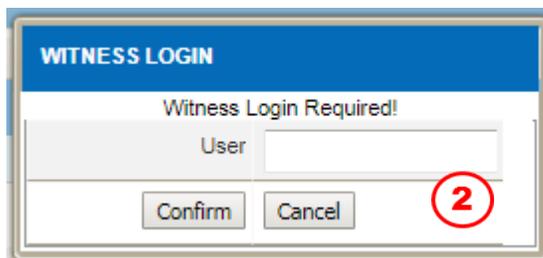


Figure 3.1.3-2 Witness Login

#### STEP 2

Enter **User ID** in the displayed Witness Login dialog box then click on the confirm button

#### Note

- Witness must have system access login.
- Witness must be different with user login.
- Witness shall be from the same discipline and the grade of Jururawat must be U29 and above.
- Witness does not require to login for every patient.

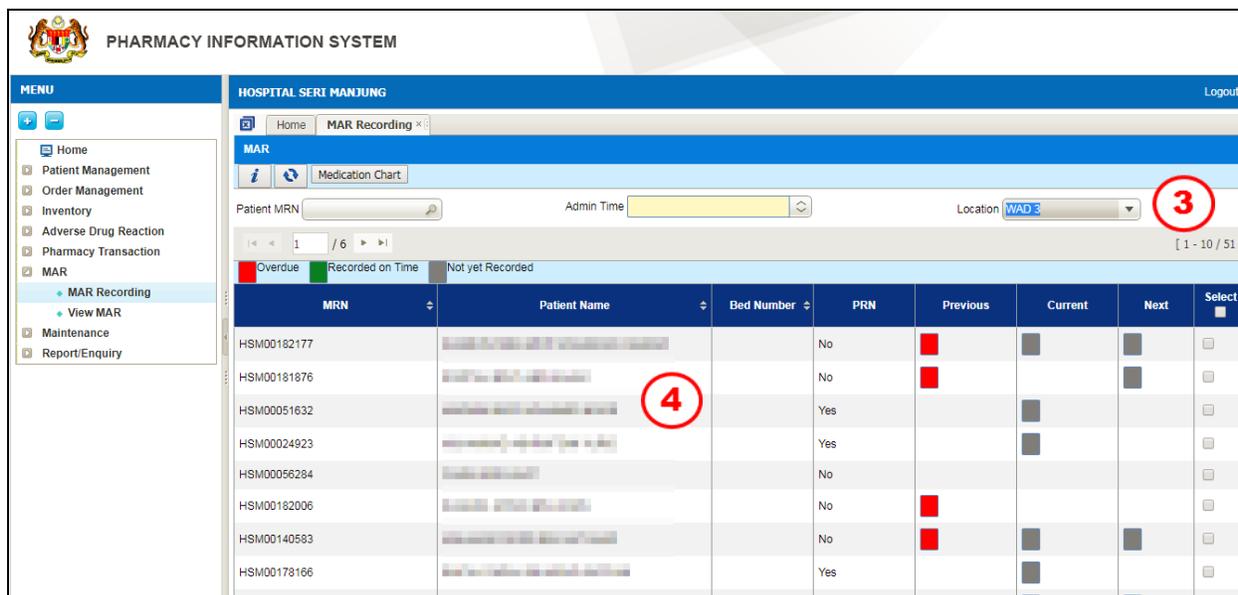


Figure 3.1.3-3 MAR Listing Page

**STEP 3**

Select location from drop box

**STEP 4**

Click on the selected patient name and system will display as Figure 3.1.3-4

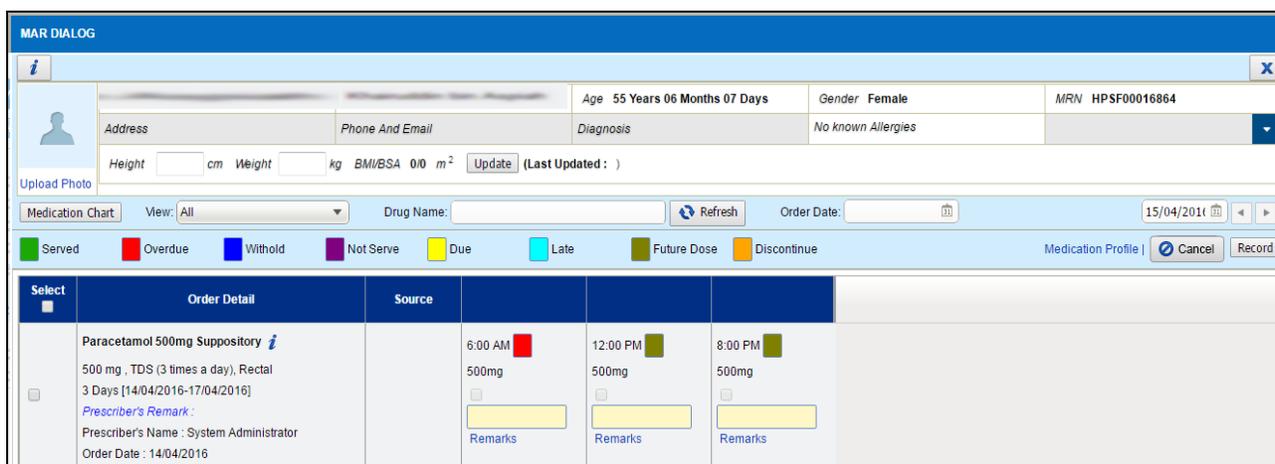


Figure 3.1.3-4 MAR Patient Screen

**Note**

- Screen will display two (2) panel functions:
  - Non-Infusion
  - Infusion
- Administration status:
  - Due - Administration has been recorded
  - Overdue - Record 'Not Administered' checkbox
  - Served- Record the administration within time range
  - Late - Has not record the administration within time range
  - Withhold - Hold by doctors or pharmacist

