

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

Full Based

User Manual Medication Administration Record (MAR)

Version	: 10th EDITION
Document ID	: FB_U. MANUAL_MAR



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Application reference: PhIS & CPS v2.1 & v2.2

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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		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"/>			

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

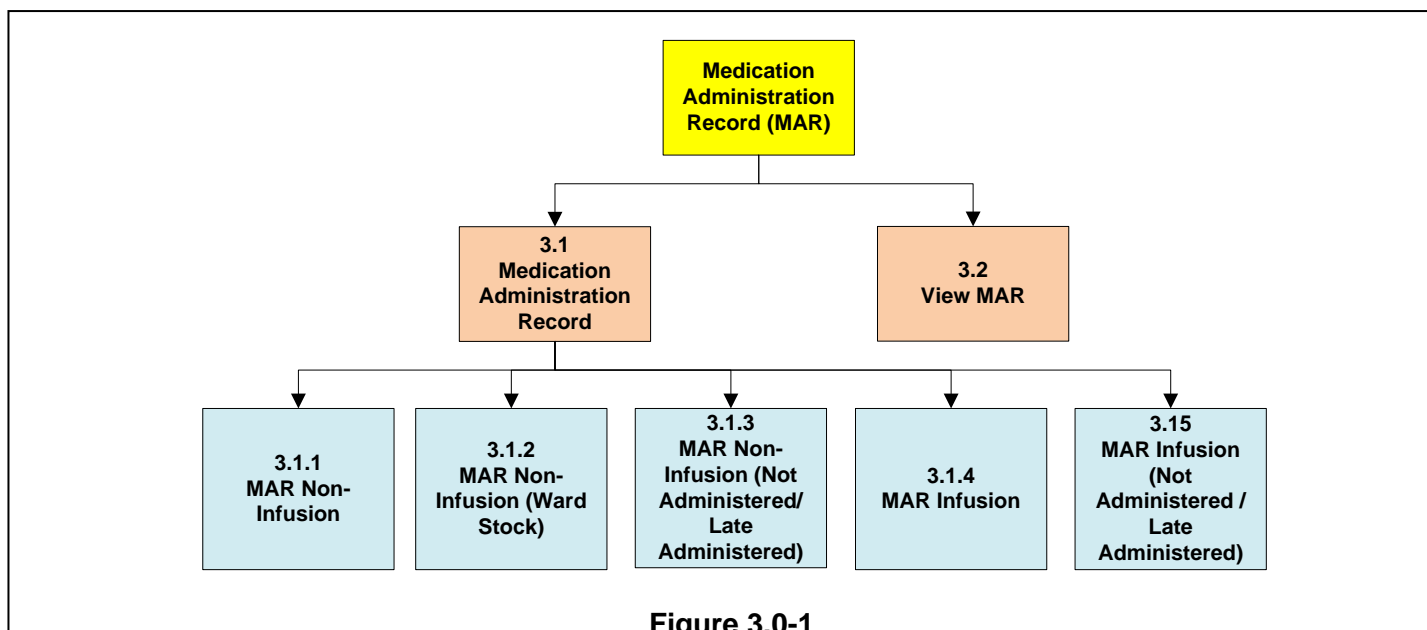


Figure 3.0-1

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 one (1) hour before and one (1) hour after. If the time recorded 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)

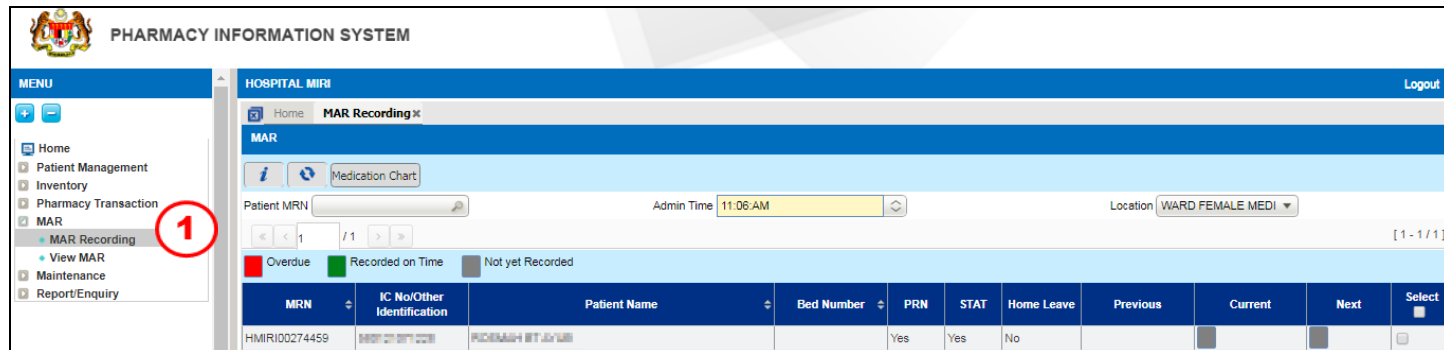


Figure 3.1.1-1 MAR Listing Page

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

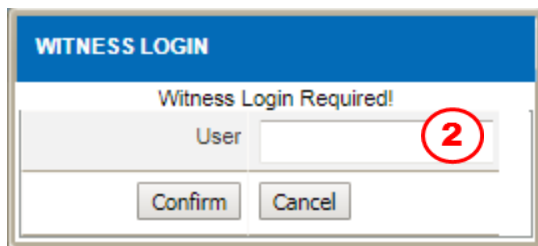


Figure 3.1.1-2 Witness Login

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 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.

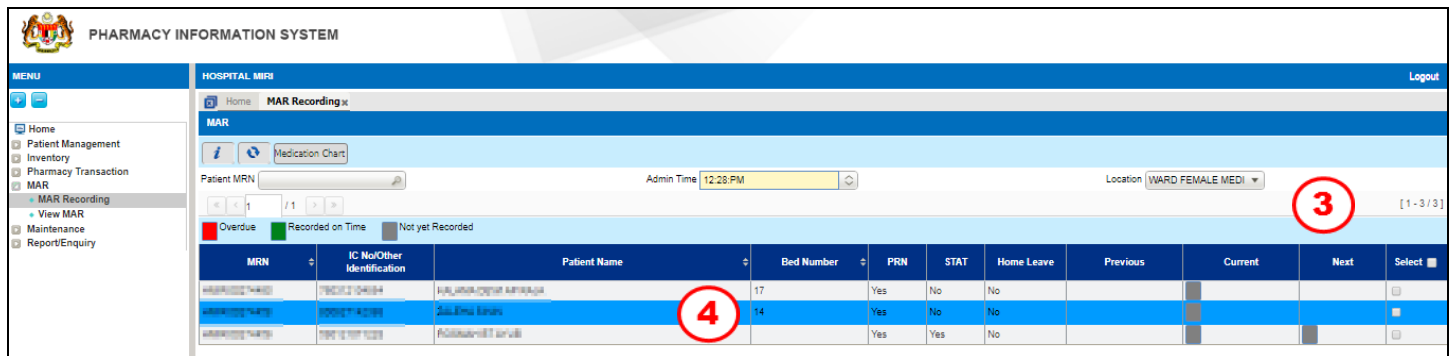


Figure 3.1.1-3 MAR Listing Page

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

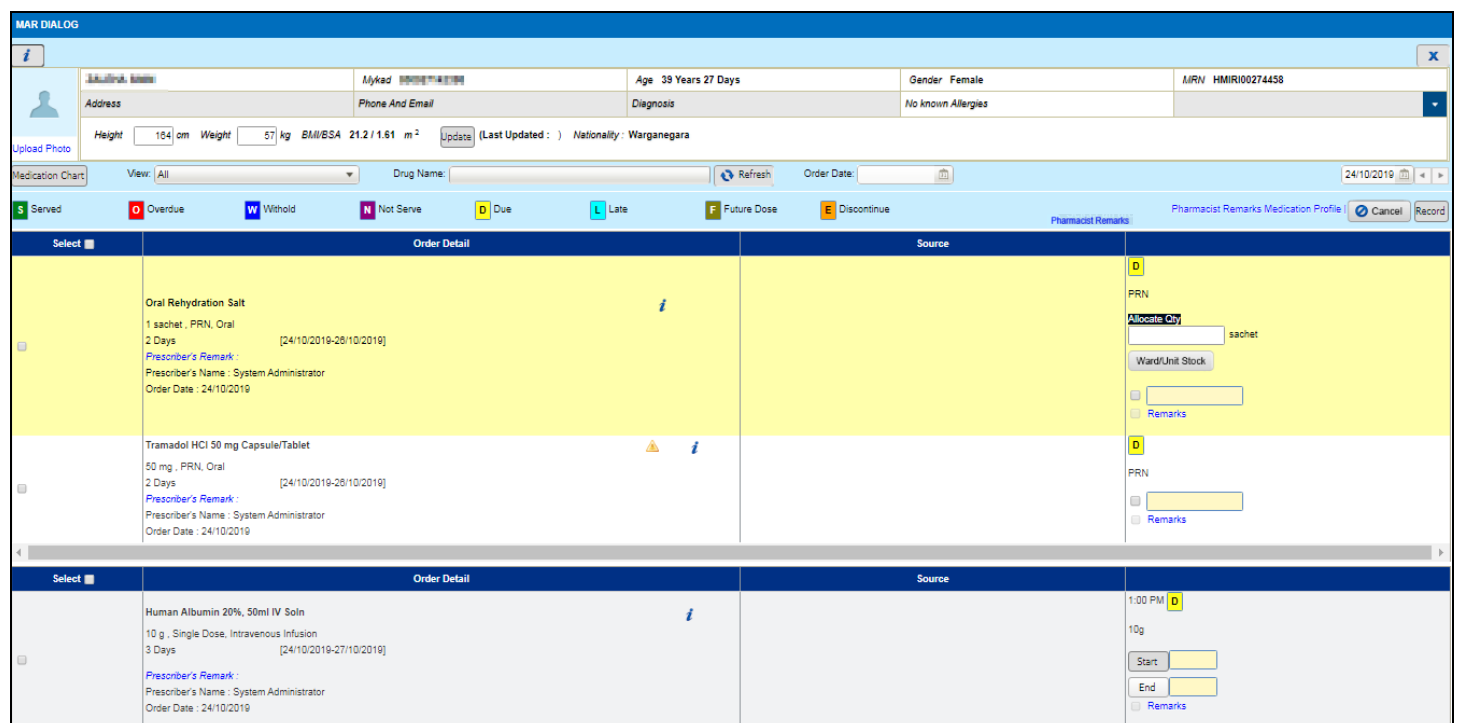


Figure 3.1.1-4 MAR Patient Screen

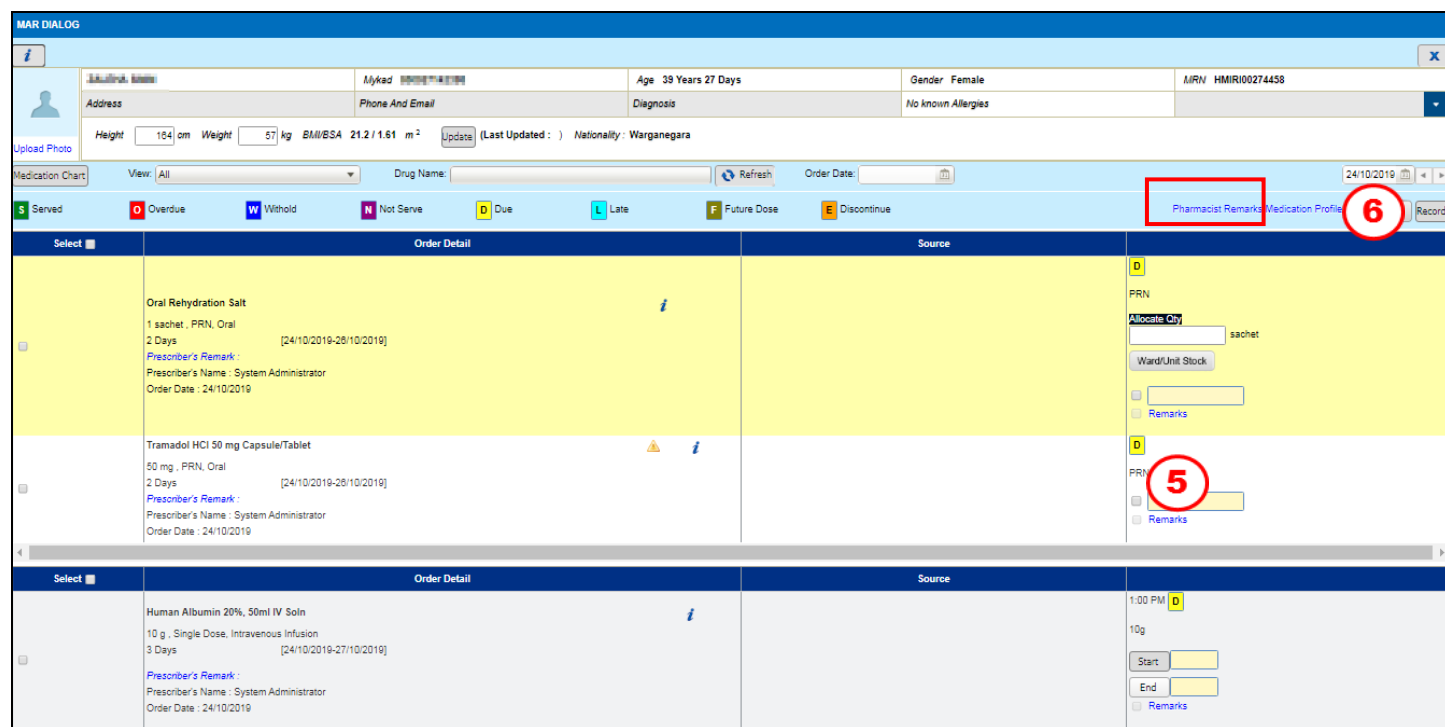
Note

Screen will display these two (2) panel functions:

- Non-Infusion
- Infusion

Administration status:

- Due – Record within administration time range
- Overdue - Record the administration after time range
- Served- Record the administration within time range
- Late - Record the administration late
- Withhold - Hold by doctors or pharmacist
- Future Dose - Has not reach the schedule time
- Not Serve - Did Not Serve
- Discontinue - Discontinued by doctor



MAR DIALOG

Upload Photo

Medication Chart View: All Drug Name: Refresh Order Date: 24/10/2019

Served Overdue Withhold Not Serve Due Late Future Dose Discontinue Pharmacist Remarks/Medication Profile Record

Select	Order Detail	Source	
<input type="checkbox"/>	Oral Rehydration Salt 1 sachet, PRN, Oral 2 Days [24/10/2019-26/10/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 24/10/2019		D PRN Allocate Qty: sachet Ward/Unit Stock Remarks
<input type="checkbox"/>	Tramadol HCl 50 mg Capsule/Tablet 50 mg, PRN, Oral 2 Days [24/10/2019-26/10/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 24/10/2019		D PRN Remarks
<input type="checkbox"/>	Human Albumin 20%, 50ml IV Soln 10 g, Single Dose, Intravenous Infusion 3 Days [24/10/2019-27/10/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 24/10/2019		1:00 PM D 10g Start End Remarks

Figure 3.1.1-5 Patient Medication List

STEP 5

Click on the ☒ checkbox to select the drug with yellow colour box (due status)

Note

- Allow to select the drugs to serve if its show yellow colour box (due status)
- Allow to select multiple drugs to serve one time.
- User able to see the remark by click Pharmacist Remark hyperlink ad it will display as in Figure 3.1.1-6. However, this remark records are shown by patient and not by specific drugs.

