



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

Full Based User Manual Order Management - Medication Order

Version	: 11th Edition
Document ID	: U. MANUAL_MEDICATION ORDER_MOBILE



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Application reference: PhIS & CPS v2.3.1



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1. 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 IV
7. Manufacturing of Cytotoxic Drug Reconstitution, Parenteral Nutrition, 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 Order Management 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:

- Medication Order
- Manage Order
- Order Authorisation
- Order Endorsement

1.3 Organized Sections

These are the sections within this document:

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



2. Application Standard Features

2.1 PhIS Legend

Module Legend					
	Update Records		Stop Drug		close record
	Draft Records		Add to favorite		Edit records
	Renew order		Confirm Order		View Order

2.2 Login to PhIS Mobile

To login into the system, perform the steps below:

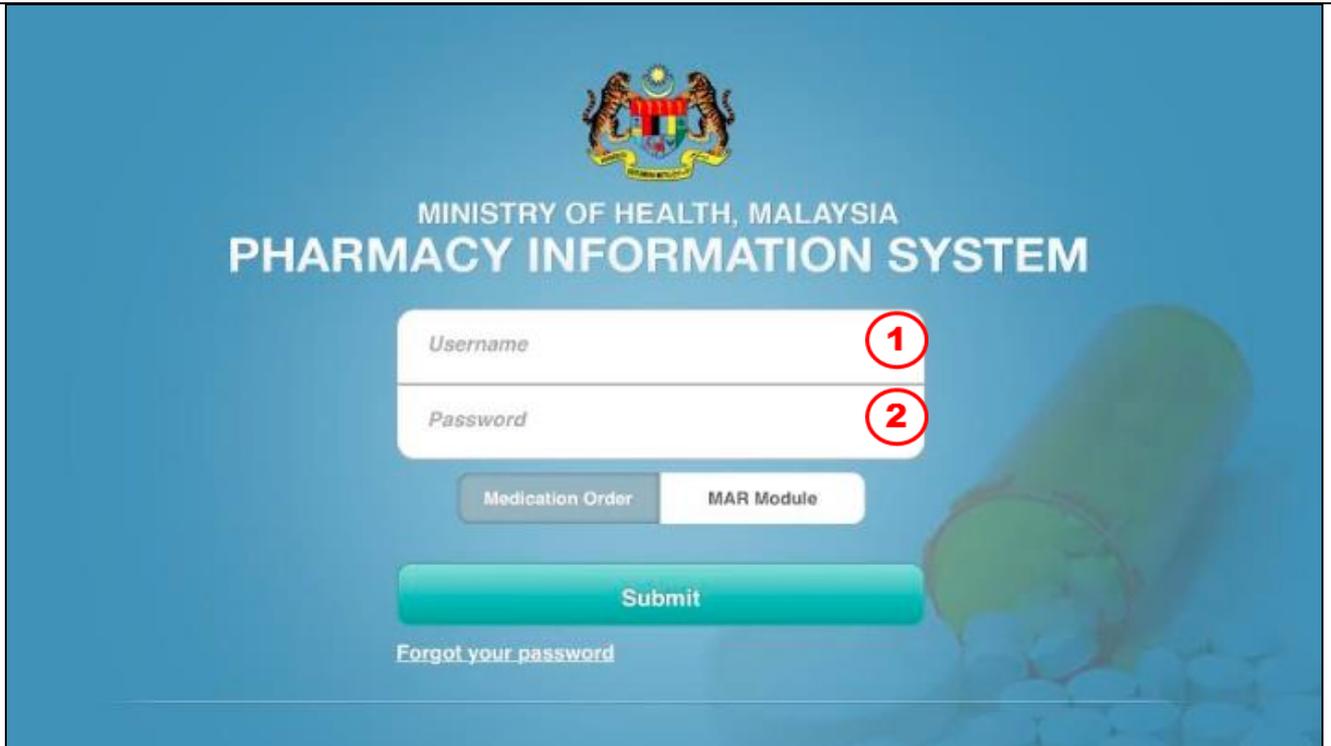


Figure 2.2-1 PhIS Login Page

STEP 1

Key-in username in the **Username** field

STEP 2

Key-in password in the **Password** field

Note

If user entered wrong username or password, alert message will be displayed as shown in Figure 2.2-2.



Figure 2.2-2 User does not exist.

Note

User will be tied to the **Location** based on the access right. User will need to refer to the facility's System Administrator for any update needed.

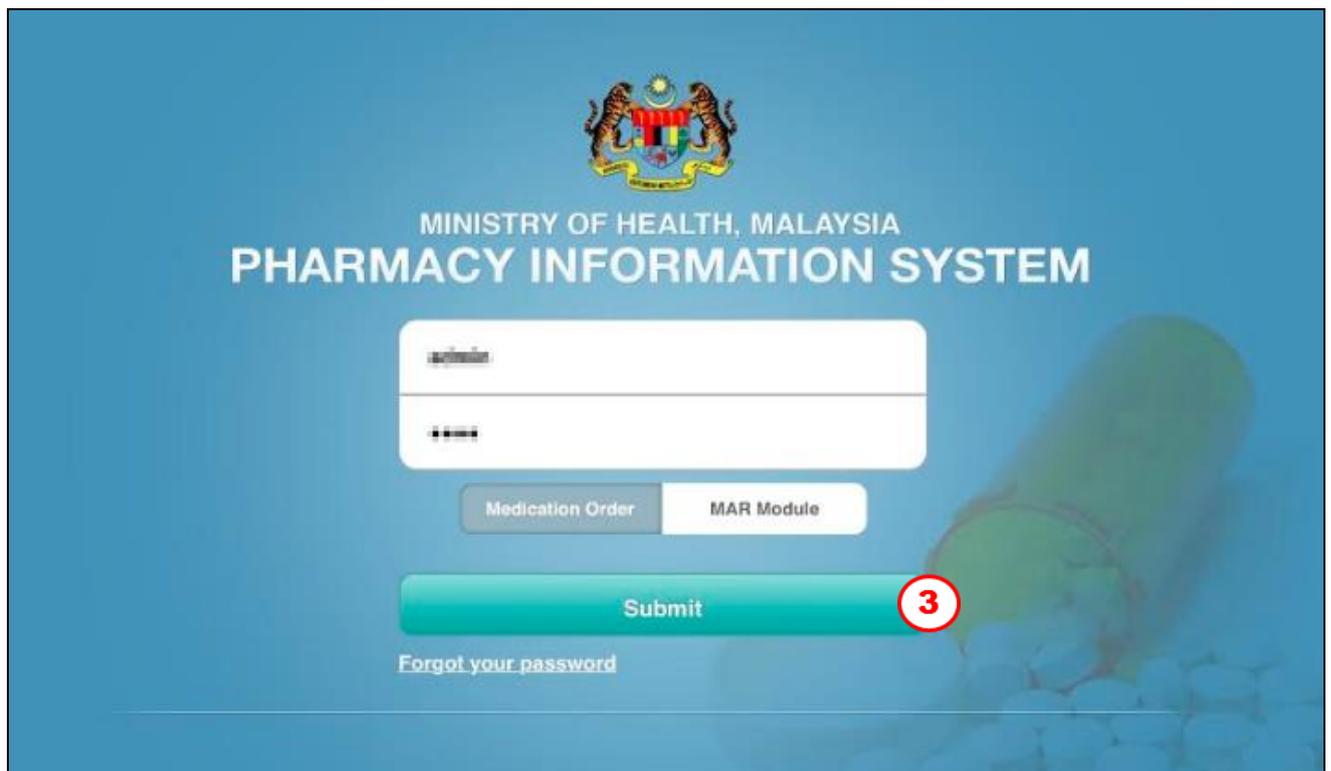


Figure 2.2-3 Wrong password entered.

STEP 3

Tap on the submit button to log-in to the application.

2.3 PhIS Mobile Application Home Page Overview

User will be navigated to the PhIS home page upon successful login.



Figure 2.3-1 PhIS Home Page

- a) **Outpatient**
All the clinic outpatient patient
- b) **Inpatient**
All warded inpatient
- c) **Emergency**
Patient under Emergency and Trauma visit
- d) **Day Care**
All day care visit patient
- e) **My Task List**
Active task(s) that require action/ follow-up will be displayed.
e.g.: Pending for Authorisation and Endorsement
- f) **Logout**
Log out from the system.

3.0 Order Management

Overview

The Order Management module handles all the information to specify the ordered items as per local drug formulary, MOH and non-MOH including registered and non-registered drugs. This function is to enable data mining. All medication orders must be prescribed by authorized personnel only and in compliance with guidelines on prescribing in the drug formulary (drug category, discipline / specialty) as defined by MOH.

User Group

This module is intended for specialist, Medical Officer (MO), and Housemen

Functional Diagram

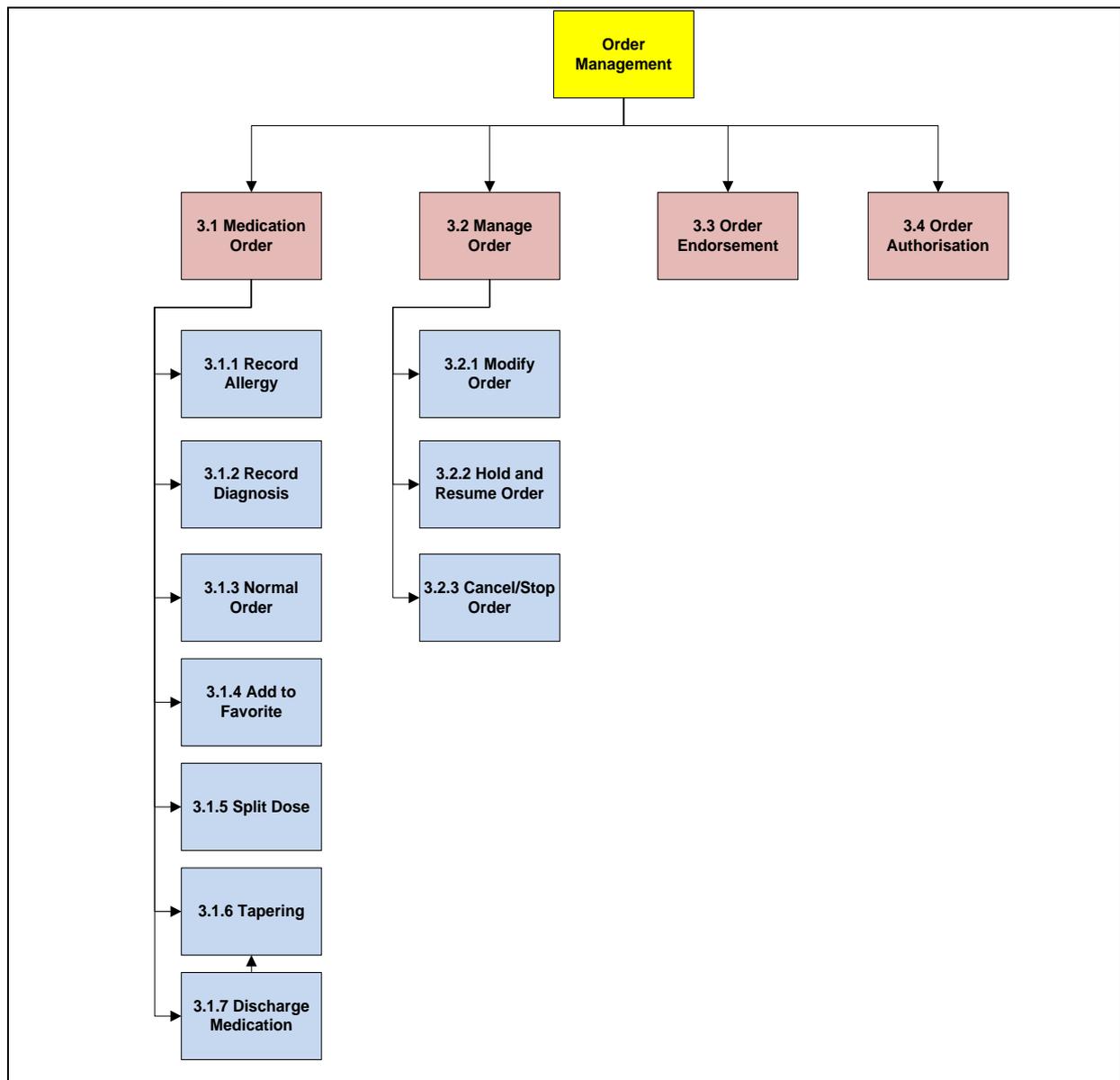


Figure 3.0-1



Functional Description

Medication Order comprises of five (4) main functions:

- **Normal Order**
To prescribe normal order
- **Manage Order**
To monitor patient's prescription by modifying order, cancel/stop order and tapering up/down.
- **Order Endorsement**
The prescriber to endorse the intervention made by a Pharmacist
- **Order Authorization**
To approve list A/ A*/ A/KK drug that requires authorization

3.1 Medication Order

Medication order is used for prescribing medicine for Inpatient and Outpatient, Emergency and Day Care departments applicable to selected facility setup.

3.1.1 Record Allergy



Figure 3.1.1-1 Order Screen Listing Page

STEP 1

Tap on the *Inpatient* symbol

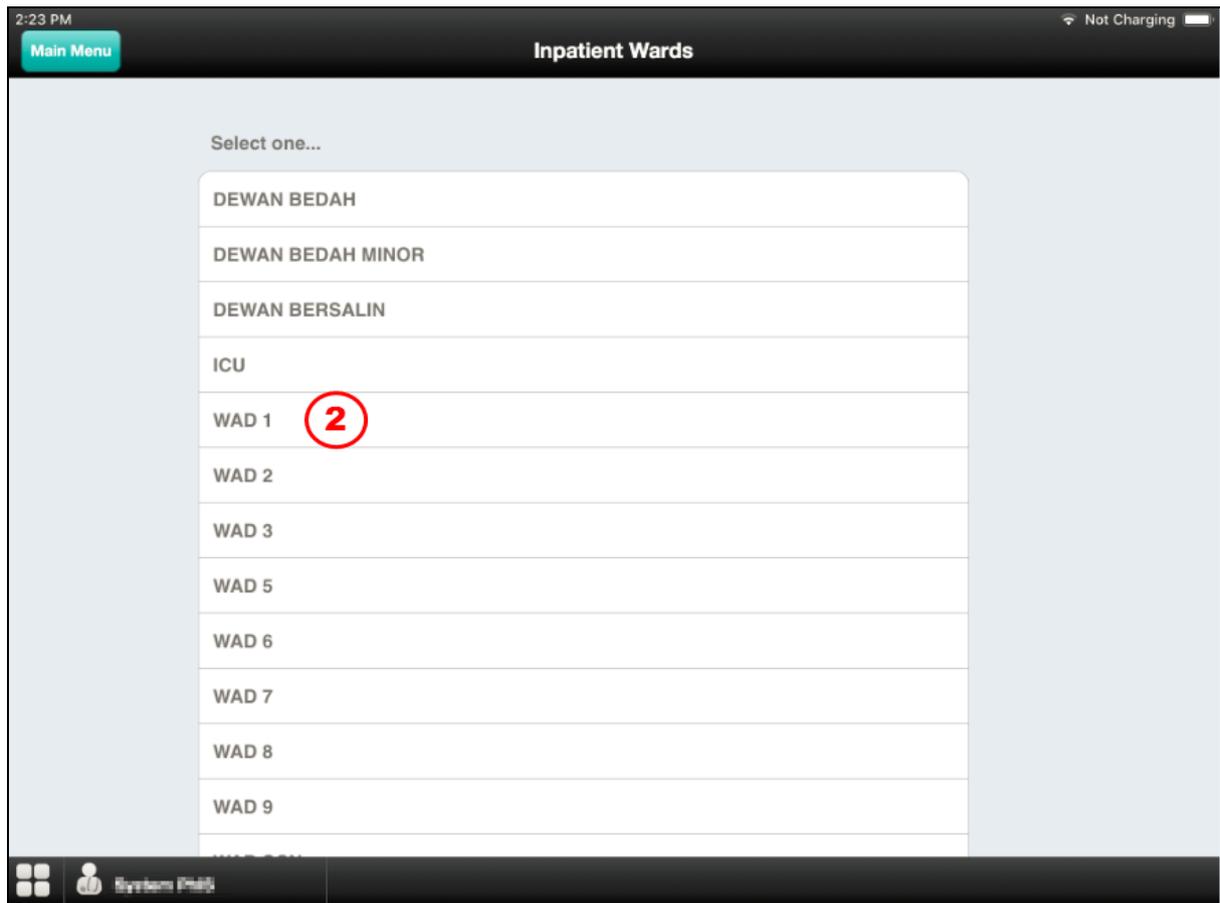


Figure 3.1.1-2 Location Screen Listing Page

STEP 2

Tap on the selected location e.g Dewan Bedah 1, WAD 1 to select patient

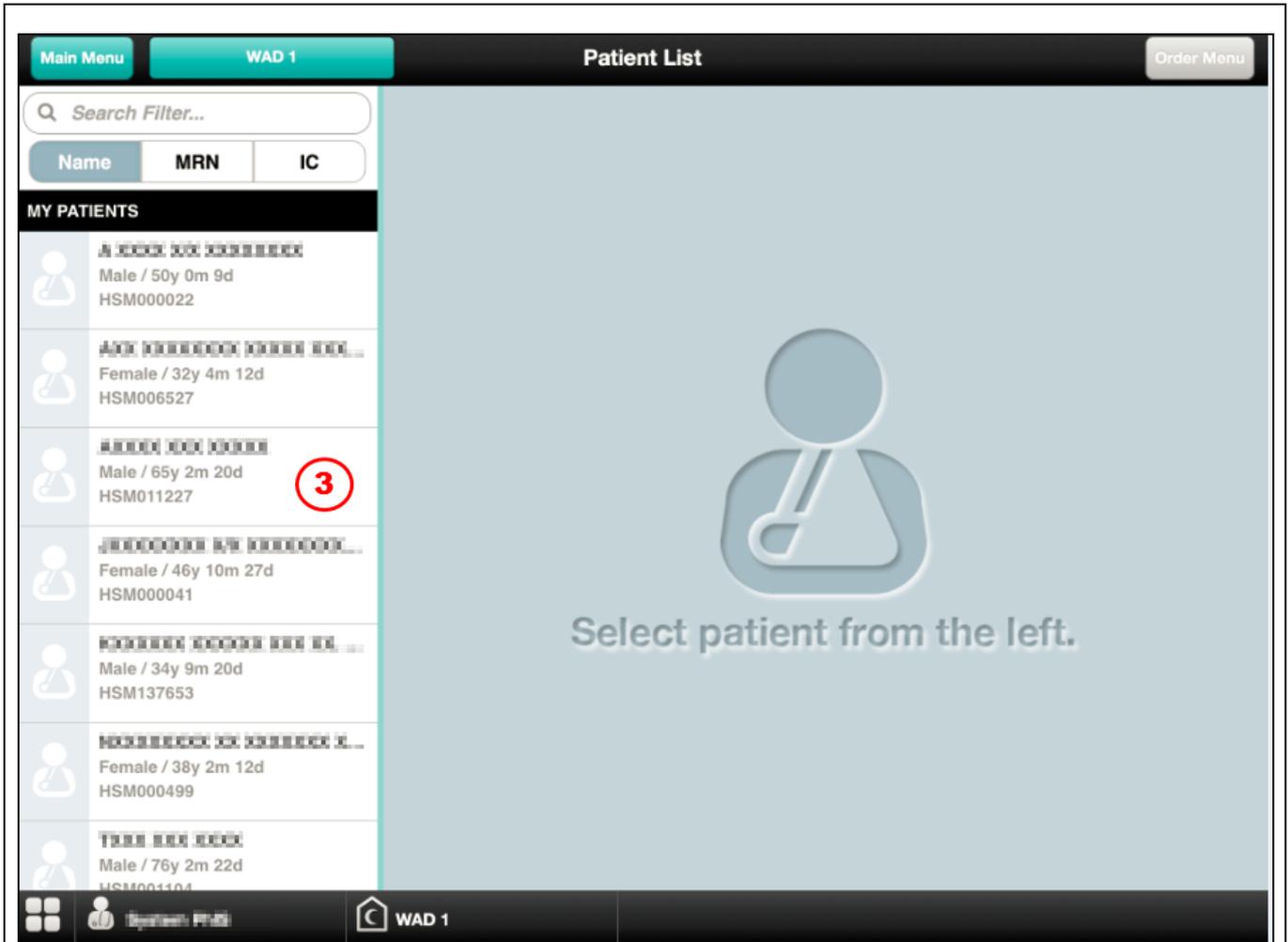


Figure 3.1.1-3 Patient Listing Page

- Various search criteria are provided as below:

No	Field	Description	Remark
A	Name	Patient Name	Allow to search by patient full name or partial
B	MRN	Patient Medical Record Number	Search option: <ul style="list-style-type: none"> • Type the MRN either full or partial: <i>Example: HPSF00001234 or "1234"</i>
C	IC	Patients visit location	Able to filter and search patient by visit location and prescriber's location.

Table 3.1.1-3

STEP 3

Tap on selected patient name

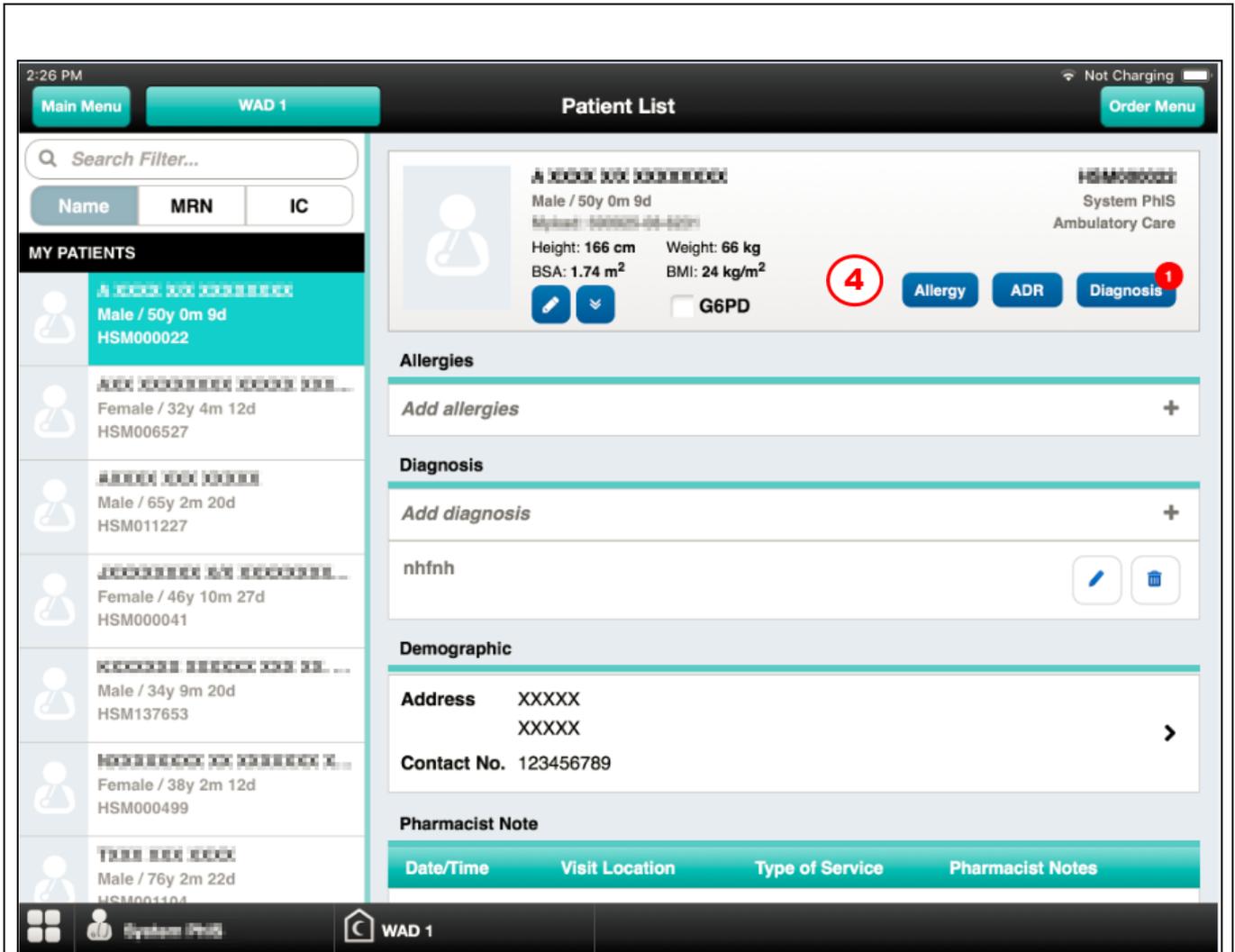


Figure 3.1.1-4 Patient Listing Page

Note

Search result of patient record list will be displayed:

- Allergies
- Diagnosis
- Demographic
- Pharmacist Note
- ADR Report

STEP 4

Tap on the  button to create new allergies

Note

Allergies also can be created from **Add Allergies** section by click on the  button



Figure 3.1.1-5 Patient Listing Page

Note

By default for all patient system will checked on **No Known allergy** box if the patient does not have any allergy.

STEP 5

Tap on the **Add Allergy** button and new screen will displayed as per Figure 3.1.1-6

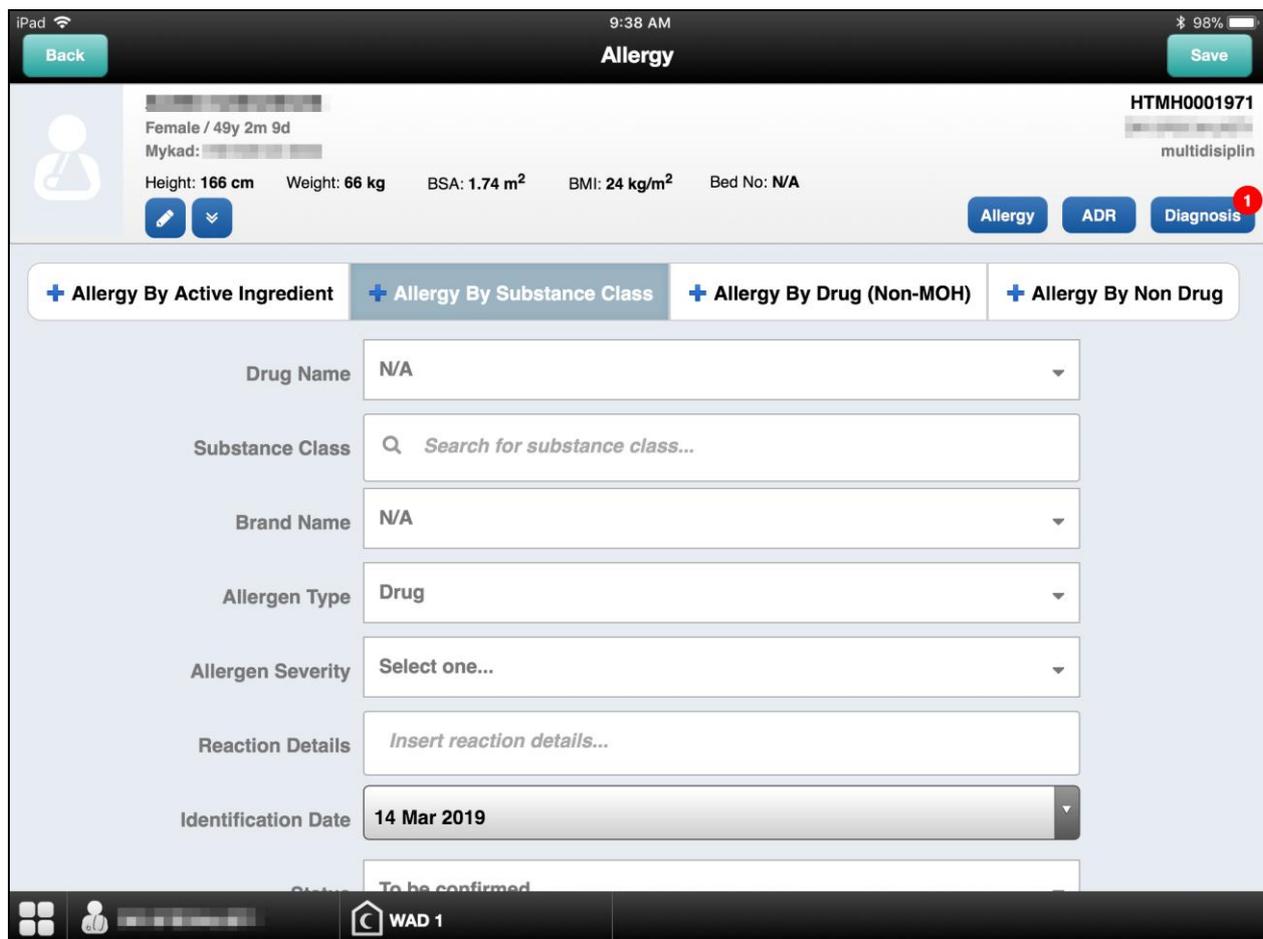


Figure 3.1.1-6 Allergy Screen

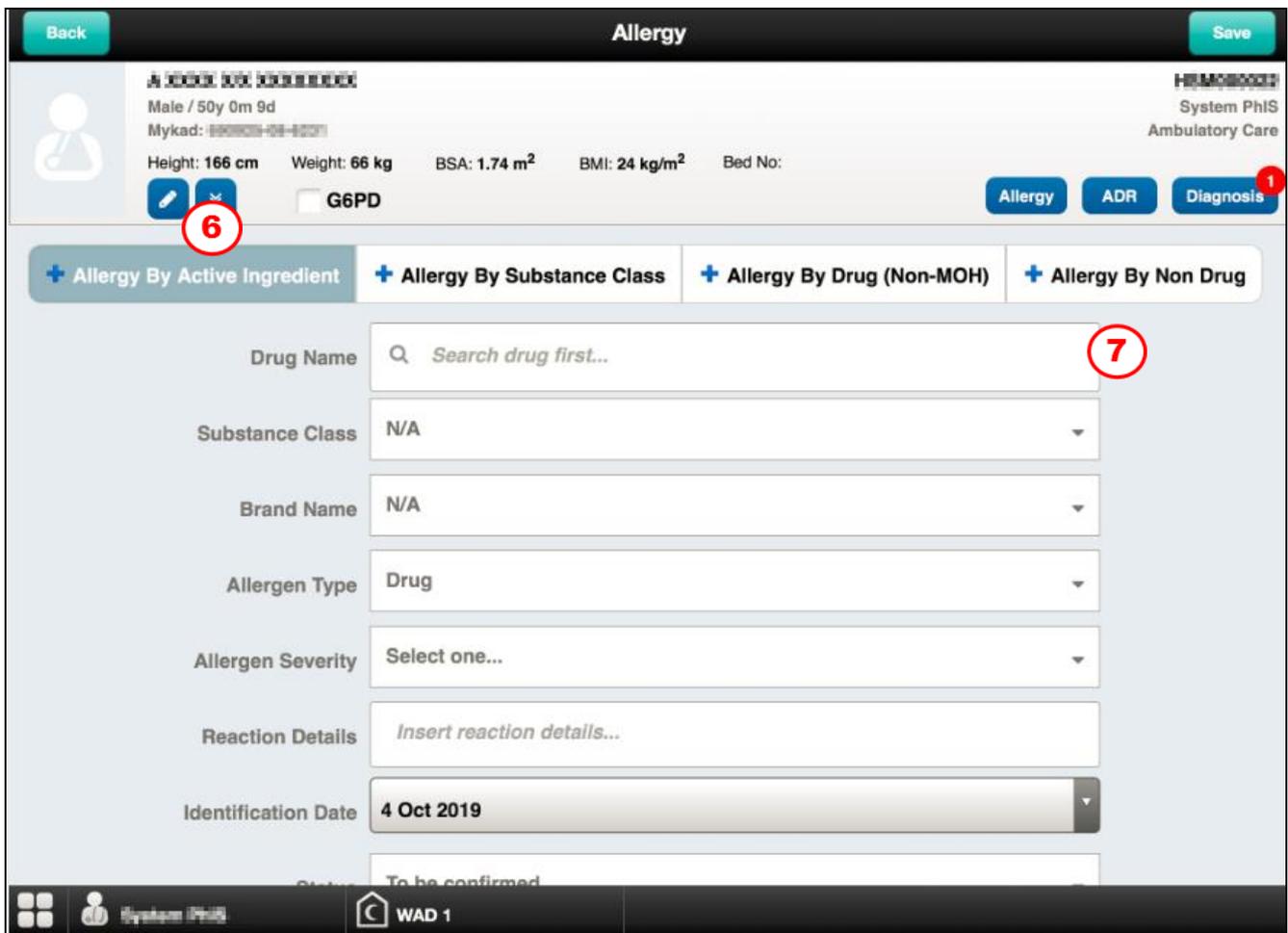
Note

- By default **+ Allergy By Substance Class** screen will be displayed
- Tap on the selected tab to declare Patient Allergy based on below selection:

- a) **+ Allergy By Active Ingredient**
 - To record allergy by active ingredient.
 - Active Ingredient will be retrieve from master setup.
 - Tap the “Allergy By Active Ingredient” and Search the active ingredient
- b) **+ Allergy By Substance Class**
 - To record allergy by substance class
 - Drug will be displayed based on the substance class that selected
- c) **+ Allergy By Drug (Non-MOH)**
 - To record allergy of drug not in MOH list.
 - Drug which not define in MOH database.
 - Tap on the “Allergy By Substance Class” and enter drug name.
- d) **+ Allergy By Non Drug**
 - To record allergy of non drug.
 - Tap on the “Allergy By Non Drug” and enter drug name.

STEP 6

Tap on the **+ Allergy By Active Ingredient** tab and enter drug name to view list of drug

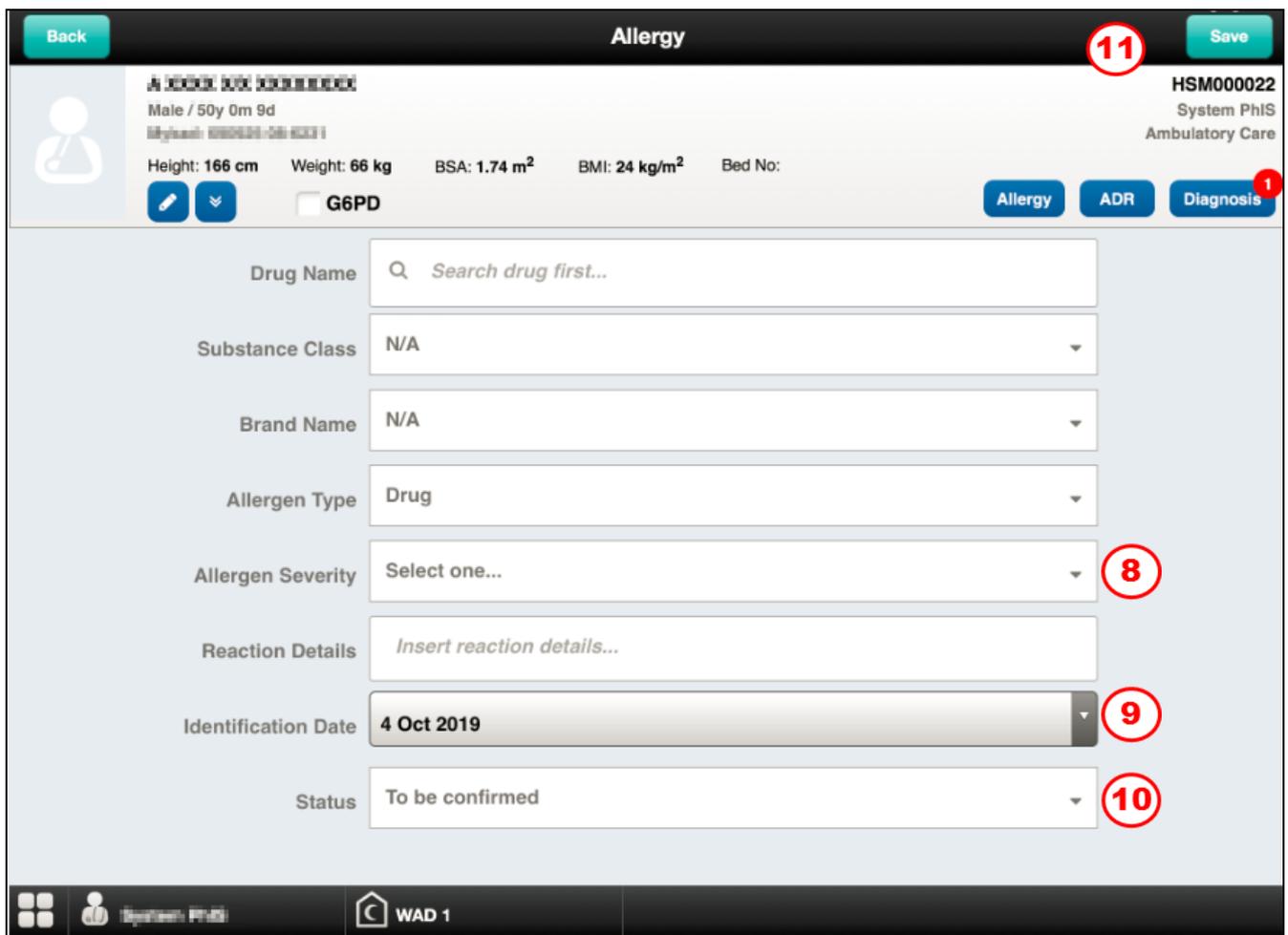


The screenshot displays the 'Allergy' detail screen. At the top, there are 'Back' and 'Save' buttons. Below this, patient information is shown: 'Male / 50y 0m 9d', 'Mykad: [redacted]', 'Height: 166 cm', 'Weight: 66 kg', 'BSA: 1.74 m²', 'BMI: 24 kg/m²', and 'Bed No:'. There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. Below the patient info, there are four tabs: '+ Allergy By Active Ingredient' (selected), '+ Allergy By Substance Class', '+ Allergy By Drug (Non-MOH)', and '+ Allergy By Non Drug'. The 'Allergy By Active Ingredient' tab contains a search field for 'Drug Name' with the placeholder 'Search drug first...'. Other fields include 'Substance Class' (N/A), 'Brand Name' (N/A), 'Allergen Type' (Drug), 'Allergen Severity' (Select one...), 'Reaction Details' (Insert reaction details...), and 'Identification Date' (4 Oct 2019). A red circle with the number 6 is around the selected tab, and a red circle with the number 7 is around the 'Drug Name' search field.