- f) Future Dose - Has not reach the schedule time
- g) Not Serve - Did not Serve
- h) Discontinue - Discontinued by doctor

The screenshot shows the 'MAR DIALOG' window for a patient. At the top, there are fields for patient information: Age (43 Years 03 Months 12 Days), Gender (Male), and MRN (HPSF0006498). Below this is a 'Medication Chart' section with a date of 20/05/2015. A legend indicates various medication statuses: Served (green), Overdue (red), Withhold (blue), Not Serve (purple), Due (yellow), Late (cyan), Future Dose (olive), and Discontinue (orange). The main table lists two medications:

Select	Order Detail	Source	8:00 AM	8:00 PM	Remarks
<input type="checkbox"/>	Chlorpheniramine Maleate 2 mg/5 ml Syrup 2 mg BD (twice daily) 30 Days [05/05/2015-04/06/2015] Prescriber's Remark: Prescriber's Name: Dr. Ho Kim Wah		8:00 AM 2mg <span style="color: red;">■</span>	8:00 PM 2mg <span style="color: olive;">■</span>	Remarks
<input type="checkbox"/>	Mefenamic Acid 250 mg Capsule 250 mg TDS (3 times a day) 61 Days [05/05/2015-05/07/2015] Prescriber's Remark: Prescriber's Name: Dr. Ho Kim Wah		8:00 AM 250mg <span style="color: red;">■</span>	12:00 PM 250mg <span style="color: red;">■</span>	Remarks

Figure 3.1.3-5 Remarks

**STEP 5**

To record the late administration or not administered, click on [Remarks](#) and system will display as figure 3.1.3-6(a)

**Note**

Remarks can be entered if:

- Drug status still active.
- Reach and exceeding the time range of Administration time

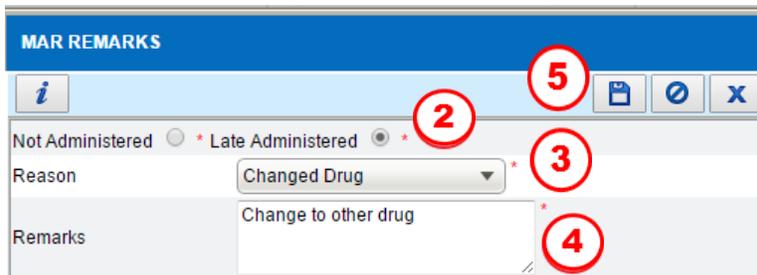
**Late Administered**

The screenshot shows the 'MAR REMARKS' dialog box. It has a title bar with an information icon, a red circle with the number '1' around the edit button, and buttons for edit, delete, and close. Below the title bar, there are radio buttons for 'Not Administered' and '\* Late Administered'. A 'Reason' dropdown menu is present, and a 'Remarks' text area with a red asterisk is at the bottom.

Figure 3.1.3-6(a) MAR Remarks

**STEP 1**

Click on button to edit or add the new remarks



The screenshot shows a window titled "MAR REMARKS" with a blue header. Below the header is a toolbar with an information icon (i), a save icon (floppy disk), a refresh icon (circular arrow), and a close icon (X). The main form area contains two rows. The first row has two radio buttons: "Not Administered" (unselected) and "Late Administered" (selected). A red circle with the number "2" is placed over the "Late Administered" radio button. To the right of the radio buttons is a dropdown menu with "Changed Drug" selected. A red circle with the number "3" is placed over the dropdown menu. The second row has a text input field containing "Change to other drug". A red circle with the number "4" is placed over the text input field. A red circle with the number "5" is placed over the save icon in the toolbar.

Figure 3.1.3-6(b) MAR Remarks

### STEP 2

Click on the Late Administered checkbox

### STEP 3

Chose one (1) reason from the drop down box:

- Allergy
- Change Drug
- Hemodialysis
- Medication/Drug With Hold
- Nil By Mouth
- Nil In Stock
- No IV Access
- Not In Bed
- Others
- Patient Discharge
- Refused

### STEP 4

Enter the remarks

### STEP 5

Click on save  button to save record

**MAR DIALOG**

Age 55 Years 06 Months 07 Days Gender Female MRN HPSF00016864

Address Phone And Email Diagnosis No known Allergies

Height cm Weight kg BMI/BSA 0/0 m<sup>2</sup> Update (Last Updated : )

Medication Chart View: All Drug Name: Refresh Order Date: 15/04/2016

Served Overdue Withhold Not Serve Due Late Future Dose Discontinue Medication Profile Cancel Record

Select	Order Detail	Source	6:00 AM	12:00 PM	8:00 PM
<input type="checkbox"/>	Paracetamol 500mg Suppository 500 mg, TDS (3 times a day), Rectal 3 Days [14/04/2016-17/04/2016] Prescriber's Remark: Prescriber's Name : System Administrator Order Date: 14/04/2016		500mg 10:39 AM Remarks	500mg Remarks	500mg Remarks

Figure 3.1.3-6(c) MAR Remarks

**Note**

- Checkbox will be available for drug with yellow colour box (due status)
- When step 5 is performed, the box will turn to cyan colour (late status)