PHARMACIST REMARK						
Prescription No	Original Prescription No	Drug Name	Pharmacist Remarks	Stage	Date Time	Pharmacist Name
FMW0000954254		Amlodipine 5 mg Tablet	Drug authorisation approved	Dispensing	31/10/2019 06:01:51 PM	
FMW0000954254		Paracetamol 500 mg Tablet	Drug authorisation is required	Verification	31/10/2019 06:00:28 PM	System Administrator
FMW0000954254		Amlodipine 5 mg Tablet	Drug authorisation is required	Verification	31/10/2019 06:00:12 PM	
FMW0000954254		Amikacin 250mg/2ml Injection	Patient need Counselling	Verification	31/10/2019 05:59:55 PM	
FMW0000954256		Thymol Compound Gargle	Drug authorisation is required	Verification	31/10/2019 05:57:03 PM	

Figure 3.1.1-6 Pharmacist Remark

STEP 6

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

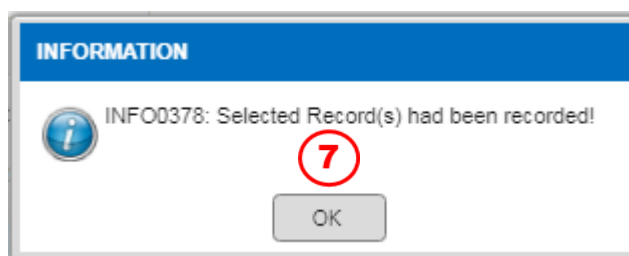


Figure 3.1.1-7 Information Alert Message

STEP 7

Click on the  button to confirm record

MAR DIALOG

Myked Age 38 Years 27 Days Gender Female MRN HMIR00274458

Address Phone And Email Diagnosis No known Allergies

Height 164 cm Weight 57 kg BMI/BSA 21.2 / 1.61 m² (Last Updated :) Nationality : Warganegara

Upload Photo

Medication Chart View: All Drug Name: Refresh Order Date: 24/10/2019

☒ Served ☐ Overdue ☐ Withhold ☐ Not Serve ☐ Due ☐ Late ☐ Future Dose ☐ Discontinue Pharmacist Remarks Medication Profile

Select	Order Detail	Source
<input type="checkbox"/>	<p>Oral Rehydration Salt</p> <p>1 sachet , PRN, Oral</p> <p>2 Days [24/10/2019-26/10/2019]</p> <p><i>Prescriber's Remark :</i></p> <p>Prescriber's Name : System Administrator</p> <p>Order Date : 24/10/2019</p>	<p>Details</p> <p>Oral Rehydration Salt</p> <p>P 1 sachet PRN 2 Days</p> <p>A Dose Administered: 1sachet</p> <p>Scheduled Administration Start: 24/10/2019 12:22 PM</p> <p>Actual Administration Start:</p> <p>Scheduled Administration End:</p> <p>Actual Administration End:</p> <p>Administered By:</p> <p>Remarks:</p> <p>Witness:</p> <p>P Discontinue Dr:</p> <p>Discontinue Time:</p> <p>Withhold By:</p>
<input type="checkbox"/>	<p>Tramadol HCl 50 mg Capsule/Tablet</p> <p>50 mg , PRN, Oral</p> <p>2 Days [24/10/2019-26/10/2019]</p> <p><i>Prescriber's Remark :</i></p> <p>Prescriber's Name : System Administrator</p> <p>Order Date : 24/10/2019</p>	
<input type="checkbox"/>	<p>Human Albumin 20%, 50ml IV Soln</p> <p>10 g , Single Dose, Intravenous Infusion</p> <p>3 Days [24/10/2019-27/10/2019]</p> <p><i>Prescriber's Remark :</i></p> <p>Prescriber's Name : System Administrator</p> <p>Order Date : 24/10/2019</p>	<p>1:00 PM D</p> <p>10g</p> <p>Start: <input type="text"/></p> <p>End: <input type="text"/></p> <p><input type="checkbox"/> Remarks</p>

Figure 3.1.1-8 MAR – Drug Dose Detail

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 drug dose details by mouse over on the status box as shown in figure 3.1.1-8
- Different color highlighted for each drug rows as shown in Figure 3.1.1-8 have different meaning.
- User can enter remarks to update as not administered (not serve) for the drug with status due (D)

Served	Overdue	Withhold	Not Serve	Due	Late	Future Dose	Discontinue	Pharmacist Remarks Medication Profile	Cancel	Record
Select	Order Detail				Source					
<input type="checkbox"/>	Oral Rehydration Salt 1 sachet, PRN, Oral 5 Days [30/10/2019-04/11/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 30/10/2019						D PRN Allocate Qty <input type="text"/> sachet Ward/Unit Stock <input type="text"/> <input type="checkbox"/> Remarks			
<input type="checkbox"/>	Salbutamol 2 mg Tablet 2 mg, TDS (3 times a day), Oral 5 Days [30/10/2019-04/11/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 30/10/2019				Own Medication		5:00 PM F 2mg <input type="checkbox"/> <input type="text"/> <input type="checkbox"/> Remarks			
<input type="checkbox"/>	Tramadol HCl 50 mg Capsule/Tablet 50 mg, PRN, Oral 5 Days [30/10/2019-04/11/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 30/10/2019 Paracetamol 500mg-Folic 500mg-Vit C 61-82-83-88-812-Co-Panethenone-Tablet						D PRN <input type="checkbox"/> <input type="text"/> <input type="checkbox"/> Remarks			
<input type="checkbox"/>	1 tablet, STAT, Oral 1 Days [30/10/2019-31/10/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 30/10/2019						E STAT <input type="checkbox"/> <input type="text"/> <input type="checkbox"/> Remarks			
<input type="checkbox"/>	Paracetamol 500 mg-Tablet 1000 mg, TDS (3 times a day), Oral 5 Days [30/10/2019-04/11/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 30/10/2019						12:28 PM E 1000mg Allocate Qty <input type="text"/> tablet Ward/Unit Stock <input type="text"/> <input type="checkbox"/> Remarks			
							5:00 PM E 1000mg Allocate Qty <input type="text"/> tablet Ward/Unit Stock <input type="text"/> <input type="checkbox"/> Remarks			

Figure 3.1.1-9 MAR – Patient Medication List

- White/Gray for normal, IV, PN order as shown in Figure 3.1.1-10

<input type="checkbox"/>	Tramadol HCl 50 mg Capsule/Tablet 50 mg, PRN, Oral 2 Days [24/10/2019-26/10/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 24/10/2019		D PRN <input type="checkbox"/> <input type="text"/> <input type="checkbox"/> Remarks
Select	Order Detail	Source	
<input type="checkbox"/>	Human Albumin 20%, 50ml IV Soln 10 g, Single Dose, Intravenous Infusion 3 Days [24/10/2019-27/10/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 24/10/2019		1:00 PM D 10g <input type="text"/> Start <input type="text"/> <input type="text"/> End <input type="text"/> <input type="checkbox"/> Remarks

Figure 3.1.1-10 MAR – Order Detail List

- Light purple for CDR order as shown in Figure 3.1.1-11

Select	Order Detail	Source	
<input type="checkbox"/>	Cytarabine 100mg/1ml Injection 152 mg, OD (once daily), Intravenous Slow Bolus Day: 1,2,3,4,5 [30/10/2019-04/11/2019] <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 30/10/2019		8:00 AM O 152mg <input type="text"/> Start <input type="text"/> <input type="text"/> End <input type="text"/> <input type="checkbox"/> Remarks
<input type="checkbox"/>	Etoposide 100mg/3ml Injection 152 mg, OD (once daily), Intravenous Infusion Day: 1,2,3,4,5 [30/10/2019-04/11/2019] Diluent : Sodium Chloride 0.9% 500mL IV soln [Vol: 192ml] Infuse Over : 4 Hour 0 Min Infusion Rate : 0.83ml/Min <i>Prescriber's Remark:</i> Prescriber's Name : System Administrator Order Date : 30/10/2019		8:00 AM O 152mg <input type="text"/> Start <input type="text"/> <input type="text"/> End <input type="text"/> <input type="checkbox"/> Remarks

Figure 3.1.1-11 MAR – CDR Order Detail

- Yellow for ward stock drug shown in Figure 3.1.1-12

Select	Order Detail	Source	
<input type="checkbox"/>	<p>Oral Rehydration Salt</p> <p>1 sachet , PRN, Oral</p> <p>5 Days [30/10/2019-04/11/2019]</p> <p>Prescriber's Remark :</p> <p>Prescriber's Name : System Administrator</p> <p>Order Date : 30/10/2019</p>		<p>D</p> <p>PRN</p> <p>Allocate Qty</p> <p><input type="text"/> sachet</p> <p>Ward/Unit Stock</p> <p><input type="text"/></p> <p><input type="checkbox"/> Remarks</p>

Figure 3.1.1-12 MAR – Ward Stock Order Detail

- Pink for own medication drug as shown in Figure 3.1.1-13

<input type="checkbox"/>	<p>Salbutamol 2 mg Tablet</p> <p>2 mg , TDS (3 times a day), Oral</p> <p>5 Days [30/10/2019-04/11/2019]</p> <p>Prescriber's Remark :</p> <p>Prescriber's Name : System Administrator</p> <p>Order Date : 30/10/2019</p>	Own Medication	<p>5:00 PM F</p> <p>2mg</p> <p><input type="text"/></p> <p><input type="checkbox"/> Remarks</p>
--------------------------	--	----------------	--

Figure 3.1.1-13 MAR – Own Medication Order Detail

- Red strike line refer as inactive drug, as shown in Figure 3.1.1-14

<input type="checkbox"/>	<p>Paracetamol 500mg Tablet</p> <p>1 tablet , STAT, Oral</p> <p>1 Days [30/10/2019-31/10/2019]</p> <p>Prescriber's Remark :</p> <p>Prescriber's Name : System Administrator</p> <p>Order Date : 30/10/2019</p>		<p>E</p> <p>STAT</p> <p><input type="text"/></p> <p><input type="checkbox"/> Remarks</p>	
<input type="checkbox"/>	<p>Paracetamol 500 mg Tablet</p> <p>1000 mg , TDS (3 times a day), Oral</p> <p>5 Days [30/10/2019-04/11/2019]</p> <p>Prescriber's Remark :</p> <p>Prescriber's Name : System Administrator</p> <p>Order Date : 30/10/2019</p>		<p>12:26 PM E</p> <p>1000mg</p> <p>Allocate Qty</p> <p><input type="text"/> tablet</p> <p>Ward/Unit Stock</p> <p><input type="text"/></p> <p><input type="checkbox"/> Remarks</p>	<p>5:00 PM E</p> <p>1000mg</p> <p>Allocate Qty</p> <p><input type="text"/> tablet</p> <p>Ward/Unit Stock</p> <p><input type="text"/></p> <p><input type="checkbox"/> Remarks</p>

Figure 3.1.1-14 MAR – Inactive Drug Order Detail

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.

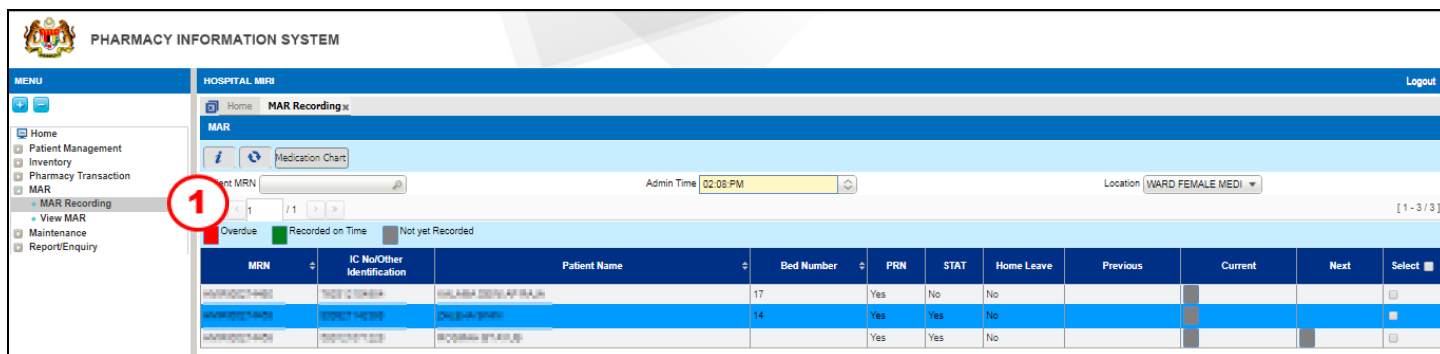


Figure 3.1.2-1 MAR Menu

STEP 1

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

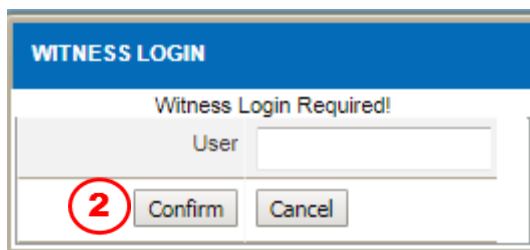


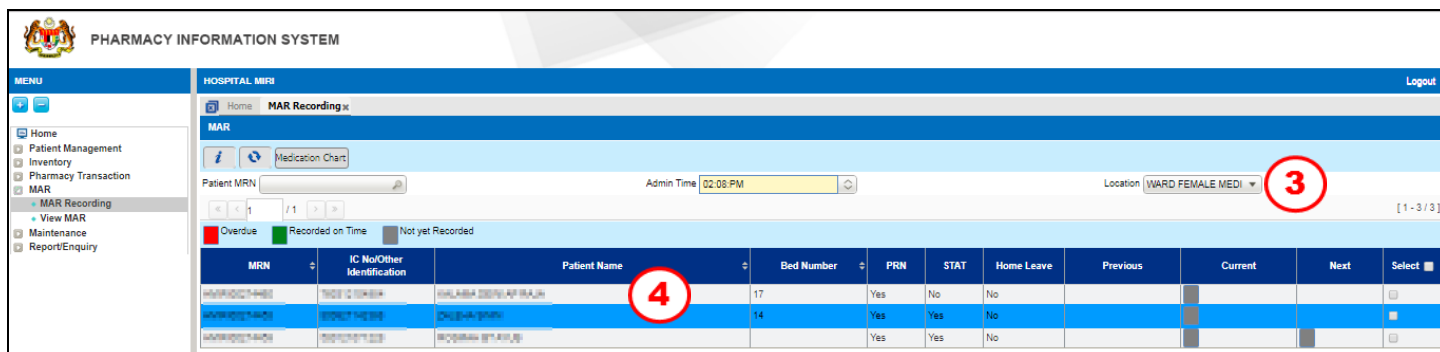
Figure 3.1.2-2 Witness Login

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.