Figure 3.1.1-7 Allergy Detail Screen

STEP 7

Tap on the selected active ingredient



The screenshot displays the 'Allergy' detail screen. At the top, there is a 'Back' button on the left and a 'Save' button on the right. The patient's name is partially visible as 'Male / 50y 0m 9d'. Below this, patient details are listed: Height: 166 cm, Weight: 66 kg, BSA: 1.74 m², BMI: 24 kg/m², and Bed No: [blank]. There is a 'G6PD' checkbox. On the right side, there are buttons for 'Allergy', 'ADR', and 'Diagnosis'. The main form contains the following fields: 'Drug Name' with a search bar; 'Substance Class' set to 'N/A'; 'Brand Name' set to 'N/A'; 'Allergen Type' set to 'Drug'; 'Allergen Severity' set to 'Select one...' (highlighted with a red circle 8); 'Reaction Details' with a text input field; 'Identification Date' set to '4 Oct 2019' (highlighted with a red circle 9); and 'Status' set to 'To be confirmed' (highlighted with a red circle 10). A red circle 11 is located in the top right corner of the screen. The bottom navigation bar shows 'System PhIS' and 'WAD 1'.

Figure 3.1.1-8 Allergy Detail Screen

STEP 8

Select **Allergy Severity** from drop down box :

- Mild
- Moderate
- Severe
- Unknown

STEP 9

Select **Identification Date** of allergy

STEP 10

Select **Status** from drop down box:

- Confirmed
- Resolved
- Suspected
- To be confirmed

Note

Below are the optional fields to be entered:

- a) Brand name
- b) Allergen Type
- c) Allergy Severity
- d) Allergen Description

STEP 11

Tap on the **Save** button to confirm the recorded allergy

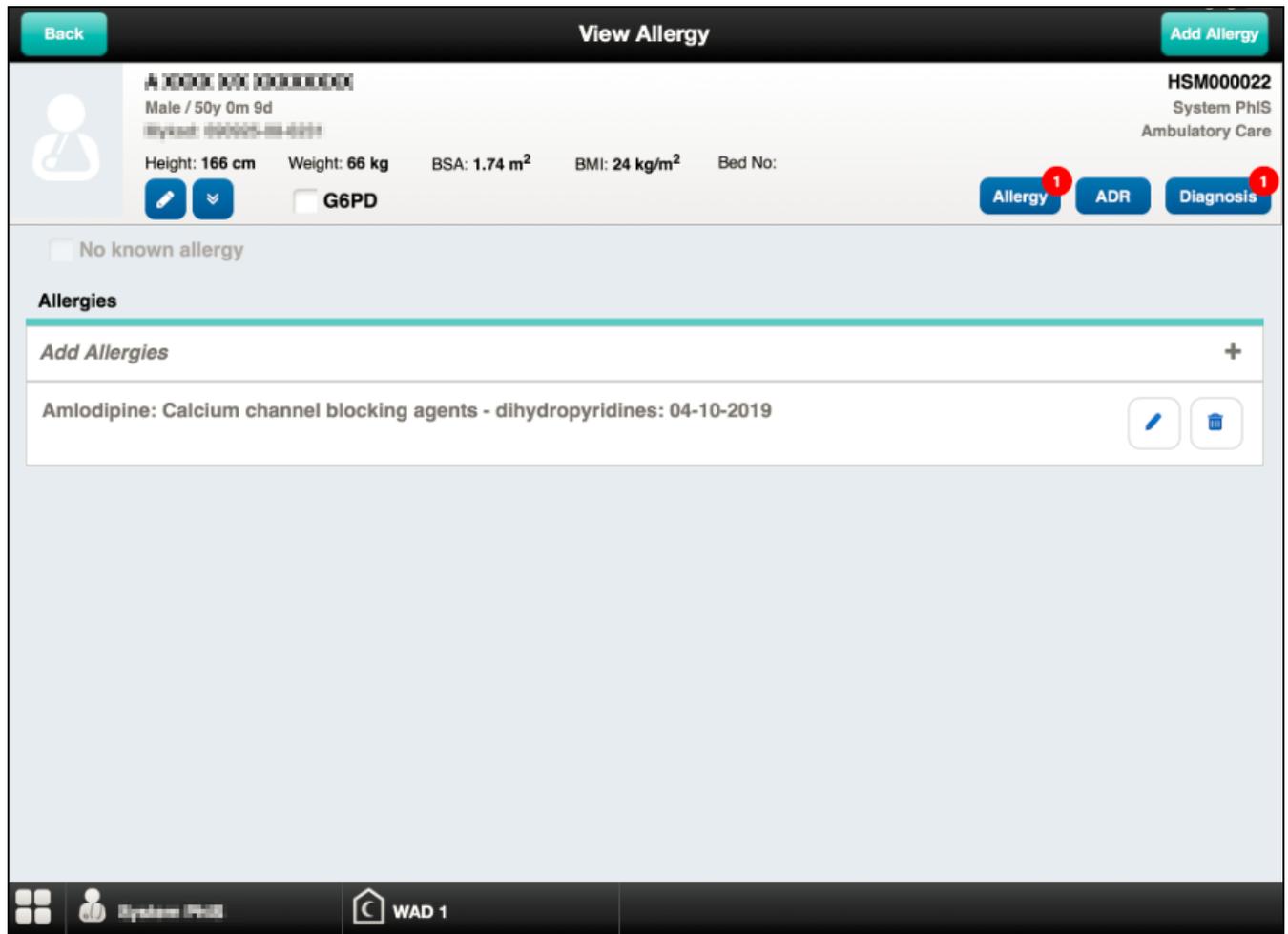


Figure 3.1.1-9 Allergy Detail Screen

Note

- Allergy will be displayed as per figure 3.1.1-9 after save record.

3.1.2 Record Diagnosis

This function is used for prescriber to record summary patient's diagnosis. Record patient diagnosis for every visit is a mandatory process in order to prescribe medication.

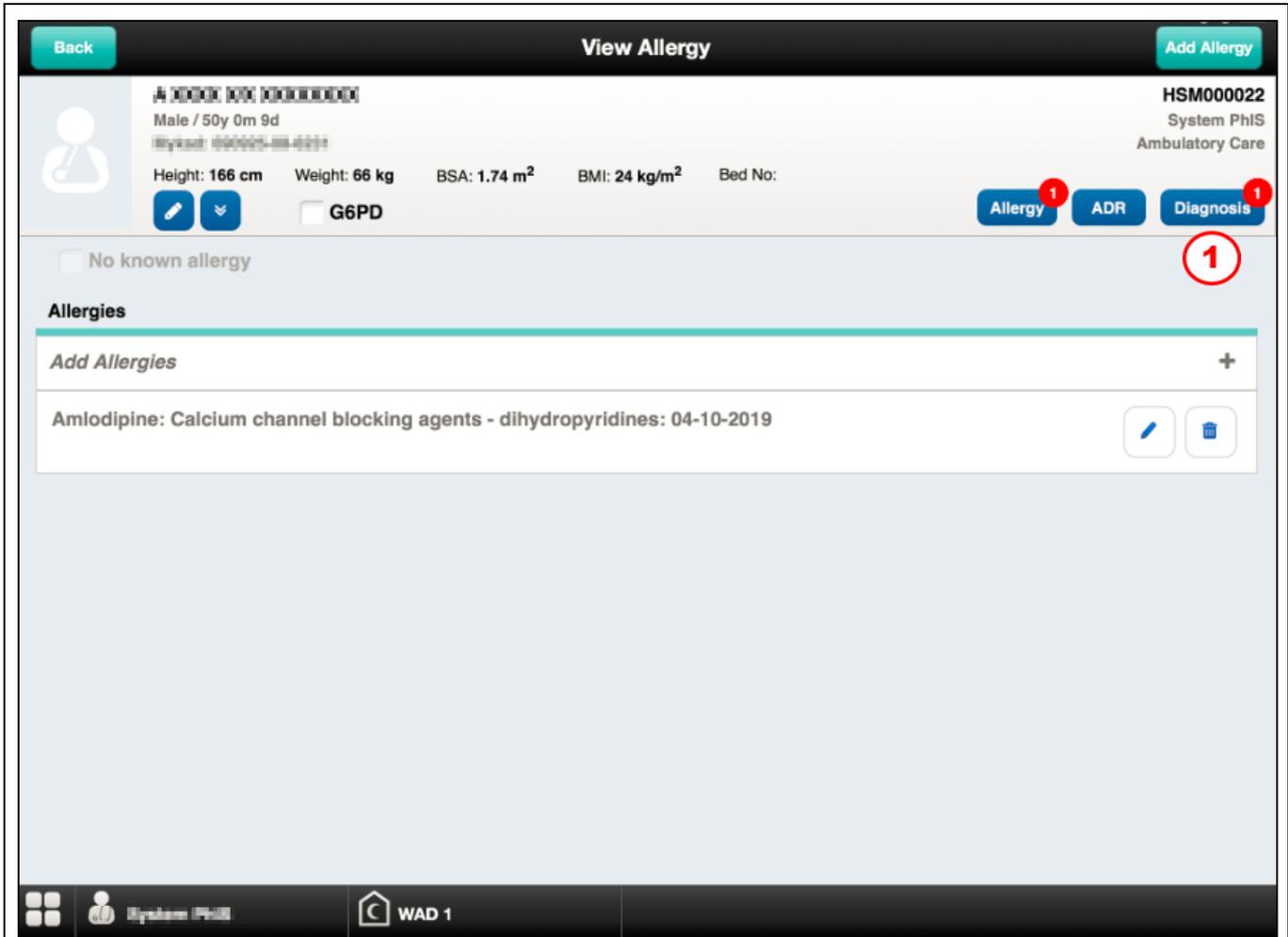


Figure 3.1.2-1 Diagnosis Landing Screen

STEP 1

Tap on the **Diagnosis** to record new diagnosis

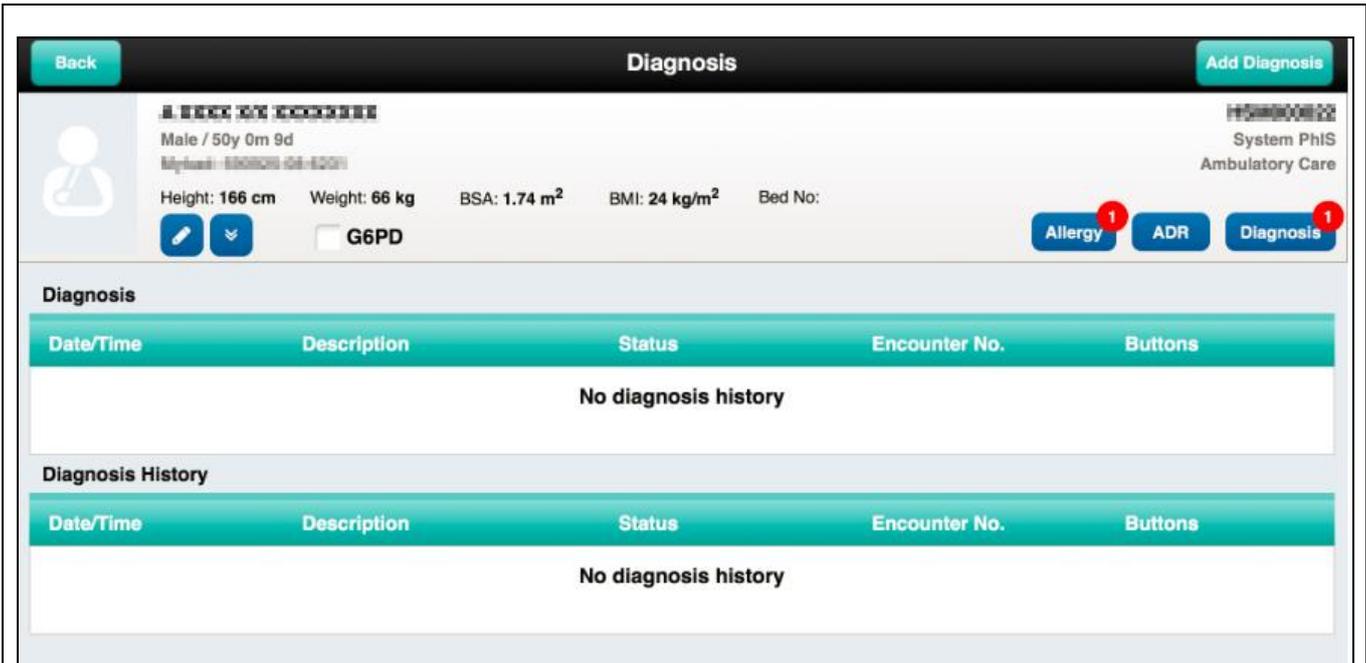


Figure 3.1.2-2 Diagnosis Landing Screen

Note

- *Diagnosis History* to view patient's diagnosis history.

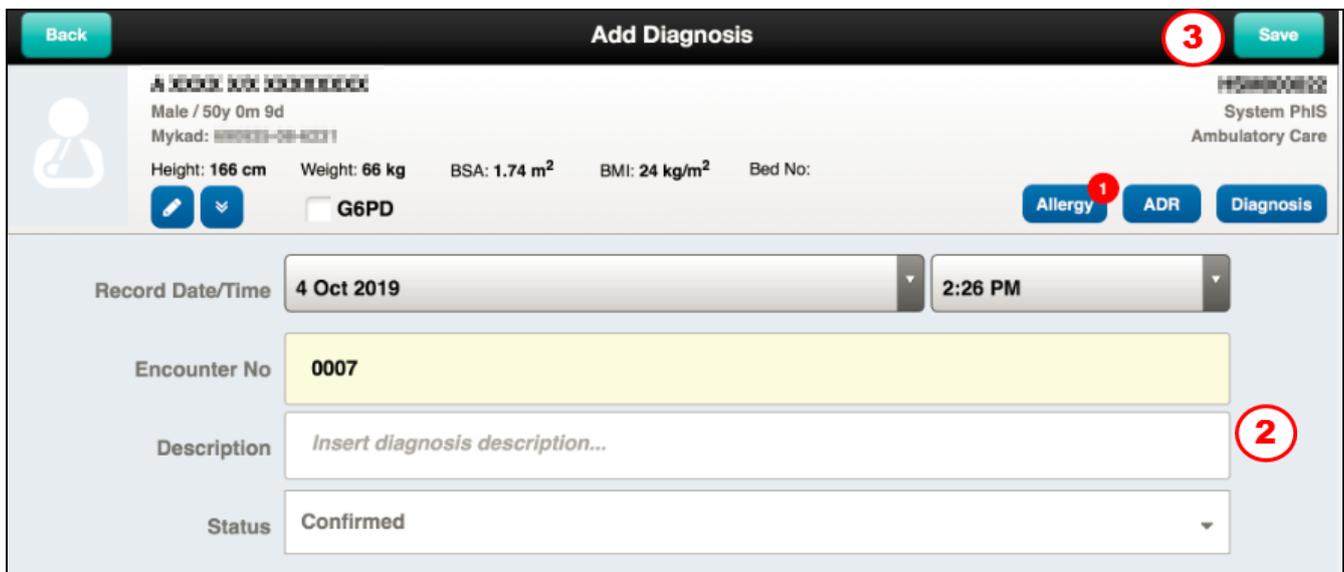


Figure 3.1.2-3 Diagnosis Detail Screen

STEP 2

Enter diagnosis **Description**

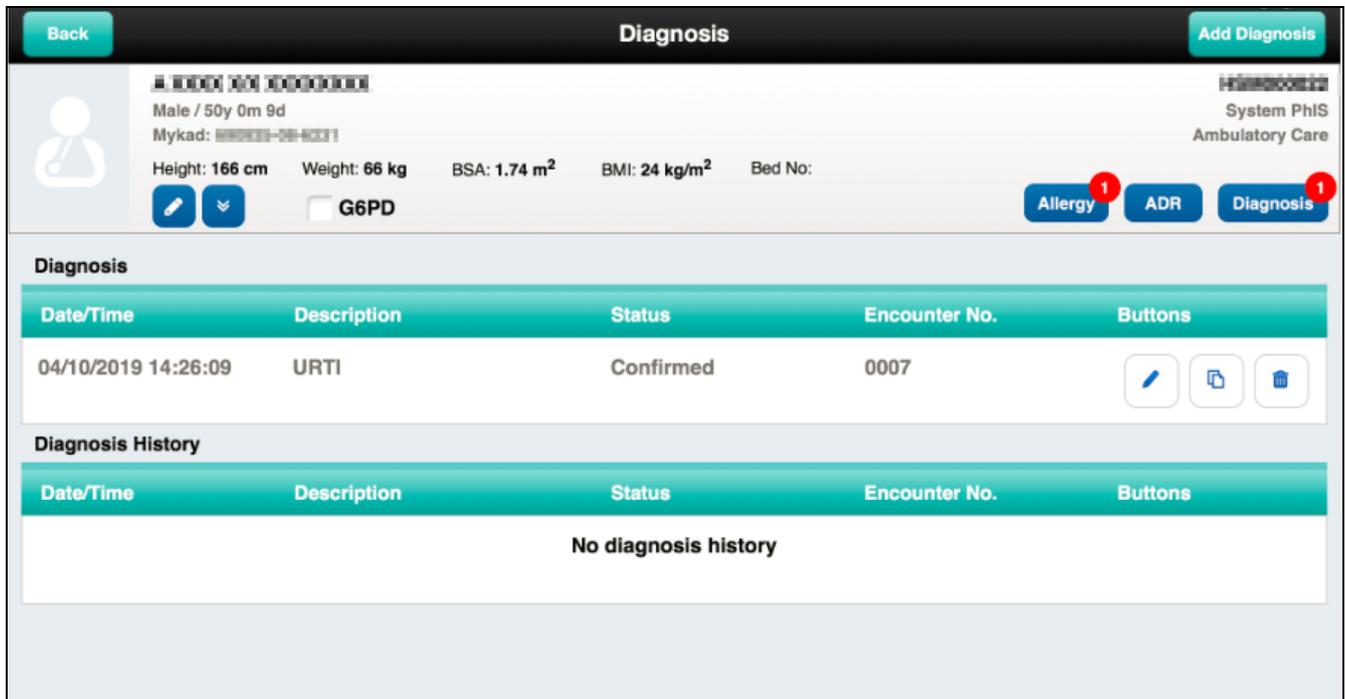
STEP 3

Tap on the **Save** button to confirm the record

Note

- **Record Date/Time** system will default to current date and time, but the user still has the option to select from calendar.

- **Status** will be defaulted to **Confirmed** but users can select from the drop down box for other status:
 - Confirmed
 - Resolved
 - Suspected
 - To be Confirmed



Diagnosis

Back Add Diagnosis

Male / 50y 0m 9d
Mykad: [REDACTED]

Height: 166 cm Weight: 66 kg BSA: 1.74 m² BMI: 24 kg/m² Bed No:

G6PD Allergy ¹ ADR Diagnosis ¹

Date/Time	Description	Status	Encounter No.	Buttons
04/10/2019 14:26:09	URTI	Confirmed	0007	[Edit] [Copy] [Delete]

Diagnosis History

Date/Time	Description	Status	Encounter No.	Buttons
No diagnosis history				

Figure 3.1.2-4 Diagnosis Detail Screen

Note

- Tap  button for record / renew same diagnosis, user need to tap on  button and tap on the **Save** button to confirm the record.
- Recorded diagnosis will displayed as per figure 3.1.2-4

3.1.3 Normal Order

This function is used to prescribe medication for both inpatient and outpatient department.

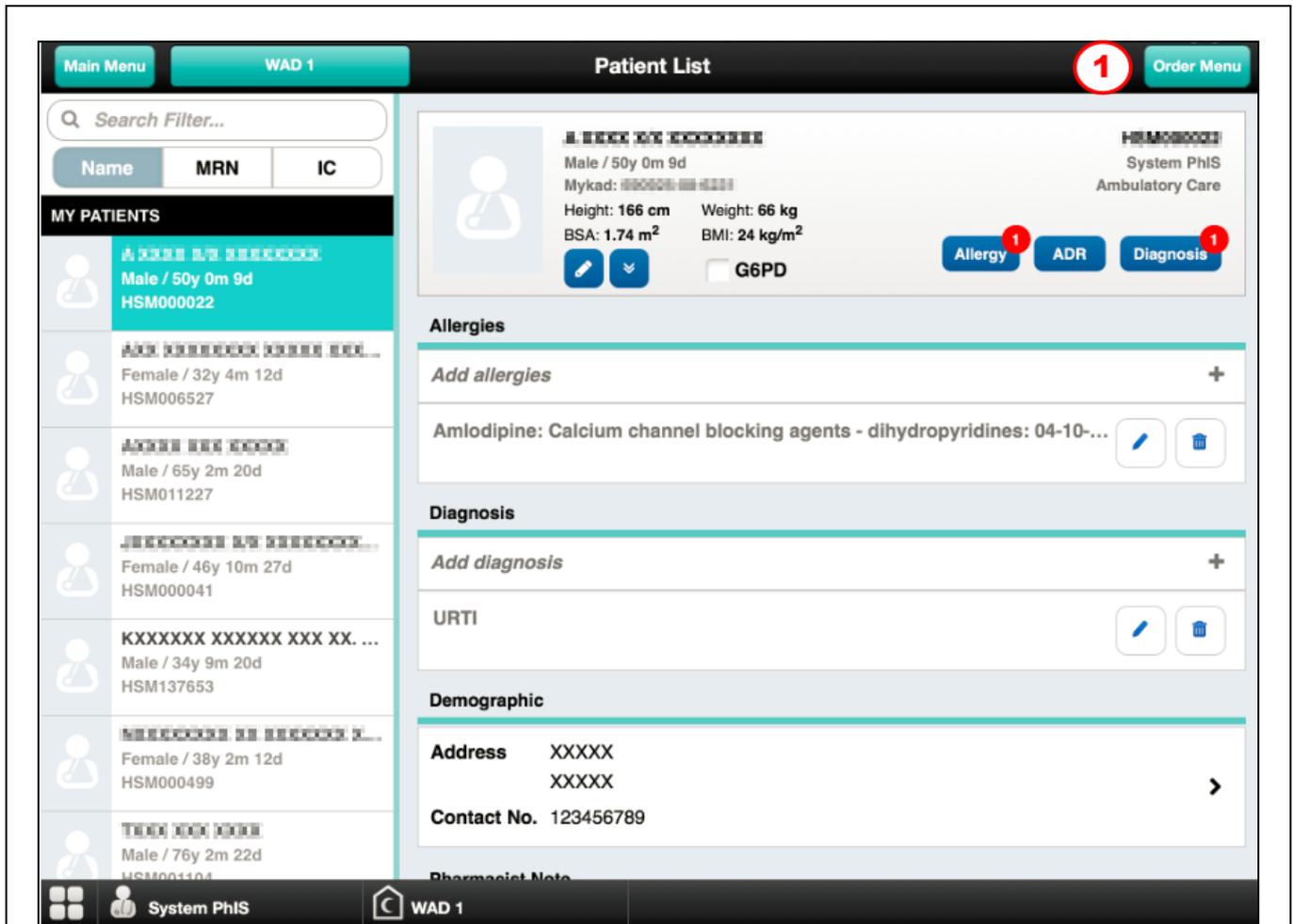


Figure 3.1.3-1 Order Screen Listing Page

Note

Repeat **step 1** until **step 3** as section 3.1.1 record allergy

STEP 1

Tap on the **Order Menu** button

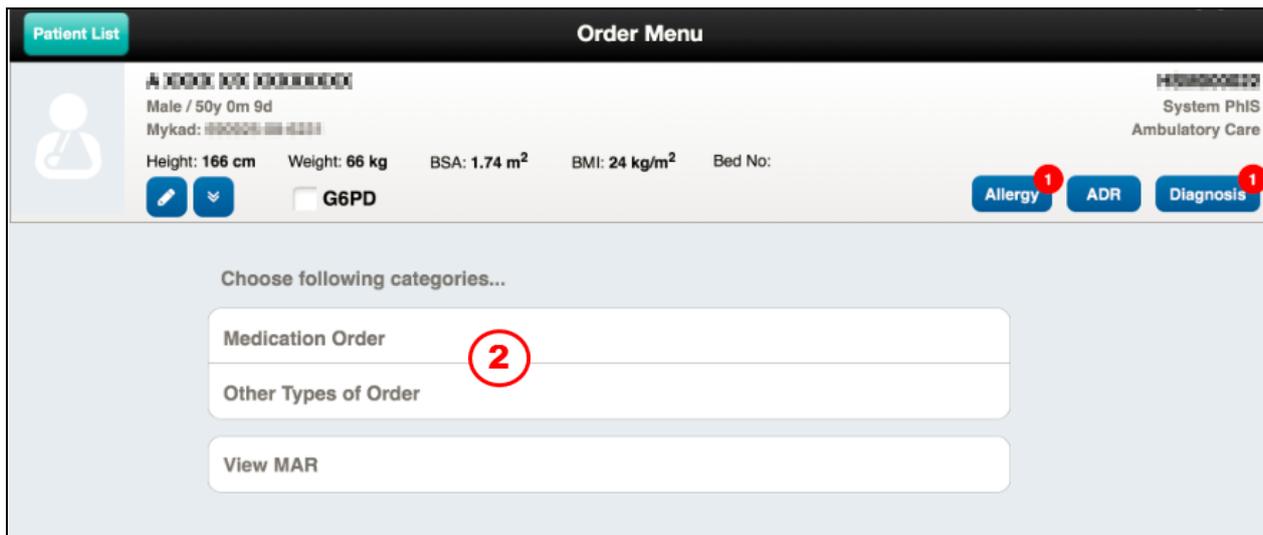


Figure 3.1.3-2 Order Screen Listing Page

STEP 2

Tap on the *Medication Order* field

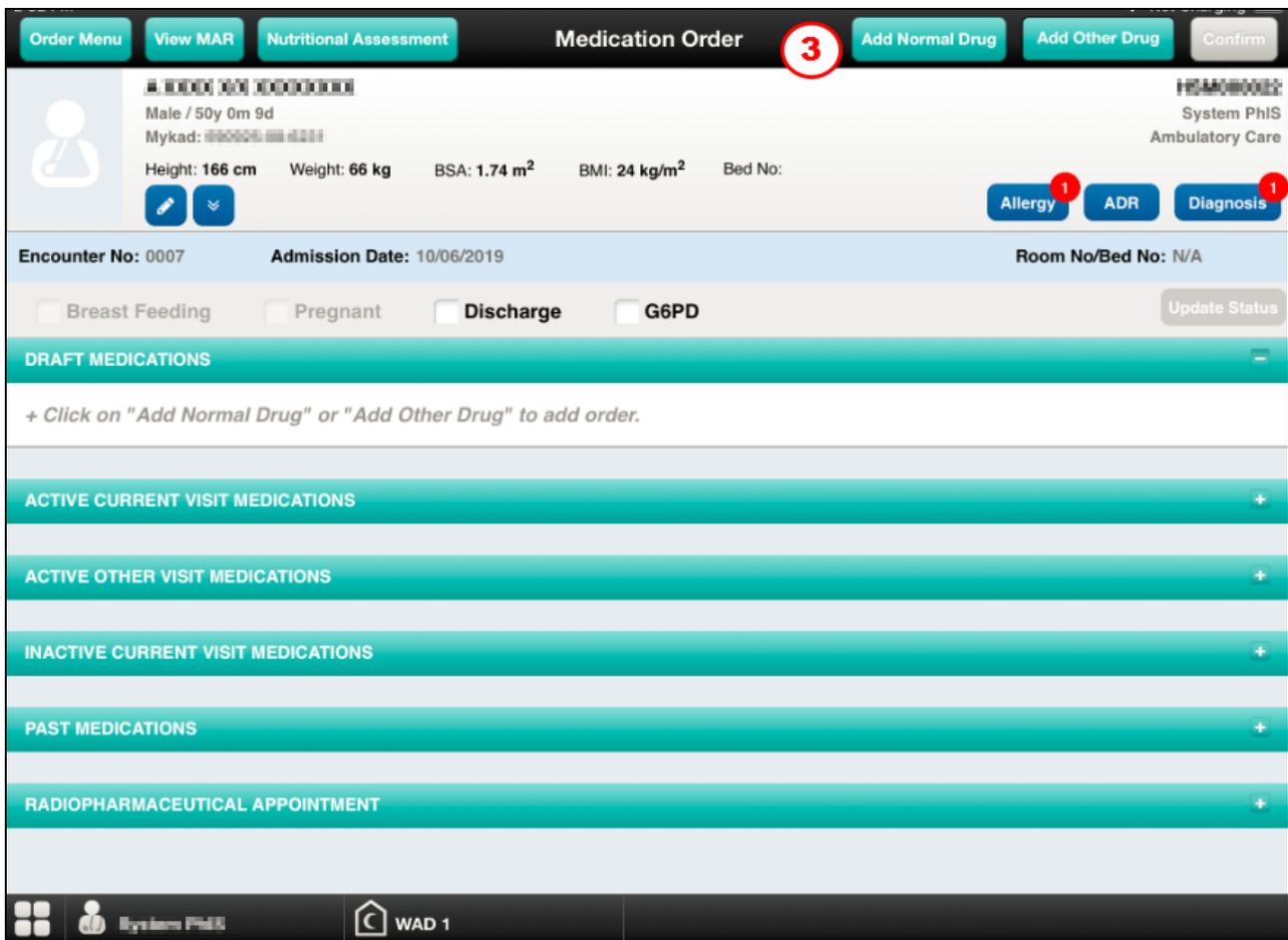


Figure 3.1.3-3 Order Screen Listing Page

Note

- Breast Feeding and Pregnant checkboxes are only applicable for female patient.
- Prescriber able to update on **G6PD** checkbox as appear in Figure 3.1.3-3. **G6PD** refer as Deficiency enzyme of Glukosa-6-Fostat Dehydrogenase

STEP 3

Tap on the **Add Normal Drug** button

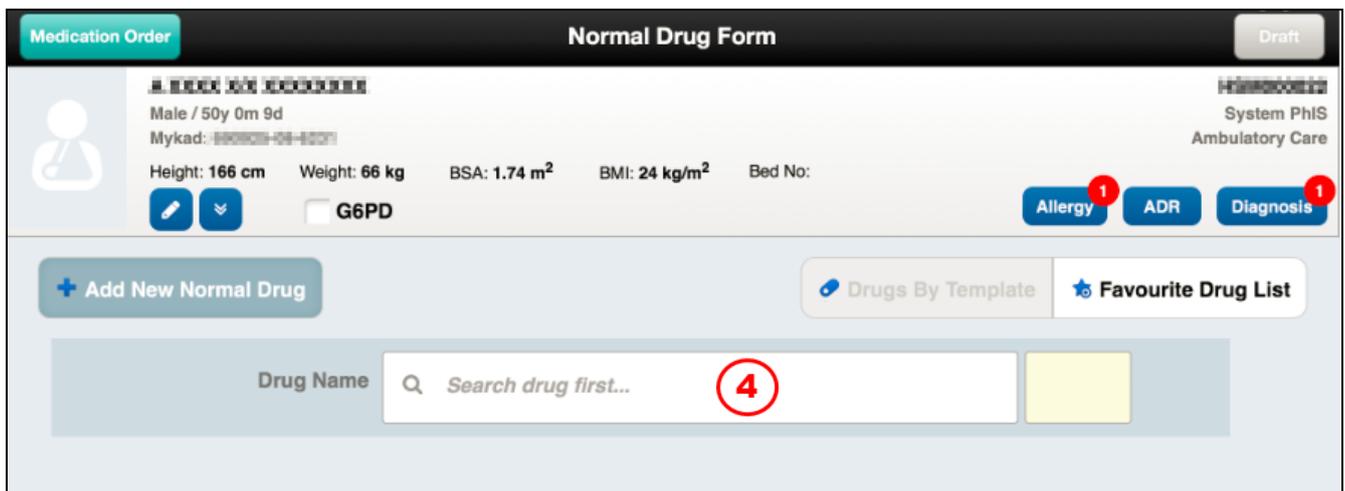


Figure 3.1.3-4 Order Screen Listing Page

STEP 4

Search drug by enter keyword of the drug name

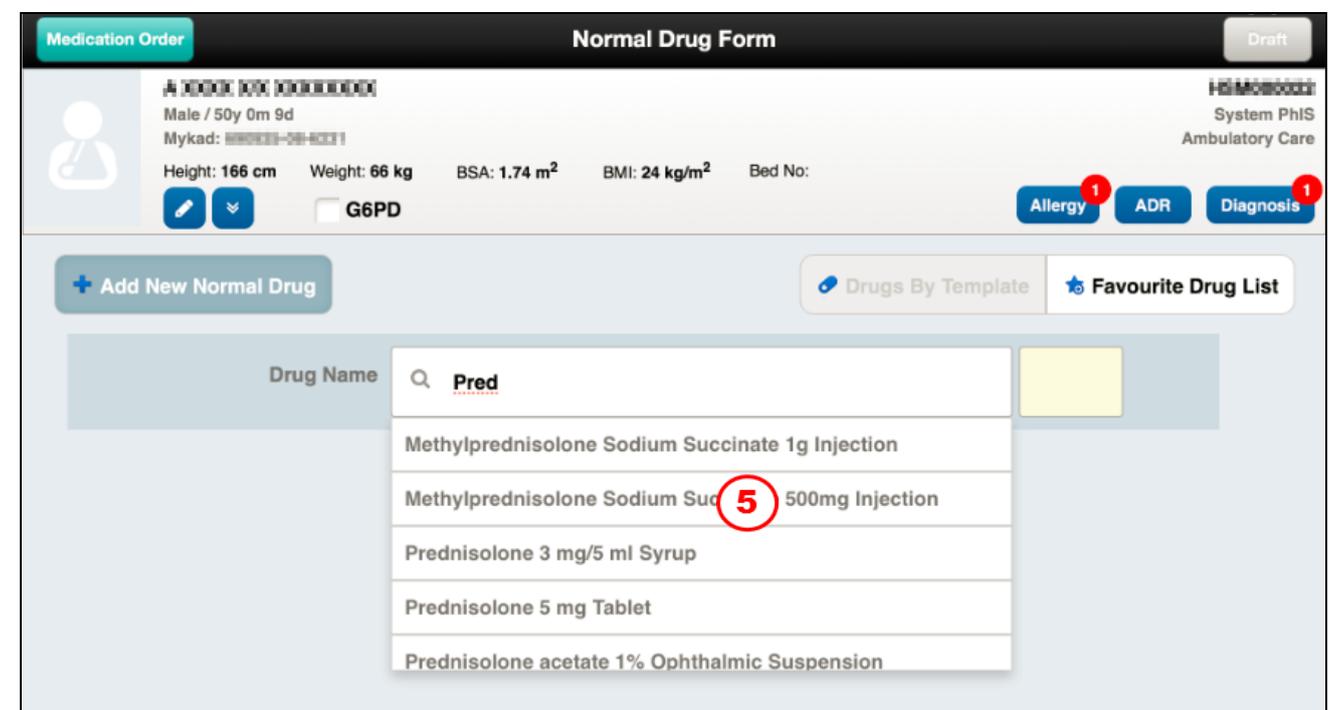


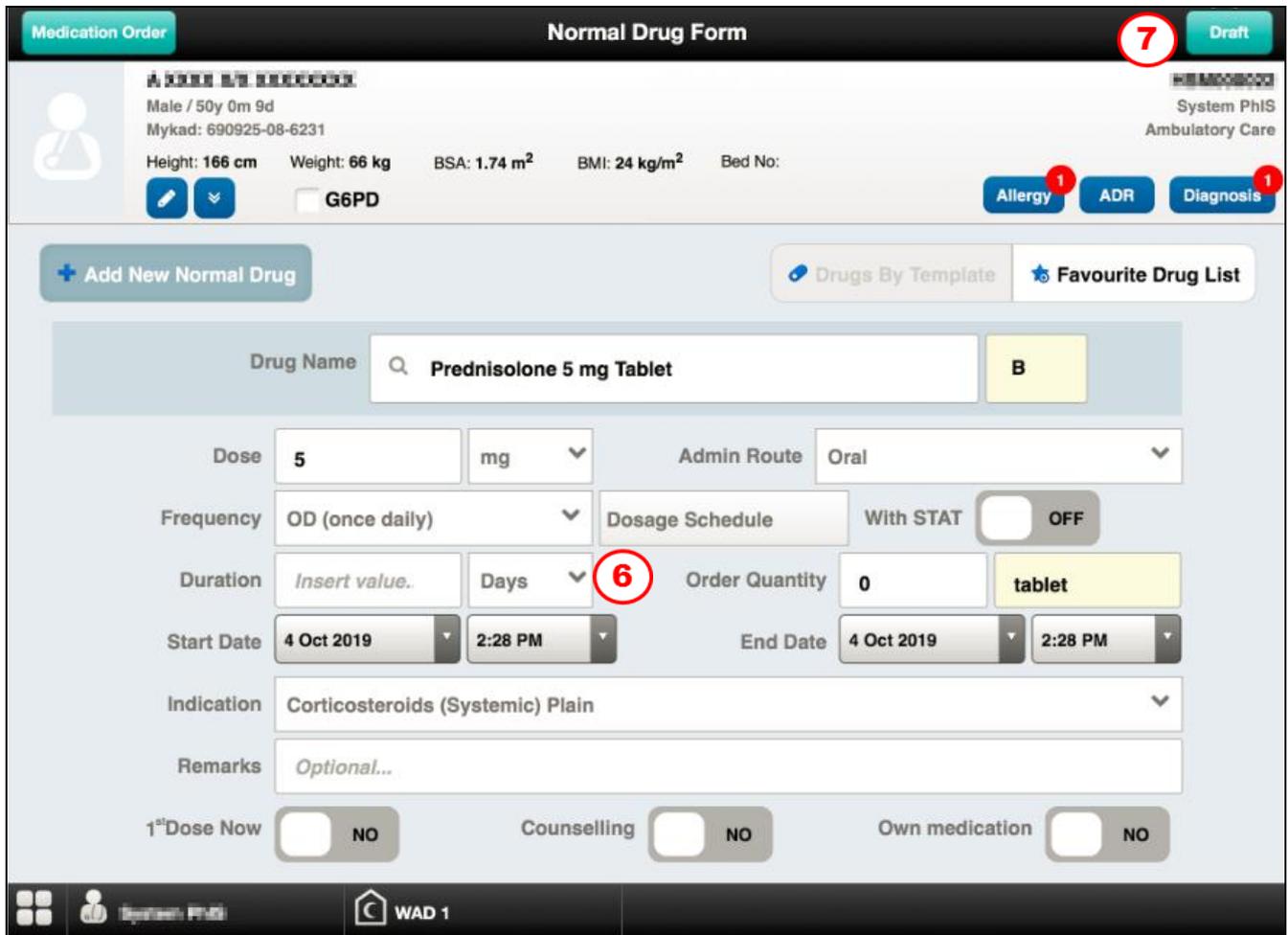
Figure 3.1.3-5 Order Screen Listing Page

STEP 5

Tap on the selected drug from displayed list

Note

This list will be displayed with the result of any drug active ingredient or trade name contains the search text criteria.