**Not Administered**

**MAR REMARKS**

Not Administered  \* Late Administered  \*

Reason

Remarks

Figure 3.1.3-7 MAR Remarks

**STEP 1**

Click on button to edit or add the new remarks

**MAR REMARKS**

Not Administered  \* Late Administered  \*

Reason

Remarks  
Change to other drug

Figure 3.1.3-8 MAR Not Administered

**STEP 2**

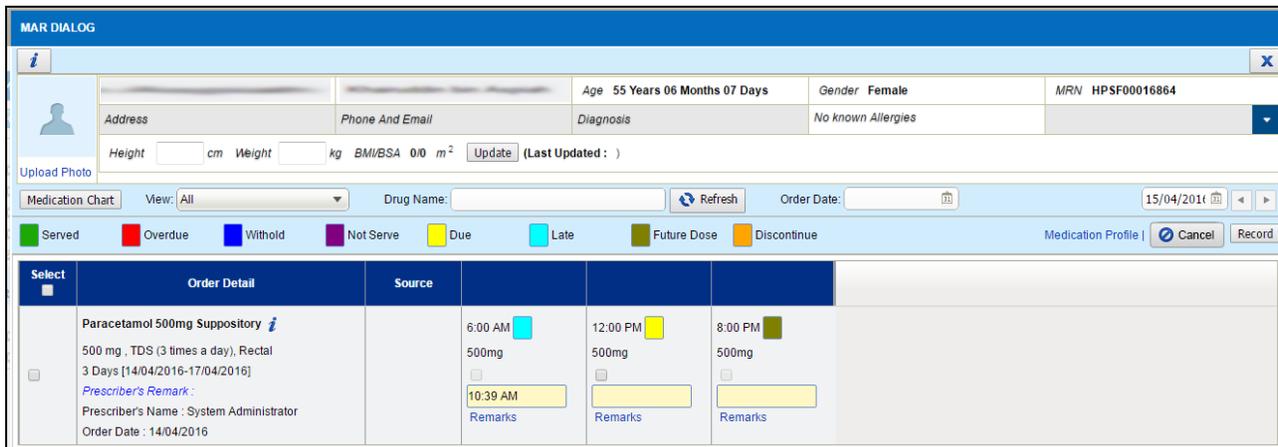
Click on the Not Administered checkbox

**STEP 3**

Enter the remarks

**STEP 4**

Click on save  button to save record



**MAR DIALOG**

Age 55 Years 06 Months 07 Days Gender Female MRN HPSF00016864

Address Phone And Email Diagnosis No known Allergies

Height cm Weight kg BMI/BSA 0/0 m<sup>2</sup> Update (Last Updated : )

Upload Photo

Medication Chart View: All Drug Name: Refresh Order Date: 15/04/2016

Served 
  Overdue 
  Withhold 
  Not Serve 
  Due 
  Late 
  Future Dose 
  Discontinue 
 Medication Profile |

Select	Order Detail	Source				
<input type="checkbox"/>	Paracetamol 500mg Suppository 500 mg , TDS (3 times a day), Rectal 3 Days [14/04/2016-17/04/2016] Prescriber's Remark : Prescriber's Name : System Administrator Order Date : 14/04/2016		6:00 AM <input type="checkbox"/> 500mg <input type="checkbox"/> 10:39 AM Remarks	12:00 PM <input type="checkbox"/> 500mg <input type="checkbox"/> Remarks	8:00 PM <input type="checkbox"/> 500mg <input type="checkbox"/> Remarks	

**Figure 3.1.3-9 MAR Not Administered**

**Note**

- Checkbox will be available for drug with yellow colour box (due status)
- When step 5 is performed, the box will turn to purple colour box (Not Serve status)

### 3.1.4 MAR Infusion

This function is used to administer the medication to patient within the time range (on time) for infusion type of medication.