PHARMACY INFORMATION SYSTEM

HOSPITAL MPB

MAR

Home | MAR Recording | Medication Chart

Patient MRN: [] Admin Time: 02:08 PM Location: WARD FEMALE MEDI [3]

Overdue Recorded on Time Not yet Recorded

MRN	IC No/Other Identification	Patient Name	Bed Number	PRN	STAT	Home Leave	Previous	Current	Next	Select
17		4	17	Yes	No	No				
14			14	Yes	Yes	No				
				Yes	Yes	No				

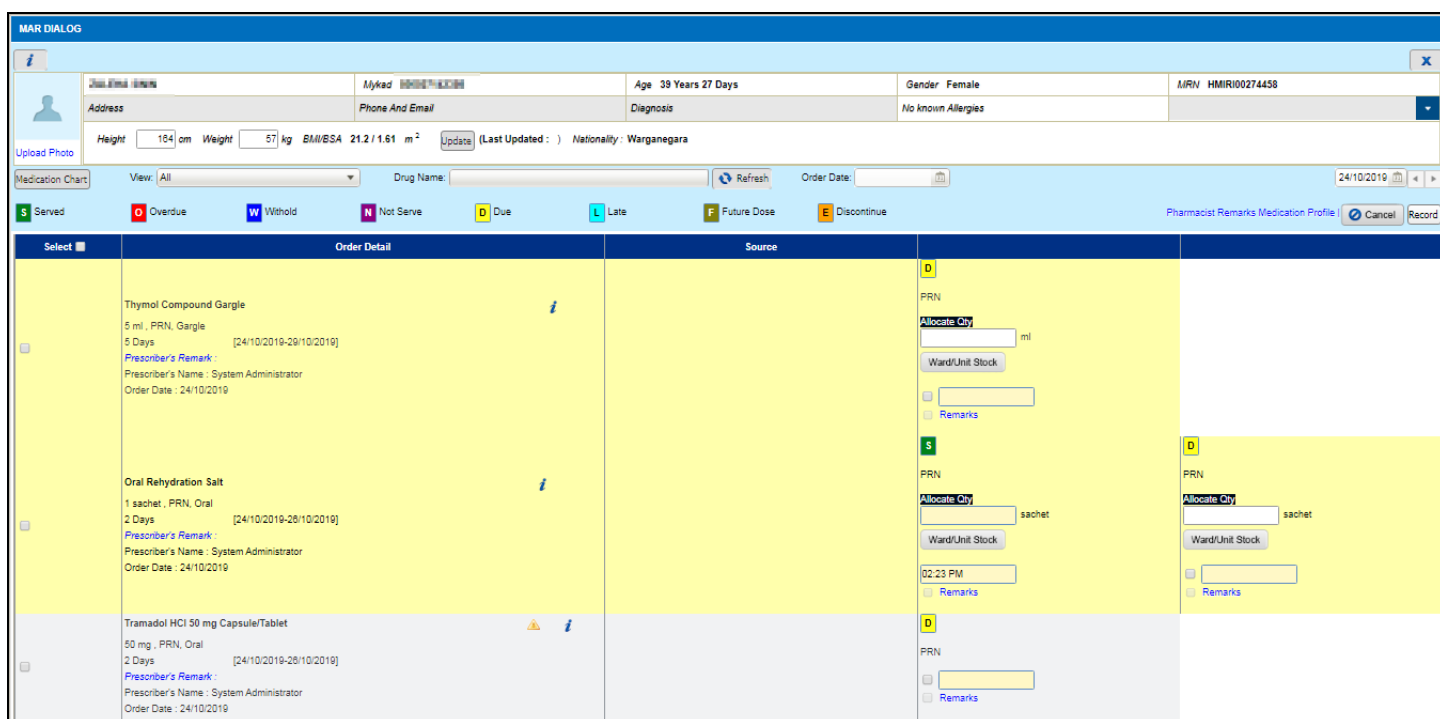
Figure 3.1.2-3 MAR Listing Page

STEP 3

Select location from drop box

STEP 4

Click on the selected patient name and system will display as Figure 3.1.2-4



MAR DIALOG

Mykad: [] Age: 39 Years 27 Days Gender: Female A/RN: HMIR00274458

Address: [] Phone And Email: [] Diagnosis: [] No known Allergies

Height: 154 cm Weight: 57 kg BMI/BSA: 21.2 / 1.51 m² Update (Last Updated:) Nationality: Warganegara

Medication Chart View: All Drug Name: [] Refresh Order Date: [] 24/10/2019

S Served O Overdue W Withhold N Not Serve D Due L Late F Future Dose E Discontinue Pharmacist Remarks Medication Profile Cancel Record

Select	Order Detail	Source
	Thymol Compound Gargle 5 ml, PRN, Gargle 5 Days [24/10/2019-28/10/2019] Prescriber's Remark: Prescriber's Name: System Administrator Order Date: 24/10/2019	D PRN Allocate City [] ml Ward/Unit Stock [] Remarks []
	Oral Rehydration Salt 1 sachet, PRN, Oral 2 Days [24/10/2019-28/10/2019] Prescriber's Remark: Prescriber's Name: System Administrator Order Date: 24/10/2019	S PRN Allocate City [] sachet Ward/Unit Stock [] 02:23 PM Remarks []
	Tramadol HCl 50 mg Capsule/Tablet 50 mg, PRN, Oral 2 Days [24/10/2019-28/10/2019] Prescriber's Remark: Prescriber's Name: System Administrator Order Date: 24/10/2019	D PRN Allocate City [] Remarks []

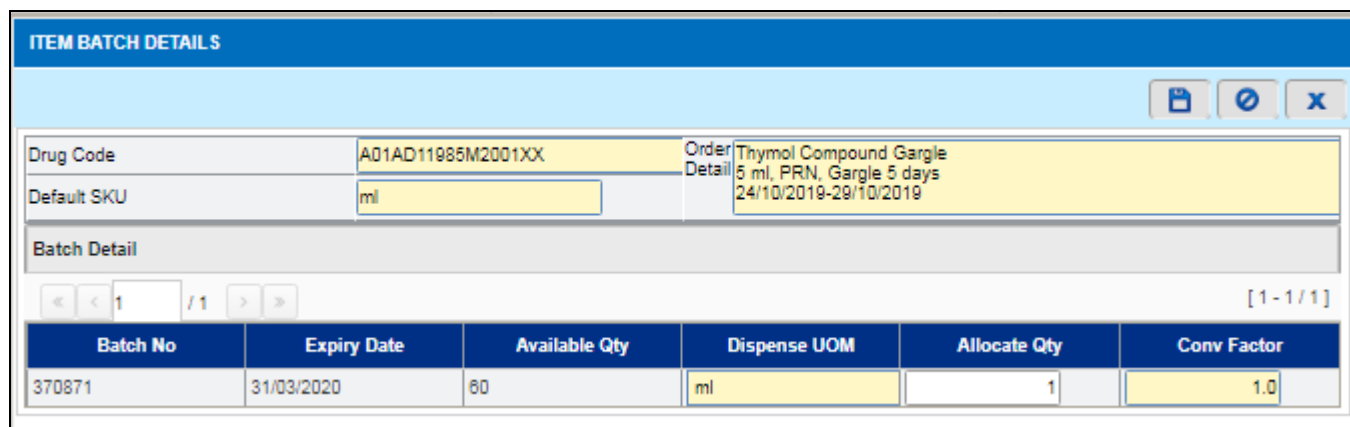
Figure 3.1.2-4 MAR Patient Screen

Note

- Screen will display two (2) panel functions:
 - Non-Infusion
 - Infusion
- Administration status:
 - Due – Record within administration time range
 - Overdue - Record the administration after time range
 - Served- Record the administration within time range
 - Late - Record the administration late

- 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*

- Click on **Ward/Unit Stock** button to allocate quantity and item batch details appear as per Figure 3.1.2-5
- **Ward/Unit Stock** button change to yellow colour refer as no stock available.



ITEM BATCH DETAILS


Drug Code: A01AD11985M2001XX Order Detail: Thymol Compound Gargle
 Default SKU: ml 5 ml, PRN, Gargle 5 days
 24/10/2019-29/10/2019

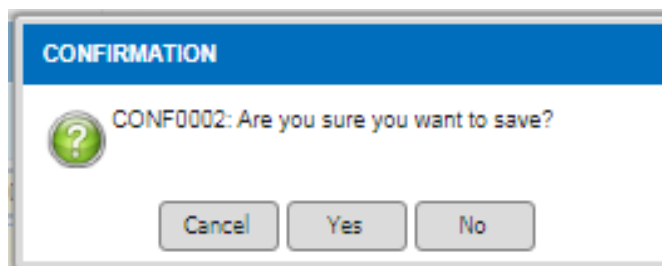
Batch Detail

< < 1 / 1 > > [1 - 1 / 1]

Batch No	Expiry Date	Available Qty	Dispense UOM	Allocate Qty	Conv Factor
370871	31/03/2020	60	ml	1	1.0

Figure 3.1.2-5 Drug Batch details

- Choose the batch no and insert the Allocate Qty field
- Batch nearest to expiration will be selected automatically and calculated for the drugs to be administered.
- Click on save  button to save record



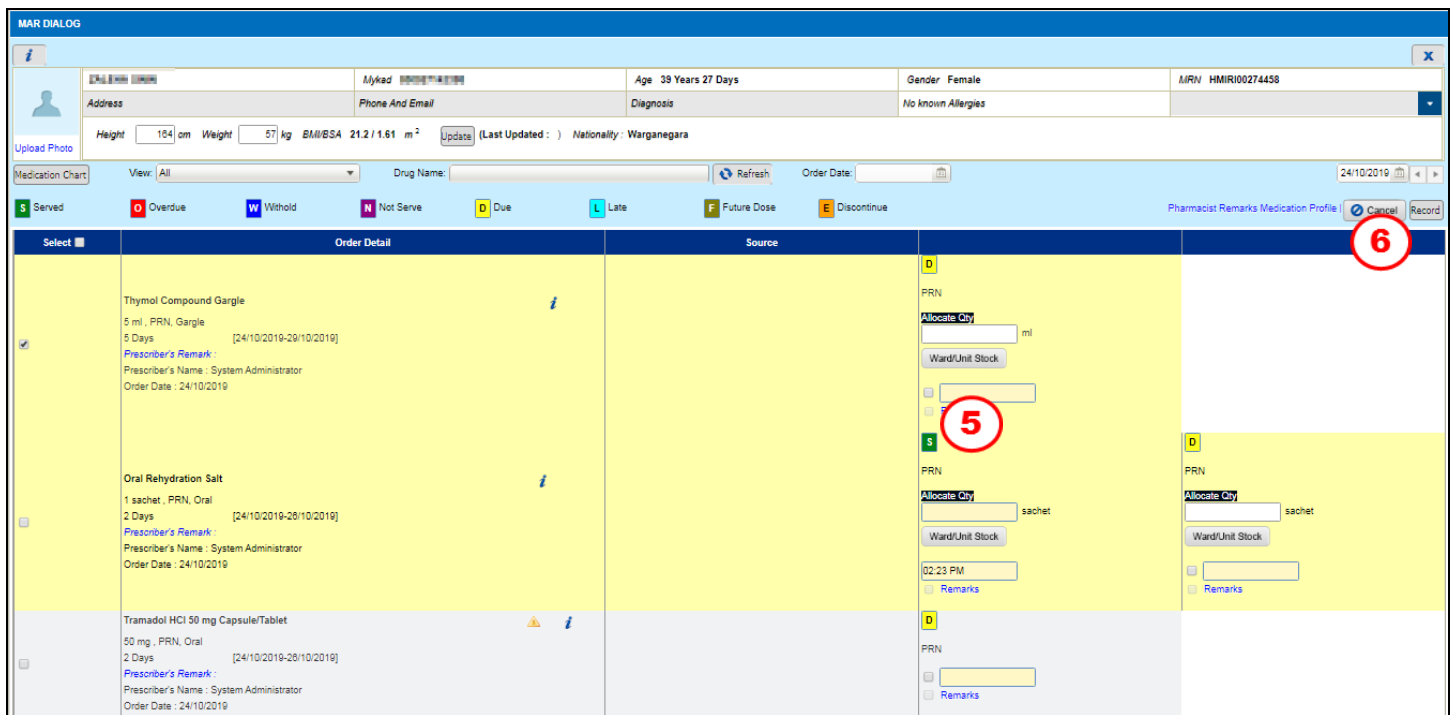
CONFIRMATION

CONF0002: Are you sure you want to save?

Cancel Yes No

Figure 3.1.2.6 Confirm Message

- Click on the **Yes** button to confirm record



MAR DIALOG

Mykad: [Mykad Number] Age: 38 Years 27 Days Gender: Female IIRN: HMIR00274458

Address: [Address] Phone And Email: [Phone And Email] Diagnosis: [Diagnosis] No known Allergies

Height: 164 cm Weight: 57 kg BMI/BSA: 21.2 / 1.61 m² Update (Last Updated:) Nationality: Warganegara

Medication Chart View: All Drug Name: Refresh Order Date: 24/10/2019

Buttons: S Served, O Overdue, W Withhold, N Not Serve, D Due, L Late, F Future Dose, E Discontinue, Pharmacist Remarks Medication Profile, Cancel, Record

Select	Order Detail	Source
<input checked="" type="checkbox"/>	Thymol Compound Gargle 5 ml, PRN, Gargle 5 Days [24/10/2019-29/10/2019] <i>Prescriber's Remark</i> Prescriber's Name: System Administrator Order Date: 24/10/2019	PRN Allocate Qty: [] ml Ward/Unit Stock: [] [5] S
<input type="checkbox"/>	Oral Rehydration Salt 1 sachet, PRN, Oral 2 Days [24/10/2019-26/10/2019] <i>Prescriber's Remark</i> Prescriber's Name: System Administrator Order Date: 24/10/2019	PRN Allocate Qty: [] sachet Ward/Unit Stock: [] 02:23 PM [] Remarks
<input type="checkbox"/>	Tramadol HCl 50 mg Capsule/Tablet 50 mg, PRN, Oral 2 Days [24/10/2019-26/10/2019] <i>Prescriber's Remark</i> Prescriber's Name: System Administrator Order Date: 24/10/2019	PRN [] Remarks

Figure 3.1.2-7 Patient Medication List

STEP 5

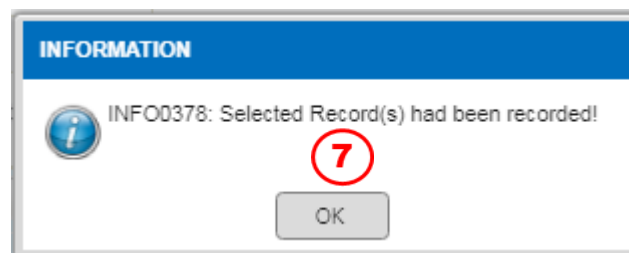
Click on the ☒ checkbox to select the drug with yellow colour box (due status)

Note

- Allow to select the drugs to serve if its show yellow colour box (due status)
- Allow to select multiple drugs to serve.
- Checkbox will be available for drug with yellow colour box (due status)
- User is allowed to select for multiple drugs to allocate quantity.
- User can enter remarks to update as not administered (not serve) for the drug with status due (D)

STEP 6

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



INFORMATION

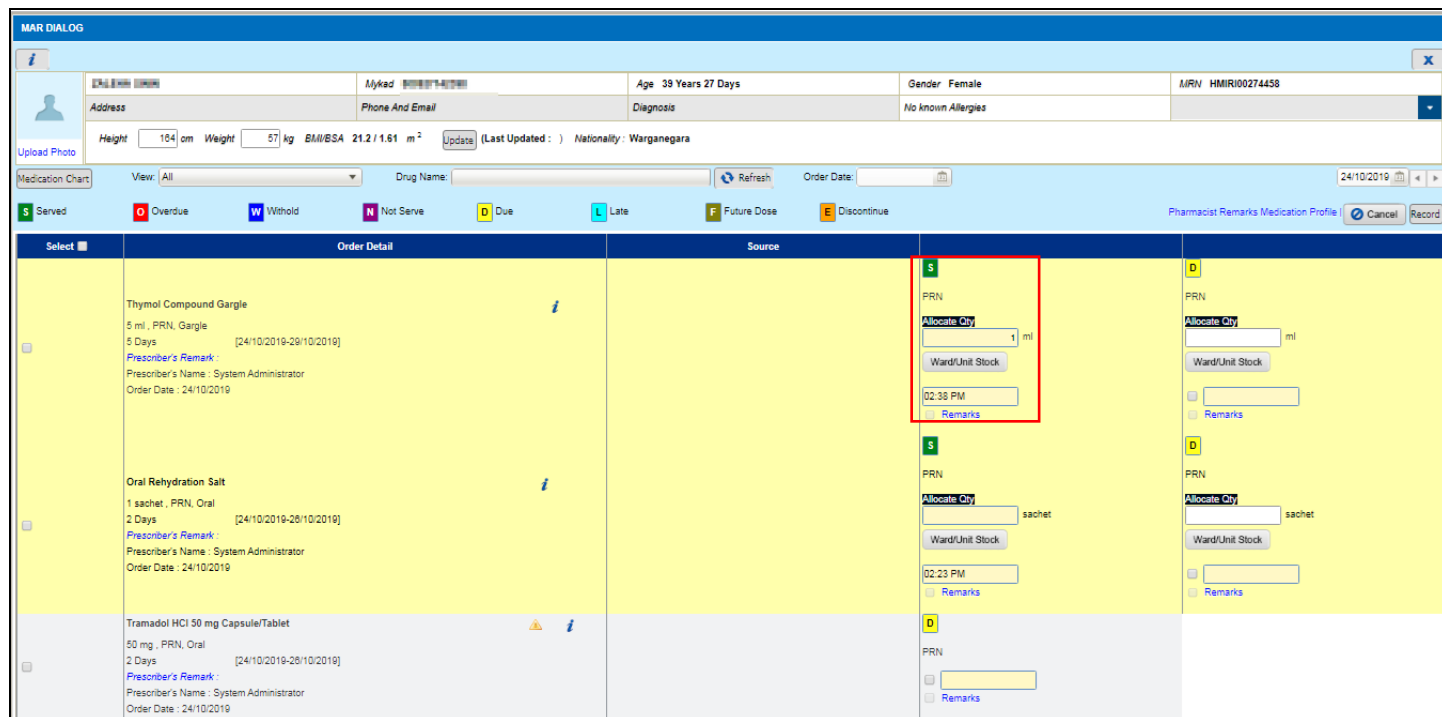
INFO0378: Selected Record(s) had been recorded!