The screenshot displays the 'Normal Drug Form' interface. At the top, there is a 'Medication Order' header and a 'Draft' button (7). Below this, patient details are shown: Male / 50y 0m 9d, Mykad: 690925-08-6231, Height: 166 cm, Weight: 66 kg, BSA: 1.74 m², BMI: 24 kg/m², and Bed No: [blank]. There are also buttons for 'Allergy' (1), 'ADR', and 'Diagnosis' (1). The main section is titled 'Normal Drug Form' and contains a search bar with 'Prednisolone 5 mg Tablet' and a 'B' button. Below the search bar, there are fields for 'Dose' (5 mg), 'Admin Route' (Oral), 'Frequency' (OD (once daily)), 'Duration' (Insert value.. Days) (6), 'Order Quantity' (0 tablet), 'Start Date' (4 Oct 2019 2:28 PM), and 'End Date' (4 Oct 2019 2:28 PM). There are also sections for 'Indication' (Corticosteroids (Systemic) Plain) and 'Remarks' (Optional...). At the bottom, there are checkboxes for '1stDose Now' (NO), 'Counselling' (NO), and 'Own medication' (NO). A bottom navigation bar shows 'WAD 1'.

Figure 3.1.3-6 Normal Order Detail Screen

STEP 6

Enter **Duration** and select days/months or weeks from drop down menu

STEP 7

Tap on the **Draft** button to add drug in prescription list

Note

- **Start Date/Time** will be defaulted to current date.
- **End Date/Time** will be calculated based on the Duration.
- **Dosage, Admin Route and Frequency** will be retrieved from master setup, however prescriber can amend the value accordingly as required
- Insert drug with other frequency and select **with STAT** checkbox.

- **Counselling Indication** checkbox can be selected if prescriber want pharmacist to counsel the patient on the medicines.
- Check the **Own Medication** checkbox if patient brought and used their own medication. Only applicable for inpatient and where pharmacist do not supply medication to the wards.
- Enter **Drug Remark** if applicable.

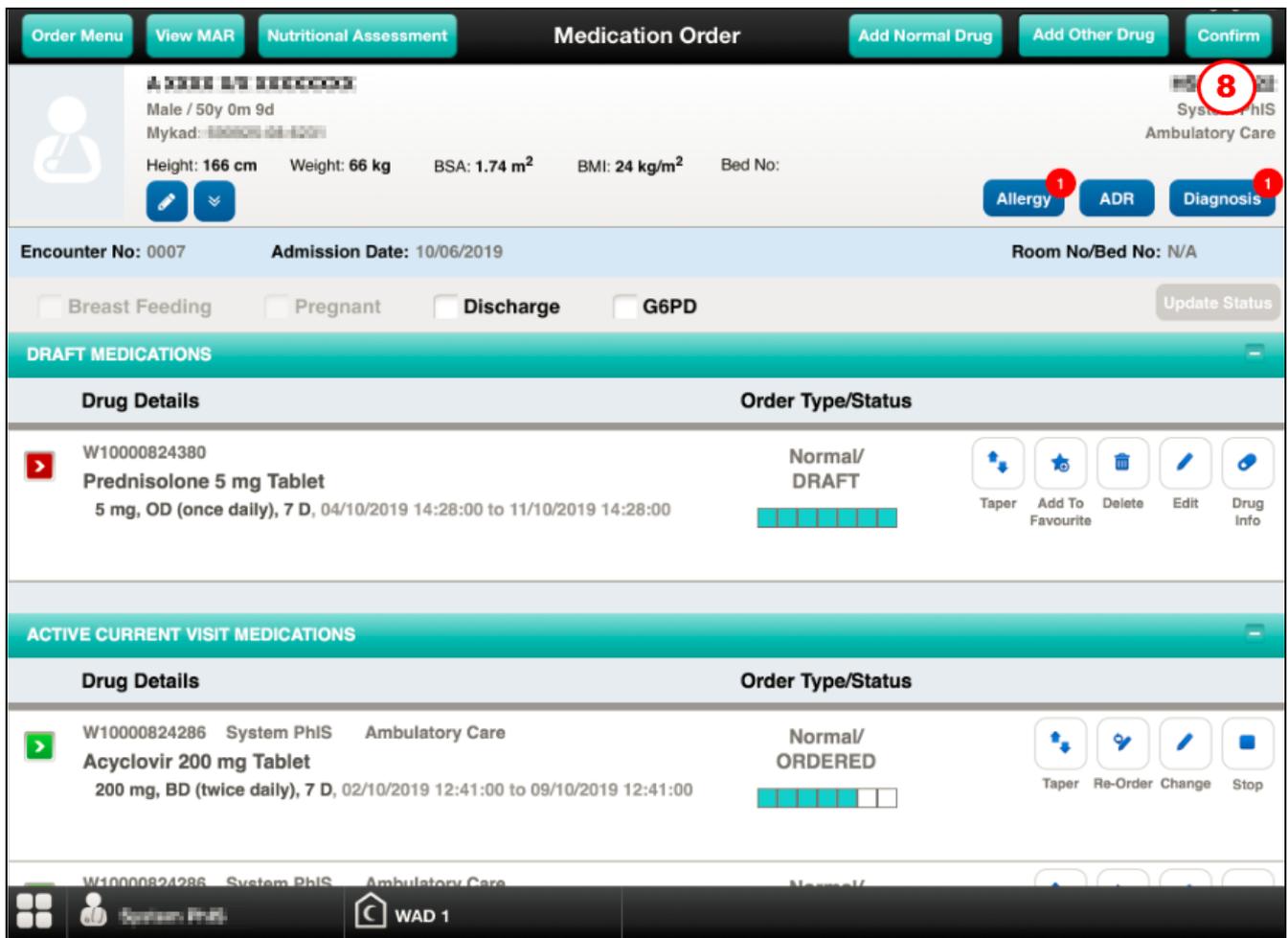


Figure 3.1.3-7 Normal Order Detail Screen

Note

- To add another drug in prescription repeat **Step 1** to **7**
- Order Status = 'Draft' , saved prescription but has not been confirmed.

STEP 8

Tap on the **Confirm** button to confirm order and prescription will sent to pharmacy for dispensing

Note

- For paediatric patient, there will be a dose calculator for children dose calculation (dose/kg weight) for child below ref age.

Figure 3.1.3-8 Normal Order Detail Screen

- After enter patient weight and height and calculator will count for BSA automatically.

Figure 3.1.3-8 Normal Order Detail Screen

- Once dose has been calculated, tap on Close  button. Dose will be auto calculated and this value will be copied automatically to Dose column.

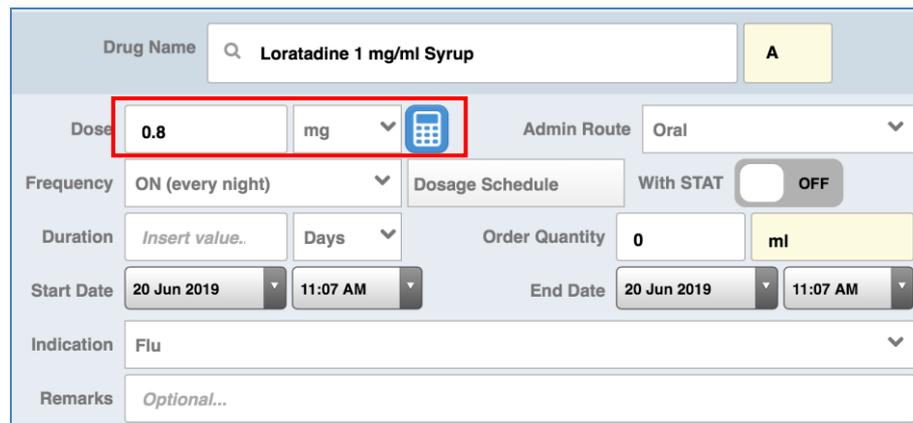


Figure 3.1.3-9 Normal Order Detail Screen

- Calculated Dose unit will auto change to a unit dose as per drugs, depends on the selected drugs.
 - If drug unit dose in IU, Dose will be shown as IU/kg or IU/BSA m². Calculated Dose show as IU.
 - If unit dose in ml, Dose will be shown as ml/kg or ml/BSA m². Calculated Dose field show as ml.
 - If unit dose in vial, Dose will be shown as vial/kg or vial/ BSA m². Calculated Dose field show as vial.
 - If unit dose in mcg, Dose will be shown as mcg/kg or mcg/ BSA m². Calculated Dose field show as mcg.
- Below is the formula for Calculated Dose for Paediatrician:
 - User Enter a value (example) : Weight=11.3kg, Height=43cm, Dose=25
BSA (m²) formula as: $\text{SQRT}([\text{Height}(\text{cm}) \times \text{Weight}(\text{kg})] / 3600)$ – Mosteller formula
 - $\text{BSA} (\text{m}^2) = \text{SQRT} ([11.3\text{kg} \times 43\text{cm}] / 3600) = \text{SQRT}[(485.9 / 3600)] = \text{ROUND UP 2 DIGIT } 0.37 \text{ m}^2$
- Unit Dose depends on selected drug unit dose and has option as <unit dose>/BSA or <unit dose>/kg.

Note

- Master Index of Medical Specialities (MIMS) will alert if there is any drug interaction.
- On tap of confirm button, system will check if diagnosis already entered or not.
- If diagnosis is entered, order will be confirmed. Medication order screen will be displayed.
- If diagnosis is not entered, diagnosis screen will be displayed. On tap of save button diagnosis will be save and order will be confirmed. Medication order screen will be displayed.
- For inpatient order, user allowed to create order duration maximum to 7 days. The bar indicator will indicate the number of days order is being created. If all bar coloured (green), it means order duration is for 7 days. Otherwise it will be blank.



The screenshot displays the 'Medication Order' screen in a mobile application. At the top, there are navigation buttons: 'Order Menu', 'View MAR', 'Nutritional Assessment', 'Medication Order', 'Add Normal Drug', 'Add Other Drug', and 'Confirm'. Below this is a patient information section with a profile icon, gender/age ('Male / 50y 0m 9d'), MyKad number, and physical attributes (Height: 166 cm, Weight: 66 kg, BSA: 1.74 m², BMI: 24 kg/m², Bed No:). There are also buttons for 'Allergy', 'ADR', and 'Diagnosis', each with a red notification badge showing '1'. Encounter details include 'Encounter No: 0007', 'Admission Date: 10/06/2019', and 'Room No/Bed No: N/A'. Below this are checkboxes for 'Breast Feeding', 'Pregnant', 'Discharge', and 'G6PD', along with an 'Update Status' button. The main section is divided into 'DRAFT MEDICATIONS' and 'ACTIVE CURRENT VISIT MEDICATIONS'. The 'DRAFT MEDICATIONS' section shows a single entry for 'Prednisolone 5 mg Tablet' with order type 'Normal/DRAFT' and a 7-day duration. The 'ACTIVE CURRENT VISIT MEDICATIONS' section shows 'Acyclovir 200 mg Tablet' with order type 'Normal/ORDERED' and a 7-day duration. At the bottom, there is a navigation bar with icons for home, back, and other functions, and a status bar showing 'WAD 1'.

Figure 3.1.3-10 Normal Order Detail Screen

Note

Order Status = 'ORDERED' , confirmed prescription as per Figure 3.1.3-10

3.1.4 Add to Favorite

Prescriber able to create their own favourite medication list for regular used. This is the quicker way to search the drug by favourite list rather than whole drug master.

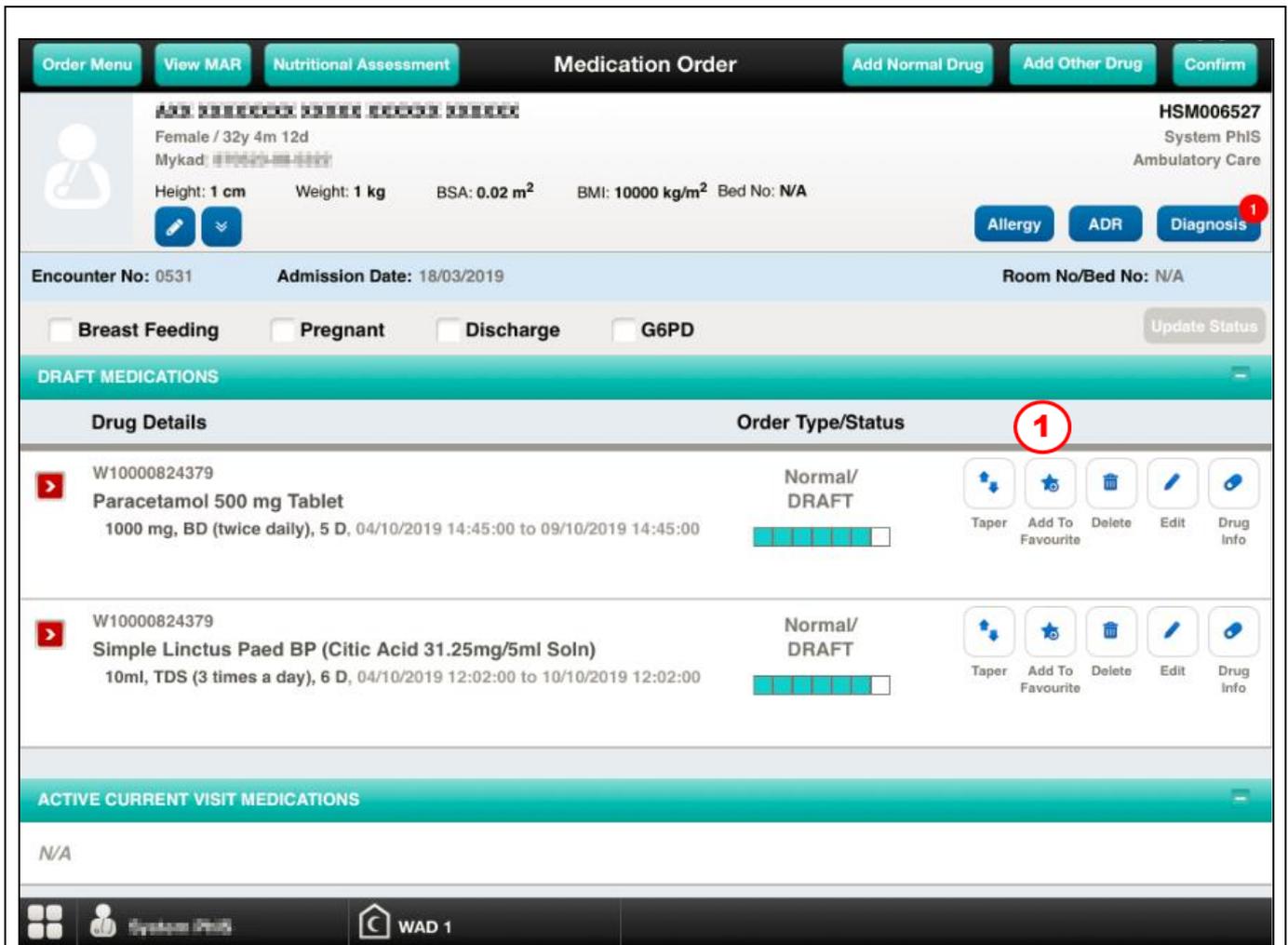


Figure 3.1.4-1 Add to Favorites Option Screen

Note

Repeat normal order, follow **Step 1** to **7**.

STEP 1

Tap on the  button from the selected drug

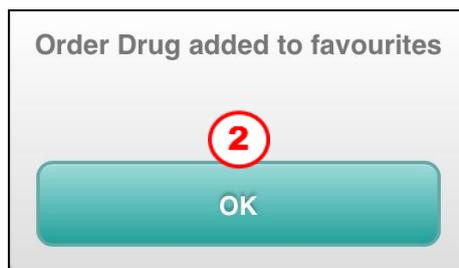


Figure 3.1.4-2 Add to Favorites Option Screen

STEP 2

Tap on the  button from displayed alert message

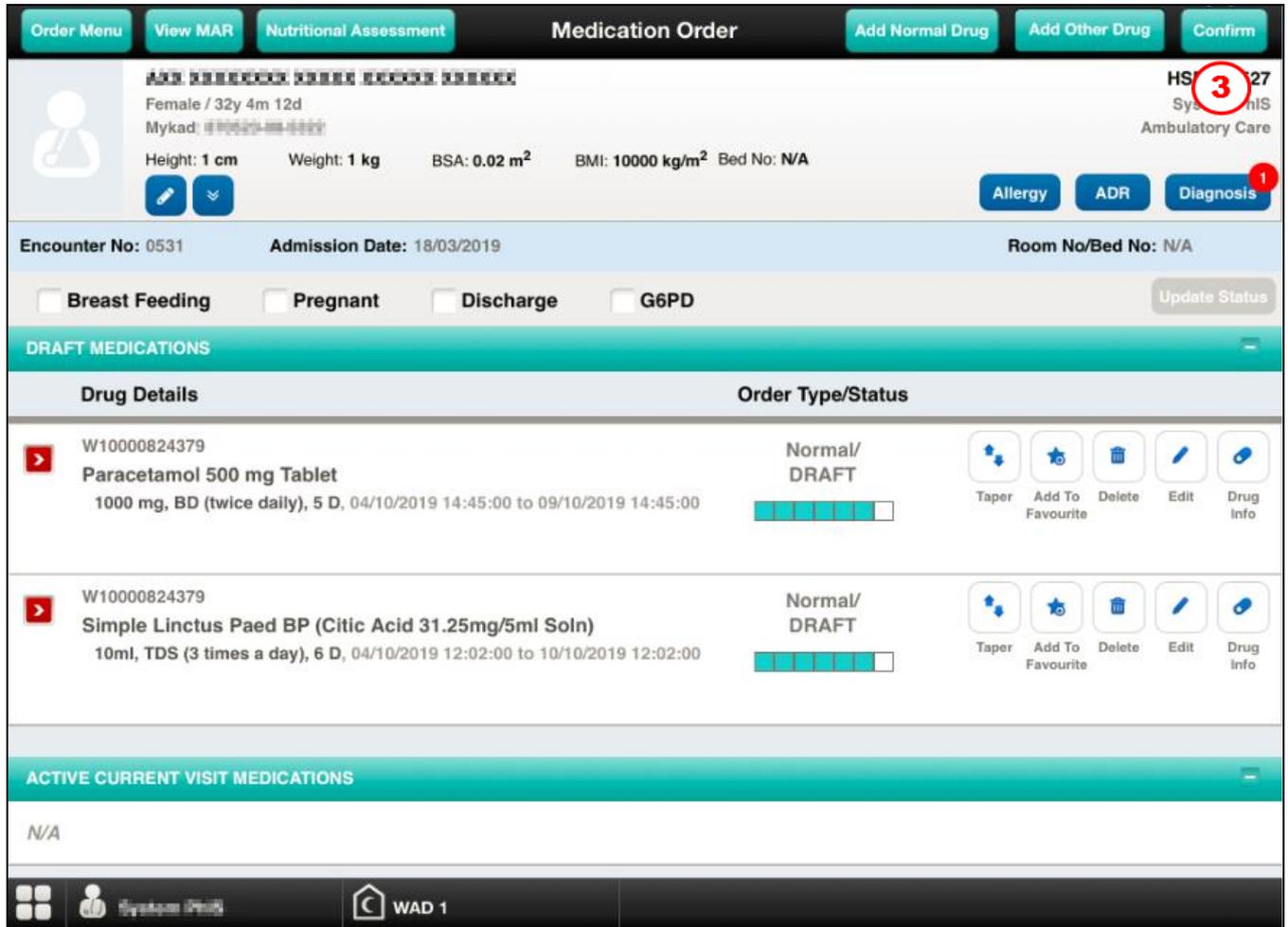


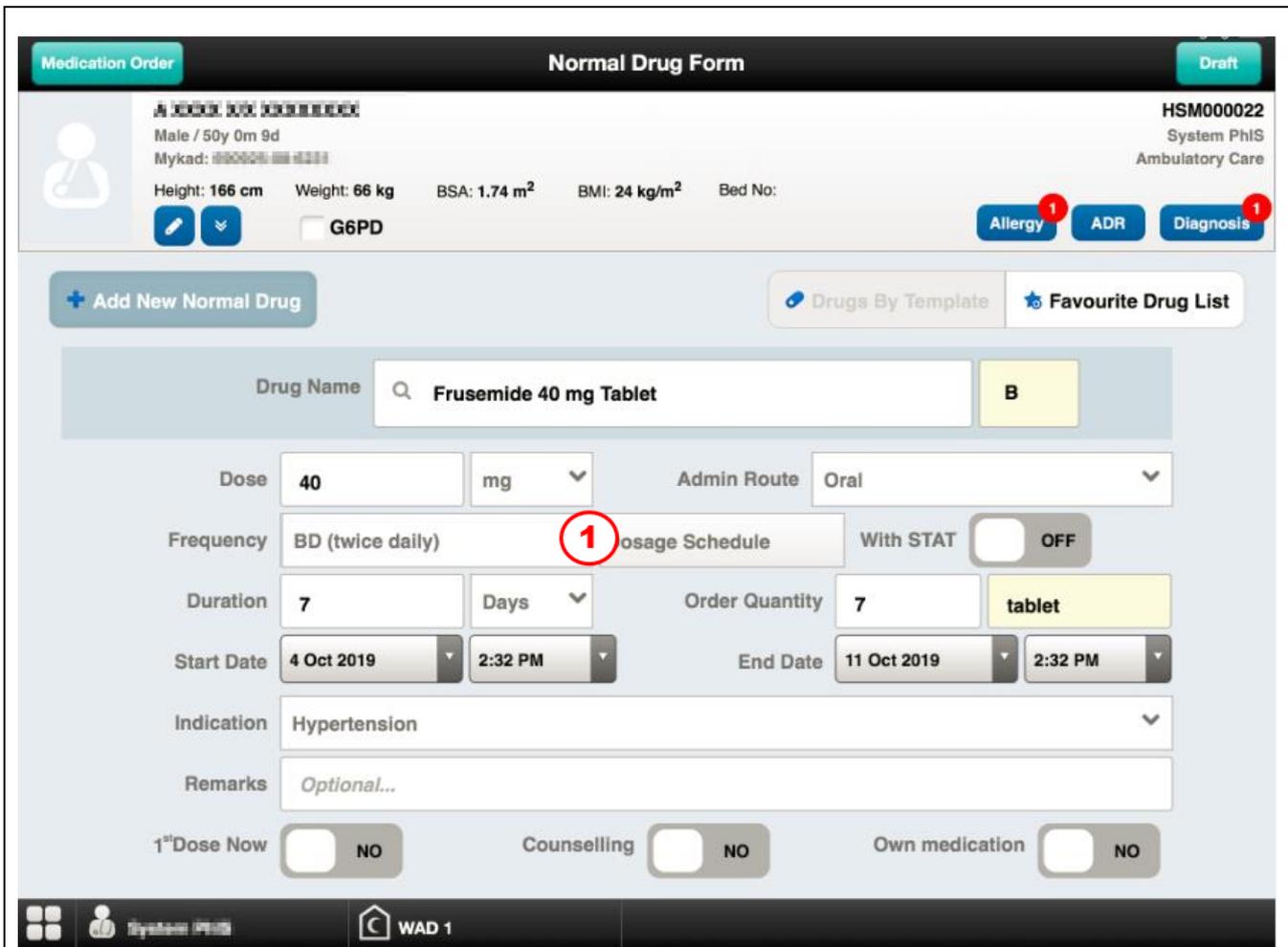
Figure 3.1.4-3 Add to Favorites Option Screen

STEP 3

Tap on the  button to confirm order and prescription will sent to pharmacy for dispensing

3.1.5 Split Dose

This function is used to create multi dosing in a way to administer in a different time with different dosage.



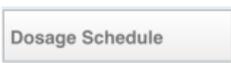
The screenshot shows the 'Normal Drug Form' screen. At the top, there's a 'Medication Order' header and a 'Draft' button. Patient details include 'Male / 50y 0m 9d', 'Mykad: 8809028-88-8333', 'Height: 166 cm', 'Weight: 66 kg', 'BSA: 1.74 m²', 'BMI: 24 kg/m²', and 'Bed No:'. There are buttons for 'Allergy', 'ADR', and 'Diagnosis', each with a red '1' notification. The main form area has a search bar for 'Drug Name' containing 'Frusemide 40 mg Tablet'. Below this, there are fields for 'Dose' (40 mg), 'Admin Route' (Oral), 'Frequency' (BD (twice daily)), 'Duration' (7 Days), 'Order Quantity' (7 tablet), 'Start Date' (4 Oct 2019, 2:32 PM), and 'End Date' (11 Oct 2019, 2:32 PM). The 'Frequency' field has a red circle with the number '1' around the 'Dosage Schedule' button. Other fields include 'Indication' (Hypertension), 'Remarks' (Optional...), and checkboxes for '1st Dose Now', 'Counselling', and 'Own medication', all set to 'NO'.

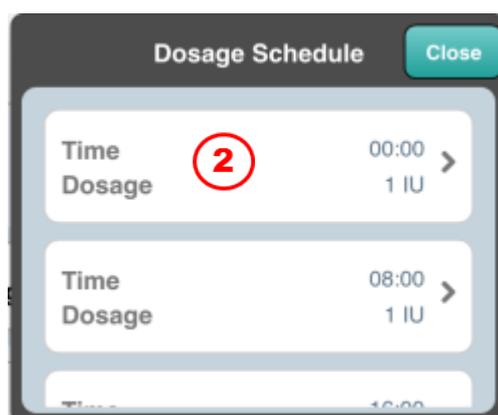
Figure 3.1.5-1 Normal Order Screen

Note

To prescribe split dose, repeat as normal order from **Step 1** to **7**.

STEP 1

Click on the  button and schedule box will displayed as per Figure 3.1.5-2



The screenshot shows the 'Dosage Schedule' screen with a 'Close' button at the top right. It displays a list of dosing entries. The first entry has 'Time' 00:00 and 'Dosage' 1 IU. The 'Dosage' field is circled in red with the number '2'. The second entry has 'Time' 08:00 and 'Dosage' 1 IU. There are right-pointing arrows next to the times, indicating they are clickable.

Figure 3.1.5-2 Dosage Schedule Screen

STEP 2

Tap on the dose for each **Time / Dosage** schedule

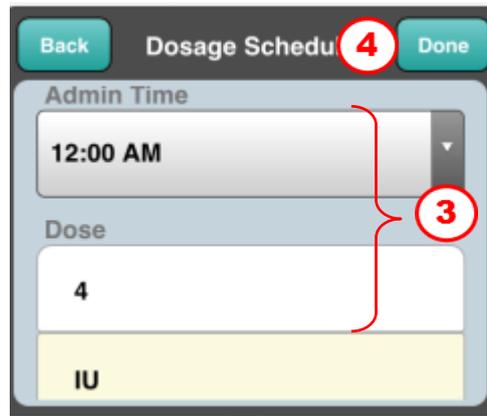


Figure 3.1.5-3 Split Dose Schedule Screen

STEP 3

Enter **Admin Time** and **Dose** for each administration

STEP 4

Tap on the **Done** button to save record

Note

Prescriber is allowed to change the admin time if necessary. Number of column displayed based on frequency selected.

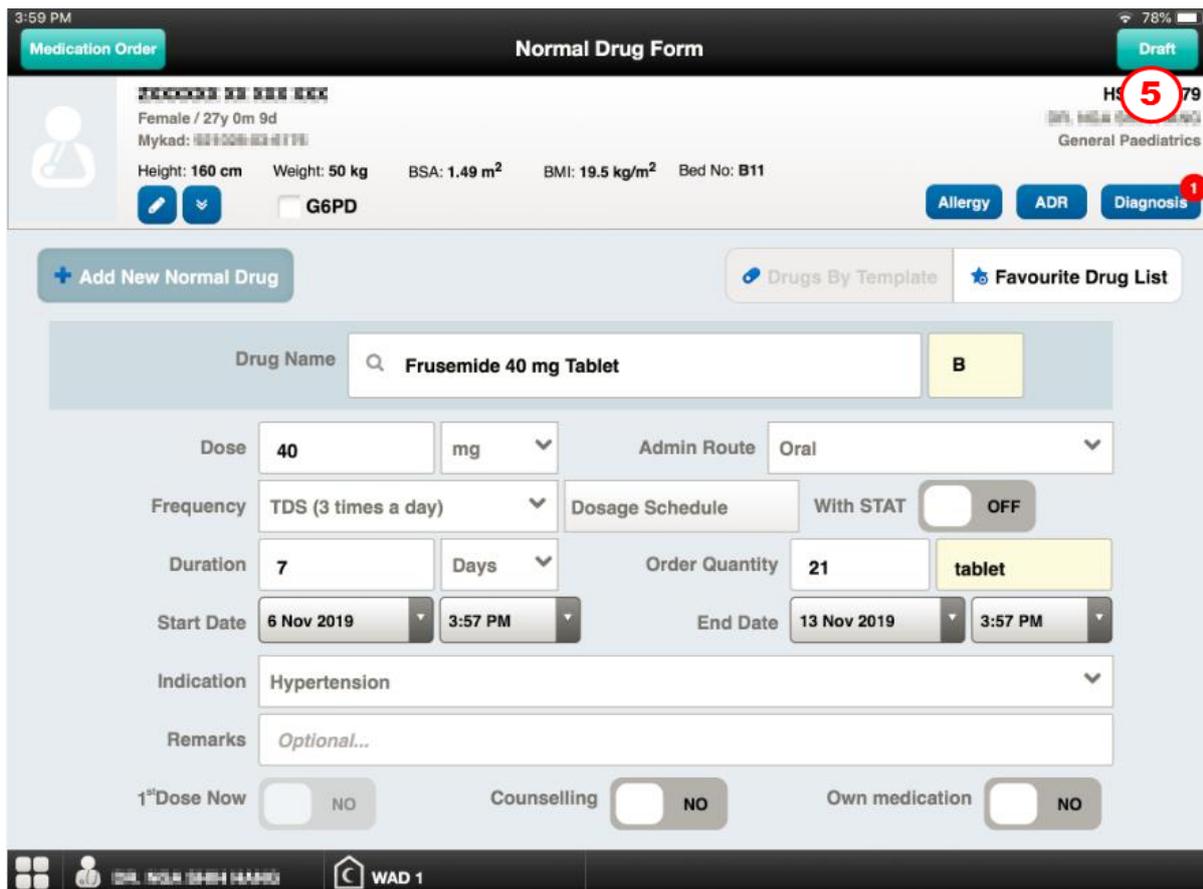


Figure 3.1.5-4 Order Screen

STEP 5

Click on the **Draft** button to add drug in prescription list

Note

Split dose is only applicable for selected drug as defined in the Drug Master setup

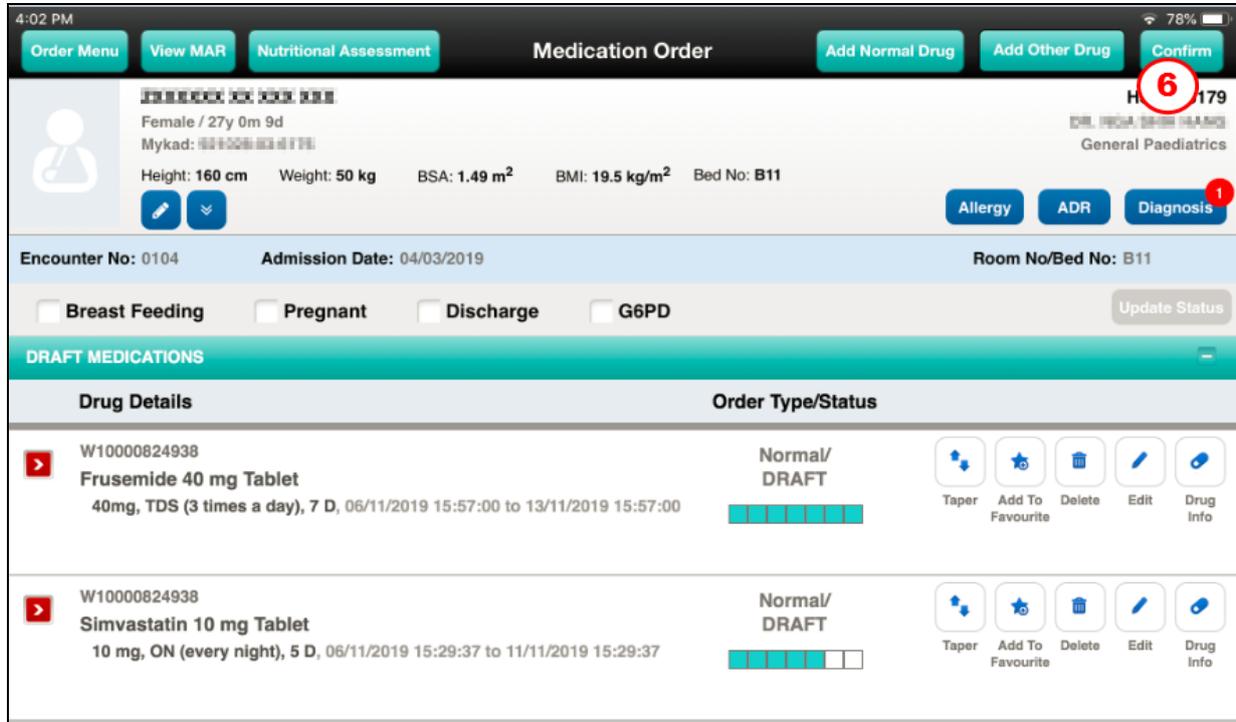
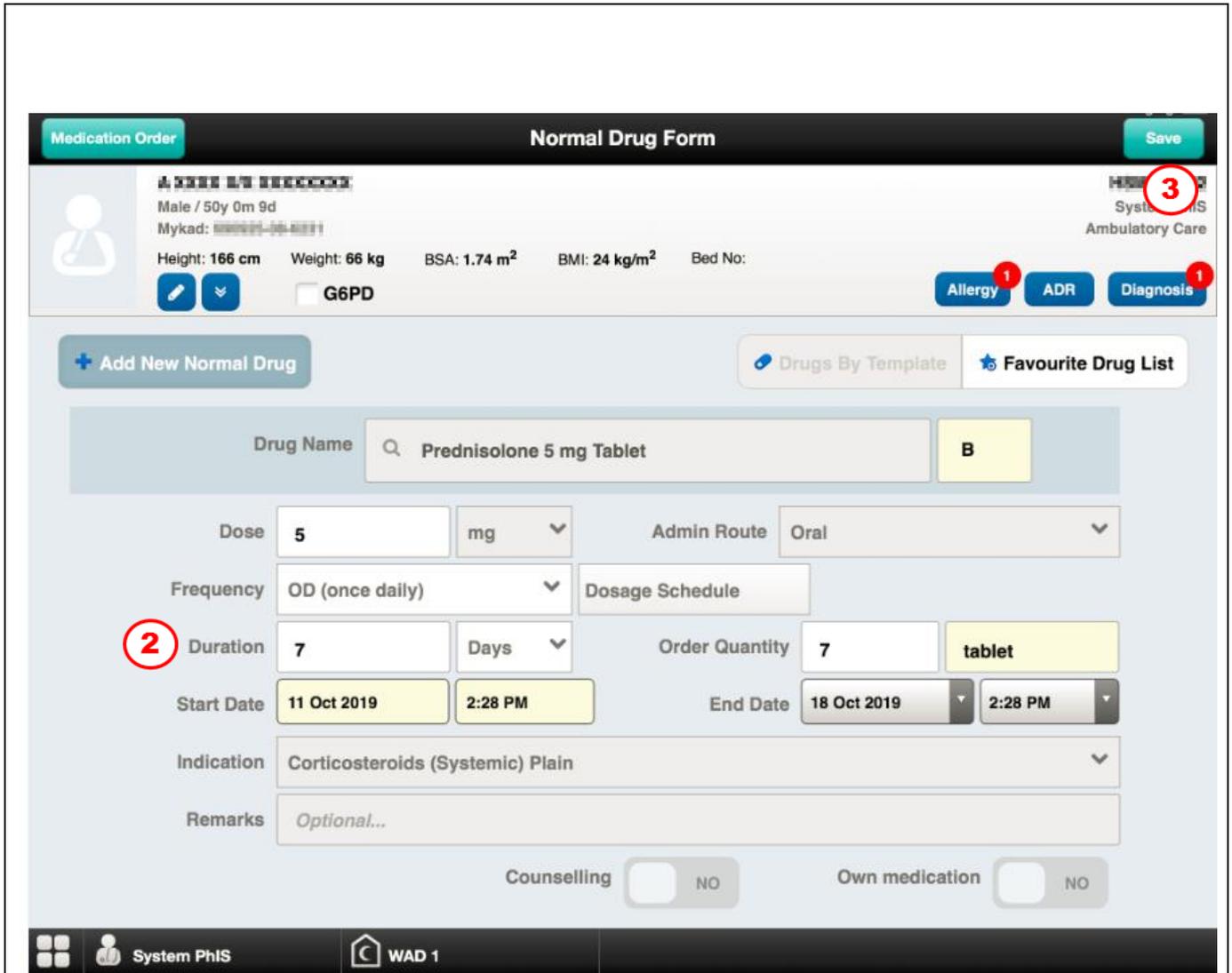


Figure 3.1.5-5 Order Screen

STEP 6

Tap on the **Confirm** button to confirm and send order to the pharmacy



Medication Order Normal Drug Form Save

Male / 50y 0m 9d
Mykad: [REDACTED]
Height: 166 cm Weight: 66 kg BSA: 1.74 m² BMI: 24 kg/m² Bed No:
G6PD

Allergy ADR Diagnosis

+ Add New Normal Drug Drugs By Template Favourite Drug List

Drug Name Prednisolone 5 mg Tablet B

Dose 5 mg Admin Route Oral

Frequency OD (once daily) Dosage Schedule

Duration 7 Days Order Quantity 7 tablet

Start Date 11 Oct 2019 2:28 PM End Date 18 Oct 2019 2:28 PM

Indication Corticosteroids (Systemic) Plain

Remarks Optional...