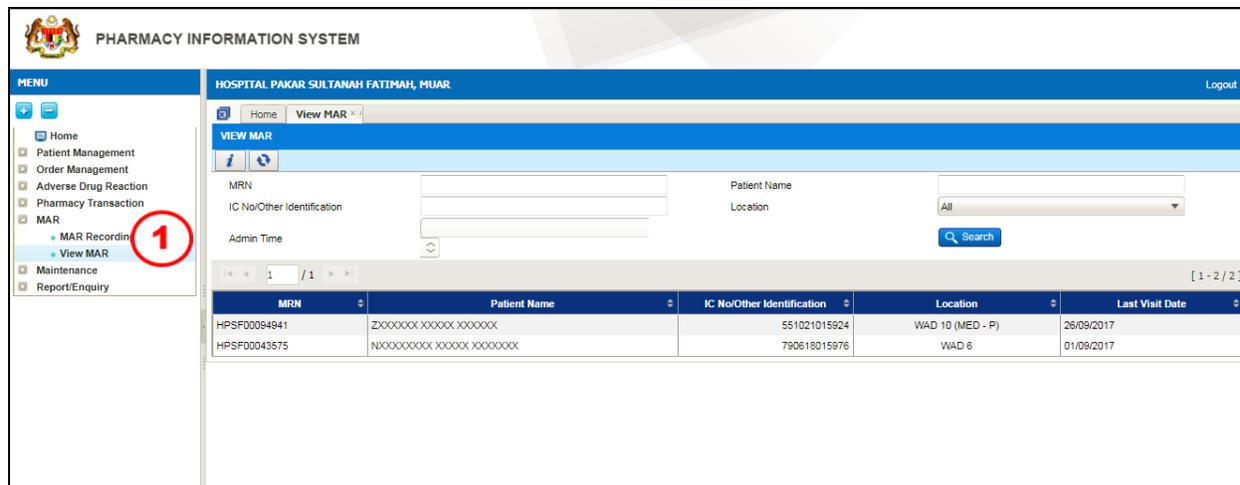


Figure 3.1.4-1 MAR Menu

#### STEP 1

Click on the MAR menu then click on the MAR Recording sub menu

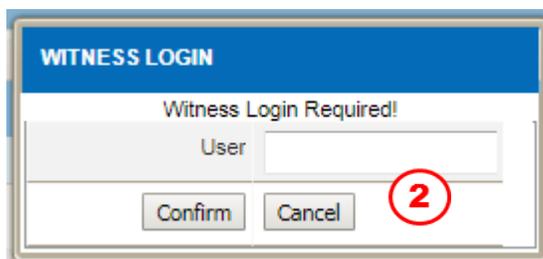


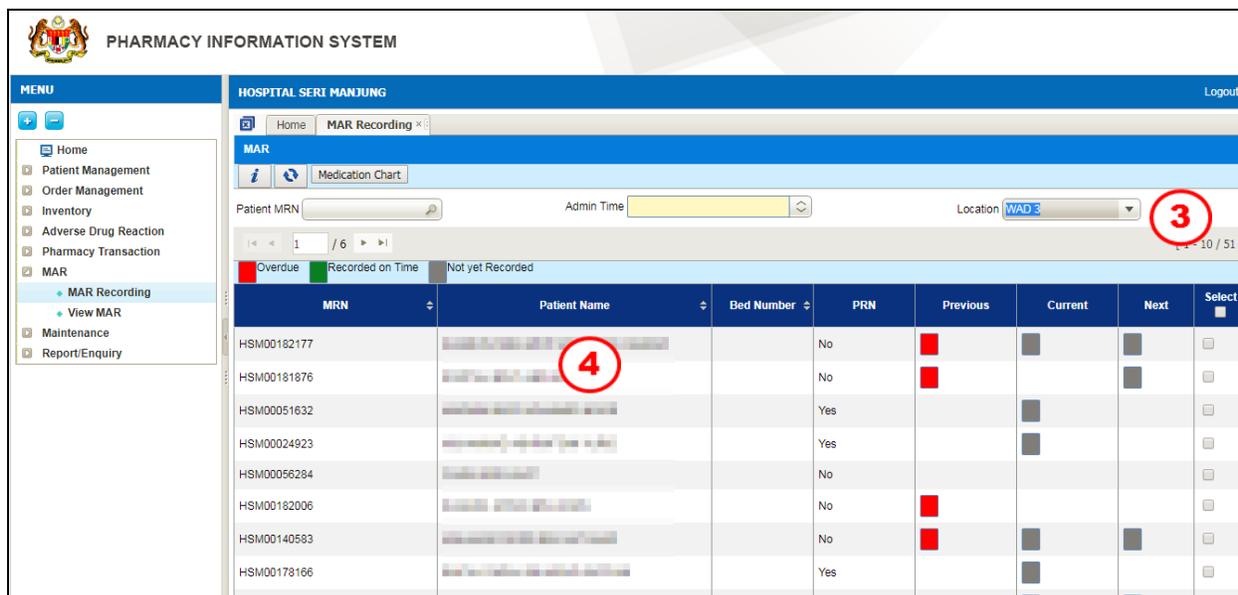
Figure 3.1.4-2 Witness Login

#### STEP 2

Enter **User ID** in the displayed Witness Login dialog box screen and click confirm

#### Note

- Witness must have system access login.
- Witness must be different with user login.
- Witness shall be from the same discipline and the grade of Jururawat must be U29 and above.
- Infusion drug only available after pharmacist do the dispensing.
- The drug that displayed at infusion Panel will be with 'INF' Intravenous Infusion or 'INSB Intravenous Slow Bolus admin route.
- There is no STAT or PRN dose for Infusion drug.
- Witness does not require to login for every patient.



MRN	Patient Name	Bed Number	PRN	Previous	Current	Next	Select
HSM00182177	[Redacted]		No	■			<input type="checkbox"/>
HSM00181876	[Redacted]		No	■			<input type="checkbox"/>
HSM00051632	[Redacted]		Yes		■		<input type="checkbox"/>
HSM00024923	[Redacted]		Yes		■		<input type="checkbox"/>
HSM00056284	[Redacted]		No				<input type="checkbox"/>
HSM00182006	[Redacted]		No	■			<input type="checkbox"/>
HSM00140583	[Redacted]		No	■			<input type="checkbox"/>
HSM00178166	[Redacted]		Yes		■		<input type="checkbox"/>

Figure 3.1.4-3 MAR Listing Page

**STEP 3**

Select location from drop box

**STEP 4**

Click on the selected patient name and system will display as Figure 3.1.4-4

Select	Order Detail	Source
<input type="checkbox"/>	<b>Smof Kabiven Central 1600kcal, 1.5L</b> 1477 ml , OD (once daily), Intravenous Infusion 48 null [14/03/2016-16/03/2016] Infuse Over : 24 Hour 0 Min Infusion Rate : 61.54ml/hour <i>Prescriber's Remark : testing</i> Prescriber's Name : Dr Priya Naraynen Order Date : 14/03/2016	5:00 PM 1477ml Start End Remarks