[7] OK

Figure 3.1.2-8 Information Alert Message

STEP 7

Click on the  button to confirm record




MAR DIALOG

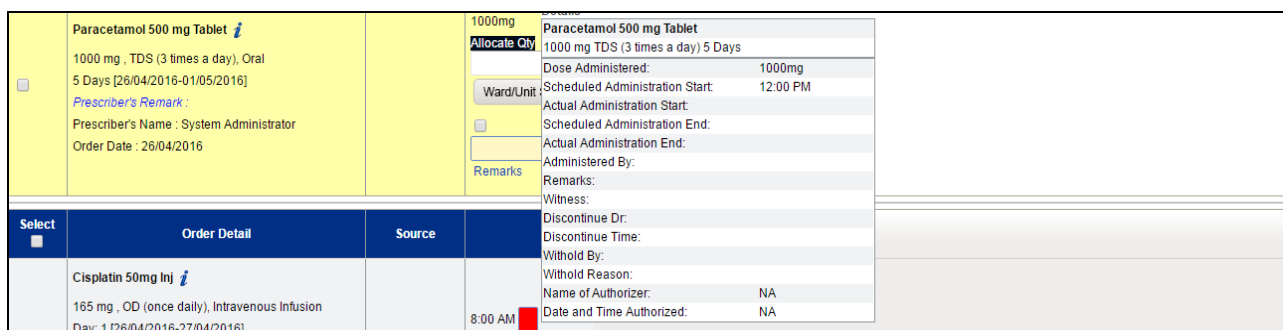
Patient Information:
 Mykad: [Mykad Number]
 Age: 39 Years 27 Days
 Gender: Female
 M/RN: HMIR00274458
 Address: [Address]
 Phone And Email: [Phone And Email]
 Diagnosis: [Diagnosis]
 No known Allergies
 Height: 164 cm Weight: 57 kg BMI/BSA: 21.2 / 1.61 m²
 Update (Last Updated:) Nationality: Warganegara

Medication Chart:
 View: All Drug Name: [Drug Name] Refresh Order Date: 24/10/2019
 Served Overdue Withhold Not Serve Due Late Future Dose Discontinue

Select	Order Detail	Source
<input type="checkbox"/>	Thymol Compound Gargle 5 ml, PRN, Gargle 5 Days [24/10/2019-28/10/2019] <i>Prescriber's Remark:</i> Prescriber's Name: System Administrator Order Date: 24/10/2019	S PRN Allocate Qty: 1 ml Ward/Unit Stock: 02:38 PM Remarks:
<input type="checkbox"/>	Oral Rehydration Salt 1 sachet, PRN, Oral 2 Days [24/10/2019-28/10/2019] <i>Prescriber's Remark:</i> Prescriber's Name: System Administrator Order Date: 24/10/2019	S PRN Allocate Qty: sachet Ward/Unit Stock: 02:23 PM Remarks:
<input type="checkbox"/>	Tramadol HCl 50 mg Capsule/Tablet 50 mg, PRN, Oral 2 Days [24/10/2019-28/10/2019] <i>Prescriber's Remark:</i> Prescriber's Name: System Administrator Order Date: 24/10/2019	D PRN Remarks:

Figure 3.1.2-9 Drug Served

- After drug has been recorded, the box will turn to green colour (served status) as per Figure 3.1.2-9
- When the  button is clicked, the current time will be recorded.



Paracetamol 500 mg Tablet 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: Ward/Unit: Remarks:	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
Cisplatin 50mg Inj 165 mg, OD (once daily), Intravenous Infusion Day: 1 [26/04/2016-27/04/2016]	8:00 AM	

Figure 3.1.2-10 Drug Dose Detail

- User can view the drug dose details by mouse over on the status box as shown figure 3.1.2-10

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).

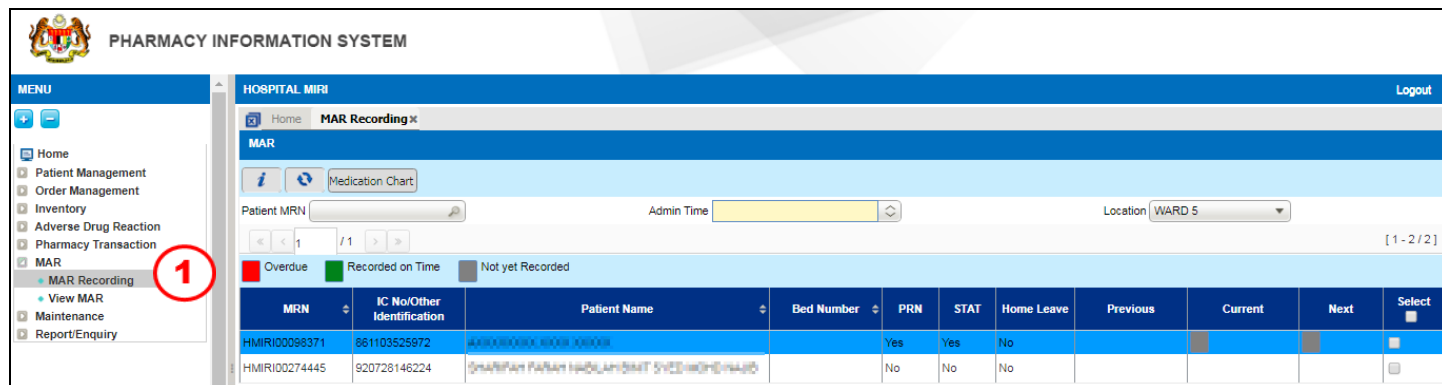


Figure 3.1.3-1 MAR Menu

STEP 1

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

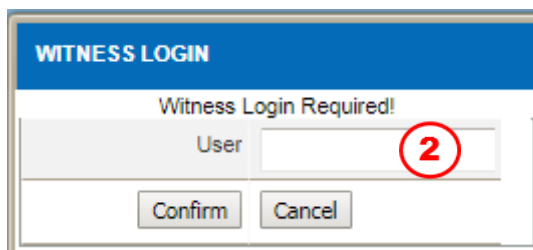


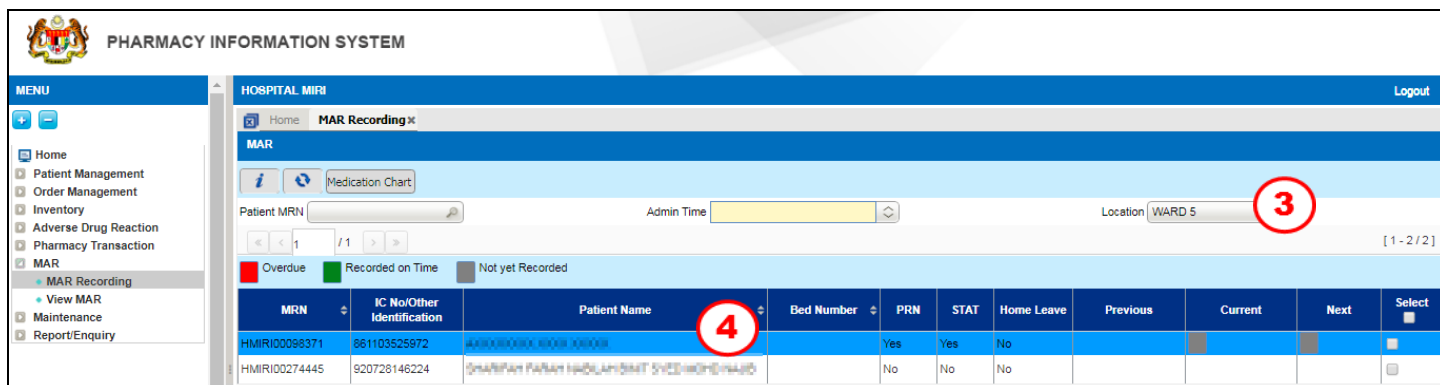
Figure 3.1.3-2 Witness Login

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.



PHARMACY INFORMATION SYSTEM

HOSPITAL MIRI Logout

Home MAR Recording x

MAR

Medication Chart

Patient MRN: [] Admin Time: [] Location: WARD 5 (3)

Overdue Recorded on Time Not yet Recorded

MRN	IC No/Other Identification	Patient Name (4)	Bed Number	PRN	STAT	Home Leave	Previous	Current	Next	Select
HMIRI00098371	861103525972	XXXXXXXXXX XXXX XXXX		Yes	Yes	No				<input type="checkbox"/>
HMIRI00274445	920728146224	SHARIFAT FARAH HADLANHINT SYED HONE-PAW		No	No	No				<input type="checkbox"/>

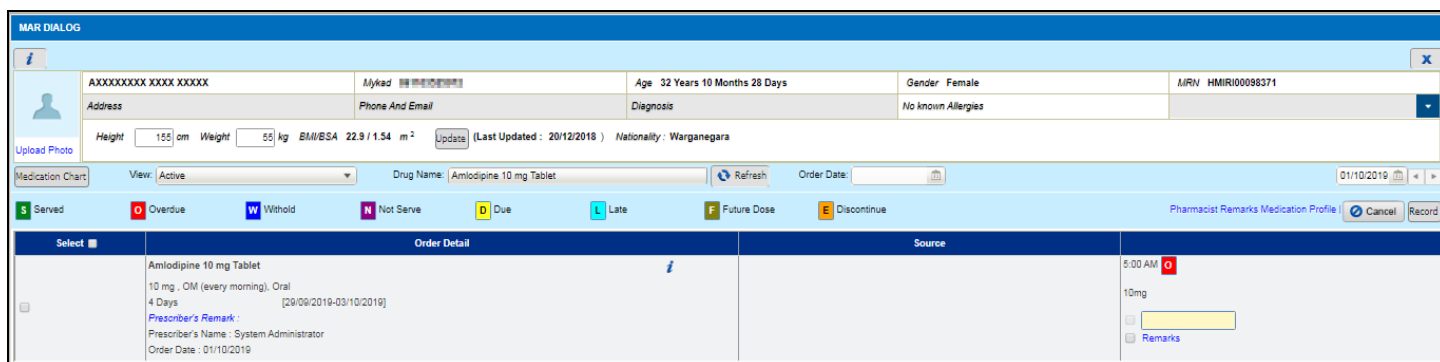
Figure 3.1.3-3 MAR Listing Page

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



MAR DIALOG

XXXXXXXXXX XXXX XXXX Mykad: [] Age: 32 Years 10 Months 28 Days Gender: Female A/RN: HMIRI00098371

Address: [] Phone And Email: [] Diagnosis: No known Allergies

Height: 155 cm Weight: 55 kg BMI/BSA: 22.9 / 1.54 m² Update (Last Updated: 20/12/2018) Nationality: Warganegara

Medication Chart View: Active Drug Name: Amlodipine 10 mg Tablet Refresh Order Date: 01/10/2019

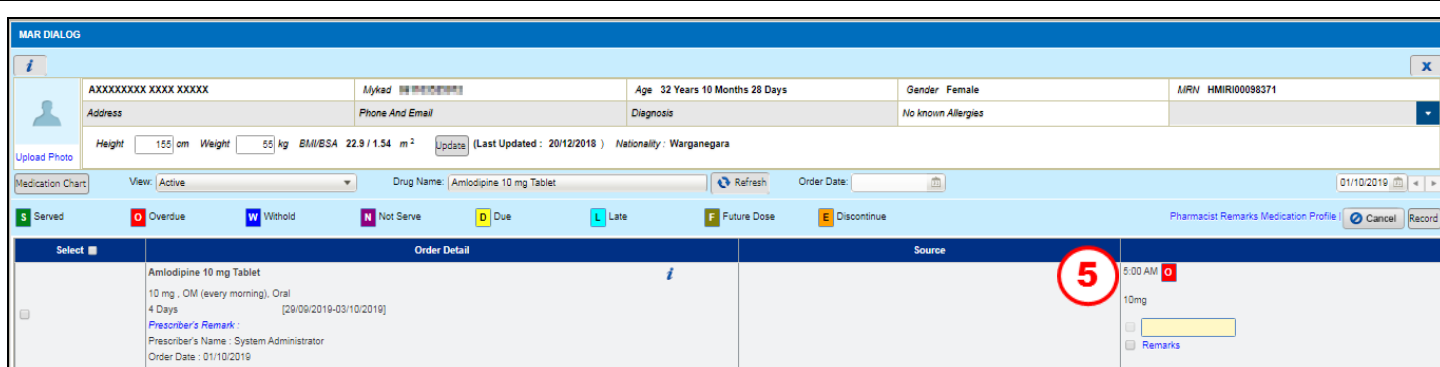
Served Overdue Withhold Not Serve Due Late Future Dose Discontinue Pharmacist Remarks Medication Profile Cancel Record

Select	Order Detail	Source
<input type="checkbox"/>	Amlodipine 10 mg Tablet 10 mg, OM (every morning), Oral 4 Days [20/09/2019-03/10/2019] Prescriber's Remark: Prescriber's Name: System Administrator Order Date: 01/10/2019	5:00 AM (3) 10mg Remarks

Figure 3.1.3-4 MAR Patient Screen

Note

- Screen will display two (2) panel functions:
 - Non-Infusion
 - Infusion
- Administration status:
 - Due – Record within administration time range
 - Overdue - Record the administration after time range
 - Served- Record the administration within time range
 - Late - Record the administration late
 - Withhold - Hold by doctors or pharmacist
 - Future Dose - Has not reach the schedule time
 - Not Serve - Did Not Serve
 - Discontinue - Discontinued by doctor



MAR DIALOG

XXXXXXXX XXXX XXXX Mykad: 888888888888 Age: 32 Years 10 Months 28 Days Gender: Female M/RN: HMIR00098371

Address: Phone And Email: Diagnosis: No known Allergies

Height: 155 cm Weight: 55 kg BMI/BSA: 22.9 / 1.54 m² Update (Last Updated: 20/12/2018) Nationality: Warganegara

Medication Chart View: Active Drug Name: Amlodipine 10 mg Tablet Refresh Order Date: 01/10/2019

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

Select	Order Detail	Source
<input type="checkbox"/>	Amlodipine 10 mg Tablet 10 mg, OM (every morning), Oral 4 Days [20/09/2019-03/10/2019] Prescriber's Remark: Prescriber's Name: System Administrator Order Date: 01/10/2019	5:00 AM 10mg Remarks

Figure 3.1.3-5 Remarks

STEP 5

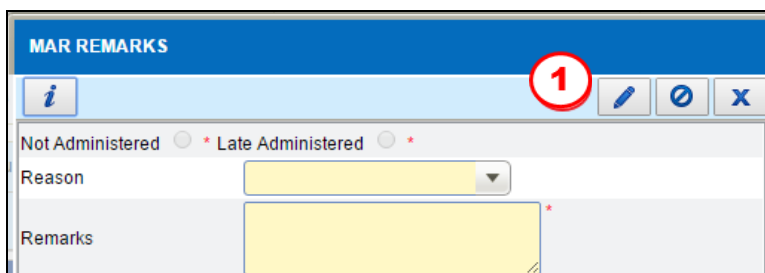
To record the late administration or not administered, click on Remarks and system will display as figure 3.1.3-6(a)

Note

Remarks can be entered if:

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

LATE ADMINISTERED



MAR REMARKS


Not Administered * Late Administered *

Reason

Remarks

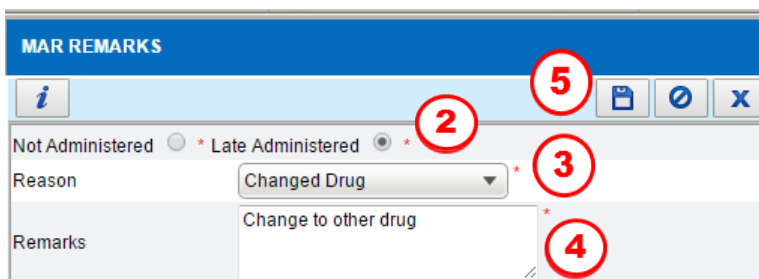
Figure 3.1.3-6(a) MAR Remarks

STEP 1

Click on  button to edit or add the new remarks

Note

- Users allow to select Reason but it is not mandatory.