Counselling NO Own medication NO

System PhIS WAD 1

Figure 3.1.6-2 Normal Order Screen

STEP 2

Change the **Dosage** , **Frequency** and **Duration of drugs** as required

STEP 3

Tap on the  button to save record

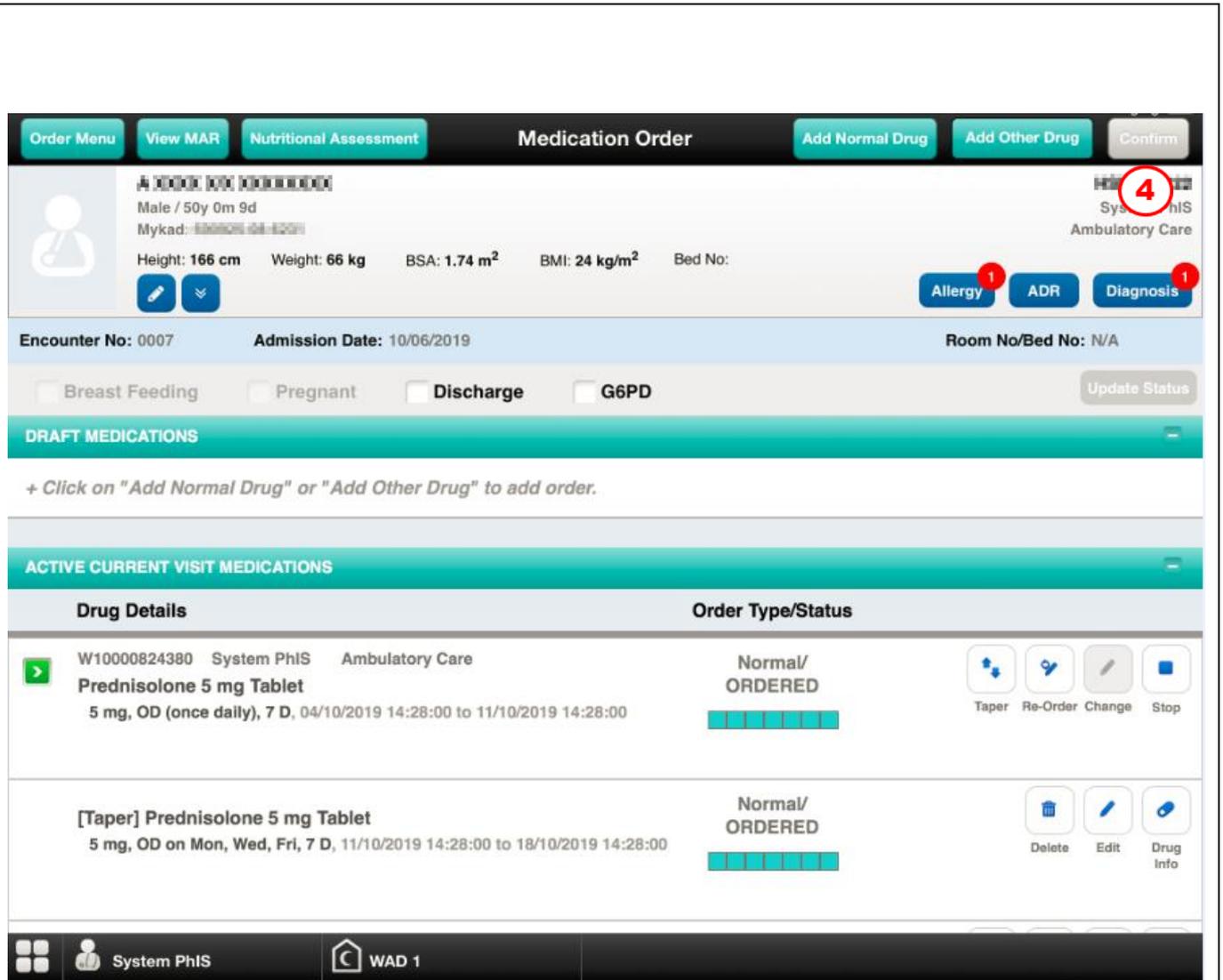


Figure 3.1.6-3 Normal Order Screen After Tapering

Note

- Repeat **step 1 to 3** if another level of taper is required.
- To modify prescription, delete the latest tapering from the list.

STEP 4

Tap on the **Confirm** button to confirm and send order to the pharmacy

3.1.7 Discharge Medication

This function is only for inpatient for order discharge medication. The discharge medication can be Prescribed before the patient being discharge.

Figure 3.1.7-1 Normal Order Screen After Tapering

Note

Repeat **step 1** until **step 3** as section 3.1.3 Normal Order section

STEP 1

Tap on the Discharge checkbox

System PhIS Ambulatory Care	Dose	Frequency	Duration	Start Date/Time	End Date/Time
F...ide 40 mg Tablet	40 mg	OM (every mo...)	5 D	4 Oct 2019 2:40 PM	9 Oct 2019 2:40 PM
Acyclovir 200 mg Tablet	200 mg	BD (twice daily)	7 D	4 Oct 2019 2:40 PM	11 Oct 2019 2:40 PM
Prednisolone 5 mg Tablet	5 mg	OD (once daily)	7 D	4 Oct 2019 2:40 PM	11 Oct 2019 2:40 PM

Figure 3.1.7-2 Normal Discharge Medication Screen

STEP 2

Tap on the checkbox to select drugs that want to continue after discharge

Note

User also should be able to change the duration, dose and frequency when create for discharge order.

STEP 3

Tap on the **Draft** button

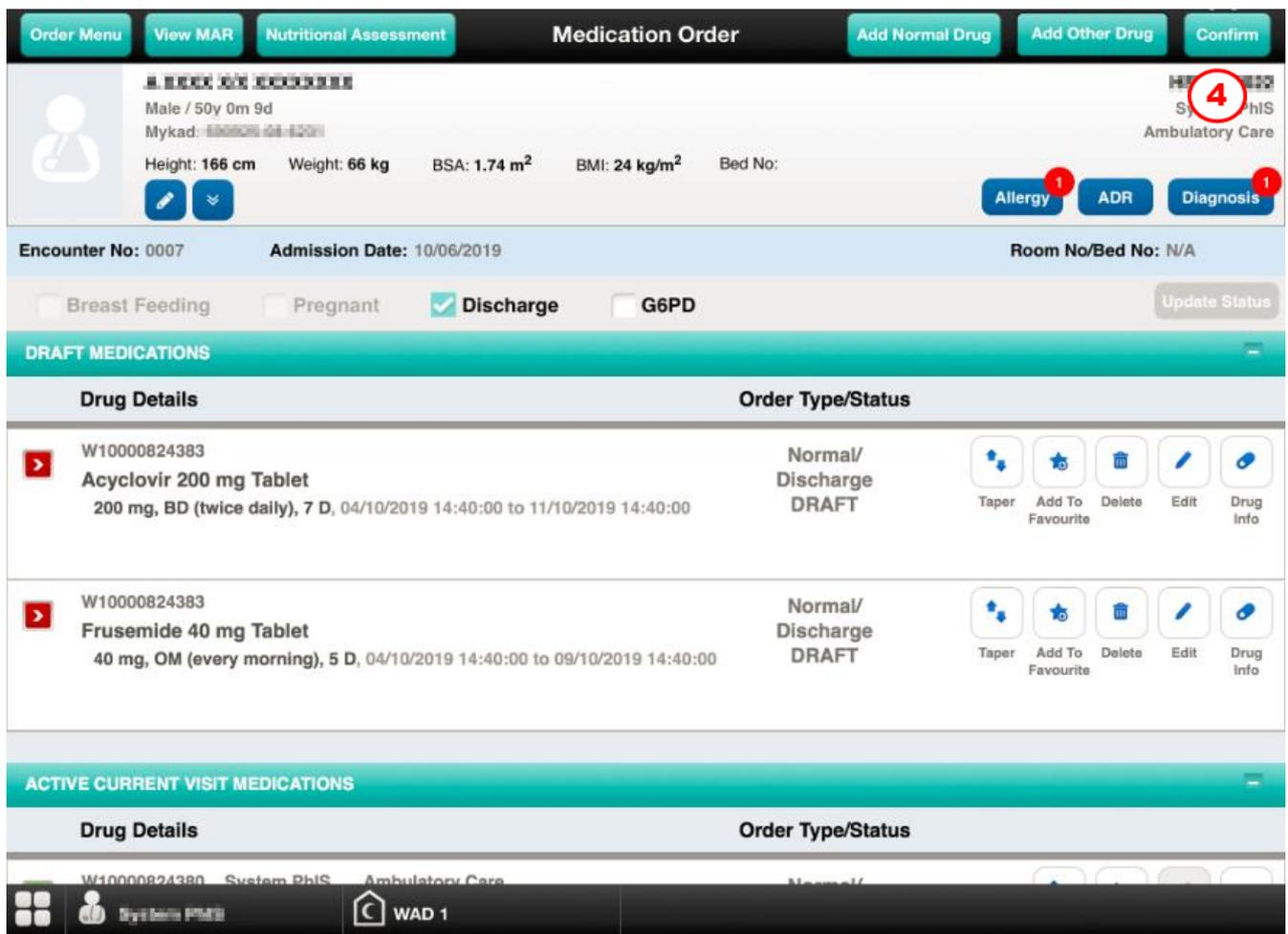


Figure 3.1.7-3 Normal Discharge Medication Screen

STEP 4

Tap on the **Confirm** button

Note

Order after tapering order type/status will change the order as Discharged Order



3.1.8 Renew Rx

This function is use by prescriber to renew the drugs from patient's profile.

The screenshot displays the 'Medication Order' interface. At the top, there are navigation buttons: 'Order Menu', 'View MAR', 'Nutritional Assessment', 'Medication Order', 'Add Normal Drug', 'Add Other Drug', and 'Confirm'. Below this, patient information is shown: 'Female / 46y 10m 27d', 'Mykad: F2007-F1-0000', 'Height: 170 cm', 'Weight: 70 kg', 'BSA: 1.82 m²', 'BMI: 24.2 kg/m²', and 'Bed No:'. There are also buttons for 'Allergy', 'ADR', and 'Diagnosis' (with a red notification badge '1').

Encounter details include: 'Encounter No: 0015', 'Admission Date: 10/06/2019', and 'Room No/Bed No: N/A'. Status options are 'Breast Feeding', 'Pregnant', 'Discharge', and 'G6PD', with an 'Update Status' button.

The 'PAST MEDICATIONS' section shows a list of medications with columns for Encounter Number, Date, Doctor Name, Specialty, Medication Name, Dose/Frequency, Start/End Date, Status, and Action. A red circle with the number '1' highlights the 'Re-Order' button for the first medication entry.

Encounter Number	Date	Doctor Name	Specialty	Medication Name	Dose/Frequency	Start/End Date	Status	Action	Remarks
ORTHO0000629512	21/06/2018	DR. NURHAZWANI BINTI ZANURI	Orthopaedic	Calcium Carbonate 500mg Capsule	500 mg, TDS (3 times a day), 6 M	21/06/2018 10:43:48 to 18/12/2018 10:43:48	Normal/ PARTIALLY DISPENSED	Re-Order	Remarks 1
ORTHO0000629412	21/06/2018	DR. NURHAZWANI BINTI ZANURI	Orthopaedic	Calcium Lactate 300mg Tablet	300 mg, BD (twice daily), 6 M	21/06/2018 09:37:15 to 18/12/2018 09:37:15	Normal/ STOP	Re-Order	Remarks
ORTHO0000629412	21/06/2018	DR. NURHAZWANI BINTI ZANURI	Orthopaedic	Ketoprofen 2.5% Gel	1 app, PRN, 6 M	21/06/2018 09:37:15 to 18/12/2018 09:37:15	Normal/ PARTIALLY DISPENSED	Re-Order	Remarks
ORTHO0000629412	21/06/2018	DR. NURHAZWANI BINTI ZANURI	Orthopaedic	Ketoprofen 30 mg Transdermal Plaster			Normal/ FULLY	Re-Order	Remarks

At the bottom, there are icons for 'System PhIS' and 'WAD 1'.

Figure 3.1-8-1 Medication Order Screen



STEP 1

Click on the  button

Medication Order Draft

Female / 46y 10m 27d
Mykad: ~~XXXXXXXXXX~~
Height: 170 cm Weight: 70 kg BSA: 1.82 m² BMI: 24.2 kg/m² Bed No:

Encounter No: 0015 Admission Date: 10/06/2019 Room No/Bed No: N/A

Breast Feeding Pregnant Discharge G6PD Close

Search drug Duration 4 Days Apply to all new drug(s)

RENEW PAST MEDICATIONS

Medication	Dose	Frequency	Duration	Start Date/Time	End Date/Time
DR. HUSNADAM BINTI ISMAIL Orthopaedic Calcium Carbonate 500mg Capsule	<input checked="" type="checkbox"/> 500 mg	TDS (3 times a...)	6 M	4 Oct 2019 2:48 PM	4 Apr 2020 2:48 PM
DR. HUSNADAM BINTI ISMAIL Orthopaedic Calcium Lactate 300mg Tablet	<input checked="" type="checkbox"/> 300 mg	BD (twice daily)	6 M	4 Oct 2019 2:48 PM	4 Apr 2020 2:48 PM
DR. HUSNADAM BINTI ISMAIL Orthopaedic Ketoprofen 2.5% Gel	<input type="checkbox"/> 1 app	PRN	6 M	4 Oct 2019 2:48 PM	4 Apr 2020 2:48 PM

System PhIS WAD 1

Figure 3.1-8-2 Medication Profile Screen

STEP 2

Tap on the  checkbox to select drugs that want to renew

STEP 3

Tap on the **Draft** button to renew selected drugs

Order Menu **View MAR** **Nutritional Assessment** **Medication Order** **Add Normal Drug** **Add Other Drug** **Confirm**

Male / 50y 0m 9d
Mykad: 8800008-00-0001
Height: 166 cm Weight: 66 kg BSA: 1.74 m² BMI: 24 kg/m² Bed No:

System PhIS Ambulatory Care

Encounter No: 0007 Admission Date: 10/06/2019 Room No/Bed No: N/A

Breast Feeding Pregnant Discharge G6PD **Update Status**

Order ID	System	Care Type	Medication	Regimen	Status	Actions
W10000824286	System PhIS	Ambulatory Care	Acyclovir 200 mg Tablet	200 mg, BD (twice daily), 7 D, 02/10/2019 12:41:00 to 09/10/2019 12:41:00	Normal/ORDERED	Taper Re-Order Change Stop
W10000824286	System PhIS	Ambulatory Care	Frusamide 40 mg Tablet	40 mg, OM (every morning), 5 D, 30/09/2019 19:43:00 to 05/10/2019 19:43:00	Normal/ORDERED	Taper Re-Order Change Stop
W10000824186	DR. TANG JYH JONG	Dermatology	[Cancel] CHOP	Hematology, 21 D, 20/09/2019 to 11/10/2019	CDR/ORDER WAS CANCELED	Re-Order Change View Stop
W10000824191	DR. TANG JYH JONG	Dermatology	[Cancel] CHOP	Hematology, 21 D, 20/09/2019 to 11/10/2019	CDR/ORDER WAS CANCELED	Re-Order Change View Stop

System PhIS WAD 1

Figure 3.1-8-3 Normal Order Screen

STEP 4

Tap on the **Confirm** button to confirm and send order to the pharmacy



3.1.9 Renew RX With Different Duration

This function is use by prescriber to renew the drugs from patient's profile with new duration.

The screenshot displays the 'Medication Order' interface. At the top, there are navigation buttons: 'Order Menu', 'View MAR', 'Nutritional Assessment', 'Medication Order', 'Add Normal Drug', 'Add Other Drug', and 'Confirm'. Below this, patient details are shown: 'Female / 46y 10m 27d', 'Mykad: F01077-71-01111', 'Height: 170 cm', 'Weight: 70 kg', 'BSA: 1.82 m²', 'BMI: 24.2 kg/m²', and 'Bed No:'. There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. Encounter information includes 'Encounter No: 0015', 'Admission Date: 10/06/2019', and 'Room No/Bed No: N/A'. A section for 'PAST MEDICATIONS' is highlighted with a red circle and the number '1'. It lists four medications with their respective durations and 'Re-Order' buttons. The bottom navigation bar shows 'WAD 1' and 'System PhIS'.

Encounter Number	Date	Medication Name	Status	Action	Remarks
0193	21/06/2018	ORTHO0000629512 DR. NURHAZWANI BINTI ZANURI Orthopaedic Calcium Carbonate 500mg Capsule 500 mg, TDS (3 times a day), 6 M, 21/06/2018 10:43:48 to 18/12/2018 10:43:48	Normal/ PARTIALLY DISPENSED	Re-Order	Remarks
0193	21/06/2018	ORTHO0000629412 DR. NURHAZWANI BINTI ZANURI Orthopaedic Calcium Lactate 300mg Tablet 300 mg, BD (twice daily), 6 M, 21/06/2018 09:37:15 to 18/12/2018 09:37:15	Normal/ STOP	Re-Order	Remarks
0193	21/06/2018	ORTHO0000629412 DR. NURHAZWANI BINTI ZANURI Orthopaedic Ketoprofen 2.5% Gel 1 app, PRN, 6 M, 21/06/2018 09:37:15 to 18/12/2018 09:37:15	Normal/ PARTIALLY DISPENSED	Re-Order	Remarks
0193	21/06/2018	ORTHO0000629412 DR. NURHAZWANI BINTI ZANURI Orthopaedic Ketoprofen 30 mg Transdermal Plaster	Normal/ FULLY	Re-Order	Remarks

Figure 3.1-9-1 Medication Order Screen

STEP 1



Click on the **Re-Order** button

Medication Order Draft

Female / 46y 10m 27d
Mykad: ~~XXXXXXXXXX~~
Height: 170 cm Weight: 70 kg BSA: 1.82 m² BMI: 24.2 kg/m² Bed No:

Encounter No: 0015 Admission Date: 10/06/2019 Room No/Bed No: N/A

Breast Feeding Pregnant Discharge G6PD

Search drug Duration **4** Days Apply to all new drug(s)

RENEW PAST MEDICATIONS

Medication	Dose	Frequency	Dosage schedule	Duration	Start Date/Time	End Date/Time
DR. MURAHMAD BINTI ZAMRI Orthopaedic Calcium Carbonate 500mg Capsule	500 mg	TDS (3 times a...)	Dosage schedule	6 M	4 Oct 2019 2:48 PM	4 Apr 2020 2:48 PM
DR. MURAHMAD BINTI ZAMRI Orthopaedic Calcium Lactate 300mg Tablet	300 mg	BD (twice daily)	Dosage schedule	6 M	4 Oct 2019 2:48 PM	4 Apr 2020 2:48 PM
DR. MURAHMAD BINTI ZAMRI Orthopaedic Ketoprofen 2.5% Gel	1 app	PRN	Dosage schedule	6 M	4 Oct 2019 2:48 PM	4 Apr 2020 2:48 PM

System PhIS WAD 1

Figure 3.1-9-2 Medication Profile Screen

STEP 2
Enter the new **Duration**

Note

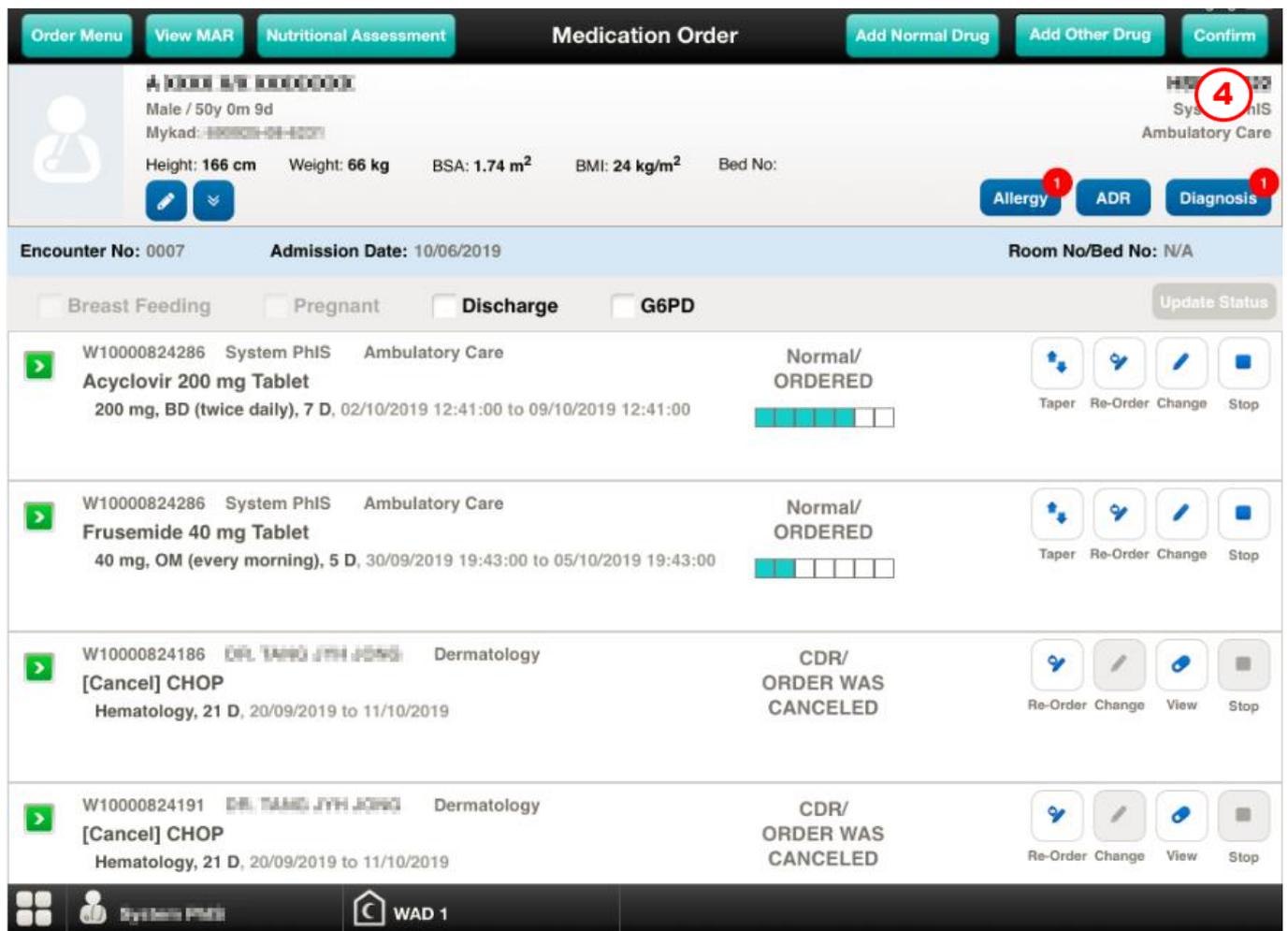
- After entering the duration, user have to click on Apply to all new drugs(s) to insert the new duration. If not, duration remain as previous.
- Besides duration, user may change dosage and frequency.
- User may tap on the **Apply to all new drug(s)** button if entered duration want to apply for all selected drugs

STEP 3

Tap on the checkbox to select drugs that want to renew

STEP 4

Tap on the **Draft** button to renew selected drugs



The screenshot displays the 'Medication Order' screen. At the top, there are navigation buttons: 'Order Menu', 'View MAR', 'Nutritional Assessment', 'Medication Order', 'Add Normal Drug', 'Add Other Drug', and 'Confirm'. Below this is a patient information section with a profile icon, name, gender/age (Male / 50y 0m 9d), Mykad, and physical attributes (Height: 166 cm, Weight: 66 kg, BSA: 1.74 m², BMI: 24 kg/m², Bed No:). There are 'Allergy', 'ADR', and 'Diagnosis' buttons with red circles and the number 1. The encounter information includes 'Encounter No: 0007', 'Admission Date: 10/06/2019', and 'Room No/Bed No: N/A'. Below this are checkboxes for 'Breast Feeding', 'Pregnant', 'Discharge', and 'G6PD', along with an 'Update Status' button. The main list shows four medication orders:

Order ID	System	Care Type	Drug Name	Dosage/Freq	Duration	Status	Actions
W10000824286	System PhIS	Ambulatory Care	Acyclovir 200 mg Tablet	200 mg, BD (twice daily), 7 D	02/10/2019 12:41:00 to 09/10/2019 12:41:00	Normal/ ORDERED	Taper, Re-Order, Change, Stop
W10000824286	System PhIS	Ambulatory Care	Furosemide 40 mg Tablet	40 mg, OM (every morning), 5 D	30/09/2019 19:43:00 to 05/10/2019 19:43:00	Normal/ ORDERED	Taper, Re-Order, Change, Stop
W10000824186	DR. TAMO JYH JONG	Dermatology	[Cancel] CHOP	Hematology, 21 D	20/09/2019 to 11/10/2019	CDR/ ORDER WAS CANCELED	Re-Order, Change, View, Stop
W10000824191	DR. TAMO JYH JONG	Dermatology	[Cancel] CHOP	Hematology, 21 D	20/09/2019 to 11/10/2019	CDR/ ORDER WAS CANCELED	Re-Order, Change, View, Stop

At the bottom, there are icons for 'System PhIS' and 'WAD 1'.

Figure 3.1-9-3 Normal Order Screen

STEP 4

Tap on the **Confirm** button to confirm and send order to the pharmacy



3.1.10 Change

Prescriber is allowed to modify Dosage, Frequency and Duration.

The screenshot displays the 'Medication Order' screen in the PhIS mobile application. At the top, there are navigation buttons: 'Order Menu', 'View MAR', 'Nutritional Assessment', 'Medication Order', 'Add Normal Drug', 'Add Other Drug', and 'Confirm'. Below this is a patient information section with a profile icon, gender/age (Male / 50y 0m 9d), Mykad, and physical metrics (Height: 166 cm, Weight: 66 kg, BSA: 1.74 m², BMI: 24 kg/m², Bed No:). There are also buttons for 'Allergy', 'ADR', and 'Diagnosis', each with a red notification badge '1'. The encounter details include 'Encounter No: 0007', 'Admission Date: 10/06/2019', and 'Room No/Bed No: N/A'. A row of checkboxes for 'Breast Feeding', 'Pregnant', 'Discharge', and 'G6PD' is present, along with a 'Status' button circled in red with a '1'. The main area lists four medication orders:

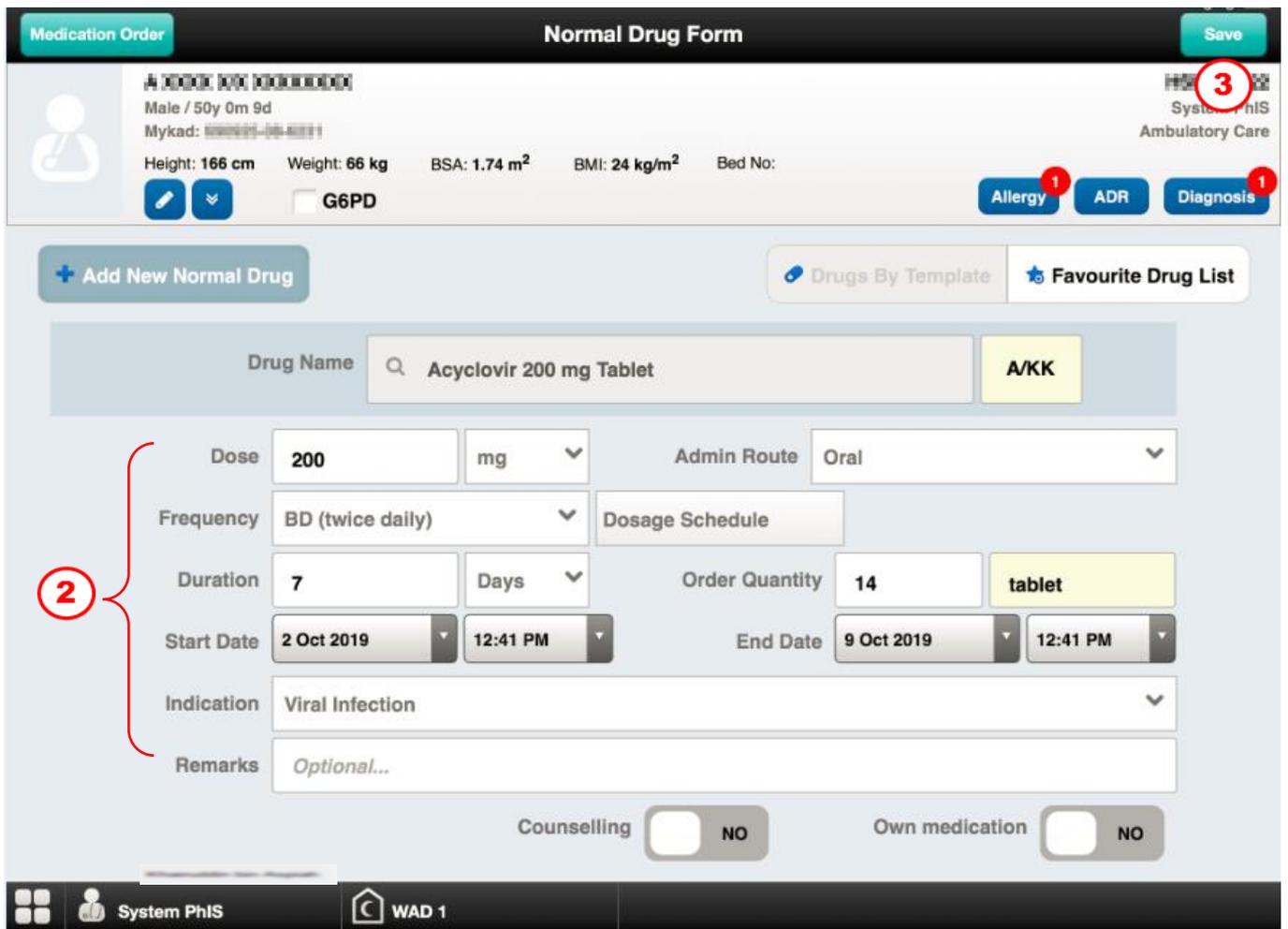
Order ID	System	Care Type	Medication	Dosage/Freq	Duration	Status	Actions
W10000824286	System PhIS	Ambulatory Care	Acyclovir 200 mg Tablet	200 mg, BD (twice daily), 7 D	02/10/2019 12:41:00 to 09/10/2019 12:41:00	Normal/ORDERED	Taper, Re-Order, Change, Stop
W10000824286	System PhIS	Ambulatory Care	Furosemide 40 mg Tablet	40 mg, OM (every morning), 5 D	30/09/2019 19:43:00 to 05/10/2019 19:43:00	Normal/ORDERED	Taper, Re-Order, Change, Stop
W10000824186	DR. TANG JYH JONG	Dermatology	[Cancel] CHOP	Hematology, 21 D	20/09/2019 to 11/10/2019	CDR/ORDER WAS CANCELED	Re-Order, Change, View, Stop
W10000824191	DR. TANG JYH JONG	Dermatology	[Cancel] CHOP	Hematology, 21 D	20/09/2019 to 11/10/2019	CDR/ORDER WAS CANCELED	Re-Order, Change, View, Stop

The bottom navigation bar shows 'System PhIS' and 'WAD 1'.

Figure 3.1-10-1 Medication Order Screen

STEP 1

Tap on the  button to modify the drug details



Medication Order **Normal Drug Form** **Save**

Male / 50y 0m 9d
Mykad:
Height: 166 cm Weight: 66 kg BSA: 1.74 m² BMI: 24 kg/m² Bed No:
G6PD
Allergy ADR Diagnosis

+ Add New Normal Drug Drugs By Template Favourite Drug List

Drug Name Acyclovir 200 mg Tablet A/KK

Dose 200 mg Admin Route Oral

Frequency BD (twice daily) Dosage Schedule

Duration 7 Days Order Quantity 14 tablet

Start Date 2 Oct 2019 12:41 PM End Date 9 Oct 2019 12:41 PM

Indication Viral Infection

Remarks Optional...

Counselling NO Own medication NO

System PhIS WAD 1

Figure 3.1-10-2 Medication Profile Screen

STEP 2



Change **Dose**, **Frequency**, and **Duration**

STEP 3

Tap on the  button to save the changes

3.1.11 Stop

Prescriber is allowed to stop current medication.

The screenshot displays the Medication Order interface. At the top, there are navigation buttons: Order Menu, View MAR, Nutritional Assessment, Medication Order, Add Normal Drug, Add Other Drug, and Confirm. Below this is a patient profile section with a person icon, gender/age (Male / 50y 0m 9d), Mykad, and physical attributes (Height: 166 cm, Weight: 66 kg, BSA: 1.74 m², BMI: 24 kg/m², Bed No:). There are also buttons for Allergy, ADR, and Diagnosis. The encounter details include Encounter No: 0007, Admission Date: 10/06/2019, and Room No/Bed No: N/A. Below this are checkboxes for Breast Feeding, Pregnant, Discharge, and G6PD, along with an Update button (circled in red with '1'). The medication list contains four entries:

Order ID	System	Care Type	Medication Name	Dose/Freq	Start/End	Status	Actions
W10000824286	System PhIS	Ambulatory Care	Frusemide 40 mg Tablet	40 mg, OM (every morning), 5 D	30/09/2019 19:43:00 to 05/10/2019 19:43:00	Normal/ORDERED	Taper, Re-Order, Change, Stop
W10000824186	DR. TANG JYH JONG	Dermatology	[Cancel] CHOP	Hematology, 21 D	20/09/2019 to 11/10/2019	CDR/ORDER WAS CANCELED	Re-Order, Change, View, Stop
W10000824191	DR. TANG JYH JONG	Dermatology	[Cancel] CHOP	Hematology, 21 D	20/09/2019 to 11/10/2019	CDR/ORDER WAS CANCELED	Re-Order, Change, View, Stop
W10000824202	DR. TANG JYH JONG	Dermatology	CHOP	Hematology, 21 D	20/09/2019 to 11/10/2019	CDR/ORDERED	Re-Order, Change, View, Stop

At the bottom, there are icons for 'System PhIS' and 'WAD 1'.

Figure 3.1-11-1 Medication Order Screen

STEP 1

Click on the  button to stop the drug

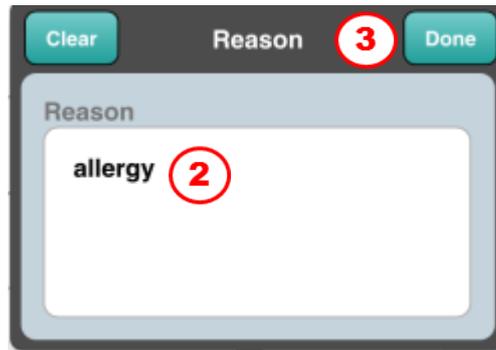


Figure 3.1-11-2 Stop Reason screen

STEP 2

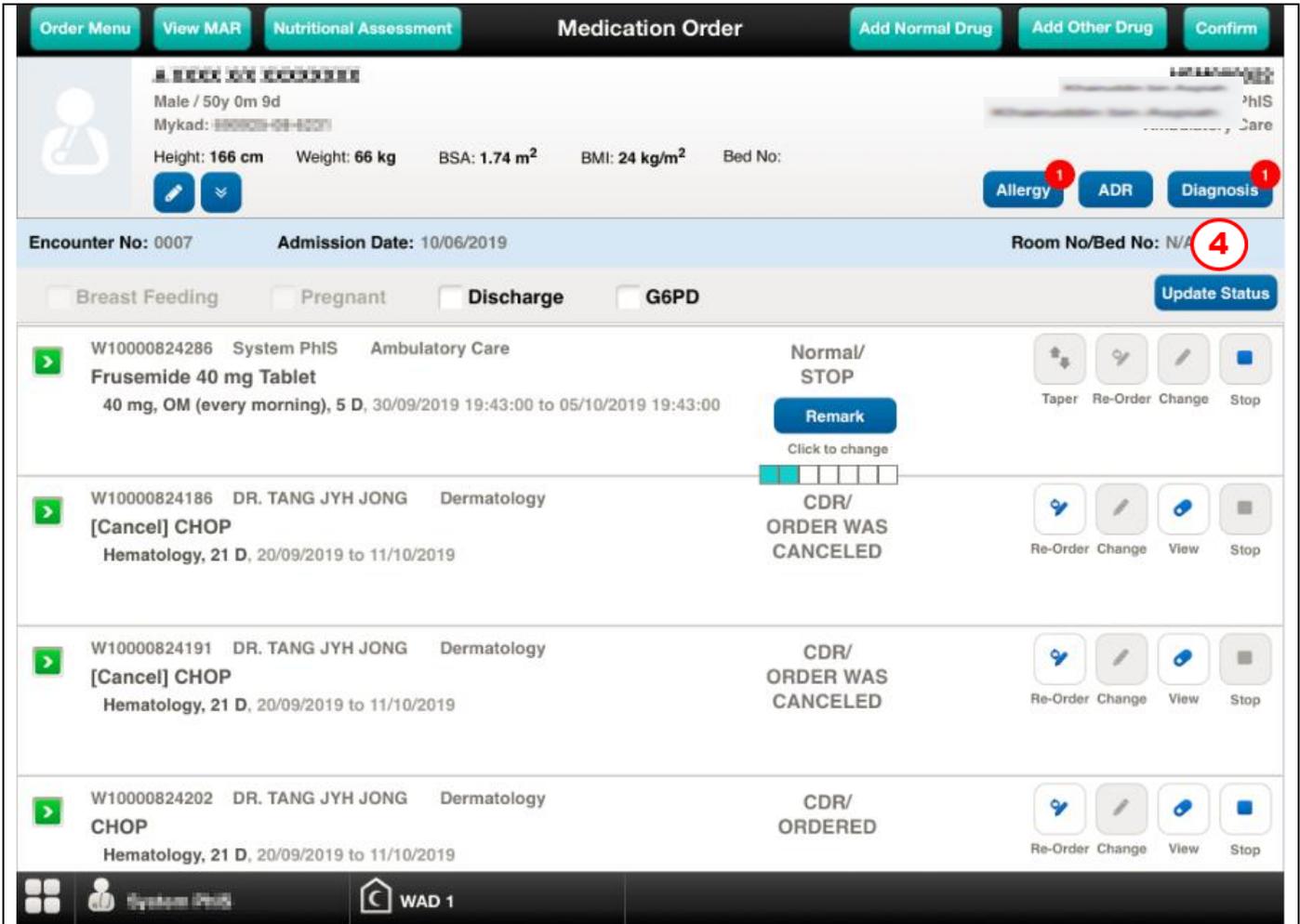
Enter reason in the displayed window as per Figure 3.1-11-2

Note

Stop Remarks is not mandatory

STEP 3

Tap on  to update stop remarks.