Figure 3.1.4-4 MAR Patient Screen

**Note**

- Screen will display two (2) panel functions and which is
  - a) Non-Infusion
  - b) Infusion
- Administration status:
  - a) Due - Already record the administration
  - b) Overdue - Record 'Not Administered' checkbox
  - c) Served- Record the administration within time range
  - d) Late - Has not record the administration within time range
  - e) Withhold - Hold by doctors or pharmacist
  - f) Future Dose - Has not reach the schedule time
  - g) Not Serve - Did Not Serve

h) Discontinue - Discontinued by doctor

Select	Order Detail	Source	
<input type="checkbox"/>	<b>Smof Kabiven Central 1600kcal, 1.5L</b> <i>i</i> 1477 ml , OD (once daily), Intravenous Infusion 48 null [14/03/2016-16/03/2016] Infuse Over : 24 Hour 0 Min Infusion Rate : 61.54ml/hour <i>Prescriber's Remark : testing</i> Prescriber's Name : Dr Priya Naraynen Order Date : 14/03/2016		5:00 PM <span style="background-color: yellow; border: 1px solid black; padding: 2px;"> </span> 1477ml <b>5</b> <span style="border: 2px solid red; border-radius: 50%; padding: 2px;">5</span> Start <input type="text"/> End <input type="text"/> Remarks

Figure 3.1.4-5 Start Infusion

**STEP 5**

Click on the  button to enter the start time

**Note**

- When  button is clicked, the current time will be recorded.
- If the time is one (1) hour more than duration time, recording will be not allowed without any remarks.

Select	Order Detail	Source	
<input type="checkbox"/>	<b>Smof Kabiven Central 1600kcal, 1.5L</b> <i>i</i> 1477 ml , OD (once daily), Intravenous Infusion 48 null [14/03/2016-16/03/2016] Infuse Over : 24 Hour 0 Min Infusion Rate : 61.54ml/hour <i>Prescriber's Remark : testing</i> Prescriber's Name : Dr Priya Naraynen Order Date : 14/03/2016		5:00 PM <span style="background-color: green; border: 1px solid black; padding: 2px;"> </span> 1477ml Start <input type="text" value="04:50 PM"/> End <input type="text"/> Remarks

Figure 3.1.4-6 End Infusion

**STEP 6**

Click on the  button to enter the end time.

**Note**

- button will be available for drug with yellow colour box (due status)
- After recording is performed, the box will turn to green colour box (served status)

### 3.1.5 MAR Infusion (Late Administered/Not Administered)

This function is used to administer the medication to patient within the Time range (on time) for infusion type of medication.