The screenshot shows the 'MAR REMARKS' window. It has a blue header bar with the title 'MAR REMARKS'. Below the header is a light blue bar containing an information icon (i) on the left and three buttons (Save, Cancel, Close) on the right. The main area contains two rows of input fields. The first row has two radio buttons: 'Not Administered' and '* Late Administered'. The second row has a 'Reason' dropdown menu with 'Changed Drug' selected. The third row has a 'Remarks' text area with 'Change to other drug' entered. Red circles with numbers 2, 3, 4, and 5 are overlaid on the form: 2 points to the 'Late Administered' radio button, 3 points to the 'Reason' dropdown, 4 points to the 'Remarks' text area, and 5 points to the Save button.

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:

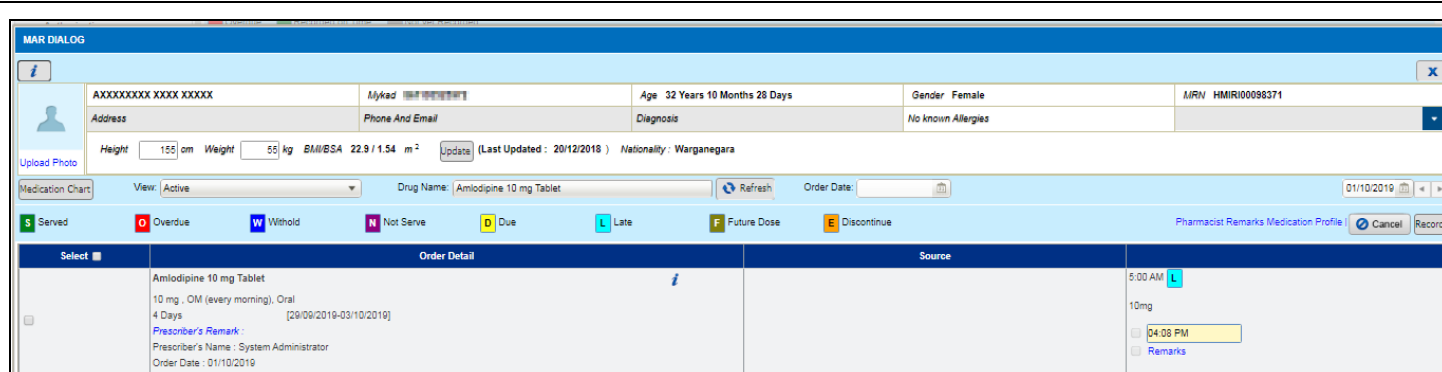
- Allergy
- Change Drug
- Hemodialysis
- Medication/Drug With Hold
- Nil By Mouth
- Nil In Stock
- No IV Access
- Not In Bed
- Patient Discharge
- Refused
- Others

STEP 4

Enter the remarks

STEP 5

Click on save  button to save record



MAR DIALOG

XXXXXXXX XXXX XXXXX Mykad [REDACTED] Age 32 Years 10 Months 28 Days Gender Female MRN HMIRI00098371

Address [REDACTED] Phone And Email [REDACTED] Diagnosis [REDACTED] No known Allergies

Height 155 cm Weight 55 kg BMI/BSA 22.9 / 1.54 m² Update (Last Updated : 20/12/2018) Nationality : Warganegara

Medication Chart View: Active Drug Name: Amlodipine 10 mg Tablet Refresh Order Date: 01/10/2019

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

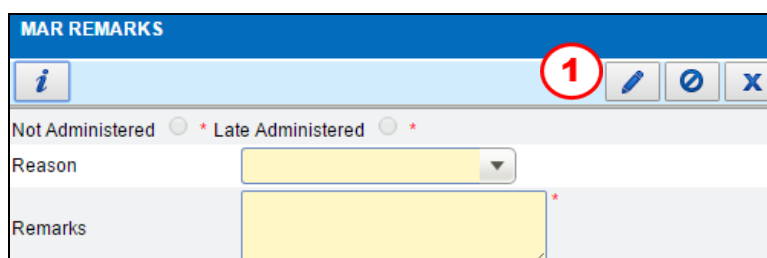
Select	Order Detail	Source
<input type="checkbox"/>	<p>Amlodipine 10 mg Tablet</p> <p>10 mg , OM (every morning), Oral</p> <p>4 Days [29/09/2019-03/10/2019]</p> <p><i>Prescriber's Remark :</i></p> <p>Prescriber's Name : System Administrator</p> <p>Order Date : 01/10/2019</p>	<p>5:00 AM L</p> <p>10mg</p> <p><input type="checkbox"/> 04:08 PM</p> <p><input type="checkbox"/> Remarks</p>

Figure 3.1.3-6(c) MAR Remarks

Note

When step 5 is performed, the box will turn to cyan colour (late status)

NOT ADMINISTERED



MAR REMARKS

Not Administered ☐ * Late Administered ☐ *

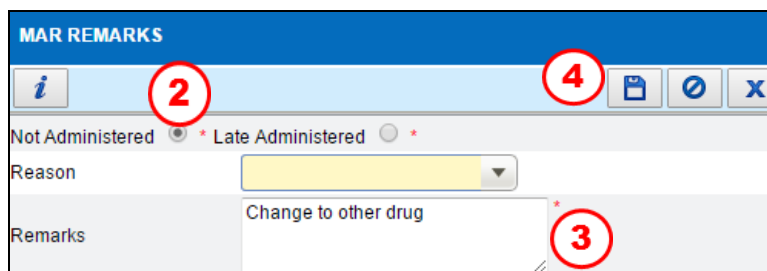
Reason [REDACTED]

Remarks [REDACTED]

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 [REDACTED]

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



XXXXXXXX XXXX XXXXX
Address
Height cm Weight kg BMI/BSA 22.9 / 1.54 m² (Last Updated : 20/12/2018) Nationality : Warganegara

Mykad 

Age 32 Years 10 Months 28 Days

Gender Female

MIRN HMIR00098371

Phone And Email

Diagnosis

No known Allergies

Medication Chart

View: Active

Drug Name: Acetic Acid 0.5% in Alcohol

Order Date:

S Served

O Overdue

W Withhold

N Not Serve

D Due

L Late

F Future Dose

E Discontinue

Pharmacist Remarks Medication Profile

Select	Order Detail	Source
<input type="checkbox"/>	Acetic Acid 0.5% in Alcohol 1 app. OD (once daily). LA 3 Days [30/09/2019-03/10/2019] Prescriber's Remark : Prescriber's Name : System Administrator Order Date : 01/10/2019	5:00 AM N 1app <input type="text"/> <input type="checkbox"/> Remarks

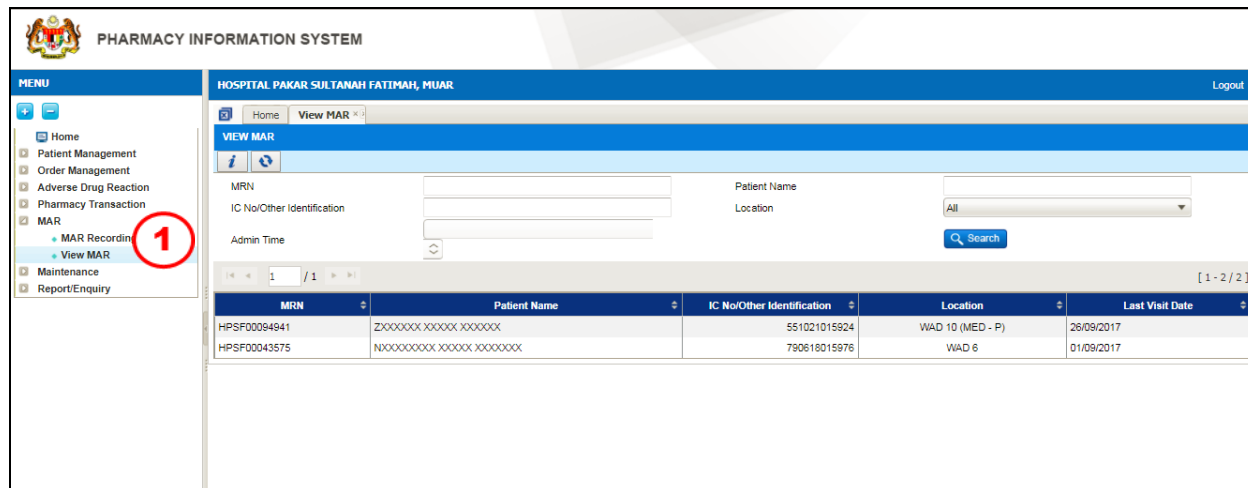
Figure 3.1.3-9 MAR Not Administered

Note

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.



MRN	Patient Name	IC No/Other Identification	Location	Last Visit Date
HPSF00094941	ZXXXXXXXXXXXXXXXXXXXX	551021015924	WAD 10 (MED - P)	26/09/2017
HPSF00043575	NXXXXXXXXXXXXXXXXXXXX	790618015976	WAD 6	01/09/2017

Figure 3.1.4-1 MAR Menu

STEP 1

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

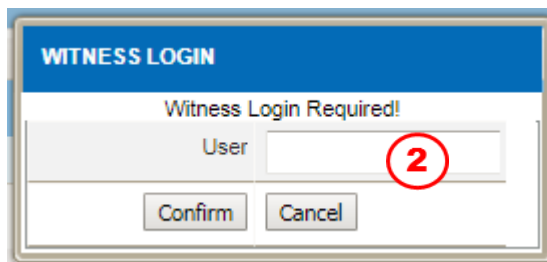


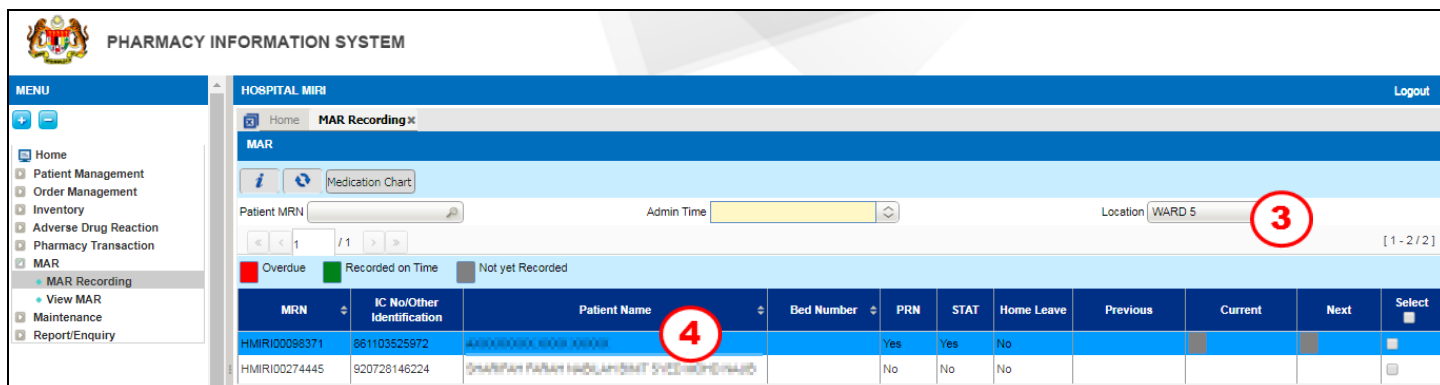
Figure 3.1.4-2 Witness Login

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.



PHARMACY INFORMATION SYSTEM

HOSPITAL MIRI Logout

Home **MAR Recording**

MAR

Medication Chart

Patient MRN Admin Time Location **WARD 5** 3 [1 - 2 / 2]

Overdue Recorded on Time Not yet Recorded

MRN	IC No/Other Identification	Patient Name	Bed Number	PRN	STAT	Home Leave	Previous	Current	Next	Select
HMIRI0098371	861103525972	XXXXXXXXXX XXXX XXXX		Yes	Yes	No				<input type="checkbox"/>
HMIRI0027445	920728146224	SHARIFAT FARAH NADIAH BINTI SYED HUSSEIN FARID		No	No	No				<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"/>	Smof Kabiven Central 1600kcal, 1.5L  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 <input type="text"/> 1477ml <input type="text"/> Start <input type="text"/> <input type="text"/> End <input type="text"/> Remarks

Figure 3.1.4-4 MAR Patient Screen

Note

- Screen will display two (2) panel functions and which is
 - Non-Infusion
 - Infusion
- Administration status:
 - Due – Record within administration time range
 - Overdue - Record the administration after time range
 - Served- Record the administration within time range
 - Late - Record the administration late
 - Withhold - Hold by doctors or pharmacist
 - Future Dose - Has not reach the schedule time
 - Not Serve - Did Not Serve
 - Discontinue - Discontinued by doctor

Select	Order Detail	Source	
<input type="checkbox"/>	Smof Kabiven Central 1600kcal, 1.5L <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 Prescriber's Remark : testing Prescriber's Name : Dr Priya Naraynen Order Date : 14/03/2016		5:00 PM 1477ml <div style="border: 1px solid black; padding: 2px;"> Start </div> <div style="border: 1px solid black; padding: 2px;"> End </div> Remarks

Figure 3.1.4-5 Start Infusion

STEP 5

Click on the Start button to enter the start time

Note

- When Start 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"/>	Smof Kabiven Central 1600kcal, 1.5L <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 Prescriber's Remark : testing Prescriber's Name : Dr Priya Naraynen Order Date : 14/03/2016		5:00 PM 1477ml <div style="border: 1px solid black; padding: 2px;"> Start 04:50 PM </div> <div style="border: 1px solid black; padding: 2px;"> End </div> Remarks

Figure 3.1.4-6 End Infusion

STEP 6

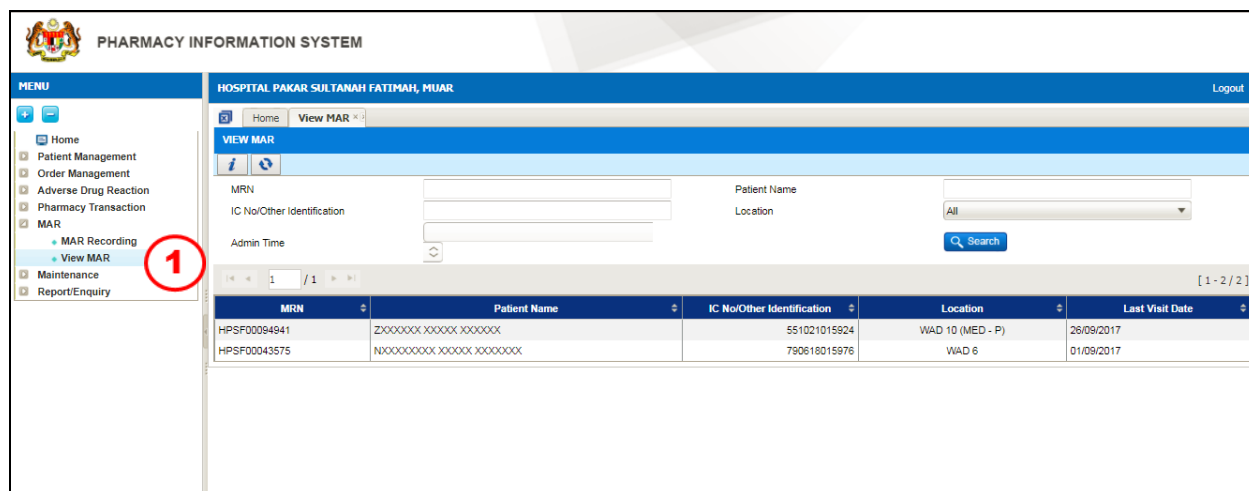
Click on the End button to enter the end time.