The screenshot displays the Medication Order interface. At the top, there are navigation buttons: Order Menu, View MAR, Nutritional Assessment, Medication Order, Add Normal Drug, Add Other Drug, and Confirm. Below this, patient information is shown: Male / 50y 0m 9d, Mykad: 880008-08-88001, Height: 166 cm, Weight: 66 kg, BSA: 1.74 m², BMI: 24 kg/m², Bed No: [redacted]. There are buttons for Allergy, ADR, and Diagnosis. Encounter No: 0007, Admission Date: 10/06/2019, Room No/Bed No: N/A. Below this, there are checkboxes for Breast Feeding, Pregnant, Discharge, and G6PD, and an Update Status button. The medication list includes:

- W10000824286 System PhIS Ambulatory Care: Frusemide 40 mg Tablet, 40 mg, OM (every morning), 5 D, 30/09/2019 19:43:00 to 05/10/2019 19:43:00. Status: Normal/STOP. Action: Remark (Click to change), Taper, Re-Order, Change, Stop.
- W10000824186 DR. TANG JYH JONG Dermatology: [Cancel] CHOP, Hematology, 21 D, 20/09/2019 to 11/10/2019. Status: CDR/ORDER WAS CANCELED. Action: Re-Order, Change, View, Stop.
- W10000824191 DR. TANG JYH JONG Dermatology: [Cancel] CHOP, Hematology, 21 D, 20/09/2019 to 11/10/2019. Status: CDR/ORDER WAS CANCELED. Action: Re-Order, Change, View, Stop.
- W10000824202 DR. TANG JYH JONG Dermatology: CHOP, Hematology, 21 D, 20/09/2019 to 11/10/2019. Status: CDR/ORDERED. Action: Re-Order, Change, View, Stop.

At the bottom, there are icons for System PhIS and WAD 1.

Figure 3.1-11-2 Medication Profile creen

STEP 4

Tap on the **Update Status** to stop the drug.

Note

- Once stop, record will appear In Past Medication list
- Order status will be changed to Stop once tap on the update status

3.2 Order Endorsement

Order endorsement is to notify prescriber on prescription changes made by pharmacist upon confirmation by the prescriber.



Figure 3.2-1 Home Page Listing Screen

STEP 1

Tap on *My Task List* menu

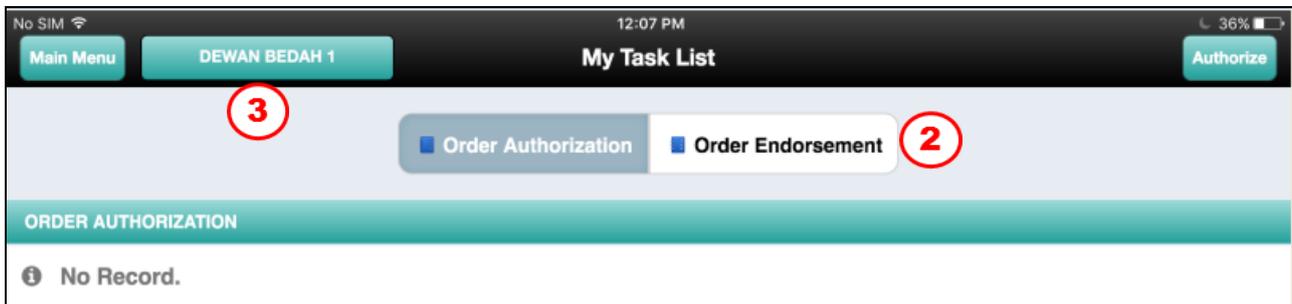


Figure 3.2-2 Endorsement Listing Screen

STEP 2

Tap on tab to search endorsement listing

STEP 3

Tap on the location button e.g to search patient

Main Menu
My Task List
Endorse

5

Order Authorization

Order Endorsement

ORDER ENDORSEMENT

MRN/Patient Name	Drug Name and Dosage Details	Order By	
<input type="checkbox"/> HSM000001 ZXXXXXX BIN XXXXX M / 59 yr	Methadone 5mg/ml Syrup 5 mg, OD (once daily), Oral	System PhIS	 View
<input type="checkbox"/> HSM174291 AXXXXX XXXXX XXXXXVVVVV F / 34 yr	Capecitabine 500mg Tablet 1500mg, 1025mg, BD (twice daily), Oral	DR. DING MIN TAT	 View
<input checked="" type="checkbox"/> 4 HSM016135 MXXXXXXXX XXXXX X XXXXX XXX... M / 23 yr	Vincristine Sulphate 1mg Injection 55.68 mg, Once every 2 weeks, Intravenous Bolus	System PhIS	 View
<input type="checkbox"/> HSM025375 NXXXX XXXXX XXXXX XXXX XXX... F / 33 yr	Sodium Pertechnetate (Tc-99m) 15 Mbq	System PhIS	 View

 System PhIS

Figure 3.2-3 Endorsement Screen

Note

- Search result of patient record list will be displayed:
 - MRN / Patient Name
 - Drug Name / Dosage Details
 - Order By

STEP 4

Tap on the checkbox on selected patient

STEP 5

Tap on the Endorse button to proceed endorsement

Note

User may click on the  button to see original value and intervened prescription as per Figure 3.2.-4

3.3 Order Authorisation

This function is used by specialist or authorised person to approve list A/ A*/ A/KK drug that requires authorisation.

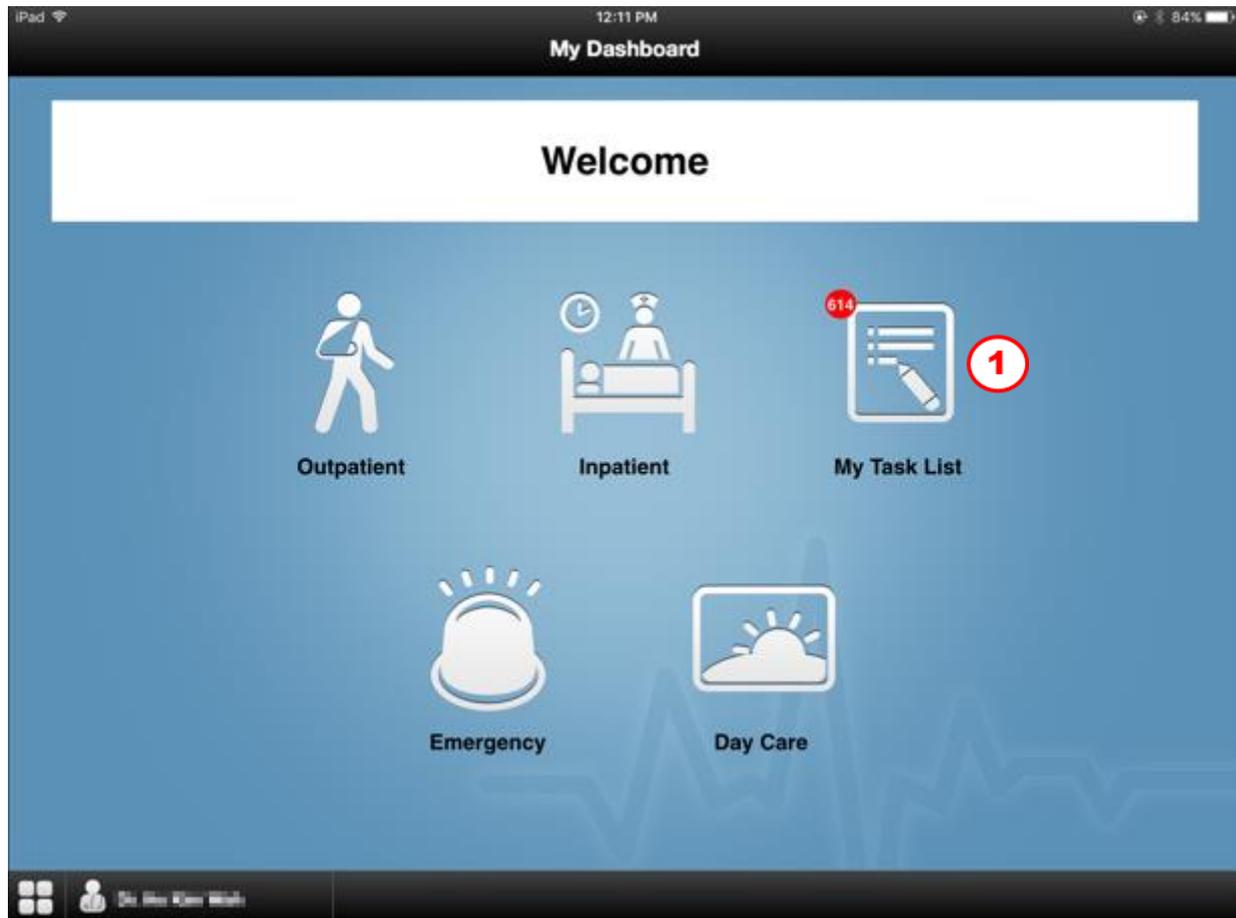
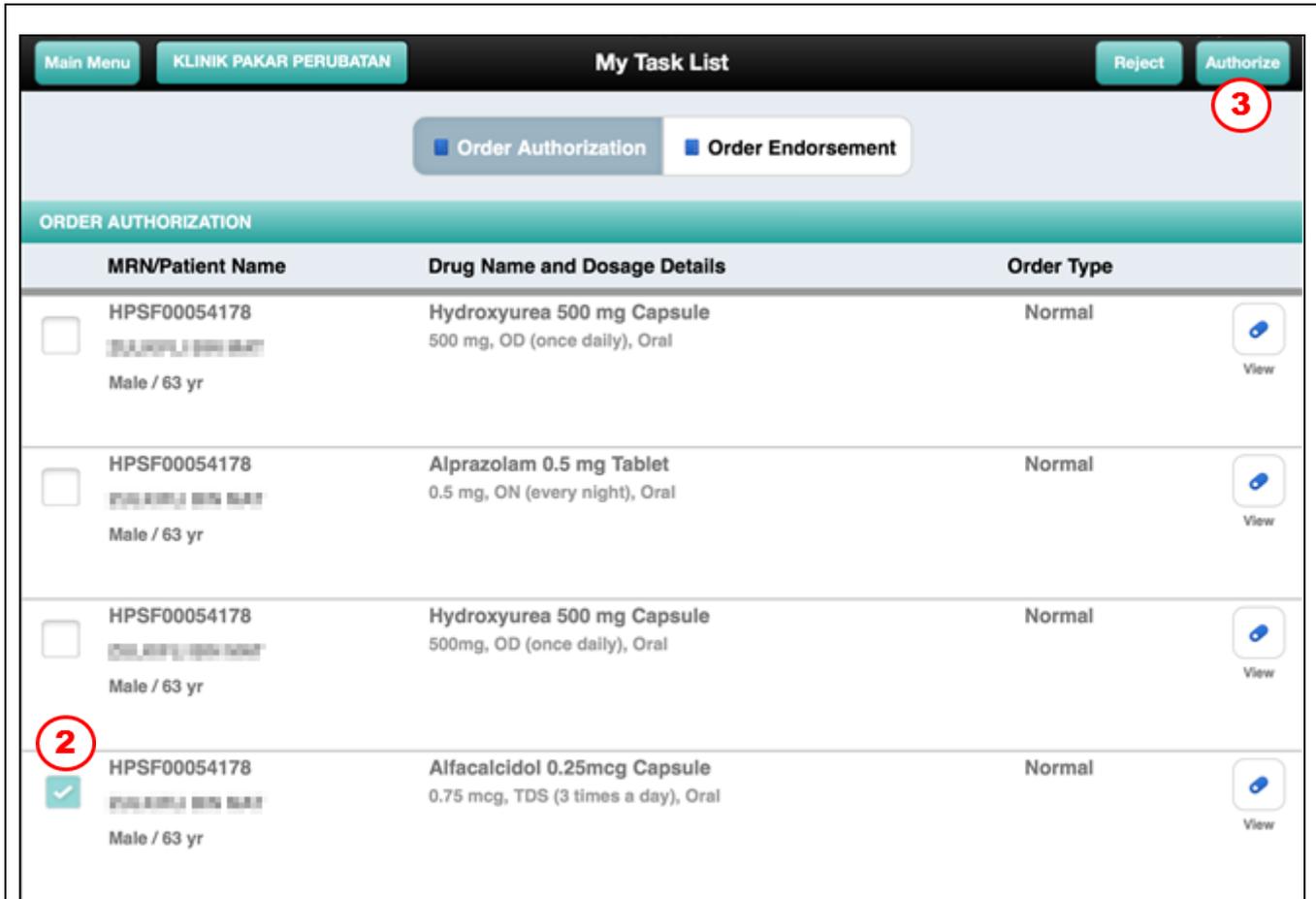


Figure 3.3-1 Listing Screen

STEP 1

Tap on the *My Task List* menu



Main Menu **KLINIK PAKAR PERUBATAN** **My Task List** **Reject** **Authorize**

Order Authorization **Order Endorsement**

ORDER AUTHORIZATION

MRN/Patient Name	Drug Name and Dosage Details	Order Type	
<input type="checkbox"/> HPSF00054178 Male / 63 yr	Hydroxyurea 500 mg Capsule 500 mg, OD (once daily), Oral	Normal	 View
<input type="checkbox"/> HPSF00054178 Male / 63 yr	Alprazolam 0.5 mg Tablet 0.5 mg, ON (every night), Oral	Normal	 View
<input type="checkbox"/> HPSF00054178 Male / 63 yr	Hydroxyurea 500 mg Capsule 500mg, OD (once daily), Oral	Normal	 View
<input checked="" type="checkbox"/> HPSF00054178 Male / 63 yr	Alfacalcidol 0.25mcg Capsule 0.75 mcg, TDS (3 times a day), Oral	Normal	 View

_Figure 3.3-1 Order Authorisation Screen

Note

- Search result of patient record list will be displayed:
 - MRN / Patient Name
 - Drug Name / Dosage Details
 - Order By

STEP 2

Tap on the checkbox on selected patient

STEP 3

Tap on the **Authorize** button

Note

User able to reject the transaction by using click on the **Reject** button

3.3.1 Cancel Order Authorisation

This function is used by specialist or authorised person to cancel list A/ A*/ A/KK drug that requires authorisation.

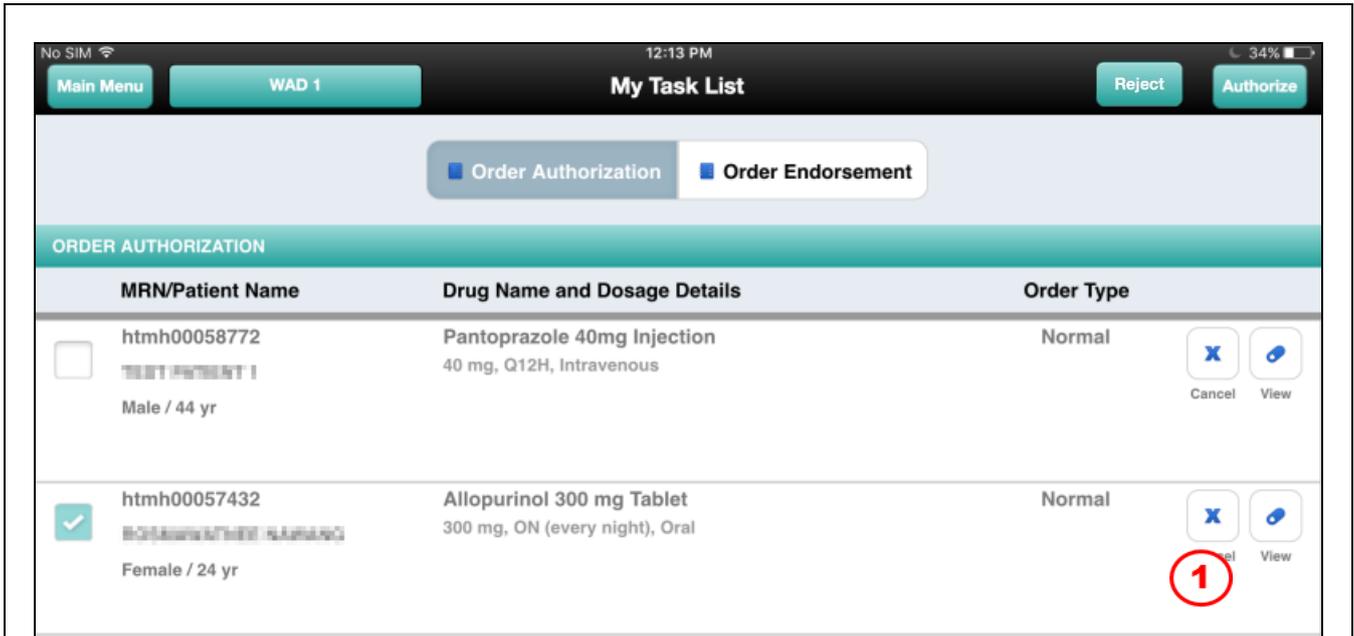


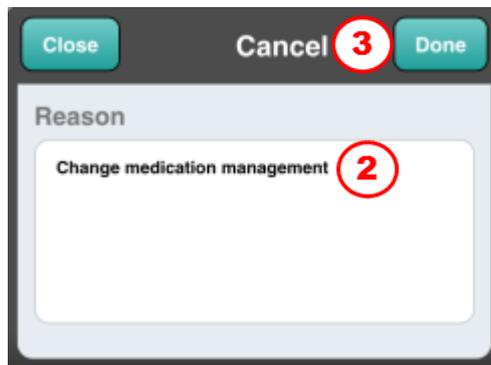
Figure 3.3-1 Order Authorisation Screen

Note

Repeat **step 1** till **step 2** as per section 3.4 authorisation

STEP 1

Tap on the  button to cancel the drugs



3.4-1 Order Authorisation Screen

STEP 2

Enter cancellation remark

STEP 3

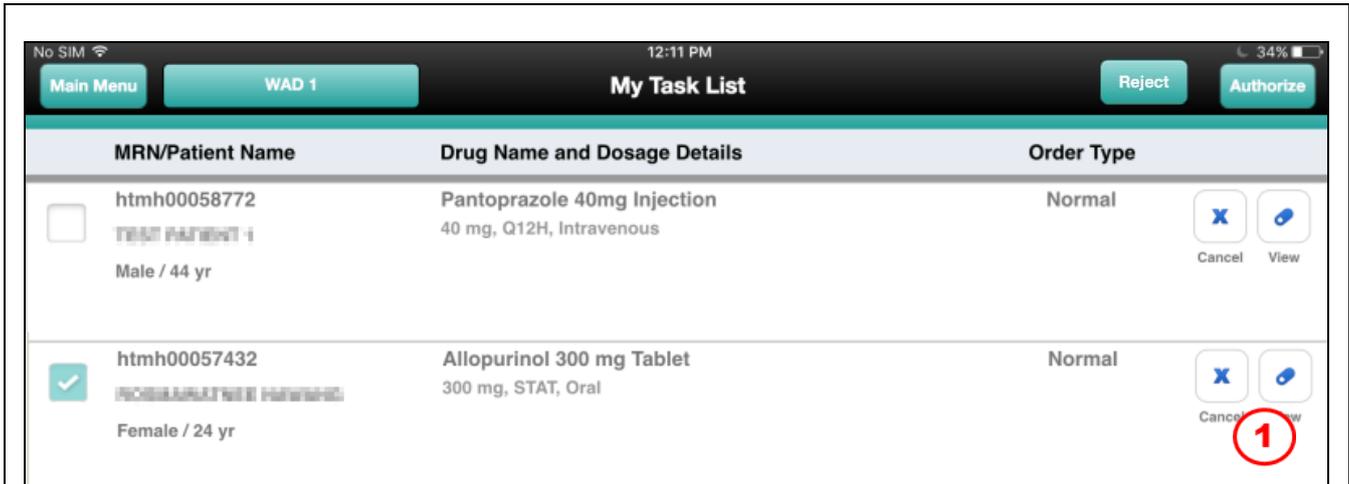
Tap on the  button to confirm the cancellation

Note

User able to reject the transaction by using click on the  button

3.3.2 Modify and Authorise

This function is used by specialist or authorised person to modify and authorise list A/ A*/ A/KK drug that requires authorisation.



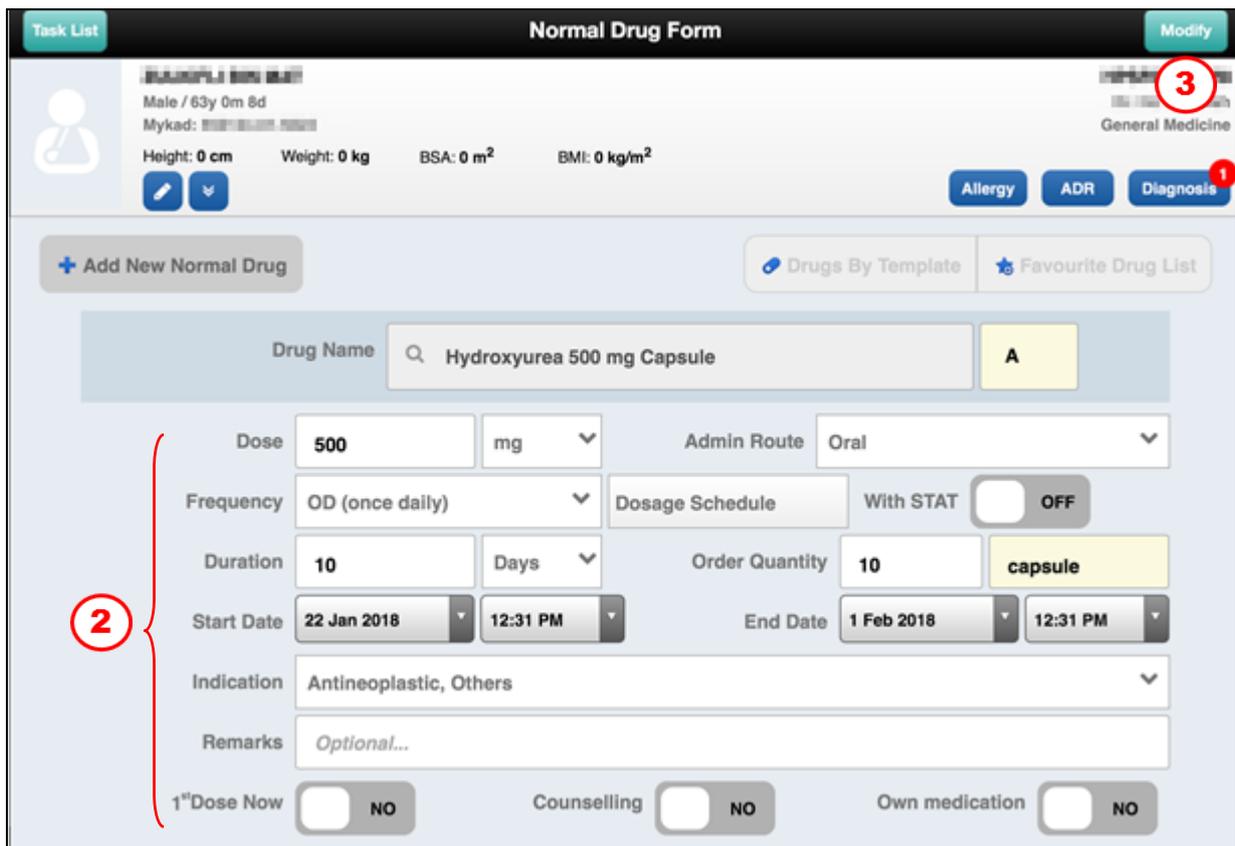
3.3.2-1 Order Authorisation Screen

Note

Repeat **step 1** till **step 2** as per section 3.4 authorisation

STEP 1

Tap on the  button to view the drug



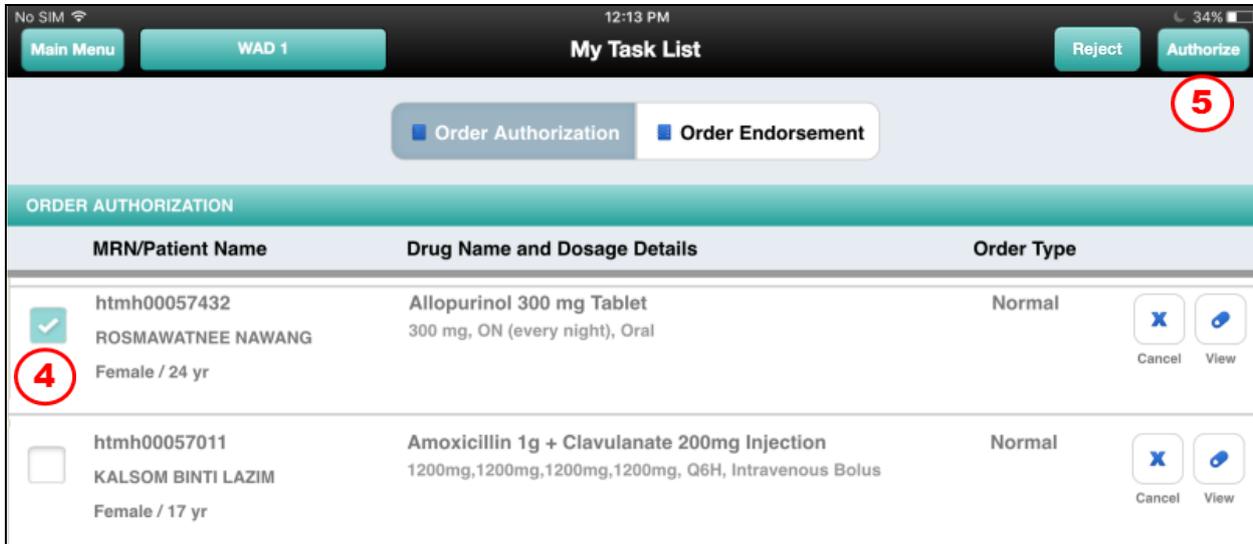
3.3.2-2 Order Authorisation Screen

STEP 2

Change details as required

STEP 3

Tap on the **Modify** button



3.3.2-3 Order Authorisation Screen

STEP 4

Tap on the checkbox on selected patient

STEP 5

Tap on the **Authorize** button

Note

User able to reject the transaction by using click on the **Reject** button

3.4 HOD Authorisation

This function is used by HOD to approve list A/ A*/ A/KK drug that requires authorisation.

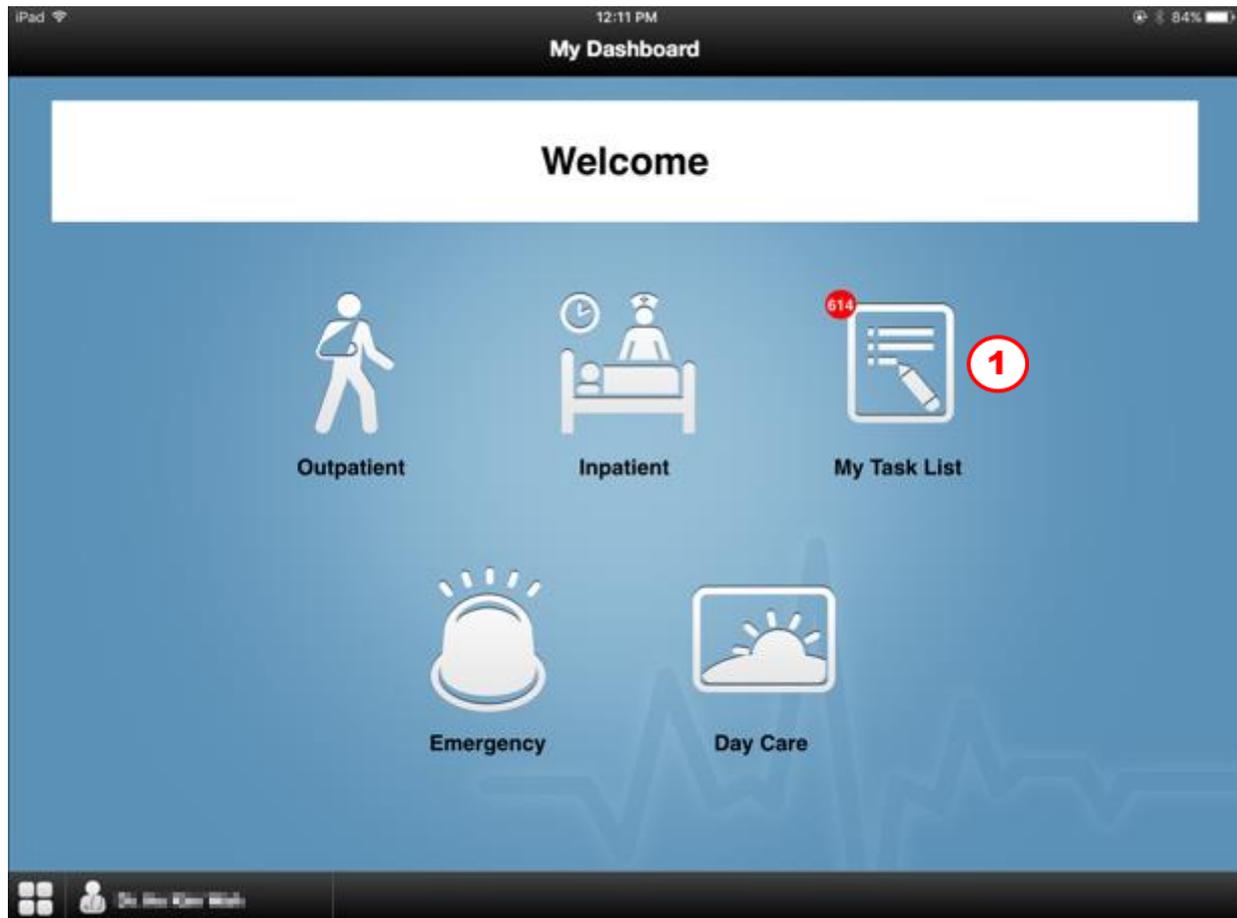


Figure 3.4-1 Listing Screen

STEP 1

Tap on the *My Task List* menu

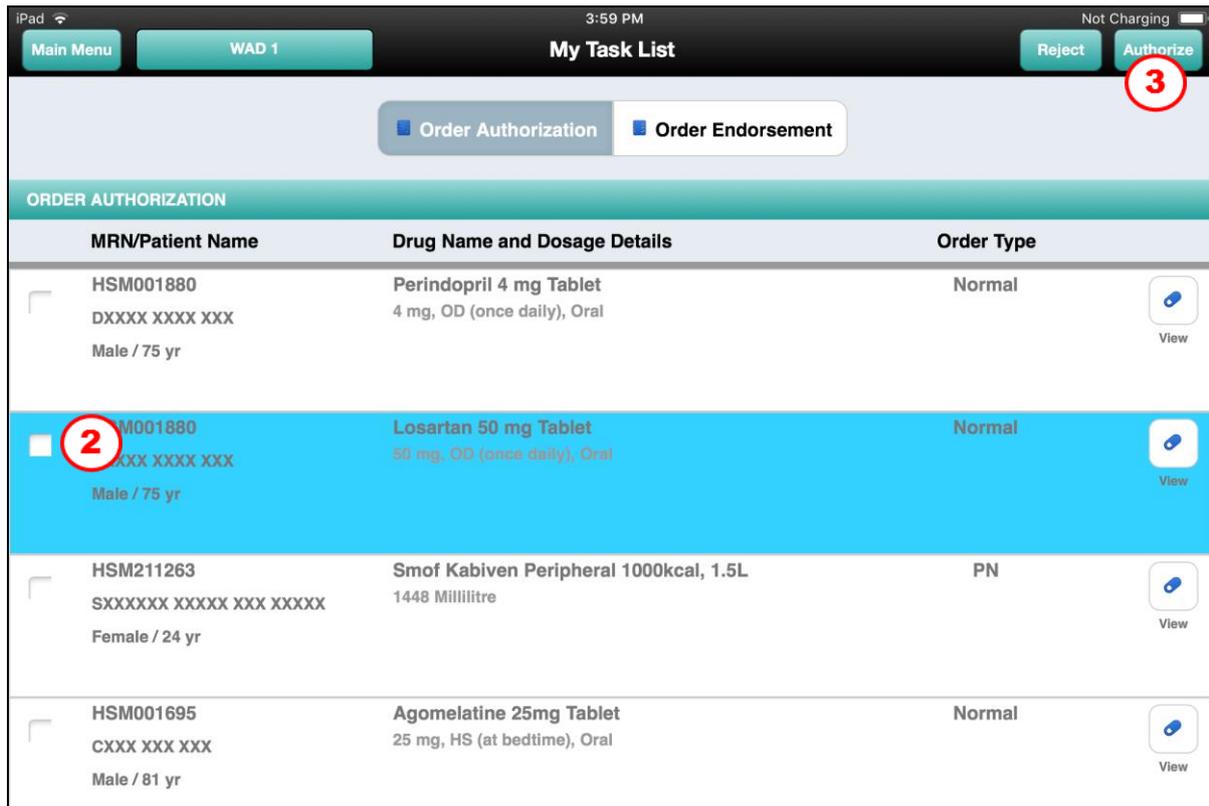


Figure 3.4-2 Order Authorisation Screen

Note

- Search result of patient record list will be displayed:
 - MRN / Patient Name
 - Drug Name / Dosage Details
 - Order By
- Drug that require HOD Authorisation that highlight in blue color display on the list.
- If user with normal roles authorisation login, they able to see all drugs in the list but not able to authorise the HOD Drug. The Authorise checkbox for drug highlighted in blue will be disable.
- If user with HOD roles authorisation login, Authorise checkbox will be enable and they can authorised all drugs on the same time.

STEP 2

Tap on the checkbox on selected patient

STEP 3

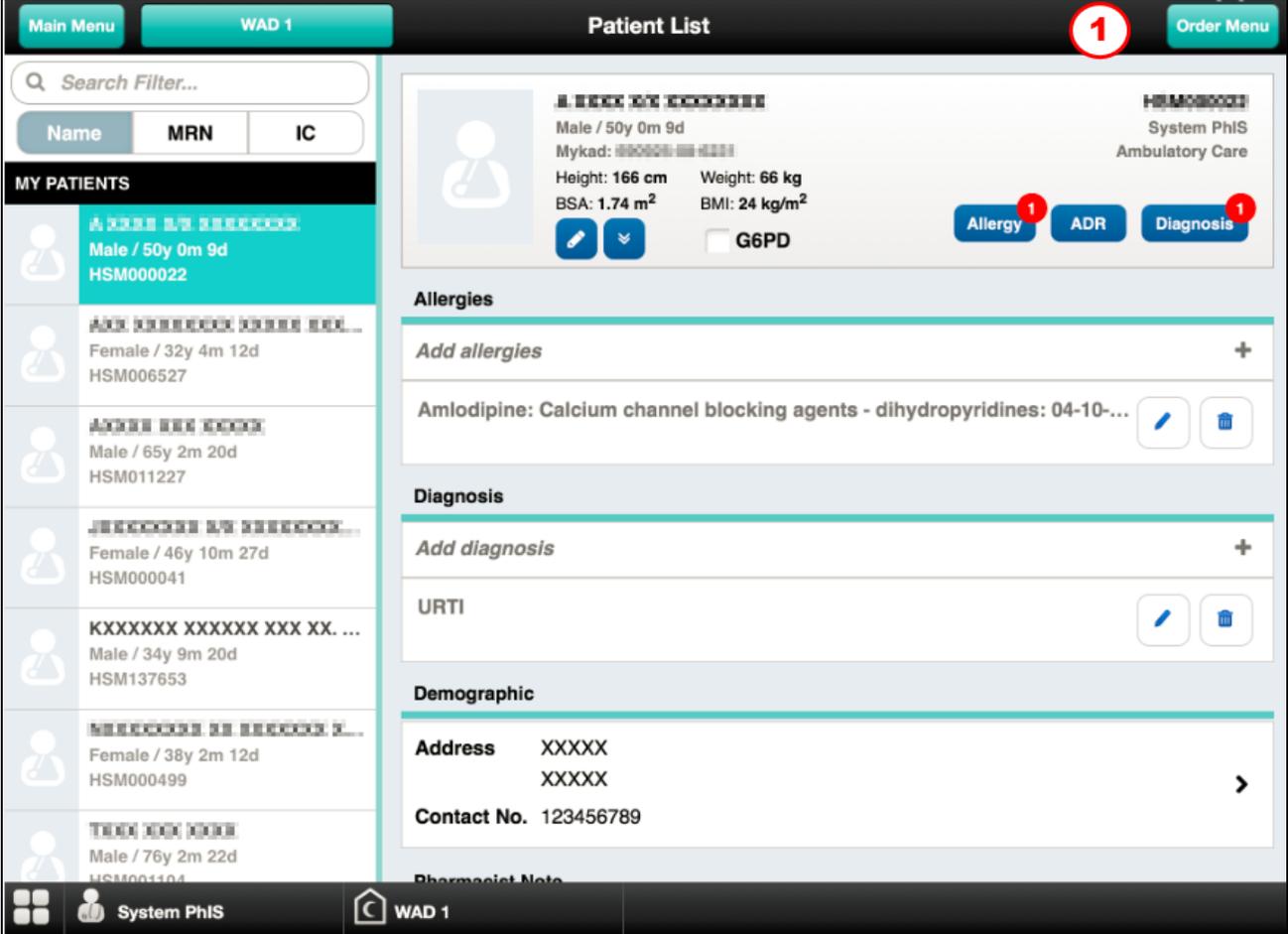
Tap on the button

Note

User able to reject the transaction by using click on the button.