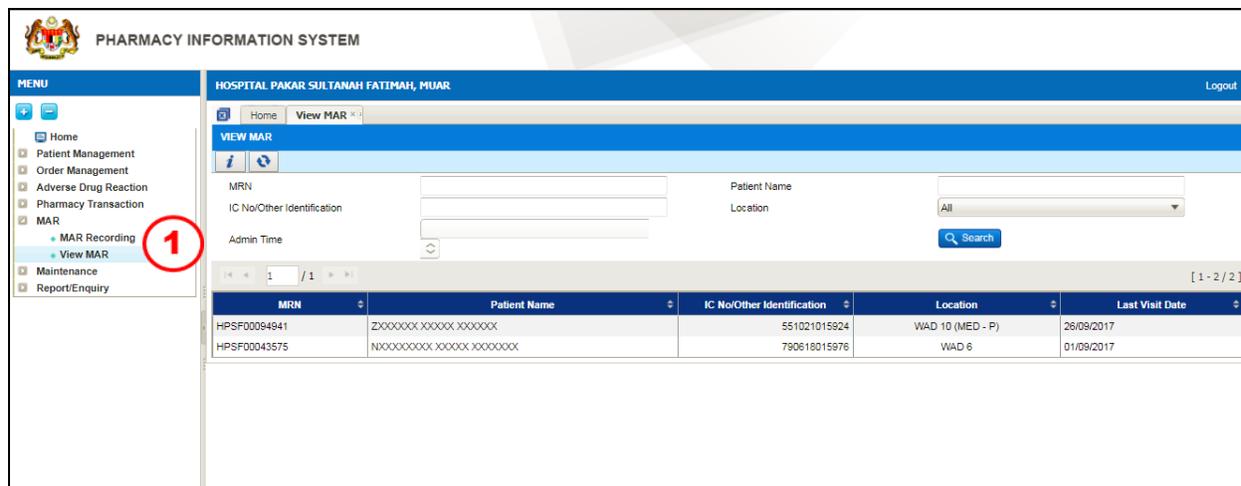


Figure 3.1.5-1 MAR Menu

#### STEP 1

Click on the MAR menu then click on the MAR Recording sub menu

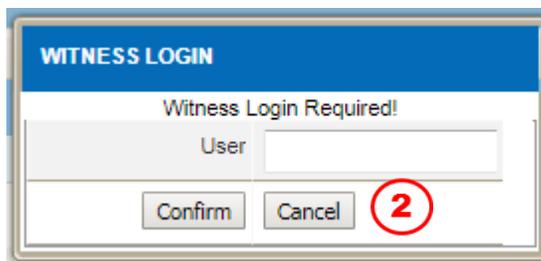


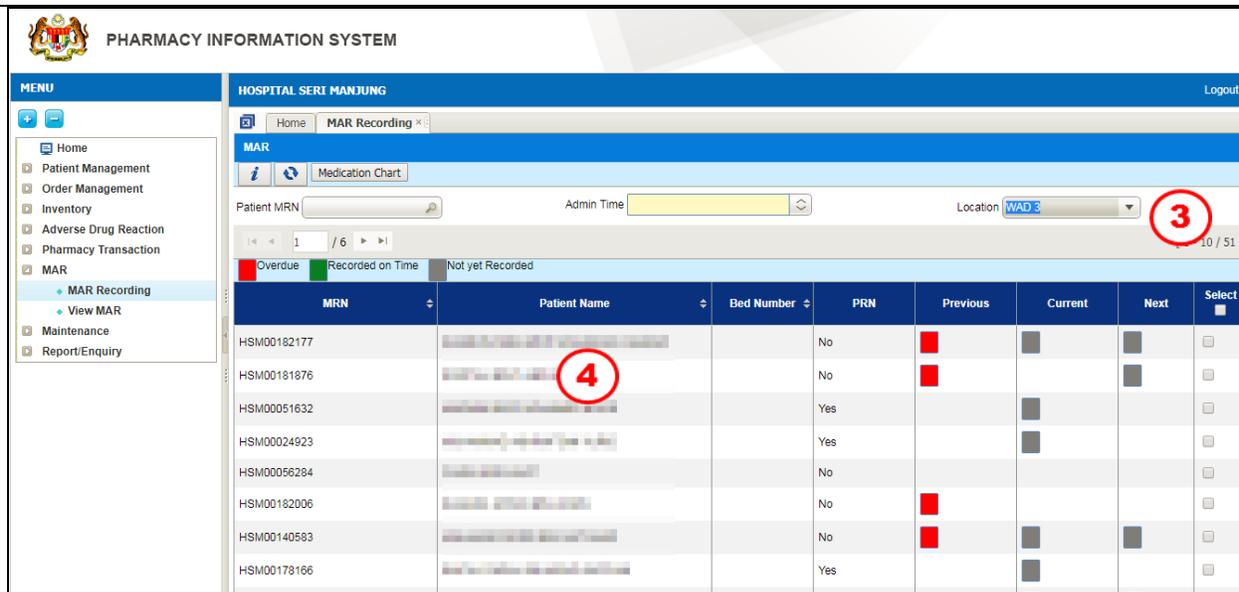
Figure 3.1.5-2 Witness Login

#### STEP 2

Enter User ID in Witness Login Dialog Box screen and click confirm

#### Note

- Witness must have system access login.
- Witness must be different with user login.
- Witness shall be from the same discipline and the grade of Jururawat must be U29 and above.
- Infusion drug will be available after pharmacist do the dispensing.
- Drug which are displayed at infusion Panel will be with 'INF' Intravenous Infusion or 'INSB' Intravenous Slow Bolus admin route.
- There is no STAT or PRN dose for Infusion drug
- Witness does not require to login for every patient.



**PHARMACY INFORMATION SYSTEM**

**HOSPITAL SERI MANJUNG** Logout

Home MAR Recording x

MAR

Medication Chart

Patient MRN Admin Time Location **WAD** **3**

1 / 6 10 / 51

Overdue Recorded on Time Not yet Recorded

MRN	Patient Name	Bed Number	PRN	Previous	Current	Next	Select
HSM00182177	<b>4</b>		No	■	■	■	<input type="checkbox"/>
HSM00181876			No	■		■	<input type="checkbox"/>
HSM00051632			Yes		■		<input type="checkbox"/>
HSM00024923			Yes		■		<input type="checkbox"/>
HSM00056284			No				<input type="checkbox"/>
HSM00182006			No	■			<input type="checkbox"/>
HSM00140593			No	■	■	■	<input type="checkbox"/>
HSM00178166			Yes		■		<input type="checkbox"/>

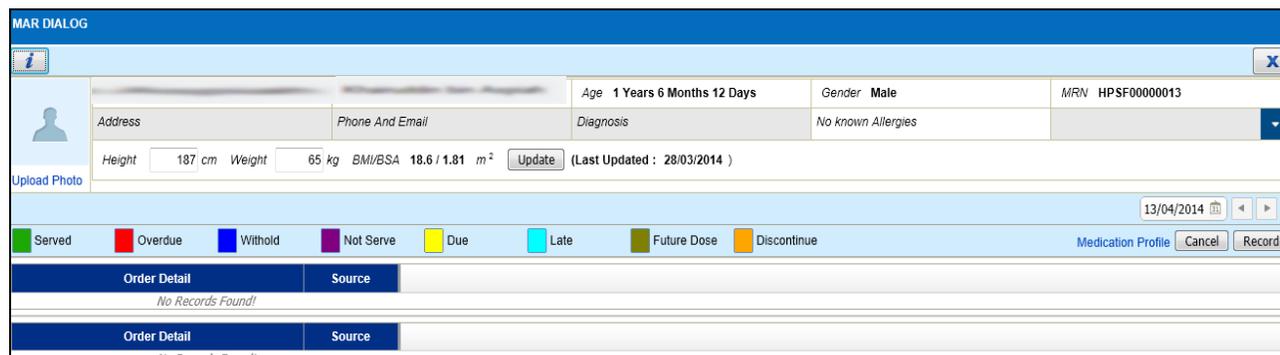
Figure 3.1.5-3 MAR Listing Page

**STEP 3**

Select location from drop box

**STEP 4**

Click on the selected patient name and system will display as Figure 3.1.5-4



**MAR DIALOG**

Address Phone And Email Age 1 Years 6 Months 12 Days Gender Male MRN HPSF00000013

Diagnosis No known Allergies

Height 187 cm Weight 65 kg BMI/BSA 18.6 / 1.81 m<sup>2</sup> Update (Last Updated : 28/03/2014)

Upload Photo

13/04/2014

Served Overdue Withhold Not Serve Due Late Future Dose Discontinue Medication Profile Cancel Record

Order Detail Source

No Records Found!