Note

- Start 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.



PHARMACY INFORMATION SYSTEM

HOSPITAL PAKAR SULTANAH FATIMAH, MUAR

Logout

Home View MAR

VIEW MAR

MRN: Patient Name:

IC No/Other Identification: Location:

Admin Time:

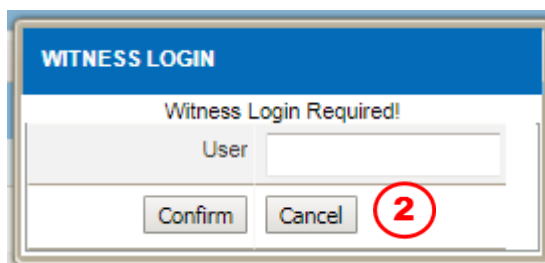
Search

MRN	Patient Name	IC No/Other Identification	Location	Last Visit Date
HPSF00084941	ZXXXXXXXX XXXXX XXXXXX	551021015924	WAD 10 (MED - P)	26/09/2017
HPSF00043575	NXXXXXXXX XXXXX XXXXXX	790618015976	WAD 6	01/09/2017

Figure 3.1.5-1 MAR Menu

STEP 1

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



WITNESS LOGIN

Witness Login Required!

User:

Confirm Cancel

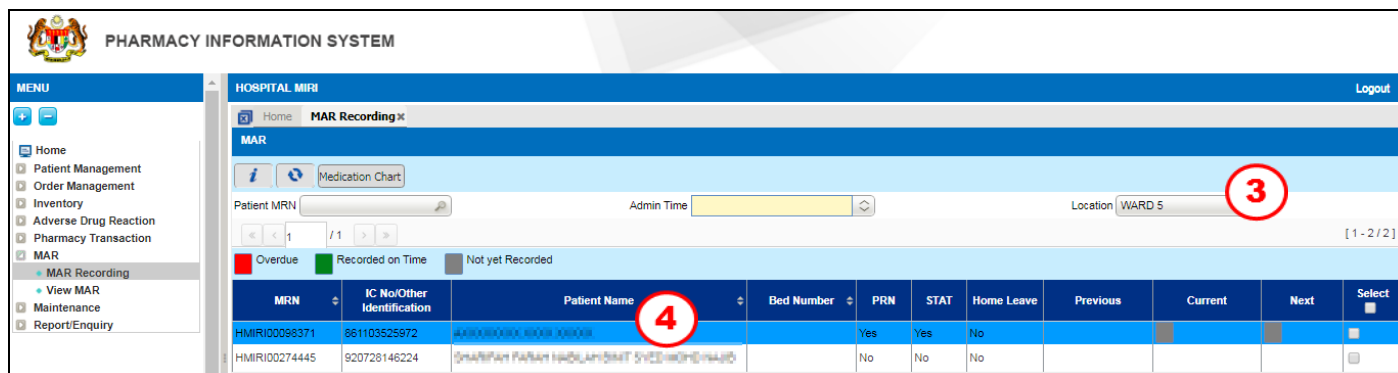
Figure 3.1.5-2 Witness Login

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 MIRI Logout

Home MAR Recording x

Medication Chart

Patient MRN Admin Time Location WARD 5

Overdue Recorded on Time Not yet Recorded

MRN	IC No/Other Identification	Patient Name	Bed Number	PRN	STAT	Home Leave	Previous	Current	Next	Select
HMIRI00098371	861103525972	ABASABUXX XXX XXXXX		Yes	Yes	No				
HMIRI00274445	920728146224	SHARIFAT PARAN HADILAHOMT SYED MOHAMED		No	No	No				

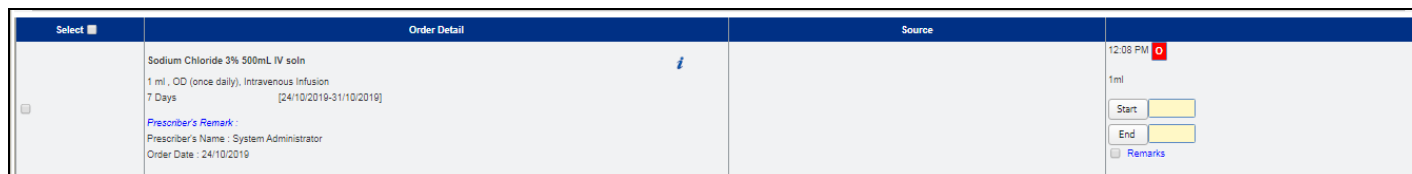
Figure 3.1.5-3 MAR Listing Page

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



Select	Order Detail	Source
	<p>Sodium Chloride 3% 500mL IV soln</p> <p>1 ml, OD (once daily), Intravenous Infusion</p> <p>7 Days [24/10/2019-31/10/2019]</p> <p>Prescriber's Remark:</p> <p>Prescriber's Name: System Administrator</p> <p>Order Date: 24/10/2019</p>	<p>12:08 PM O</p> <p>1ml</p> <p>Start</p> <p>End</p> <p>Remarks</p>

Figure 3.1.5-4 MAR Patient Screen

Note

- Screen will display two (2) panel functions:
 - Non-Infusion
 - Infusion
- Administration status:
 - Due – Record within administration time range
 - Overdue - Record the administration after time range
 - Served- Record the administration within time range
 - Late - Record the administration late
 - Withhold - Hold by doctors or pharmacist
 - Future Dose - Has not reach the schedule time
 - Not Serve - Did Not Serve
 - Discontinue - Discontinued by doctor

Select	Order Detail	Source	
	Sodium Chloride 3% 500mL IV soln 1 ml, OD (once daily), Intravenous Infusion 7 Days [24/10/2019-31/10/2019] Prescriber's Remark: Prescriber's Name : System Administrator Order Date : 24/10/2019		12:08 PM 1ml Start End <input type="checkbox"/> Remarks

Figure 3.1.5-5 Remarks

STEP 5

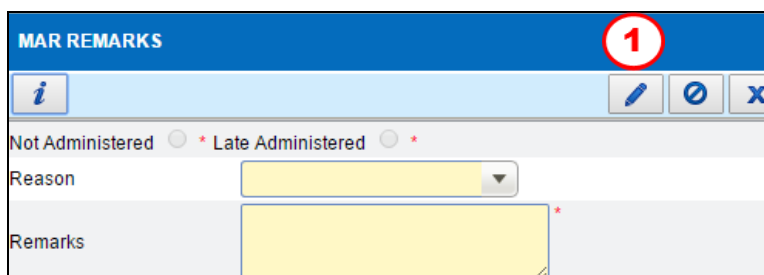
To record the late administration or not administered, click on Remarks and system will display as Figure 3.1.5-6(a)

Note

Remarks can be entered if:

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


LATE ADMINISTERED

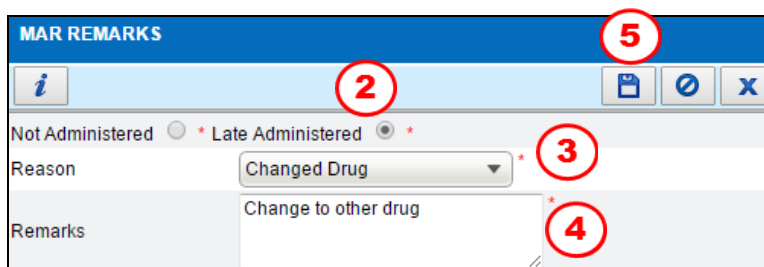


The dialog box titled "MAR REMARKS" contains an information icon (i), a pencil icon, a close icon (X), and a refresh icon. It has two radio buttons: "Not Administered" and "Late Administered". Below these are a "Reason" dropdown menu and a "Remarks" text area.

Figure 3.1.5-6(a) MAR Remarks

STEP 1

Click on  button to edit or add the new remarks



The dialog box is shown with annotations: (1) points to the title bar, (2) points to the pencil icon, (3) points to the "Late Administered" radio button, (4) points to the "Reason" dropdown menu, and (5) points to the refresh icon. The "Reason" dropdown is set to "Changed Drug" and the "Remarks" text area contains "Change to other drug".

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:

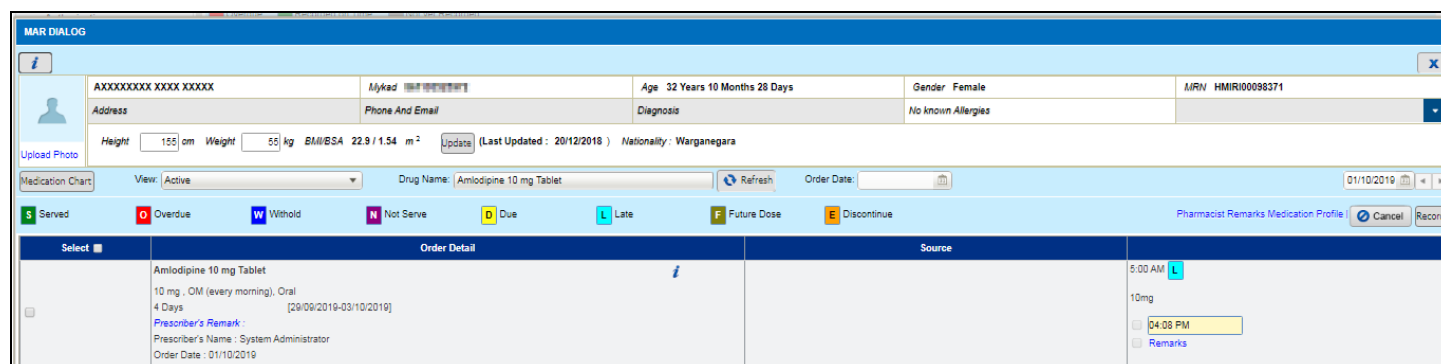
- Allergy
- Change Drug
- Hemodialysis
- Medication/Drug With Hold
- Nil By Mouth
- Nil In Stock
- No IV Access
- Not In Bed
- Patient Discharge
- Refused
- Others

STEP 4

Enter the remarks

STEP 5

Click on save  button to save record



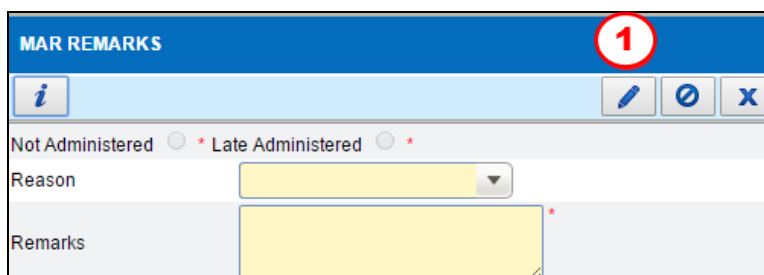
The screenshot shows the 'MAR DIALOG' window. At the top, there's a patient information section with fields for Name (Mykad), Age (32 Years 10 Months 28 Days), Gender (Female), and I/RN (HMIR00098371). Below this is a section for Address, Phone And Email, and Diagnosis. A 'Height' field is set to 155 cm, 'Weight' to 50 kg, and 'BMI/BSA' to 22.9 / 1.54 m². There's an 'Update' button and a note '(Last Updated : 20/12/2018)'. The 'Nationality' is 'Warganegara'. Below this is a 'Medication Chart' section with a 'View' dropdown set to 'Active'. The 'Drug Name' is 'Amlodipine 10 mg Tablet'. There's a 'Refresh' button and an 'Order Date' field set to '01/10/2019'. Below the chart, there are buttons for 'Served', 'Overdue', 'Withold', 'Not Serve', 'Due', 'Late', 'Future Dose', and 'Discontinue'. The 'Late' button is highlighted in cyan. To the right of these buttons is a 'Pharmacist Remarks Medication Profile' section with 'Cancel' and 'Record' buttons. Below this is a table with columns 'Select', 'Order Detail', and 'Source'. The table has one row with the following details: 'Amlodipine 10 mg Tablet', '10 mg , OM (every morning), Oral', '4 Days [28/09/2019-03/10/2019]', 'Prescriber's Remark : Prescriber's Name : System Administrator Order Date : 01/10/2019', and '5:00 AM L'. The 'L' button is highlighted in cyan. Below the table is a 'Remarks' section with a '10mg' label and a '04:08 PM' time field.

Figure 3.1.5-7 MAR Late

Note

When step 5 is performed, the box will turn to cyan colour (late status)


NOT ADMINISTERED



The screenshot shows the 'MAR REMARKS' window. At the top, there's a title bar with a red circle containing the number '1'. Below the title bar is a section with a 'Not Administered' radio button selected, and a 'Late Administered' radio button. Below this is a 'Reason' dropdown menu. Below the dropdown is a 'Remarks' text area. To the right of the text area is a red asterisk icon.

Figure 3.1.5-8 MAR Remarks

STEP 1

Click on  button to edit or add the new remarks

Note

- Users allow to select Reason but it is not mandatory.