4.0 Therapeutic Drug Monitoring

TDM Order screen allows Prescriber to place TDM Services order. The order will be sent to Pharmacist for verification and reporting.



The screenshot displays the 'Patient List' screen. At the top, there are navigation buttons for 'Main Menu', 'WAD 1', and 'Order Menu'. A search filter is available. The 'MY PATIENTS' list on the left shows several patient entries. The right-hand side shows the details for a selected patient, including a profile icon, name, gender, age, height, weight, BSA, BMI, and G6PD status. There are buttons for 'Allergy', 'ADR', and 'Diagnosis', each with a red '1' notification badge. Below these are sections for 'Allergies', 'Diagnosis', and 'Demographic' information. The bottom navigation bar includes 'System PhIS' and 'WAD 1'.

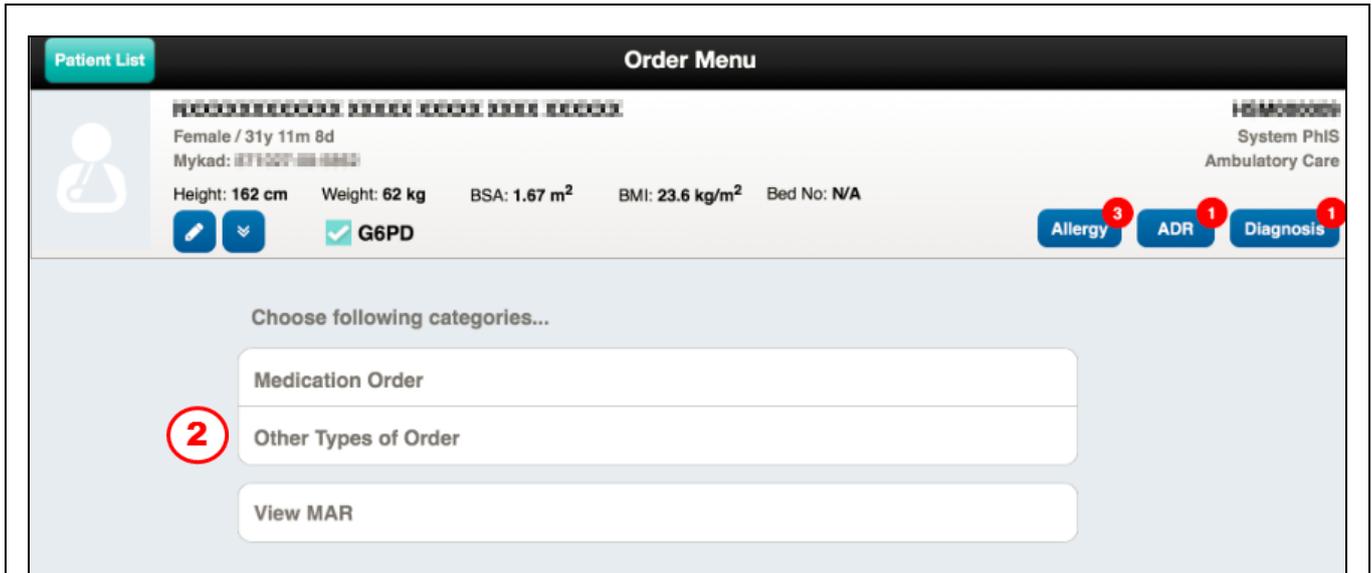
4.0-1 Patient Listing Screen

Note

Repeat **step 1** until **step 3** as 3.1.1 record allergy section

STEP 1

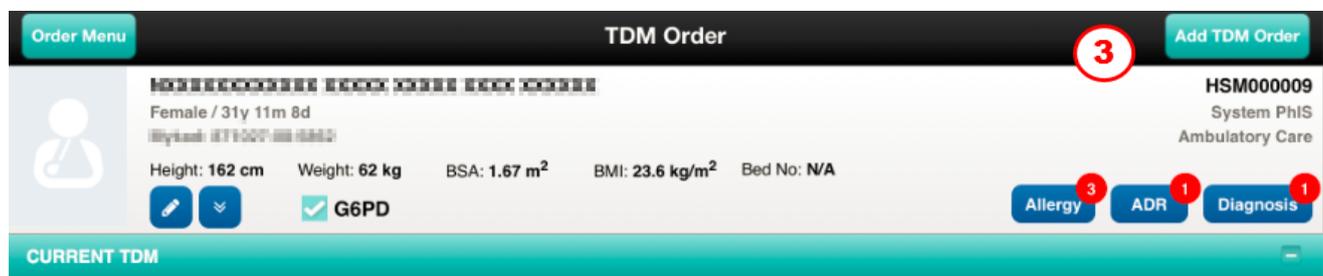
Tap on the **Order Menu**



4.0-2 Medication Order Screen

STEP 2

Tap on the *Other Types of Oder*

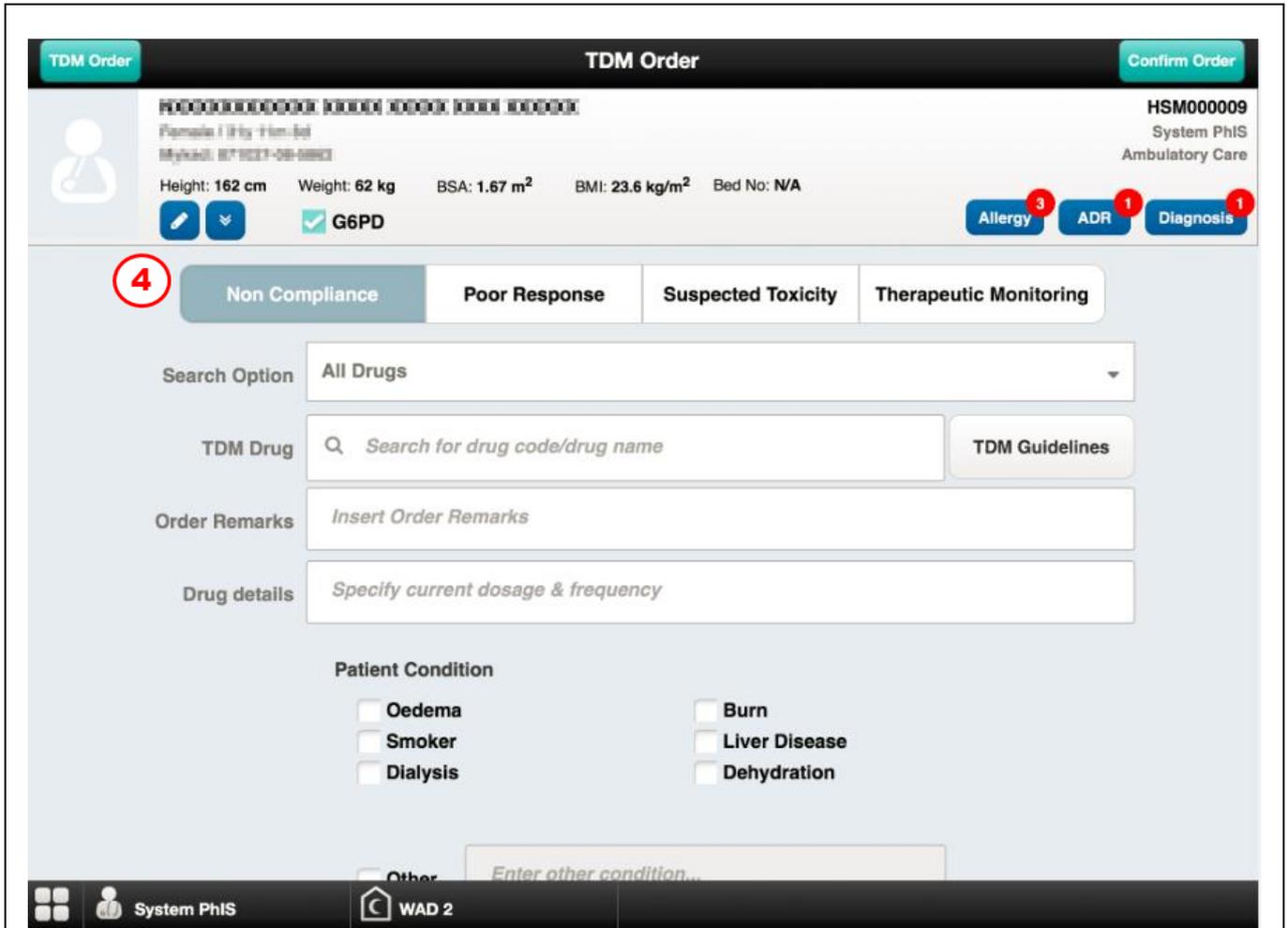


+ Click on "Add TDM Order" to add order.

4.0-3 TDM Order Screen

STEP 3

Tap on the **Add TDM Order** button



The screenshot displays the 'TDM Order' screen. At the top, there are buttons for 'TDM Order' and 'Confirm Order'. The patient information section includes a profile icon, name (Female / 11kg / 11m / 6d), MyKad (871003-08-0802), and vital signs (Height: 162 cm, Weight: 62 kg, BSA: 1.67 m², BMI: 23.6 kg/m², Bed No: N/A). There are also buttons for 'Allergy' (3), 'ADR' (1), and 'Diagnosis' (1). The 'Patient Condition' section has four tabs: 'Non Compliance' (highlighted with a red circle and number 4), 'Poor Response', 'Suspected Toxicity', and 'Therapeutic Monitoring'. Below the tabs are input fields for 'Search Option' (All Drugs), 'TDM Drug' (Search for drug code/drug name), 'Order Remarks' (Insert Order Remarks), and 'Drug details' (Specify current dosage & frequency). The 'Patient Condition' section includes checkboxes for Oedema, Smoker, Dialysis, Burn, Liver Disease, and Dehydration, along with an 'Other' field for 'Enter other condition...'. The bottom navigation bar shows 'System PhIS' and 'WAD 2'.

4.0-4 TDM Order Screen

STEP 4

Select indication for request from the **TDM Order** screen

- a) Non Compliance
- b) Poor Response
- c) Suspected Toxicity
- d) Therapeutic Monitoring

STEP 8

Enter **Latest Lab Result** which consists of:

- a) Blood Urea
- b) Sodium
- c) Potassium
- d) Serum Creatinine
- e) Creatinine Clearance
- f) Albumin

STEP 9

Select **Sampling Type** from dropdown box:

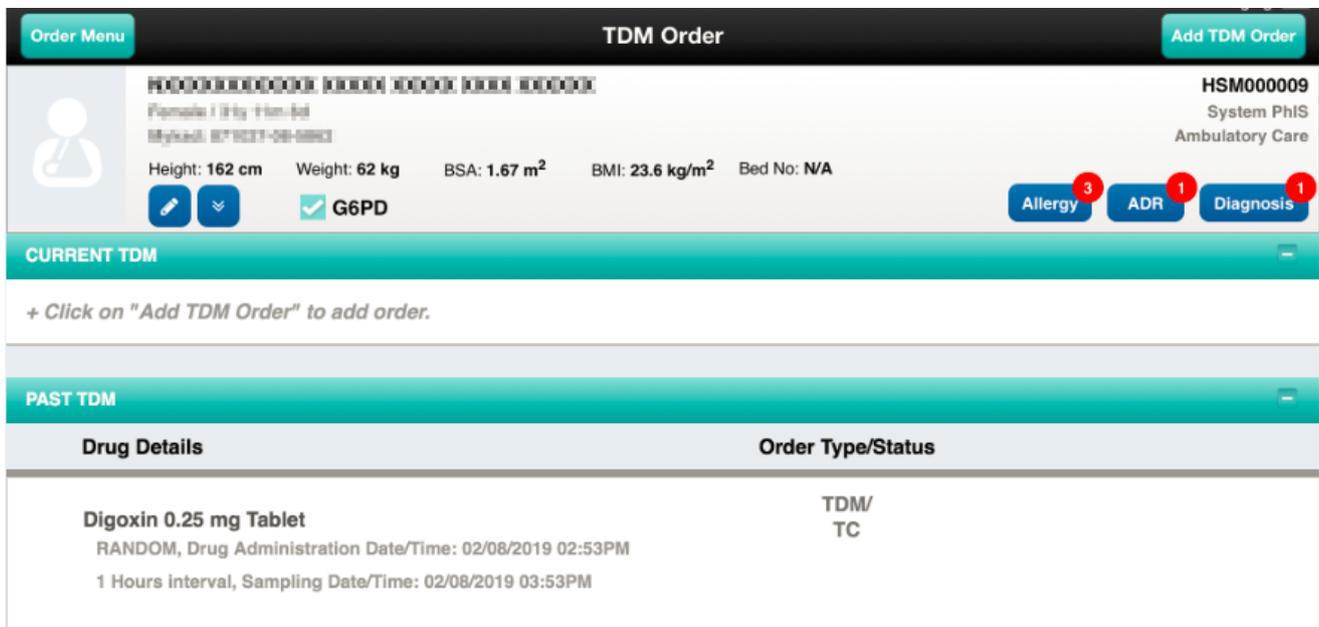
- Pre
- Post
- Random

STEP 10

Tap on the  button

STEP 11

Tap on the  to send the order to pharmacy



Order Menu **TDM Order** [Add TDM Order](#)

Patient Information:
 Female (Orly Han-jel)
 Mykad: B71027-08-0893
 Height: 162 cm Weight: 62 kg BSA: 1.67 m² BMI: 23.6 kg/m² Bed No: N/A
 G6PD Allergy ³ ADR ¹ Diagnosis ¹

CURRENT TDM

+ Click on "Add TDM Order" to add order.

PAST TDM

Drug Details	Order Type/Status
Digoxin 0.25 mg Tablet RANDOM, Drug Administration Date/Time: 02/08/2019 02:53PM 1 Hours interval, Sampling Date/Time: 02/08/2019 03:53PM	TDM/TC

4.0-8 TDM Guideline

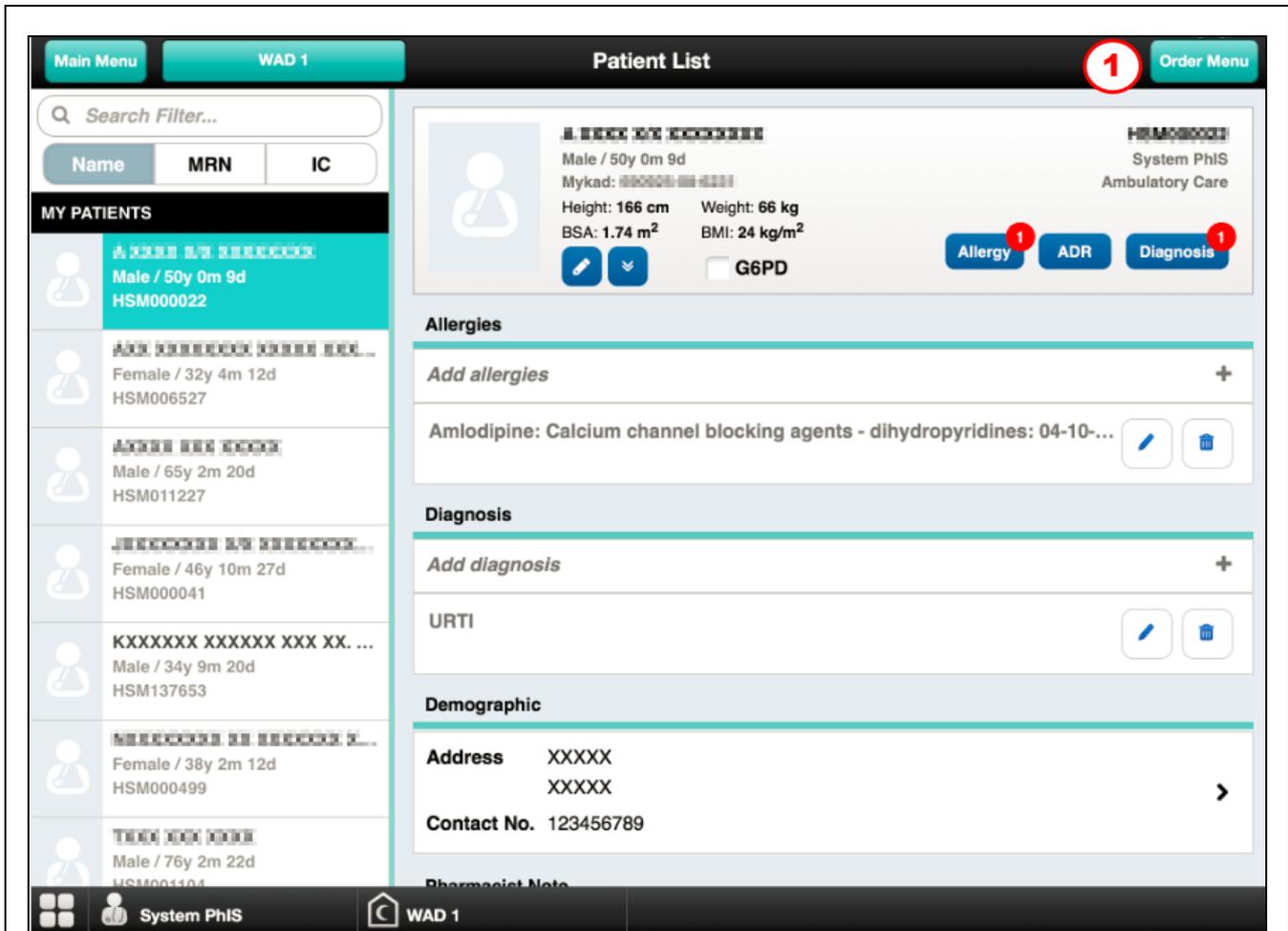
Note

Confirmed TDM Order as shown in Figure 4.0-8

5.0 Infusion

This is a function for a prescriber to order injectable medication that requires further dilution before administration. However, it is only applicable for medication that are diluted by pharmacist department. If the dilution is prepared by nursing personnel, the use of normal order is required.

5.1 IV Admixture



The screenshot displays the 'Patient List' interface. At the top, there are navigation buttons for 'Main Menu', 'WAD 1', and 'Order Menu' (highlighted with a red circle and '1'). A search filter is available. The left sidebar shows a list of patients under 'MY PATIENTS'. The main area shows the details for a selected patient, including a profile icon, name, gender, age, and MRN. Physical attributes like height, weight, BSA, and BMI are listed. There are buttons for 'Allergy', 'ADR', and 'Diagnosis', each with a red notification badge '1'. Below these are sections for 'Allergies', 'Diagnosis', and 'Demographic' information, including address and contact number.

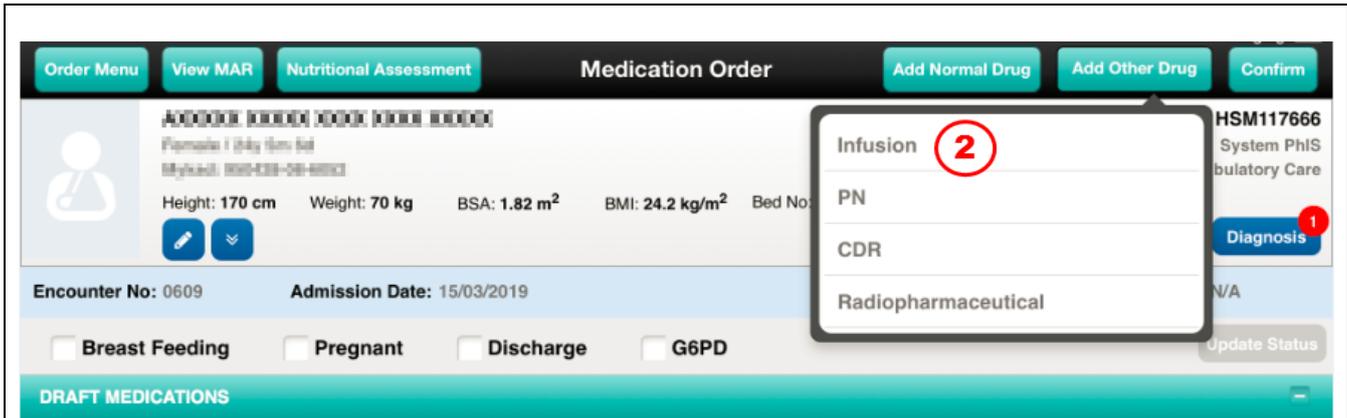
5.0-1 Order Screen

Note

Repeat **step 1** until **step 3** as 3.1.1 record allergy section

STEP 1

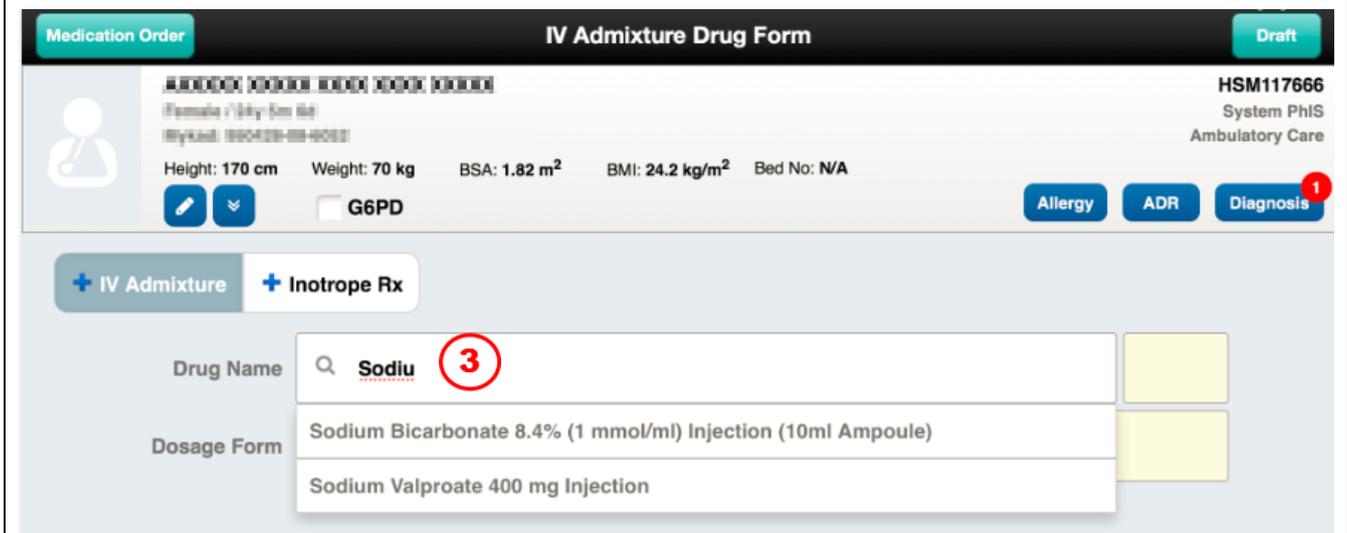
Tap on the 



5.0-2 Order Screen

STEP 2

Tap on the **Infusion** menu



5.0-3 IV Admixture Order Screen

Note

User will have option to prescribe **IV Admixture** or **Inotrope Rx** but by default system will displayed **IVAdmixture screen**

STEP 3

Enter the keyword of **Drug Name** and tap on the selected drug

STEP 4

Enter all the necessary information

STEP 5

Tap on the  button to save the prescription

The screenshot displays the 'Medication Order' interface. At the top, there are navigation buttons: 'Order Menu', 'View MAR', 'Nutritional Assessment', 'Add Normal Drug', 'Add Other Drug', and 'Confirm'. The patient information section includes a profile icon, a redacted name, gender (Female), age (24), and MyKad (M4308 04-0000). Physical attributes listed are Height: 170 cm, Weight: 70 kg, BSA: 1.82 m², BMI: 24.2 kg/m², and Bed No: N/A. A red circle with the number '6' highlights the patient ID 'HS 0666'. Below this are buttons for 'Allergy', 'ADR', and 'Diagnosis' (with a red circle and '1'). Encounter details include 'Encounter No: 0609', 'Admission Date: 15/03/2019', and 'Room No/Bed No: N/A'. There are checkboxes for 'Breast Feeding', 'Pregnant', 'Discharge', and 'G6PD', along with an 'Update Status' button. The 'DRAFT MEDICATIONS' section has a table with two entries:

Drug Details	Order Type/Status	Actions
<p> W20000824385 Sodium Valproate 400 mg Injection 400 mg, OD (once daily), 2 D, 04/10/2019 to 06/10/2019</p>	IV/ DRAFT	   Delete Edit Drug Info
<p> W20000823181 Paracetamol 120 mg/5 ml Syrup 120 mg, TDS PRN, 5 D, 16/07/2019 16:15:00 to 21/07/2019 16:15:00</p>	Normal/ DRAFT	     Taper Add To Favourite Delete Edit Drug Info

Below the draft medications is the 'ACTIVE CURRENT VISIT MEDICATIONS' section, which currently shows 'N/A'. The bottom navigation bar includes a grid icon, 'System PhIS', a home icon, and 'WAD 2'.

5.0-5 IV Admixture Order Screen

STEP 6

Tap on the  button to add the prescription

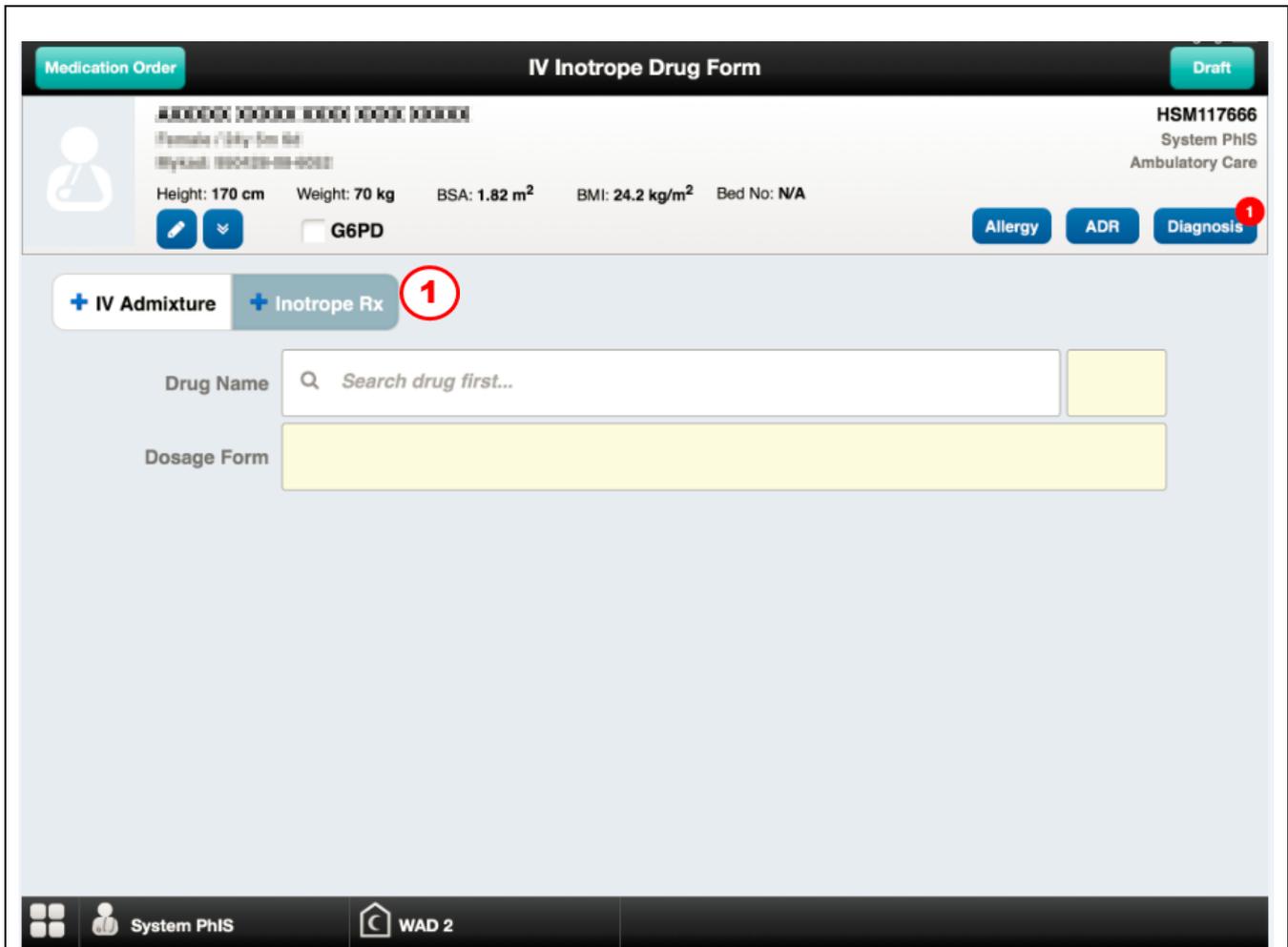
The dialog box contains the text 'Do you want to proceed with the order?'. Below the text are two buttons: a grey 'Cancel' button and a teal 'OK' button. A red circle with the number '7' is positioned above the 'OK' button.

5.0-6 IV Admixture Order Screen

STEP 7

Tap on the  button to proceed with the order

5.2 Inotrope



The screenshot displays the 'IV Inotrope Drug Form' screen. At the top, there is a 'Medication Order' header and a 'Draft' button. Below this, patient information is shown, including a name, gender (Female), age (54), height (170 cm), weight (70 kg), BSA (1.82 m²), BMI (24.2 kg/m²), and bed number (N/A). There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. A red circle with the number 1 highlights the '+ Inotrope Rx' tab. Below the tabs, there is a search bar for 'Drug Name' and a 'Dosage Form' field.

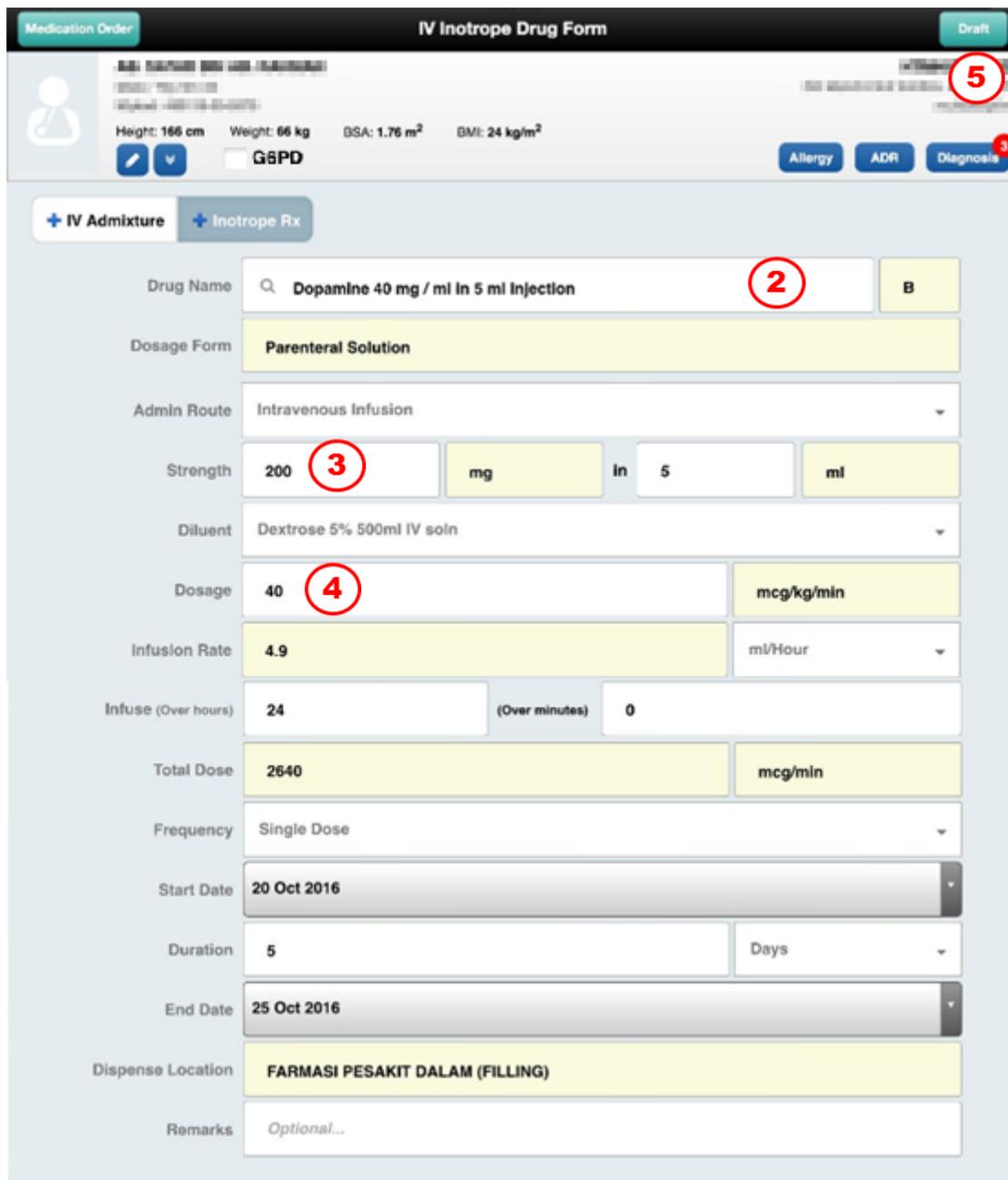
5.2-1 IV Admixture Order Screen

Note

- Repeat **Step 1** until **Step 3** as 3.1.1 record allergy section.
- Repeat **Step 1** until **Step 2** as section 5.1 Iv Admixture.

STEP 1

Tap on the  tab



The screenshot displays the 'IV Inotrope Drug Form' with the following fields and values:

- Drug Name:** Dopamine 40 mg / ml in 5 ml Injection
- Dosage Form:** Parenteral Solution
- Admin Route:** Intravenous Infusion
- Strength:** 200 mg in 5 ml
- Diluent:** Dextrose 5% 500ml IV soln
- Dosage:** 40 mcg/kg/min
- Infusion Rate:** 4.9 ml/Hour
- Infuse (Over hours):** 24 (Over minutes): 0
- Total Dose:** 2640 mcg/min
- Frequency:** Single Dose
- Start Date:** 20 Oct 2016
- Duration:** 5 Days
- End Date:** 25 Oct 2016
- Dispense Location:** FARMASI PESAKIT DALAM (FILLING)
- Remarks:** Optional...