Order Detail Source

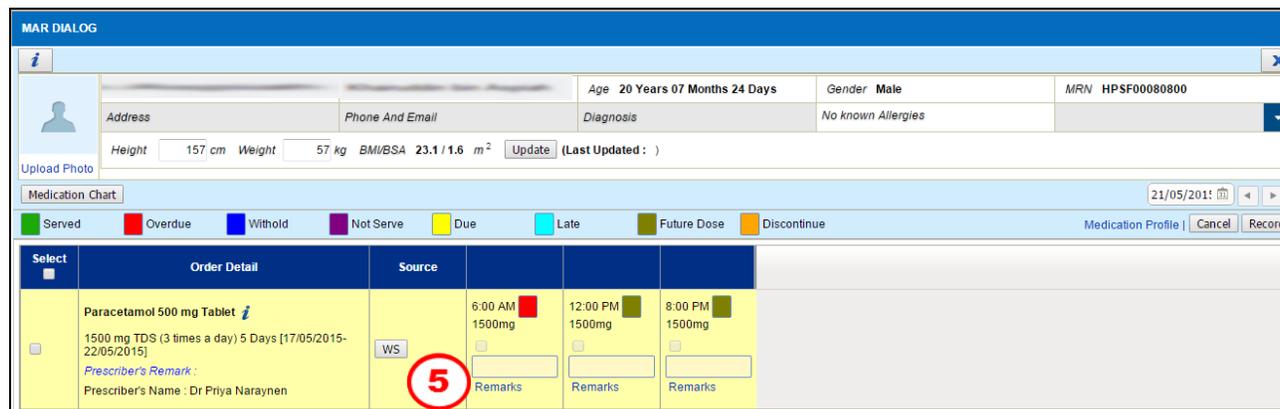
No Records Found!

Figure 3.1.5-4 MAR Patient Screen

**Note**

- Screen will display two (2) panel functions:
  - Non-Infusion
  - Infusion
- Administration status:
  - Due - Administration recorded
  - Overdue - Record 'Not Administered' checkbox
  - Served- Record the administration within time range
  - Late - Has not record the administration within time range
  - Withhold - Hold by doctors or pharmacist
  - Future Dose - Has not reach the schedule time
  - Not Serve - Did not Serve

h) *Discontinue - Discontinued by doctor*



**MAR DIALOG**

Age 20 Years 07 Months 24 Days    Gender Male    MRN HPSF00080800

Address    Phone And Email    Diagnosis    No known Allergies

Height 157 cm    Weight 57 kg    BMI/BSA 23.1 / 1.6 m<sup>2</sup>    Update (Last Updated : )

Medication Chart    21/05/2015

Served   
 Overdue   
 Withhold   
 Not Serve   
 Due   
 Late   
 Future Dose   
 Discontinue

Select	Order Detail	Source	6:00 AM	12:00 PM	8:00 PM
<input type="checkbox"/>	<b>Paracetamol 500 mg Tablet</b> 1500 mg TDS (3 times a day) 5 Days [17/05/2015-22/05/2015] Prescriber's Remark: Prescriber's Name : Dr Priya Naraynen	WS	<input type="checkbox"/> 1500mg Remarks	<input type="checkbox"/> 1500mg Remarks	<input type="checkbox"/> 1500mg Remarks

Figure 3.1.5-5 Remarks

**STEP 5**

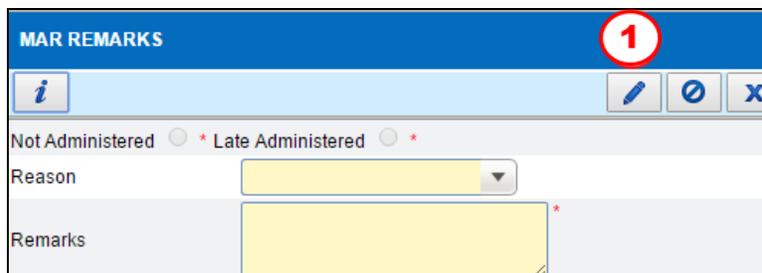
To record the late administration or not administered, click on **Remarks** and system will display as Figure 3.1.5-6(a)

**Note**

Remarks can be entered if:

- Drug status is Active.
- Time range is reaching and exceeding of Administration time

**LATE ADMINISTERED**



**MAR REMARKS**

Not Administered  \* Late Administered  \*

Reason

Remarks

Figure 3.1.5-6(a) MAR Remarks

**STEP 1**

Click on  button to edit or add the new remarks

Figure 3.1.5-6(b) MAR Remarks

**STEP 2**

Click on the **Late Administered** radio button

**STEP 3**

Chose one reason from the drop down box:

- Allergy
- Change Drug
- Hemodialysis
- Medication/Drug With Hold
- Nil By Mouth
- Nil In Stock
- No IV Access
- Not In Bed
- Others
- Patient Discharge
- Refused

**STEP 4**

Enter the remarks

**STEP 5**

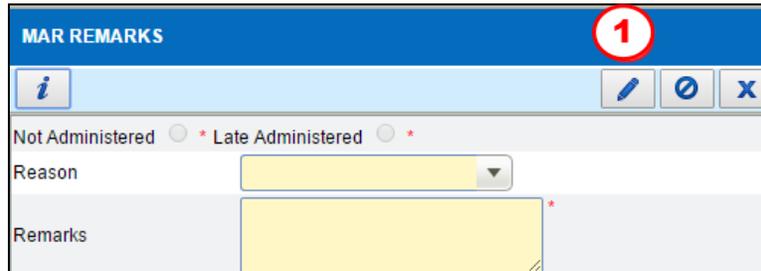
Click on save  button to save record

Figure 3.1.5-7 MAR Late

**Note**

- Checkbox will be available for drug with yellow colour box (due status)
- When step 5 is performed, the box will turn to cyan colour (late status)