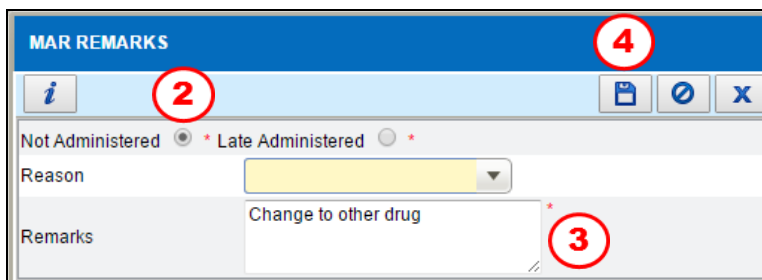


Figure 3.1.5-9 MAR Not Administered

STEP 2

Click on the **Not Administered** radio button

STEP 3

Enter the remarks

STEP 4

Click on save  button to save record


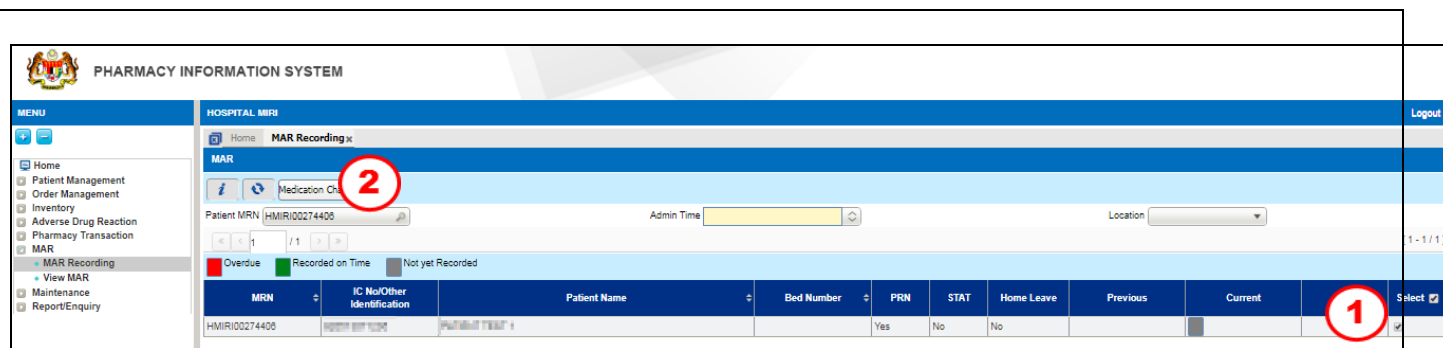
Select	Order Detail	Source	
<input type="checkbox"/>	<p>Sodium Chloride 3% 500mL IV soln</p> <p>1 ml, OD (once daily), Intravenous Infusion</p> <p>7 Days [24/10/2019-31/10/2019]</p> <p><i>Prescriber's Remark:</i></p> <p>Prescriber's Name : System Administrator</p> <p>Order Date : 24/10/2019</p>		<p>12:08 PM </p> <p>1ml</p> <p>Start <input type="text"/></p> <p>End <input type="text"/></p> <p><input type="checkbox"/> Remarks</p>

Figure 3.1.5-10 MAR Not Administered

3.2 Medication Chart

This function is used to generate the medication chart to serve medication.



PHARMACY INFORMATION SYSTEM

HOSPITAL MIRI

Home MAR Recording x

MAR

Medication Chart

Patient MRN: HMIRI00274406 Admin Time: Location: 1-1/1

Overdue Recorded on Time Not yet Recorded

MRN	IC No/Other Identification	Patient Name	Bed Number	PRN	STAT	Home Leave	Previous	Current	Select
HMIRI00274406		PATIENT NAME		Yes	No	No			<input checked="" type="checkbox"/>

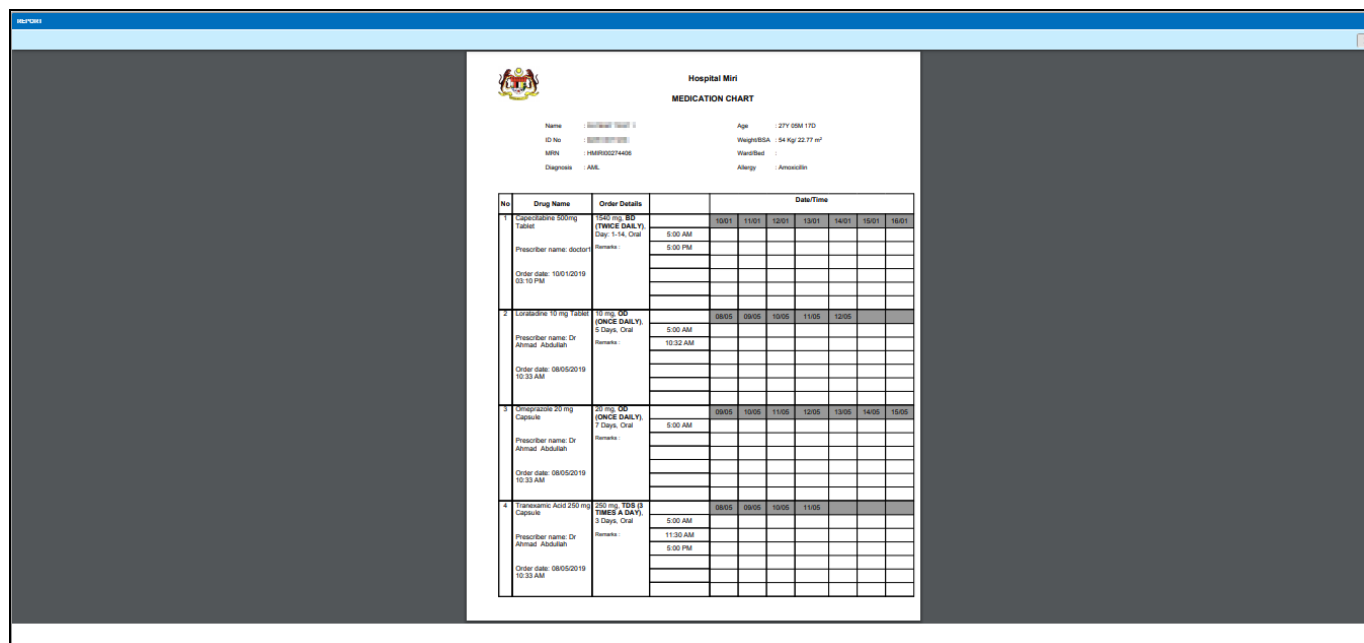
Figure 3.2-1 MAR Listing Page

STEP 1

Click on the ☒ checkbox to select the patient as per Figure 3.2-1

STEP 2

Click on the **Medication Chart** button to view print the record as figure 3.2-2



Hospital Miri
MEDICATION CHART

Name: 0000000000000000 Age: 27Y 00M 11D
ID No: 0000000000000000 Weight: 55.4 Kg 22.77 m
MRN: HMIRI00274406 Height: 1.65 m
Diagnosis: AMI Allergy: Amoxicillin

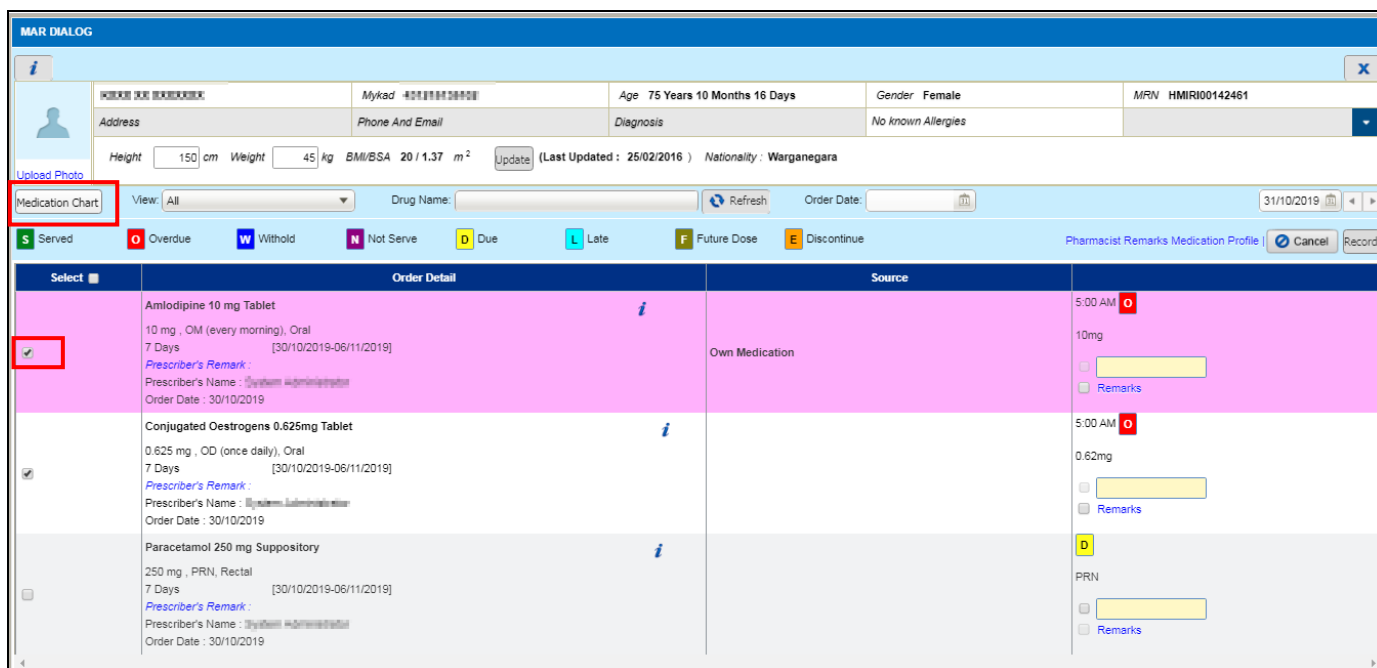
No	Drug Name	Order Details	Date/Time
1	Loxapine 500mg Tablet	150 mg, BID (TWICE DAILY) Day 1-14, Oral Prescriber name: doctor Order date: 10/10/2019 10:10 PM	10/01 11/01 12/01 13/01 14/01 15/01 16/01 5:00 AM 5:00 PM
2	Lorazepam 10 mg Tablet	10 mg, QD (ONCE DAILY) Oral, Oral Prescriber name: Dr Ahmad Asbullah Order date: 08/05/2019 10:33 AM	09/05 09/05 10/05 11/05 12/05 5:00 AM 10:32 AM
3	Amoxicillin 250 mg Capsule	250 mg, QD (ONCE DAILY) Oral, Oral Prescriber name: Dr Ahmad Asbullah Order date: 08/05/2019 10:33 AM	09/05 10/05 11/05 12/05 13/05 14/05 15/05 5:00 AM
4	Tramadol Acet 250 mg Capsule	250 mg, TDS (3 TIMES A DAY) Oral, Oral Prescriber name: Dr Ahmad Asbullah Order date: 08/05/2019 10:33 AM	09/05 09/05 10/05 11/05 5:00 AM 11:30 AM 5:00 PM

Figure 3.2-2 Medication Chart

Note

- Medication chart able to filter by **Patient MRN**, **Admin Time** and by **Location**

- User can select Medication chart by drug at patient MAR listing screen as per Figure 3.2-3



MAR DIALOG

Mykad: [REDACTED] Age: 75 Years 10 Months 16 Days Gender: Female MRN: HMIR00142461

Address: [REDACTED] Phone And Email: [REDACTED] Diagnosis: [REDACTED] No known Allergies

Height: 150 cm Weight: 45 kg BMI/BSA: 20 / 1.37 m² Update (Last Updated: 25/02/2016) Nationality: Warganegara

Medication Chart View: All Drug Name: [REDACTED] Refresh Order Date: 31/10/2019

S Served O Overdue W Withhold N Not Serve D Due L Late F Future Dose E Discontinue Pharmacist Remarks Medication Profile: [REDACTED] Cancel Record

Select	Order Detail	Source	
<input checked="" type="checkbox"/>	Amlodipine 10 mg Tablet 10 mg , OM (every morning), Oral 7 Days [30/10/2019-06/11/2019] Prescriber's Remark : Prescriber's Name : [REDACTED] Order Date : 30/10/2019	Own Medication	5:00 AM O 10mg [REDACTED] Remarks
<input checked="" type="checkbox"/>	Conjugated Oestrogens 0.625mg Tablet 0.625 mg , OD (once daily), Oral 7 Days [30/10/2019-06/11/2019] Prescriber's Remark : Prescriber's Name : [REDACTED] Order Date : 30/10/2019		5:00 AM O 0.62mg [REDACTED] Remarks
<input type="checkbox"/>	Paracetamol 250 mg Suppository 250 mg , PRN, Rectal 7 Days [30/10/2019-06/11/2019] Prescriber's Remark : Prescriber's Name : [REDACTED] Order Date : 30/10/2019		D PRN [REDACTED] Remarks

Figure 3.2-3 Patient Drug Listing Page

- Click on the ☒ checkbox to select the drug as per Figure 3.2-3
- Click on the Medication Chart button to to view print the record as figure 3.2-3

3.3 View MAR

This function is for the doctor to view the medication administration record of the patient.

MEDICATION ORDER VIEW MAR

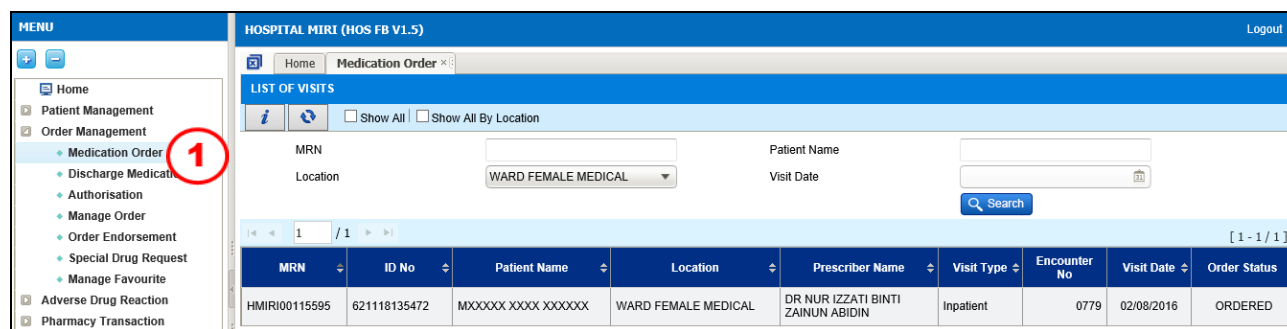


Figure 3.2-1 Medication Order Listing Page

STEP 1

Click on 'Order Management' menu and follow by 'Medication Order' sub-menu

Note

- Prescriber have the option to view patients by clicking the check box:
 - Show All
 - Show All By Location
- By default list of patients will be displayed according to prescriber's location access.
- Various search criteria is provided as below:

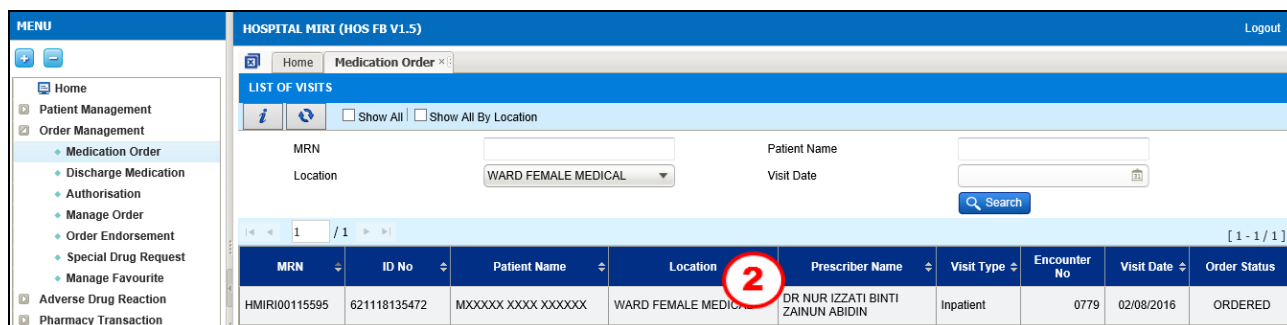
No	Field	Description	Remark
a	MRN	Patient Medical Record Number	Search option: <ul style="list-style-type: none"> Type the MRN either full or partial: Example: HPSF00001234 or "1234"
b	Patient Name	Patient Name	Allow to search by patient full name or partial
c	Location	Patient visit location	Able to filter and search patient by visit location
d	Visit Location	Visit Location	Patient visits on the facility