5.2-2 IV Admixture Order Screen

STEP 2

Enter the keyword of **Drug Name** and tap on the selected drug

STEP 3

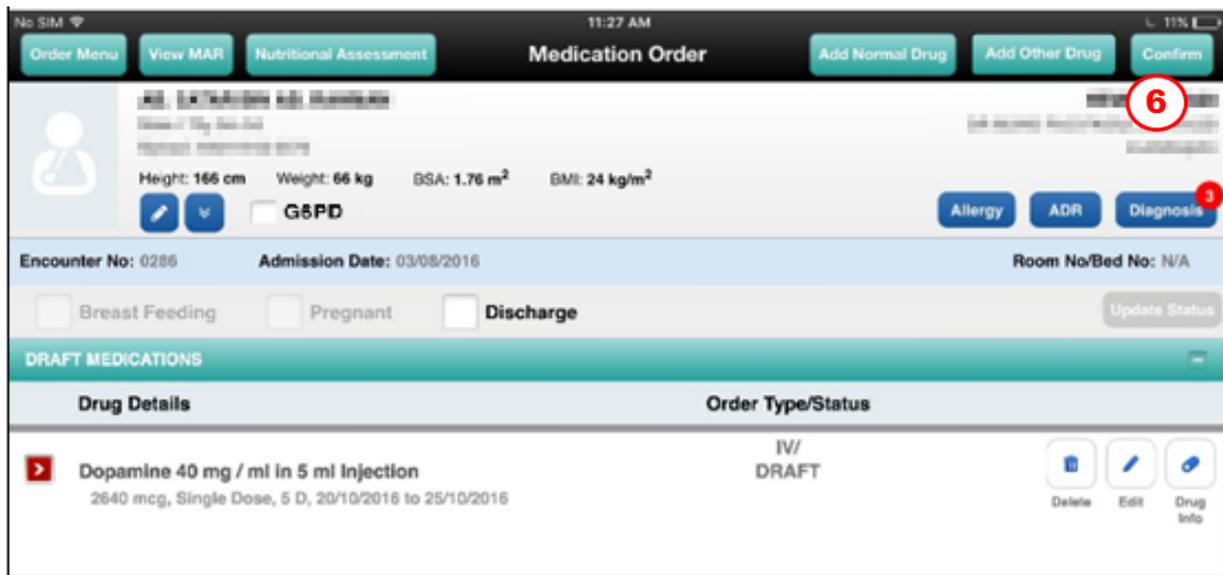
Decide the strength of preparation e.g. 200mg in 50ml

STEP 4

Decide the dose required e.g. mcg/kg/min

STEP 5

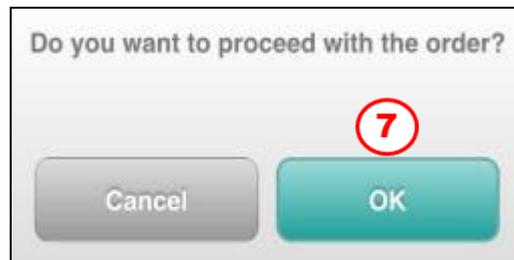
Tap on the  button to save the prescription



5.2-3 IV Admixture Order Screen

STEP 6

Tap on the  button to add the prescription



5.2-4 IV Admixture Order Screen

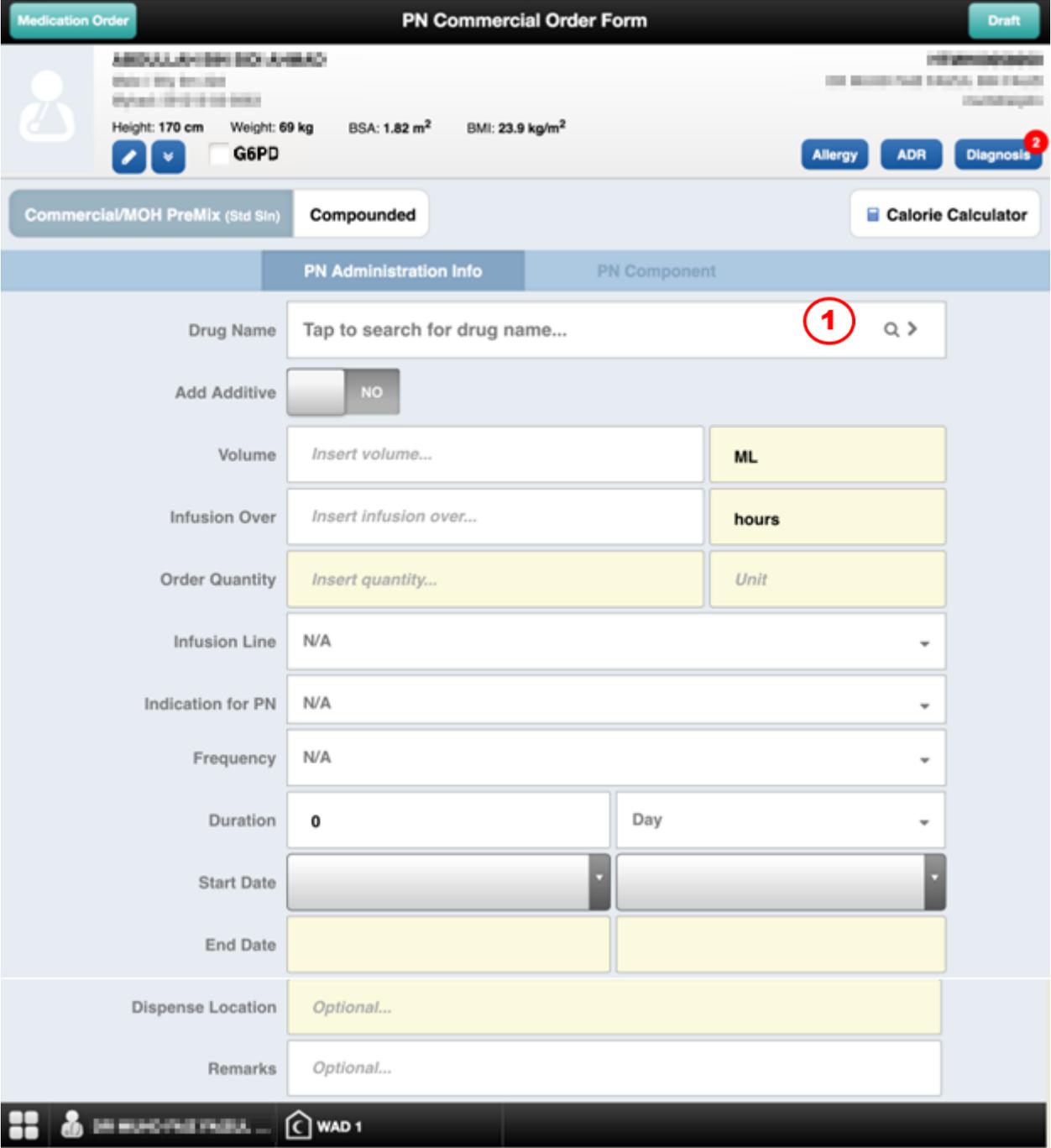
STEP 7

Tap on the  button to proceed with the order

6.0 Parenteral Nutrition (PN)

6.1 Commercial / MOH PreMix

Commercial / MOH Pre Mix (Std. Soln) allow user to order ready made product from manufacturer or facility.

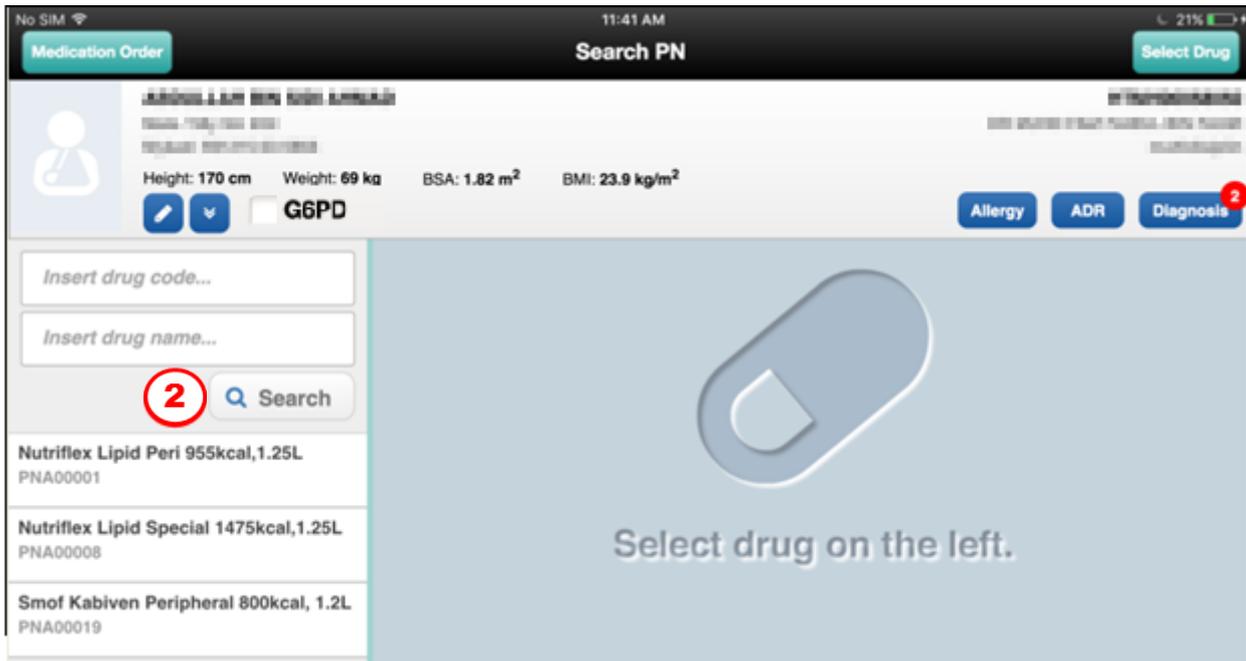


6.1-1 PN Order Screen

Note
Repeat **step 1** until **step 3** as 3.1.1 record allergy section

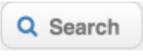
STEP 1

Tap on the **Drug Name** search field



6.1-2 PN Order Screen

STEP 2

Tap on the  button to select drug

Note

- To search for existing product record(s), you may search by criteria as follow:
 - Drug Code
 - Drug Name
- User may tap on the listed commercial drugs to view the component of the PN bag as per Figure 6.1-3

Medication Order
Search PN
3
Select Drug



Account: 00000000000000000000

Female / 20y / 160 cm / 50 kg

MyKad: 990401-00-00000

Height: 170 cm Weight: 70 kg BSA: 1.82 m² BMI: 24.2 kg/m² Bed No: N/A

G6PD

HEALTHFORM

System Full

Ambulatory Care

Allergy
ADR
Diagnosis 1

Insert drug code...

nutri

Q Search

Nutriflex Lipid Peri 955kcal, 1.25L
 PNA00001

Ingredient	Value
Macronutrient	
Amino Acid	40 g
Glucose	80 g
Lipids	50 g

 System PhIS
 WAD 2

6.1-3 PN Component Screen

STEP 3

Tap on the Select Drug button

Medication Order
PN Commercial Order Form
Draft

Adult ~~XXXXXX XXXX XXXX XXXX~~

Female / 20y 0m 0d
Mykad: 90909-00-0000

Height: 170 cm Weight: 70 kg BSA: 1.82 m² BMI: 24.2 kg/m² Bed No: N/A

G6PD

Hospital/Unit
System/PhIS
Ambulatory/Care

Allergy ADR 1 Diagnosis

Commercial/MOH PreMix (Std Sin)
Compounded
Calorie Calculator

PN Administration Info		PN Component	
Frequency	OD (once daily) ▼	Duration	1 Days ▼
Infusion Over	24 hours	Infusion Line	Central ▼ 4
Start Date	4 Oct 2019 5:00 PM	End Date	5 Oct 2019 5:00 PM
Indication for PN	Select one... ▼ 5		
Dispense Location	Satellite Pharmacy		
Remarks	Optional...		

System PhIS
 WAD 2

6.1-4 PN Order Screen

Note

- All information will automatically display and base on the information from PN Source Content and PN Constituents Reference Range.
- This field still can be change by the user if applicable.
- Start Date/Time and will be automatically default to current date but still can be change by the user if applicable.
- End Date/Time will be displayed according to duration product given.
- Order Quantity will be automatically displayed and base on the information from PN Source Content and PN Constituents Reference Range.

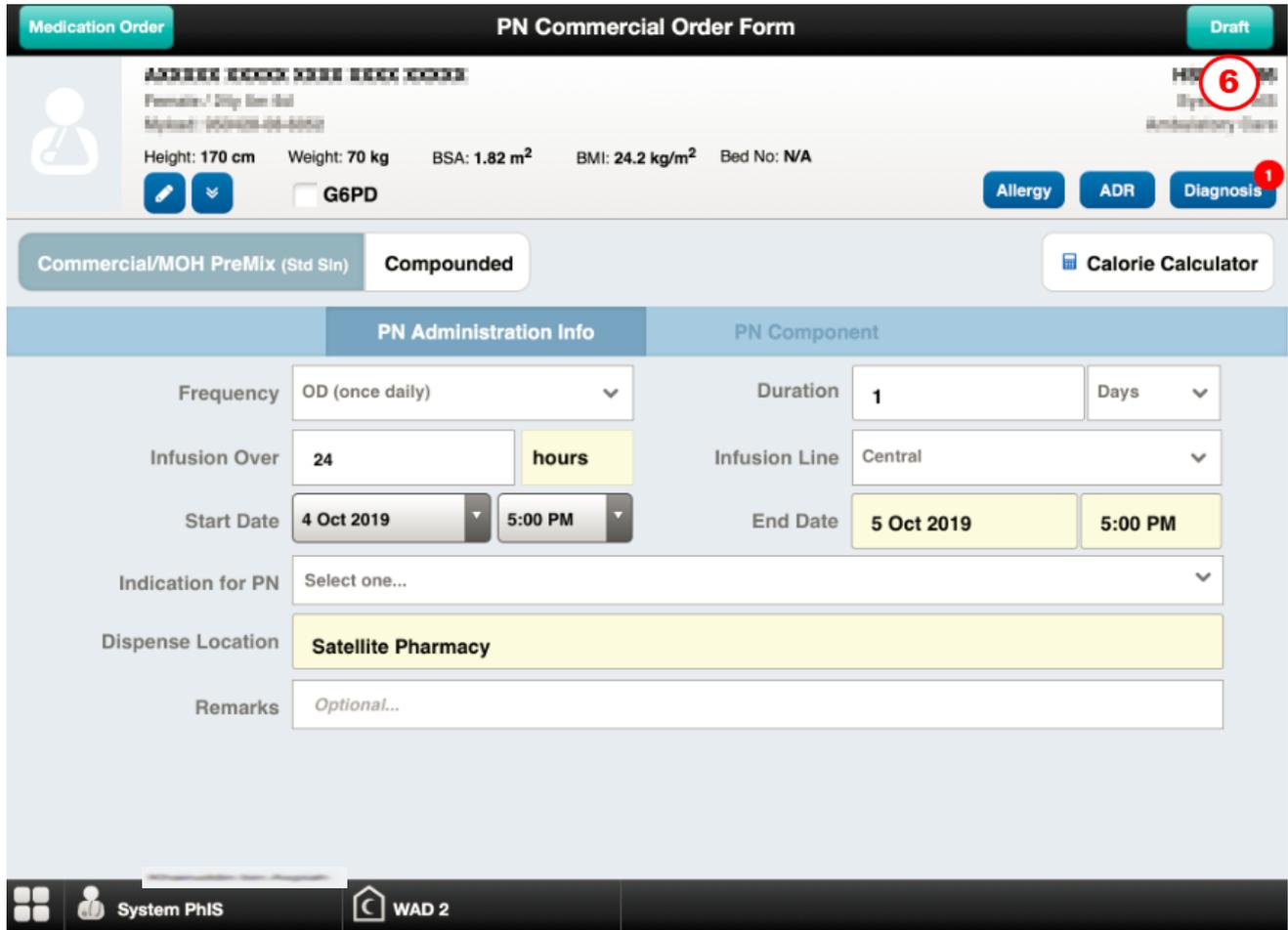
STEP 4

Select **Infusion Line** from drop down menu

- Central
- Peripheral
- Plan for central

STEP 5

Select **Indication for PN** from the dropdown menu



Medication Order **PN Commercial Order Form** **Draft**

Female / 50y / 160cm / 60kg / 10000
Height: 170 cm Weight: 70 kg BSA: 1.82 m² BMI: 24.2 kg/m² Bed No: N/A
G6PD **Allergy** **ADR** **Diagnosis**

Commercial/MOH PreMix (Std Sln) **Compounded** **Calorie Calculator**

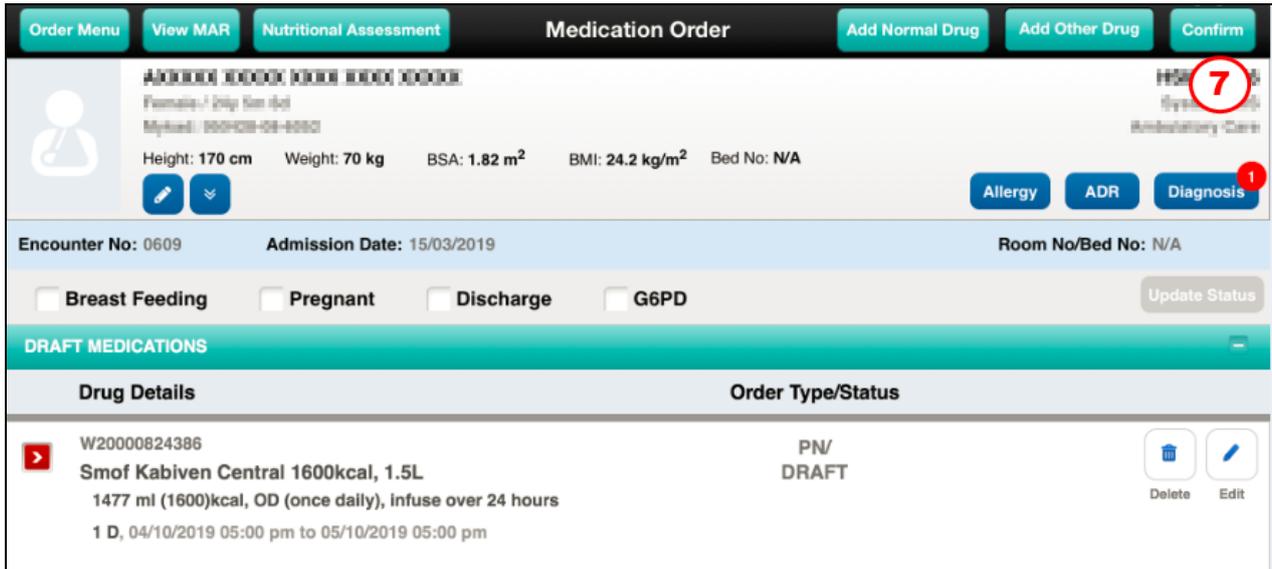
PN Administration Info		PN Component	
Frequency	OD (once daily)	Duration	1 Days
Infusion Over	24 hours	Infusion Line	Central
Start Date	4 Oct 2019 5:00 PM	End Date	5 Oct 2019 5:00 PM
Indication for PN	Select one...		
Dispense Location	Satellite Pharmacy		
Remarks	Optional...		

System PhIS WAD 2

6.1-5 PN Order Screen

STEP 6

Tap on the **Draft** button to save the prescription



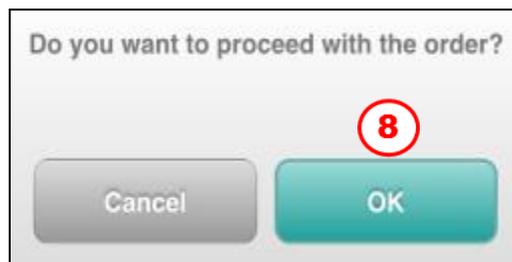
The screenshot displays the 'Medication Order' interface. At the top, there are navigation buttons: 'Order Menu', 'View MAR', 'Nutritional Assessment', 'Medication Order', 'Add Normal Drug', 'Add Other Drug', and 'Confirm'. The patient information section includes a name, gender (Female), age (54), and various physical metrics: Height: 170 cm, Weight: 70 kg, BSA: 1.82 m², BMI: 24.2 kg/m², and Bed No: N/A. A red circle with the number '7' highlights the 'Confirm' button. Below this, there are buttons for 'Allergy', 'ADR', and 'Diagnosis'. The encounter details section shows 'Encounter No: 0609', 'Admission Date: 15/03/2019', and 'Room No/Bed No: N/A'. There are checkboxes for 'Breast Feeding', 'Pregnant', 'Discharge', and 'G6PD', along with an 'Update Status' button. The 'DRAFT MEDICATIONS' section is highlighted in green and contains a table with the following data:

Drug Details	Order Type/Status	Actions
 W20000824386 Smof Kabiven Central 1600kcal, 1.5L 1477 ml (1600)kcal, OD (once daily), infuse over 24 hours 1 D, 04/10/2019 05:00 pm to 05/10/2019 05:00 pm	PN/ DRAFT	  Delete Edit

6.1-6 PN Order Screen

STEP 7

Tap on the  button to add the prescription



The dialog box contains the text 'Do you want to proceed with the order?' and two buttons: 'Cancel' and 'OK'. A red circle with the number '8' highlights the 'OK' button.

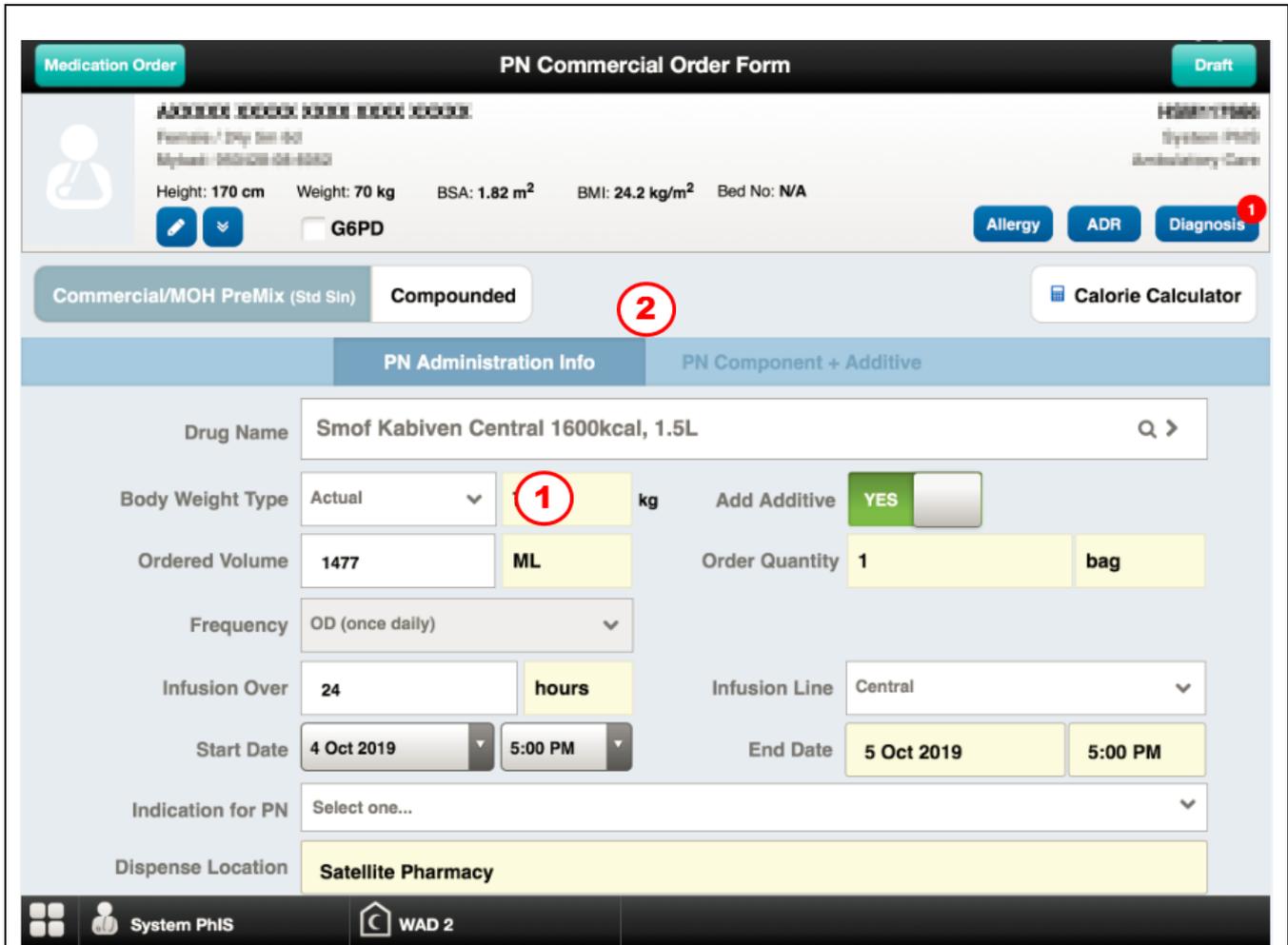
6.1-7 PN Alert Order Screen

STEP 8

Tap on the  button to proceed with the order

6.2 Commercial Add Additive

Commercial / MOH Pre Mix (Std. Soln) allow user to order readymade product with additional PN component.



The screenshot displays the 'PN Commercial Order Form' interface. At the top, there are tabs for 'Medication Order' and 'Draft'. The patient information section includes fields for Name, Gender, Age, Height (170 cm), Weight (70 kg), BSA (1.82 m²), BMI (24.2 kg/m²), and Bed No (N/A). There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. The 'Commercial/MOH PreMix (Std Soln)' section is active, with a 'Compounded' button and a 'Calorie Calculator' button. The 'PN Administration Info' and 'PN Component + Additive' tabs are visible. The 'Drug Name' field contains 'Smof Kabiven Central 1600kcal, 1.5L'. The 'Body Weight Type' is set to 'Actual' kg, with a red circle '1' highlighting the 'Add Additive' toggle set to 'YES'. The 'Ordered Volume' is 1477 ML, and the 'Order Quantity' is 1 bag. The 'Frequency' is OD (once daily), 'Infusion Over' is 24 hours, 'Start Date' is 4 Oct 2019 at 5:00 PM, and 'End Date' is 5 Oct 2019 at 5:00 PM. The 'Dispense Location' is 'Satellite Pharmacy'. A red circle '2' highlights the 'PN Component + Additive' tab.

6.2-1 PN Order Screen

Note

- Repeat **step 1** until **step 3** as 3.1.1 record allergy section
- Repeat **step 1** until **step 3** as 6.3 Commercial / MOH PreMix

STEP 1

Tap on the YES box

STEP 2

Tap on the **PN component + Add Addictive** tab

Medication Order
PN Commercial Order Form
Draft



 Height: 170 cm Weight: 69 kg BSA: 1.82 m² BMI: 23.9 kg/m²

3

Allergy
ADR
2

Commercial/MOH PreMix (Std Sin)
Compounded
Calorie Calculator

PN Administration Info
PN Component + Additive

Electrolytes	Requirement Per Day	Per Bag(Per Ordering)
Sodium(Natrium), Na+	<input type="text" value="40"/> mmol	<input type="text" value="30(30)"/> mmol
Potassium(Kalium), K+	<input type="text"/> mmol	<input type="text" value="23(23)"/> mmol
Calcium, Ca ²⁺	<input type="text" value="30"/> mmol	<input type="text" value="1.9(1.90)"/> mmol
Magnesium, Mg+	<input type="text"/> mmol	<input type="text" value="3.8(3.80)"/> mmol
Phosphate, (PO ₄) ²⁻	<input type="text"/> mmol	<input type="text" value="9.9(9.90)"/> mmol
Acetate, CH ₃ COO	<input type="text" value="90"/> mmol	<input type="text" value="79(79)"/> mmol
Trace Elements	<input type="text"/> ml	<input type="text" value="0(0)"/> ml
L-Glutamin	<input type="text"/> ml	<input type="text" value="0"/> ml

Single Vitamin
Multi Vitamin

Vitamin	Initial Content	Additional Requirement	Total per Day
Water Soluble	<input type="text" value="0"/> ml	<input type="text"/> ml	<input type="text" value="0"/> ml
Fat Soluble	<input type="text" value="0"/> ml	<input type="text"/> ml	<input type="text" value="0"/> ml

 WAD 1

6.2-2 PN Order Screen

Note

- User need to enter total electrolytes required for patient per day.
- All value must be more than per bag ordering.
- All value in all **Per Bag (Per Ordering)** field will automatically default by system.
- Select Single Vitamin radio button. **Water soluble** and **Fat soluble** field will automatically display as per Figure 6.2-3.

Multi Vitamin

- Select **Multi Vitamin** radio button. **Vitamin(Water and Fat soluble)** field will automatically display as per Figure 3.2-4.
- All value in all **Per Bag (Per Ordering)** field will automatically default by system.

Single Vitamin Multi Vitamin			
Vitamin	Initial Content	Additional Requirement	Total per Day
Water Soluble	0 ml	ml	0 ml
Fat Soluble	0 ml	ml	0 ml

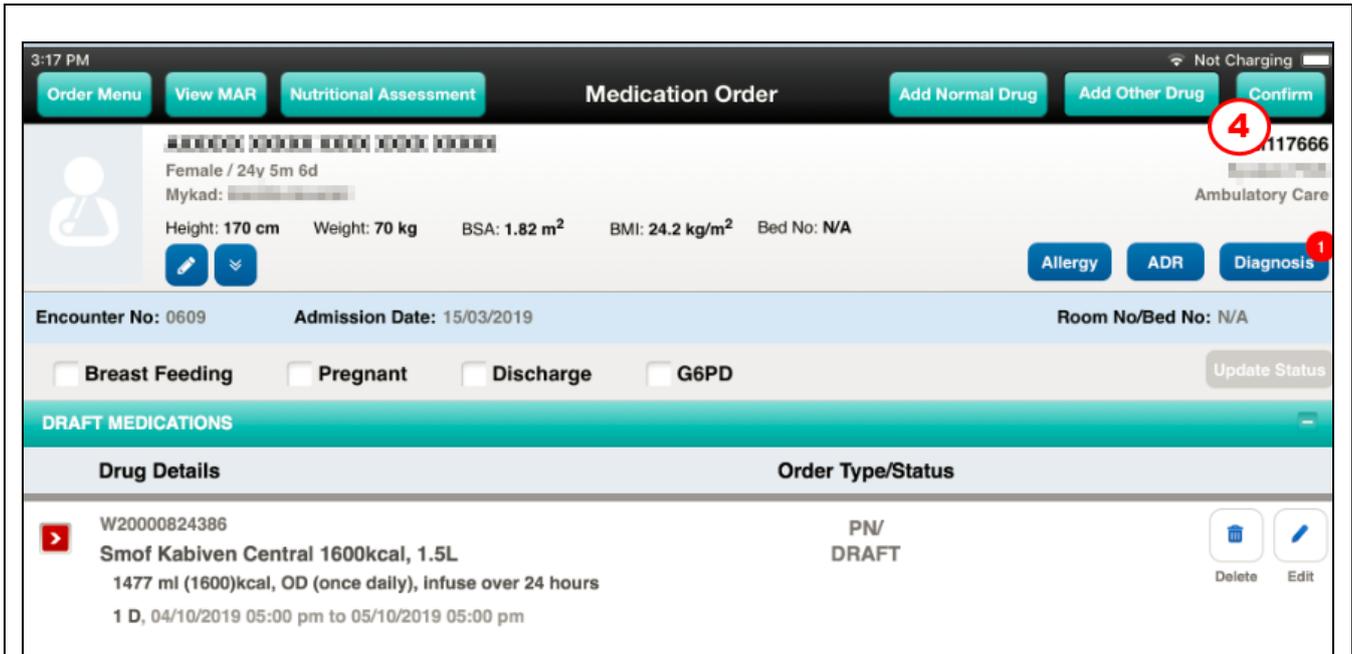
6.2-3 Single Vitamin Screen

Single Vitamin Multi Vitamin			
Vitamin	Initial Content	Additional Requirement	Total per Day
Vitamin (Water & Fat Soluble)	0 ml	ml	0 ml

6.2-4 Multi Vitamin Screen

STEP 3

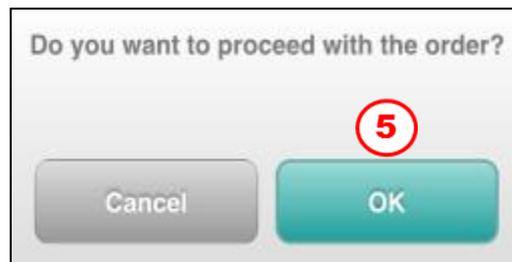
Tap on the **Draft** button to save the prescription



6.2-6 Order Screen

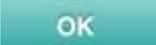
STEP 4

Tap on the  button to add the prescription



6.2-7 PN Alert Order Screen

STEP 5

Tap on the  button to proceed with the order



6.3 PN Compounded

PN Compounded allow user to order PN readymade product with customized patient requirement.

Medication Order PN Compounded Order Form Draft

A XXXX XX XXXXXXXX
Male / 50y 1m 6d
Mykad: 690925-08-6231
Height: 166 cm Weight: 66 kg BSA: 1.74 m² BMI: 24 kg/m² Bed No:
G6PD Allergy ¹ ADR ¹ Diagnosis ¹

Commercial/MOH PreMix (Std Sin) Compound ¹ Calorie Calculator

PN Component PN Administration Info

Age Group: Adult Body Weight Type: Actual kg Use Fluid Calculator

	By Weight	Per Day
Total Volume required	<input type="text" value="42.73"/> ml/kg	<input type="text" value="2820"/> ml
Total oral feeding	<input type="text" value="0"/> ml/kg	<input type="text" value=""/> ml
TPN Volume	<input type="text" value="42.73"/> ml/kg	<input type="text" value="2820"/> ml
Energy required	<input type="text" value=""/> kcal/kg	<input type="text" value="0"/> kcal

Macronutrient	By Weight	Recommended Range	Per Day	Energy(per day)
Carbohydrate	<input type="text" value=""/> g/kg	<input type="text" value="3-5"/> g/kg	<input type="text" value="0"/> g	<input type="text" value="0"/> kcal
Lipid	<input type="text" value=""/> g/kg	<input type="text" value="0.5-2"/> g/kg	<input type="text" value="0"/> g	<input type="text" value="0"/> kcal
Protein	<input type="text" value=""/> g/kg	<input type="text" value="0.5-2"/> g/kg	<input type="text" value="0"/> g	<input type="text" value="0"/> kcal
L-Glutamin	<input type="text" value="0"/> ml/kg	<input type="text" value="1.5-2.5"/> ml/kg	<input type="text" value=""/> ml	<input type="text" value="0"/> kcal
Carbohydrate:Lipid (kcal)	<input type="text" value="0"/>	Nitrogen Content: <input type="text" value="0"/> g	NPC:NRatio: <input type="text" value="0"/>	Total: <input type="text" value="0"/>

Electrolytes	By Weight	Recommended Range	Per Day
Sodium(Natrium), Na ⁺	<input type="text" value=""/> mmol/kg	<input type="text" value="1-2"/> mmol/kg	<input type="text" value="0"/> mmol
Potassium(Kalium), K ⁺	<input type="text" value=""/> mmol/kg	<input type="text" value="0.7-1.5"/> mmol/kg	<input type="text" value="0"/> mmol
Calcium, Ca ²⁺	<input type="text" value=""/> mmol/kg	<input type="text" value="0.1-0.15"/> mmol/kg	<input type="text" value="0"/> mmol
Magnesium, Mg ⁺	<input type="text" value=""/> mmol/kg	<input type="text" value="0.05-0.15"/> mmol/kg	<input type="text" value="0"/> mmol
Phosphate, (PO ₄) ²⁻	<input type="text" value=""/> mmol/kg	<input type="text" value="0.7-1.5"/> mmol/kg	<input type="text" value="0"/> mmol
Chloride, Cl ⁻	<input type="text" value=""/> mmol/kg	<input type="text" value="1.3-2"/> mmol/kg	<input type="text" value="0"/> mmol
Acetate, (CH ₃ COO)	<input type="text" value=""/> mmol/kg	<input type="text" value="0-0"/> mmol/kg	<input type="text" value="0"/> mmol
Trace Elements	<input type="text" value="0"/> mmol/kg	<input type="text" value="0-10"/> ml	<input type="text" value=""/> ml

Single Vitamin Multi Vitamin

Vitamin	By Weight	Recommended Range	Per Day
Water Soluble	<input type="text" value="0"/> ml/kg	<input type="text" value="0-10"/> ml	<input type="text" value=""/> ml
Fat Soluble	<input type="text" value="0"/> ml/kg	<input type="text" value="0-10"/> ml	<input type="text" value=""/> ml

System PhIS WAD 1

6.3-1 PN Order Screen

Note

- Repeat **step 1** until **step 3** as 3.1.1 record allergy section
- Repeat **step 1** until **step 3** as 6.3 Commercial / MOH PreMix

STEP 1

Tap on the  button

Note

- All entered value must between the **Recommended Range (per kg)**.
- All value **Per day** and **Energy(per day)** will automatically calculate and display.
- L-Gutamin is an optional function. Value of **By weight** and **Energy(per day)** will automatically display.
- Value of **Carbohydrate:Lipid(kcal) Content, Nitrogen and NPC:Ratio** will automatically calculate and display. Value **By Weight** will automatically calculate and display after enter the **Trace elements Per day** value
- All entered value must between the **Recommended Range (per kg)**.
- **Chloride ,Cl+** and **Acetate (CH3COO)** is optional function.
- All value **Per day** will automatically calculate and display.
- Enter value of the **Trace elements Per day**. Value **By Weight** will be automatically calculated and displayed after enter the **Trace elements Per day** value.