**NOT ADMINISTERED**

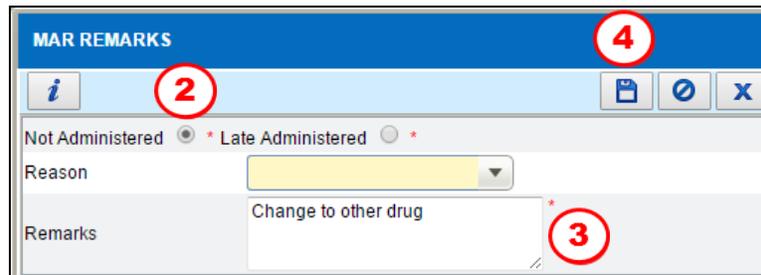


The screenshot shows a form titled "MAR REMARKS" with a blue header. A red circle with the number "1" is placed over the top right corner of the form. Below the header is a light blue bar containing an information icon (i), an edit icon (pencil), a refresh icon (circular arrow), and a close icon (X). Below this bar are two radio buttons: "Not Administered" (which is selected) and "\* Late Administered" (which is not selected). Below the radio buttons is a "Reason" field with a yellow background and a dropdown arrow. Below the "Reason" field is a "Remarks" field with a yellow background and a red asterisk on the right side.

Figure 3.1.5-8 MAR Remarks

**STEP 1**

Click on  button to edit or add the new remarks



The screenshot shows the same "MAR REMARKS" form as in Figure 3.1.5-8. A red circle with the number "2" is placed over the edit icon (pencil) in the light blue bar. A red circle with the number "4" is placed over the top right corner of the form. The "Reason" field now contains the text "Change to other drug". A red circle with the number "3" is placed over the save icon (floppy disk) in the light blue bar. The "Remarks" field is empty.

Figure 3.1.5-9 MAR Not Administered

**STEP 2**

Click on the **Not Administered** radio button

**STEP 3**

Enter the remarks

**STEP 4**

Click on save  button to save record

**MAR DIALOG**

Address: \_\_\_\_\_ Age: 20 Years 07 Months 24 Days Gender: Male MRN: HPSF00080800  
 Phone And Email: \_\_\_\_\_ Diagnosis: \_\_\_\_\_ No known Allergies: \_\_\_\_\_  
 Height: 157 cm Weight: 57 kg BMI/BSA: 23.1 / 1.6 m<sup>2</sup>  (Last Updated: )

Medication Chart: 21/05/2015:

Served  Overdue  Withhold  Not Serve  Due  Late  Future Dose  Discontinue

Select	Order Detail	Source	6:00 AM	12:00 PM	8:00 PM
<input type="checkbox"/>	Paracetamol 500 mg Tablet  1500 mg TDS (3 times a day) 5 Days [17/05/2015-22/05/2015] <i>Prescriber's Remark:</i> Prescriber's Name: Dr Priva Naraynen	<input type="button" value="WS"/>	<input type="checkbox"/> 1500mg <input type="text" value="10:38 AM"/> <i>Remarks</i>	<input type="checkbox"/> 1500mg <input type="text" value=""/> <i>Remarks</i>	<input type="checkbox"/> 1500mg <input type="text" value=""/> <i>Remarks</i>

Figure 3.1.5-10 MAR Not Administered

## 4.0 Acronyms

Abbreviation	Definition
PhIS	Pharmacy Information System
CPS	Clinical Pharmacy System
MRN	Medical Registration Number
MAR	Medication Administration Report
MOH	Ministry of Health

## 5.0 Links to Clinical Modules

No	Module	PDF Links	No	Module	PDF Links
1	<i>Inpatient</i>	<a href="#">Click Here</a>	12	<i>CDR Dispensing</i>	<a href="#">Click Here</a>
2	<i>CDR Order</i>	<a href="#">Click Here</a>	13	<i>Methadone Dispensing</i>	<a href="#">Click Here</a>
3	<i>TDM Order</i>	<a href="#">Click Here</a>	14	<i>PN Dispensing</i>	<a href="#">Click Here</a>
4	<i>PN Order</i>	<a href="#">Click Here</a>	15	<i>Order Management</i>	<a href="#">Click Here</a>
5	<i>IV Order</i>	<a href="#">Click Here</a>	16	<i>Patient Management</i>	<a href="#">Click Here</a>
6	<i>Prepacking</i>	<a href="#">Click Here</a>	17	<i>Radiopharmaceutical</i>	<a href="#">Click Here</a>
7	<i>Galenical</i>	<a href="#">Click Here</a>	18	<i>Outpatient</i>	<a href="#">Click Here</a>
8	<i>MTAC</i>	<a href="#">Click Here</a>	19	<i>Special Drug Request</i>	<a href="#">Click Here</a>
9	<i>ADR &amp; DAC</i>	<a href="#">Click Here</a>	20	<i>MAR</i>	<a href="#">Click Here</a>
10	<i>Medication Counselling</i>	<a href="#">Click Here</a>	21	<i>DICE</i>	<a href="#">Click Here</a>
11	<i>Ward Pharmacy</i>	<a href="#">Click Here</a>	22		