Table 3.1.12-1

Note

Search result of patient record list will be displayed:

- MRN
- ID No
- Patient Name
- Location
- Prescriber Name
- Visit Type
- Encounter No
- Visit Date
- Order Status

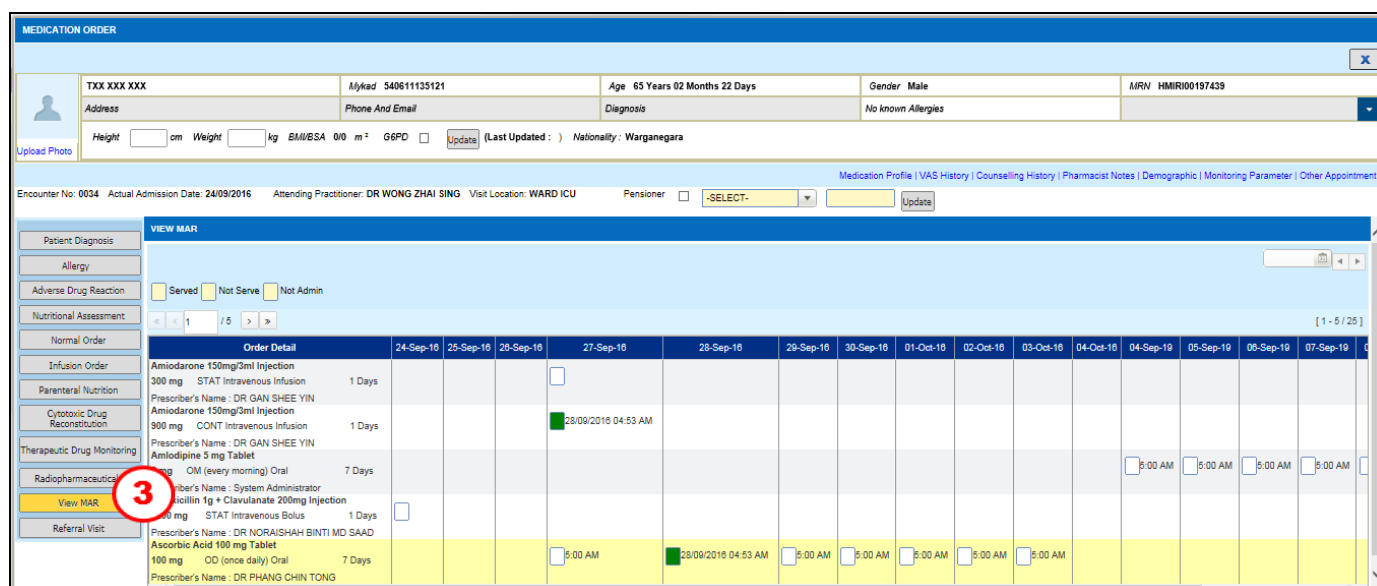


MRN	ID No	Patient Name	Location	Prescriber Name	Visit Type	Encounter No	Visit Date	Order Status
HMIR00115595	621118135472	MXXXXX XXXX XXXXXX	WARD FEMALE MEDICAL	DR NUR IZZATI BINTI ZAINUN ABIDIN	Inpatient	0779	02/08/2016	ORDERED

Figure 3.1.12-2 Medication Order Listing Page

STEP 2

Double click on the selected patient



Order Detail	24-Sep-16	25-Sep-16	26-Sep-16	27-Sep-16	28-Sep-16	29-Sep-16	30-Sep-16	01-Oct-16	02-Oct-16	03-Oct-16	04-Oct-16	05-Sep-19	06-Sep-19	07-Sep-19
Amiodarone 150mg/3ml Injection 300 mg STAT Intravenous Infusion 1 Days Prescriber's Name : DR GAN SHEE YIN														
Amiodarone 150mg/3ml Injection 900 mg CONT Intravenous Infusion 1 Days Prescriber's Name : DR GAN SHEE YIN				28/09/2016 04:53 AM										
Amlodipine 5 mg Tablet 5 mg OM (every morning) Oral 7 Days Prescriber's Name : System Administrator											5:00 AM	5:00 AM	5:00 AM	5:00 AM
Amoxicillin 1g + Clavulanate 200mg Injection 100 mg STAT Intravenous Bolus 1 Days Prescriber's Name : DR NORAISHAH BINTI MD SAAD														
Ascorbic Acid 100 mg Tablet 100 mg OD (once daily) Oral 7 Days Prescriber's Name : DR PHANG CHIN TONG				5:00 AM	28/09/2016 04:53 AM	5:00 AM	5:00 AM	5:00 AM	5:00 AM	5:00 AM				

Figure 3.1.12-3 Medication Order Screen

STEP 3

Click on the **View MAR** button.

Note





Figure 3.1.12-4 Administration Status Color


- Served:** The medication have been served within the time range and recorded in the system.
- Not serve:** The medication recorded as not served within the time range in the system.
- Not Admin:** User has not recorded the administration details in the system.

-  **Late:** User has late recorded the administration details in the system
- Move the cursor to the administration status box and the administration details will appear as Figure 3.1.12-5

Order Detail	29-May-19	30-May-19	31-May-19	01-Jun-19	02-Jun-19	03-Jun-19	04-Jun-19	05-Jun-19	06-Jun-19
Amoxicillin 500mg Capsule 1000 mg BD (twice daily) Oral 10 Days Prescriber's Name : Dr Nur Afiza Amira Binti Katimon	<input type="checkbox"/> 8:00 PM	<input type="checkbox"/> 8:00 AM <input type="checkbox"/> 8:00 PM	<input type="checkbox"/> 8:00 AM <input type="checkbox"/> 8:00 PM	<input type="checkbox"/> 8:00 AM <input type="checkbox"/> 8:00 PM	<input type="checkbox"/> 8:00 AM <input type="checkbox"/> 8:00 PM	<input type="checkbox"/> 8:00 AM <input type="checkbox"/> 8:00 PM	<input type="checkbox"/> 8:00 AM <input type="checkbox"/> 8:00 PM	<input type="checkbox"/> 8:00 AM <input type="checkbox"/> 8:00 PM	<input type="checkbox"/> 8:00 AM <input type="checkbox"/> 8:00 PM
Clarithromycin 250 mg Tablet 500 mg Q12H Oral 10 Days Prescriber's Name : Dr Nur Afiza Amira Binti Katimon	<input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM
Pantoprazole 40 mg Tablet 40 mg Q12H Oral 2 Weeks Prescriber's Name : Dr Nur Afiza Amira Binti Katimon	<input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM	<input type="checkbox"/> 6:00 AM <input type="checkbox"/> 6:00 PM
Pantoprazole 40 mg Tablet 40 mg OD (once daily) Oral 4 Months Prescriber's Name : Dr Nur Afiza Amira Binti Katimon	<input type="checkbox"/> 8:00 PM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM
Propranolol HCl 40 mg Tablet	<input type="checkbox"/> 8:00 PM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM	<input type="checkbox"/> 8:00 AM

Figure 3.1.12-5 Administration Details

VIEW MAR



PHARMACY INFORMATION SYSTEM

Home View MAR

VIEW MAR

MRN: Patient Name:

IC No/Other Identification: Location:

Admin Time:

MRN	Patient Name	IC No/Other Identification	Location	Last Visit Date	Home Leave
0000000000000000	0000000000000000	0000000000000000	WARD ICU	23/09/2018	No
0000000000000000	0000000000000000	0000000000000000	WARD FEMALE MEDICAL	23/09/2018	No
0000000000000000	0000000000000000	0000000000000000	WARD FEMALE MEDICAL	13/10/2019	No
0000000000000000	0000000000000000	0000000000000000	WARD FEMALE MEDICAL	13/10/2019	No

Figure 3.2-1 View MAR Listing Page

STEP 1

Click on 'MAR' menu and follow by 'View Mar' sub-menu

Note

- By default list of patients will be displayed according to user location access.

- Various search criteria is provided as below:

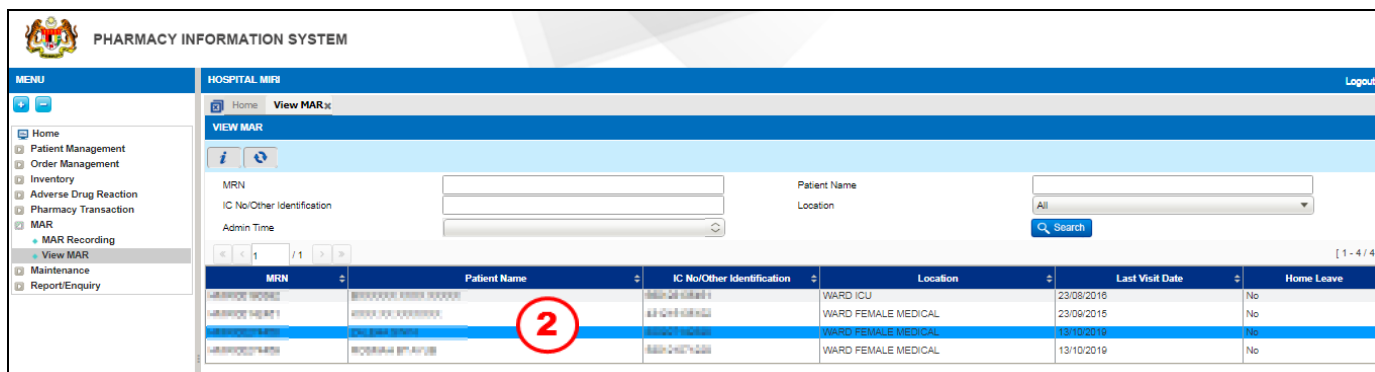
No	Field	Description	Remark
a	MRN	Patient Medical Record Number	Search option: • Type the MRN either full or partial: <i>Example: HPSF00001234 or "1234"</i>
b	Patient Name	Patient Name	Allow to search by patient full name or partial
c	Location	Patient visit location	Able to filter and search patient by visit location
d	IC No/Other Identification	Patient IC No/Other Identification	Allow to search by patient IC No/Other Identification
e	Admin Time	Patient Admin time	Allow to search patient admin time

Table 3.2-2

Note

Search result of patient record list will be displayed:

- MRN
- Patient name
- IC No/Other Identification
- Location
- Last Visit Date
- Home Leave



PHARMACY INFORMATION SYSTEM

HOSPITAL MIRS Logout

VIEW MAR

MRN: Patient Name: Location:

IC No/Other Identification:

Admin Time:

[1 - 4 / 4]

MRN	Patient Name	IC No/Other Identification	Location	Last Visit Date	Home Leave
00000000000000000000	00000000000000000000	00000000000000000000	WARD ICU	23/09/2016	No
00000000000000000000	00000000000000000000	00000000000000000000	WARD FEMALE MEDICAL	23/09/2015	No
00000000000000000000	00000000000000000000	00000000000000000000	WARD FEMALE MEDICAL	13/10/2019	No
00000000000000000000	00000000000000000000	00000000000000000000	WARD FEMALE MEDICAL	13/10/2019	No


Figure 3.2-3 View MAR Listing Page

STEP 2

Double click on the selected patient

MAR DIALOG

Information icon *Close icon*

 Address: <input type="text"/> Height: <input type="text"/> cm Weight: <input type="text"/> kg BMI/BSA: <input type="text"/> m ²	Mykad: <input type="text"/> Phone And Email: <input type="text"/> Update (Last Updated:) Nationality: Warganegara	Age: 61 Years 09 Months 09 Days Gender: Female No known Allergies	MRN: <input type="text"/>
--	--	---	---------------------------

View: All Drug Name: Refresh Order Date:

☒ Served
 ☐ Not Serve
 ☐ Late
 ☐ Not Admin

Order Detail	24-Oct-19	25-Oct-19	26-Oct-19	27-Oct-19	28-Oct-19	29-Oct-19	30-Oct-19	31-Oct-19
Amlodipine 10 mg Tablet 10 mg OM (every morning) Oral 7 Days Prescriber's Name : System Administrator		<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM
Dextrose 20% 500mL IV soln 500 ml OD (once daily) Intravenous Infusion 7 Days Prescriber's Name : System Administrator		<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM
Insulin regular/isophane (insugen-30/70) 100 IU/mL Penfill 1 IU BD HD/DP day (3x a week) Subcutaneous 7 Days Prescriber's Name : System Administrator	<input type="checkbox"/> 1:00 PM	<input type="checkbox"/> 1:00 PM	<input type="checkbox"/> 1:00 PM	<input type="checkbox"/> 1:00 PM	<input type="checkbox"/> 1:00 PM	<input type="checkbox"/> 1:00 PM	<input checked="" type="checkbox"/> 10/10/2019 12:10 PM	
Lactulose 3.35 g/5 ml Liquid 5 ml OD (once daily) Oral 7 Days Prescriber's Name : System Administrator		<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM
Lactulose 3.35 g/5 ml Liquid 5 ml STAT Oral 1 Days Prescriber's Name : System Administrator	<input type="checkbox"/>							
Losartan 50 mg Tablet 50 mg OD (once daily) Oral 7 Days Prescriber's Name : System Administrator		<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM
Nystatin 100,000 units/ml Suspension 100000 unit OD (once daily) Oral 7 Days Prescriber's Name : System Administrator		<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM	<input type="checkbox"/> 5:00 AM
Nystatin 100,000 units/ml Suspension 100000 unit STAT Oral 1 Days Prescriber's Name : System Administrator	<input type="checkbox"/>							
Oral Rehydration Salt 1 sachet, 2 sachet, 1 sachet TDS (3 times a day) Oral 7 Days Prescriber's Name : System Administrator	<input type="checkbox"/> 12:30 PM <input type="checkbox"/> 5:00 PM	<input type="checkbox"/> 5:00 AM <input type="checkbox"/> 5:00 PM	<input type="checkbox"/> 5:00 AM <input type="checkbox"/> 5:00 PM	<input type="checkbox"/> 5:00 AM <input type="checkbox"/> 5:00 PM	<input type="checkbox"/> 5:00 AM <input type="checkbox"/> 5:00 PM	<input type="checkbox"/> 5:00 AM <input type="checkbox"/> 5:00 PM	<input type="checkbox"/> 5:00 AM <input type="checkbox"/> 5:00 PM	<input type="checkbox"/> 5:00 AM <input type="checkbox"/> 5:00 PM

Figure 3.2-4 Medication Order Screen

Note

- User able to view active, inactive or all by clicking

All

☒ Served
 ☐ Not Serve
 ☐ Late
 ☐ Not Admin

Figure 3.2-5 Administration Status Color

- ☒ **Served:** The medication have been served within the time range and recorded in the system.
- ☐ **Not serve:** The medication recorded as not served within the time range in the system.
- ☐ **Not Admin:** User has not recorded the administration details in the system.
- ☐ **Late:** User has late recorded the administration details in the system
- Move the cursor to the administration status box and the administration details will appear as Figure 3.2-6

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	Inpatient	Click Here	12	CDR Dispensing	Click Here
2	CDR Order	Click Here	13	Methadone Dispensing	Click Here
3	TDM Order	Click Here	14	PN Dispensing	Click Here
4	PN Order	Click Here	15	Order Management	Click Here
5	IV Order	Click Here	16	Patient Management	Click Here
6	Prepacking	Click Here	17	Radiopharmaceutical	Click Here
7	Galenical	Click Here	18	Outpatient	Click Here
8	MTAC	Click Here	19	Special Drug Request	Click Here
9	ADR & DAC	Click Here	20	MAR	Click Here
10	Medication Counselling	Click Here	21	DICE	Click Here
11	Ward Pharmacy	Click Here	22		