11:13 AM Not Charging

Medication Order **PN Compounded Order Form** **Draft**

Male / 50y 1m 6d
Mykad: 880808-08-8001
Height: 166 cm Weight: 66 kg BSA: 1.74 m² BMI: 24 kg/m² Bed No:
 G6PD

HSM 22
System PhIS
Ambulatory Care

Allergy **ADR** **Diagnosis**

Commercial/MOH PreMix (Std Sin) **Compounded** **Calorie Calculator**

PN Component		PN Administration Info	
Age Group	Adult	Body Weight Type	Actual
		Weight	66 kg
		Use Fluid Calculator	YES

	By Weight	Per Day
Total Volume required	42.73 ml/kg	2820 ml
Total oral feeding	0 ml/kg	ml
TPN Volume	42.73 ml/kg	2820 ml
Energy required	kcal/kg	0 kcal

Macronutrient	By Weight	Recommended Range	Per Day	Energy(per day)
---------------	-----------	-------------------	---------	-----------------

6.3-3 PN Order Screen

STEP 2

Tap on the **Draft** button to save the prescription

Order Menu View MAR Nutritional Assessment **Medication Order** Add Normal Drug Add Other Drug Confirm

Height: 170 cm Weight: 69 kg BSA: 1.82 m² BMI: 23.9 kg/m²

Encounter No: 0022 Admission Date: 07/08/2016 Room No/Bed No: N/A

Breast Feeding Pregnant Discharge **Update Status**

DRAFT MEDICATIONS

Drug Details	Order Type/Status
PN Compounded ADULT, 28.99 ml(6900kcal), infuse over 24 hours 1 day, 05/10/2016 05:00 pm to 06/10/2016 05:00 pm	PN/ DRAFT

Delete **Edit**

6.3-4 PN Order Screen

STEP 3

Tap on the **Confirm** button to add the prescription



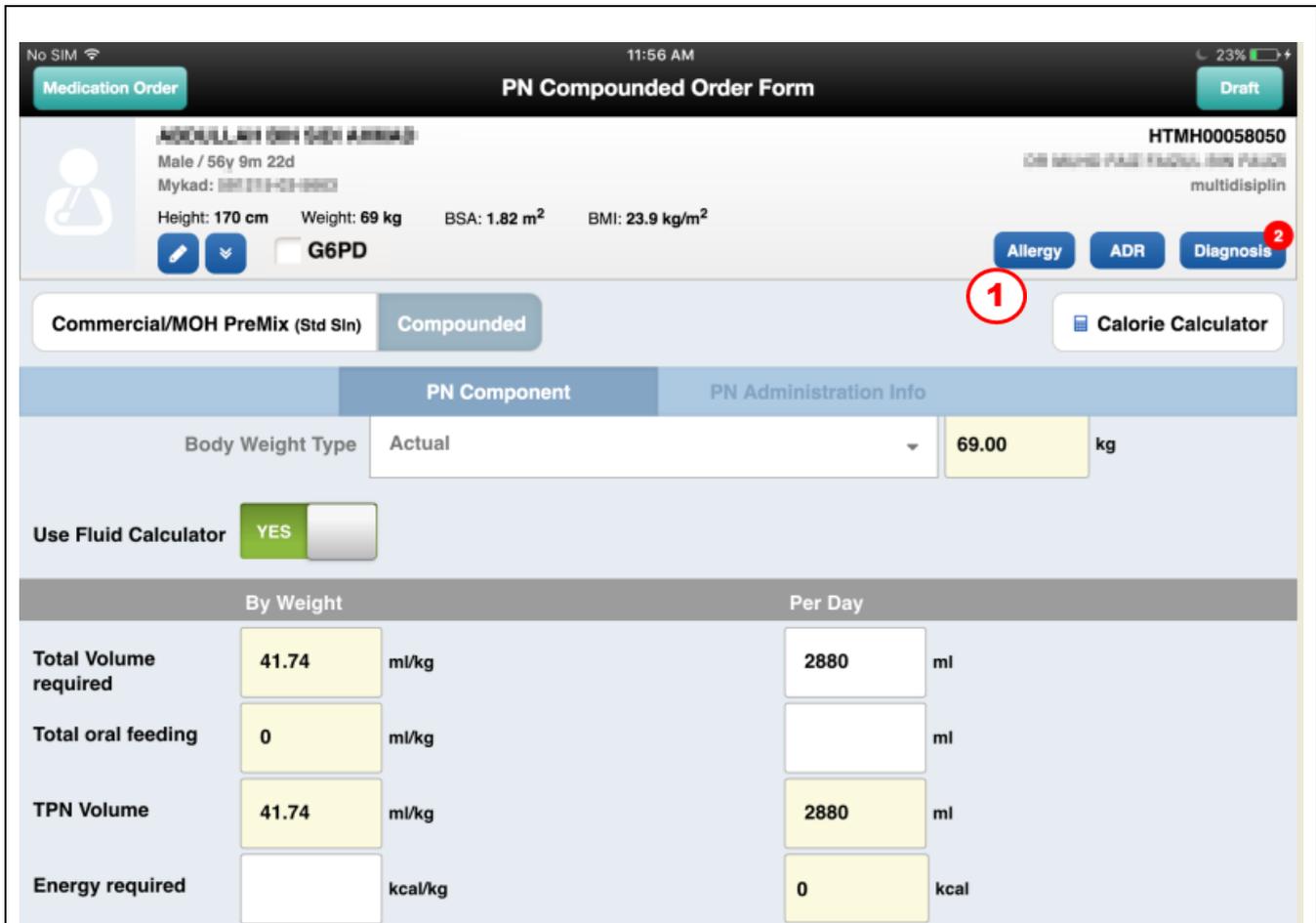
6.3-5 PN Alert Order Screen

STEP 4

Tap on the  button to proceed with the order

6.4 Calorie calculator

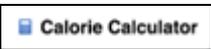
Calorie calculator allow user to calculate patient’s calorie requirement. This value will out as a guideline for user to order the required TPN order for patient.



	By Weight	Per Day
Total Volume required	41.74 ml/kg	2880 ml
Total oral feeding	0 ml/kg	
TPN Volume	41.74 ml/kg	2880 ml
Energy required		0 kcal

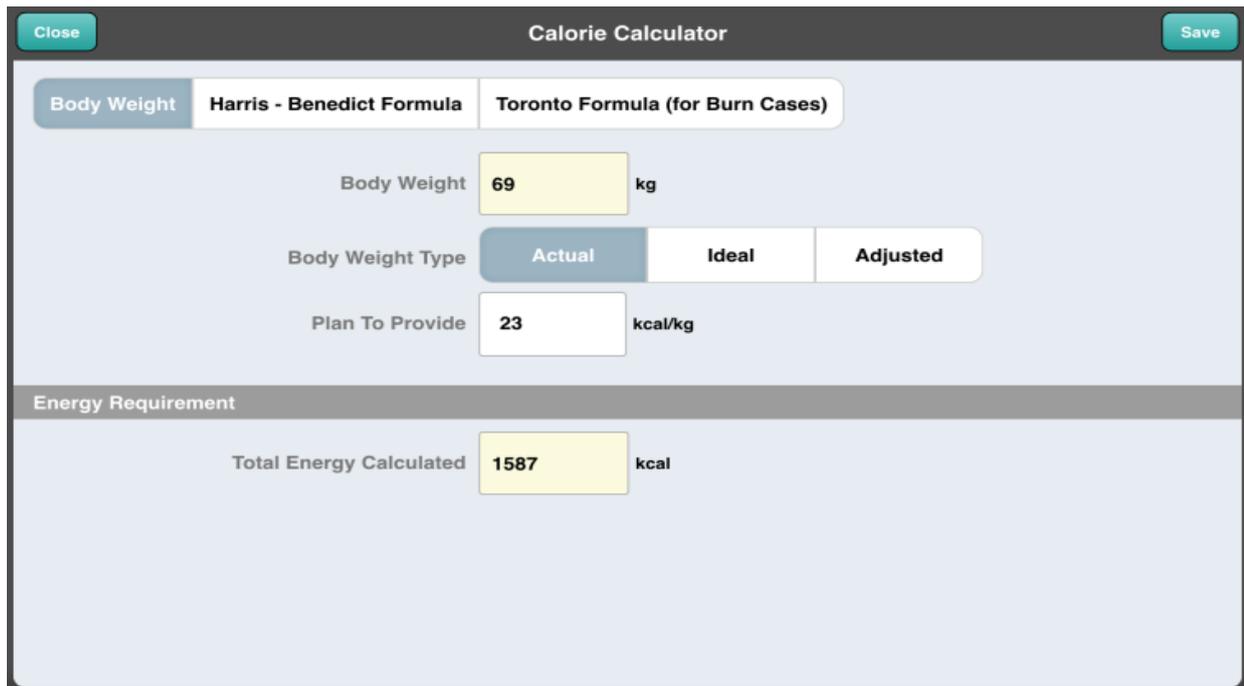
6.4-1 PN Order Screen

STEP 1

Tap on the  button

Note

Calorie Calculator screen will be displayed as per Figure 6.4-2



6.4-2 PN calculator Screen

Note

- There are 3 calculator in the system :
 - Body weight
 - Harris-Benedict Formula
 - Toronto Formula(for burn cases)
- User have to select either one of the following **Body Weight** radio button:
 - Actual Body Weight
 - Ideal
 - Adjusted
- **Body Weight** value will automatically displayed base on the information from patient profile
- Enter the amount in **Plan To Provide** (kCal/kg).
- **Total Energy Calculated** will automatically calculate and display as per Figure 6.4-2.
- Tap on the  button to save record.
- Tap on the  button to close the screen.

Close
Calorie Calculator
Save

Body Weight
Harris - Benedict Formula
Toronto Formula (for Burn Cases)

Body Weight kg

Body Weight Type Actual Ideal Adjusted

Include Stress/Activity Factor

Stress Factor Major surgery, major sepsis, mul...

Activity Factor Bed

Energy Requirement

Total Energy Calculated kcal

To Provide kcal/kg

6.4-3 PN calculator Screen

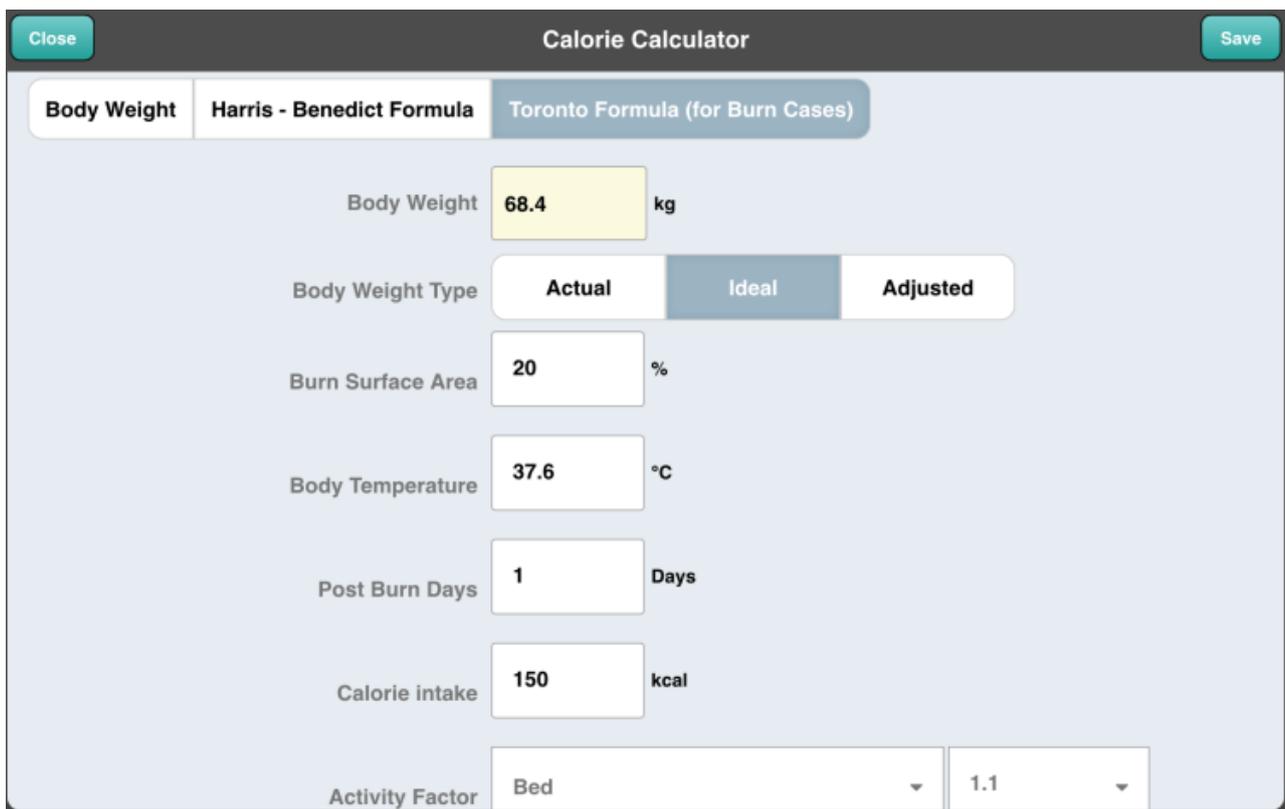
Note

PN Calculator : Harris-Benedict Formula

- Select **Harris – Benedict Formula** from **PN Calculator** dropdown box.
- Select the **Include Stress/Activity Factor** checkbox.
- **Stress Factor, Activity Factor and To Provide** will display after selected the **Include Stress/ Activity Factor** checkbox.
- User have to select the type of **Stress Factor** from the dropdown box:
 - Long Bone Fracture.
 - Maintenance.
 - Major surgery, major sepsis, multipletrauma, tumour with treatment (surgery, chemotherapy or radiotherapy)(anabolic state).
 - Routine sugery, minor infection.
 - Tumour without treatment
- Value of the **Stress Factor** will automatically calculate by system.
- From the dropdown box user have to select type of **Activity Factor** list which are:
 - Bed
 - In Bed but mobile
 - Mobile

Note

- Value of the **Activity Factor** will automatically calculate by system.
- Amount of **Total Energy Calculated** and **To Provide** will automatically calculate after selected the **Activity Factor** as per Figure 6.4-3.
- Tap on the  button to save record.
- Tap on the  button to close the screen.



6.4-4 PN calculator Screen

Note

PN Calculator : Toronto Formula

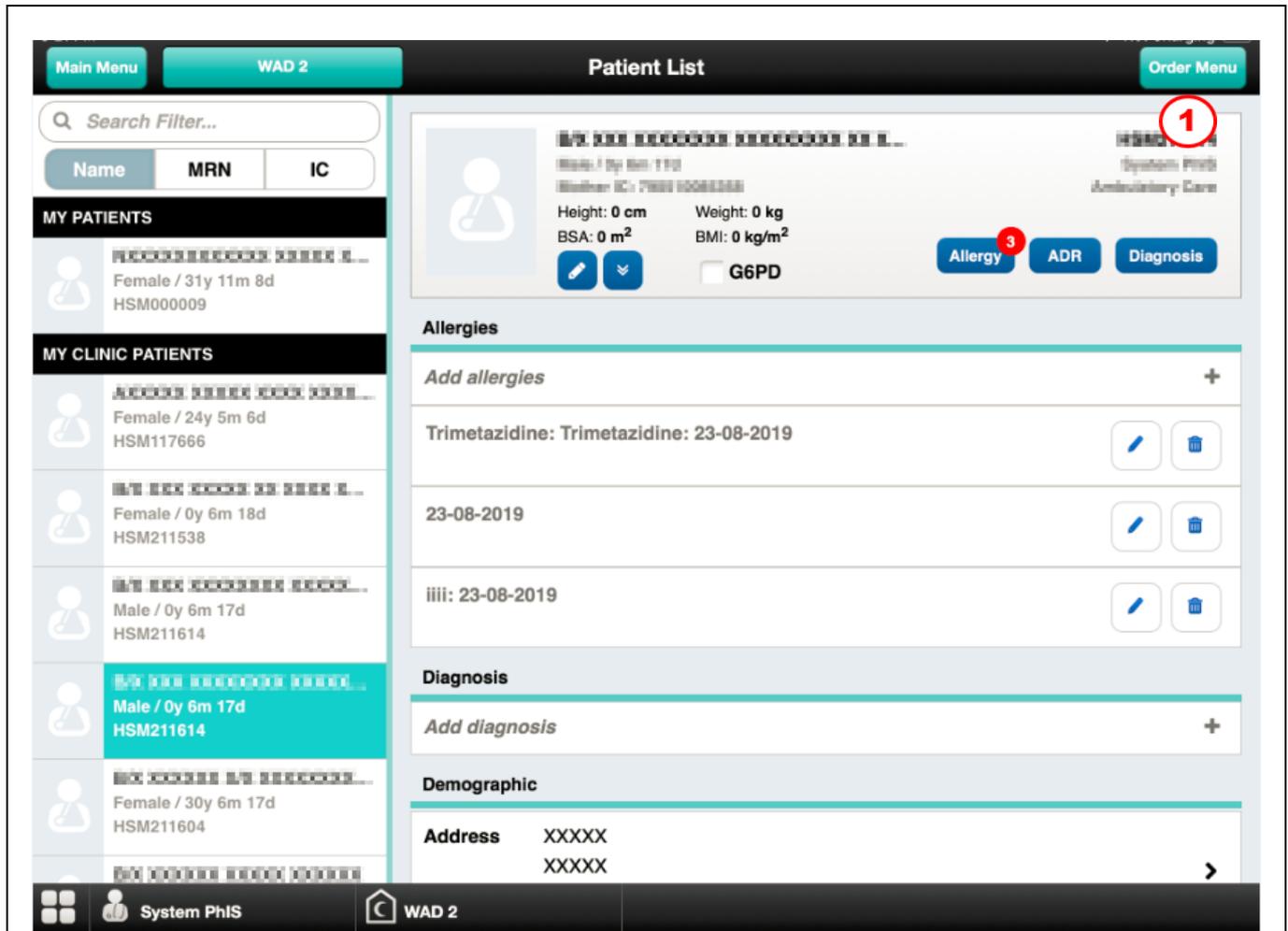
- Select **Toronto Formula (for Burn Cases)** from **PN Calculator** dropdown box.
- Enter all field below:
 - Burn Surface Area
 - Body Temperature
 - Post Burn Days
 - Calorie Intake
- User have to select type of **Activity Factor** from the dropdown box:
 - Bed
 - In Bed but mobile
 - Mobile



- Value of the **Activity Factor** will automatically calculate by system.
- Total Energy Calculated and To Provide will automatically calculate after selected the Activity Factoras per Figure 6.4-4
- Tap on the  button to save record.
- Tap on the  button to close the screen.

7.0 Cytotoxic Drug Reconstitution

Cytotoxic Drug is any drug that has toxic on cells; commonly used in chemotherapy to inhibit the proliferation of cancerous cells. CDR Drug ordered as regimen through CDR Order module by prescriber .Regimen is a group of CDR drugs. Each drug within a regimen is indicated to be taken on which day/time within the cycle duration. CDR regimen will be set by HQ in Regimen Master Setup. CDR Regimen Category master setup also will be done by HQ



The screenshot displays the 'Patient List' interface. At the top, there are navigation buttons for 'Main Menu', 'WAD 2', and 'Order Menu'. A search filter is available. The left sidebar lists 'MY PATIENTS' and 'MY CLINIC PATIENTS'. The main area shows a patient profile with fields for Name, MRN, IC, Height, Weight, BSA, BMI, and G6PD. Below this are sections for Allergies, Diagnosis, and Demographic information. A red circle with the number 1 is positioned over the patient's name field, and a red circle with the number 3 is over the 'Allergy' button.

7.0-1 Order Screen

Note

Repeat **step 1** until **step 3** as 3.1.1 record allergy section

STEP 1

Tap on the 

7.0-2 Order Screen

STEP 2

Tap on the **CDR** menu

Regimen Code	Regimen Description	Regimen Type	Regimen Category
CDRHE00259	MINE (Mitoxantrone Etoposi...	NA	Hematology
CDRHE00054	CEOP + Rituximab + IT MTX	NA	Hematology
CDRHE00015	BEACOPP Baseline (no test ...	HL (Hodgkin's Ly...	Hematology
CDRHE00296	VD - Velcade 0.7mg	NA	Hematology
CDRHE00018	BEACOPP Escalated (with to ...	HL (Hodgkin's Ly...	Hematology

7.0-3 CDR Order Screen

STEP 2

Tap on the **CDR** menu

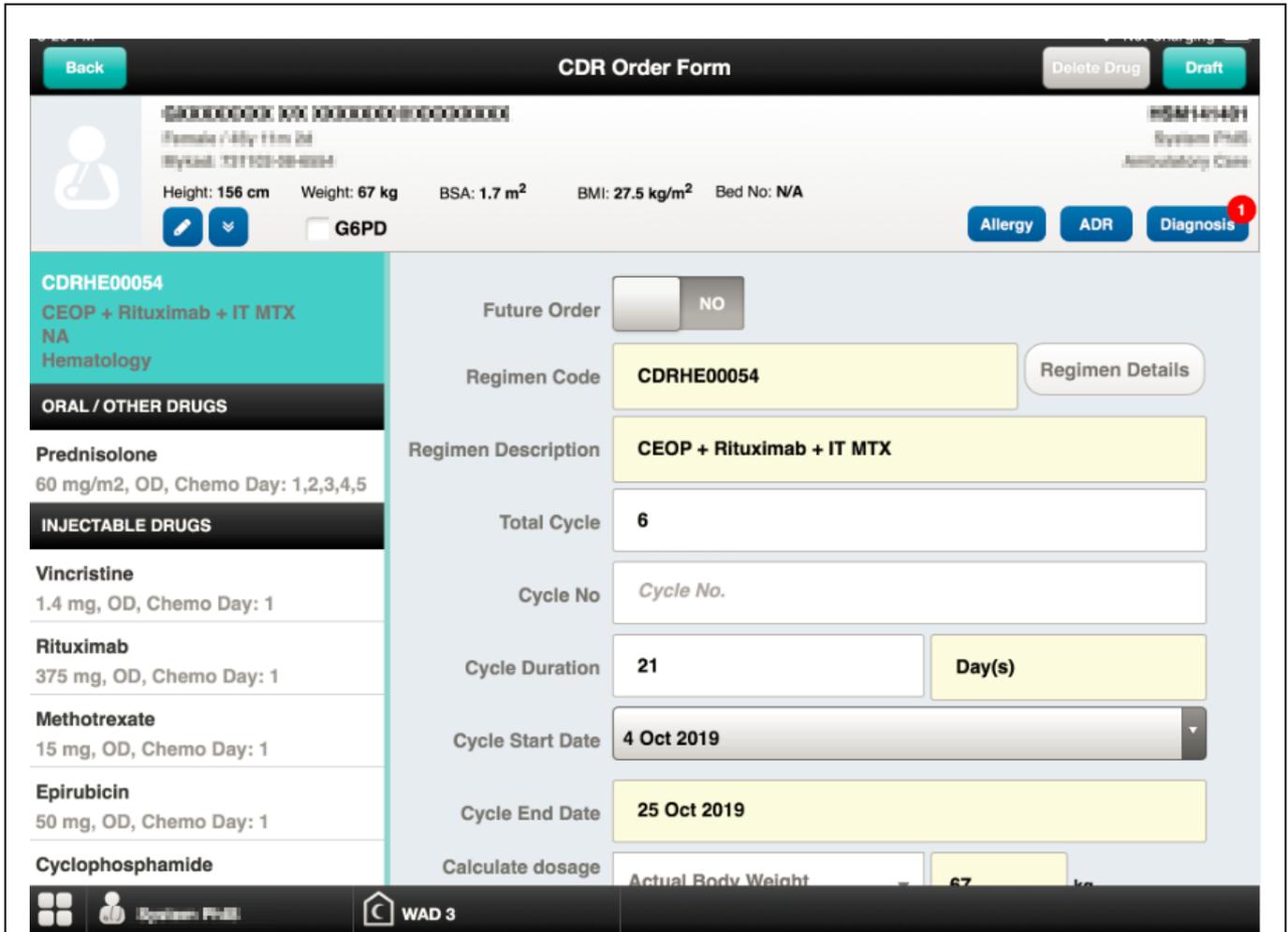
STEP 3

Tap on the button to search regimen based on :

- Regimen Category
 - a) Hematology
 - b) Oncology
 - c) Paediatric
 - d) others
- Regimen Type
- Regimen Code
- Regimen Description

STEP 4

Tap on the selected regimen



7.0-4 CDR Order Screen

Note

- CDR prescription consist of **Oral/Other Drugs** and **Injectable Drugs**
- Future Order for those regimen that doctor have been confirmed for patient on upcoming visits
- Regimen Code need to be setup first in Regimen Master by HQ:
 - a) CDR Regimen Category
 - b) Regimen Master
- No. Of Cycle is number of times the regimen suggested to be taken.
- Cycle Duration is a time indication of a regimen. Within cycle duration of a regimen, no other regimen should be started.
- System will be automatically calculated cycle end date based on cycle start date and cycle duration
- Select Calculate Dose Using from dropdown box:
 - Actual Body Weight
 - Adjusted Body Weight
 - Ideal Body Weight
- System will be automatically calculated the weight (kg) according to Calculate Dosage Using selected. It will give effect on Total Dose if user selects Dosage by per kg.

- Click on the **Regimen Details** button to display regimen details as per Figure 7.0-5.

Close

Regimen Code: CDRPH00082 Category: undefined Cycle Duration: 21

Regimen Description: B-Cell NHL Prot 902 COP

Remarks:

Active Ingredient	Dosage	Admin Route	Frequency	Chemo Days	Status
Prednisolone	30 mg	Oral	BD (twice daily)	1-7	Active
Cyclophosphamide	300 mg	Intravenous Slow Bolus	OD (once daily)	1	Active
Vincristine	1 mg	Intravenous Slow Bolus	OD (once daily)	1	Active

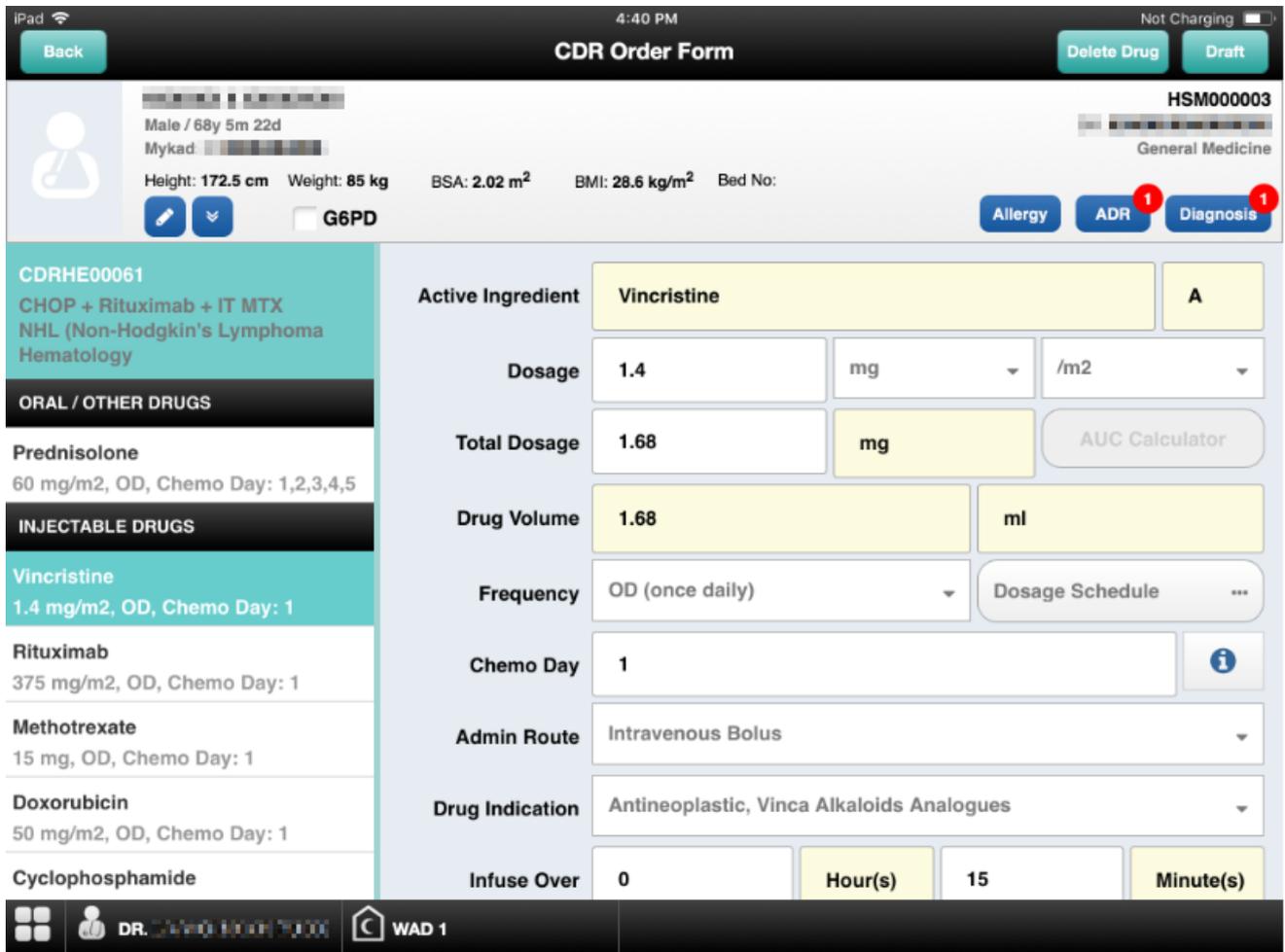
7.0-5 CDR Regimen Order Screen

Note

- System will be displayed prescriptions based on regimen code selected in CDR Regimen Details.
- System will be displayed Regimen Drug Details based on Regimen Code selected.
- User able to edit or update Regimen Drug Details:
 - Dosage
 - Total Dose
 - Frequency
 - Chemo Day
 - Admin Route
 - Drug Indication
 - Infuse Over
 - Diluent
 - Diluent Volume
 - Infusion Rate
- If select Dosage milligram or milliliter and 'kg' or '/m2' from dropdown menu, Total Dose will be displayed based on Calculate Dose Using selected previously in CDR Regimen Details.
- For Dose Schedule, user able to edit Date and Time dose to be taken.
- User able to edit BSA value as per figure 7.0-6. Default value BSA in CDR Order level still same as BSA from patient banner, however user can edit it in CDR order level (max up to 2 decimal) and will impact to the current CDR order only. Total dose of drugs which have dose UOM is /m2 will auto re-calculate based on the edited BSA value. Also, Diluent Volume, Total Volume, Infusion Rate, Dose Qty and Order Qty will update with latest value when changing BSA value either by edit BSA value or re-select 'Calculated Dose Using'. This not applicable on Drug with split dose.

- To delete not related drugs for that prescription, click on **Delete Drug** button as per Figure 7.0-6. System will be deleted selected drug and that drug will not be flow for dispensing. Otherwise all drugs will flow to dispensing.

- User may tap on the  to view chemo starting day e.g. chemo day one 8 until 12



7.0-6 CDR Regimen Order Screen

- User may update all the Injectable drug details with white column to edit or update as per Figure 7.0-6



7.0-6 CDR Order Screen

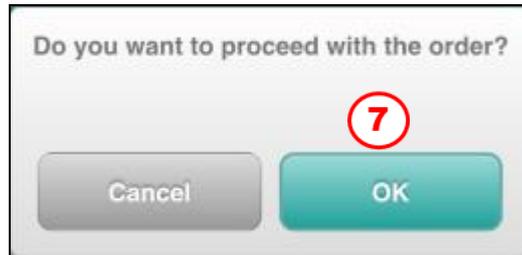
STEP 5

Tap on the **Draft** button to save the regimen

7.0-7 CDR Order Screen

STEP 6

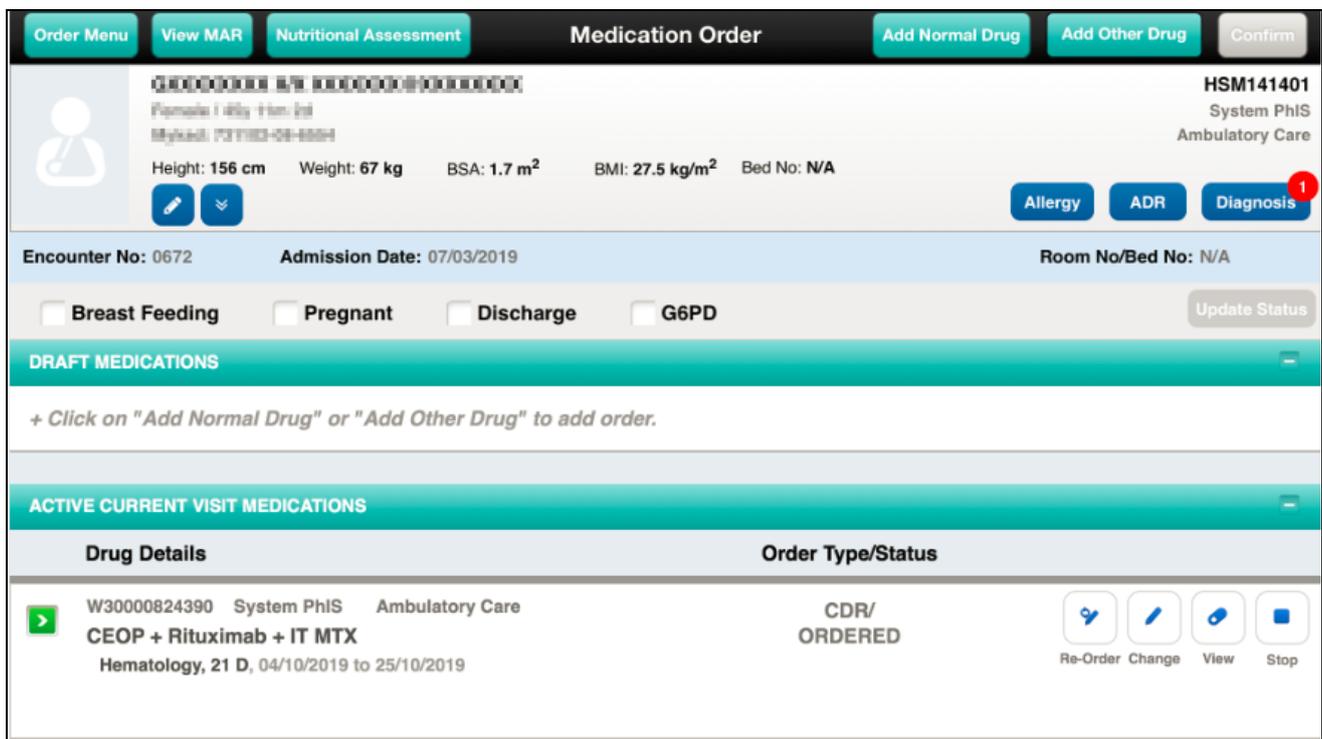
Tap on the  button to add the regimen in the prescription



7.0-7 CDR Alert Message

STEP 7

Tap on the  button to send the prescription to pharmacy



Medication Order

Order Menu | View MAR | Nutritional Assessment | Add Normal Drug | Add Other Drug | Confirm

Female | 156 cm | 67 kg | BSA: 1.7 m² | BMI: 27.5 kg/m² | Bed No: N/A

Encounter No: 0672 | Admission Date: 07/03/2019 | Room No/Bed No: N/A

Breast Feeding | Pregnant | Discharge | G6PD | Update Status

DRAFT MEDICATIONS

+ Click on "Add Normal Drug" or "Add Other Drug" to add order.

ACTIVE CURRENT VISIT MEDICATIONS

Drug Details	Order Type/Status	Actions
<p>W30000824390 System PhIS Ambulatory Care</p> <p>CEOP + Rituximab + IT MTX</p> <p>Hematology, 21 D, 04/10/2019 to 25/10/2019</p>	<p>CDR/ ORDERED</p>	<p>Re-Order Change View Stop</p>

7.0-8 CDR Order Screen

Note

Confirmed prescription will be displayed as per Figure 7.0-8

7.1 CDR Future Order

The screenshot displays the 'CDR Order Form' interface. At the top, there are 'Back', 'Delete Drug', and 'Draft' buttons. The patient information section includes a name, gender (Female), age (48y), and date of birth (15/03/1971). Physical attributes listed are Height: 156 cm, Weight: 67 kg, BSA: 1.7 m², BMI: 27.5 kg/m², and Bed No: N/A. There is a 'G6PD' checkbox and buttons for 'Allergy', 'ADR', and 'Diagnosis'. The drug selection area on the left shows 'CDRON00132 Oxaliplatin + Capecitabine' under 'Oncology'. The regimen details on the right include: 'Future Order' set to 'YES' (highlighted with a red circle 1), 'Regimen Code' 'CDRON00132', 'Regimen Description' 'Oxaliplatin + Capecitabine', 'Total Cycle' '6', 'Cycle No.' 'Cycle No.', 'Cycle Duration' '21 Day(s)', 'Cycle Start Date' '4 Oct 2019', and 'Cycle End Date' '25 Oct 2019'. The bottom navigation bar shows 'System PhIS' and 'WAD 3'.

7.1-1 CDR Order Screen

Note

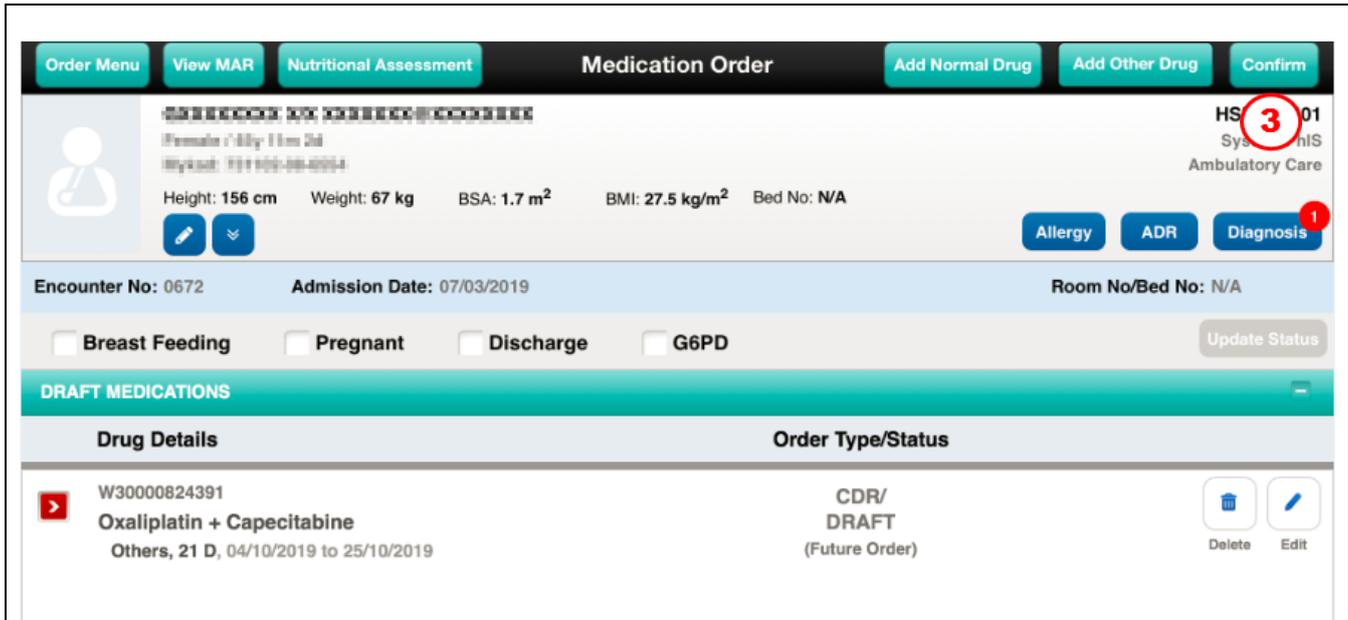
Repeat **step 1** until **step 4** as section 7.0 Cytotoxic Drug Reconstitution

STEP 1

Tap on the **Future Order**  button

STEP 2

Tap on the  button to save the regimen



The screenshot displays the 'Medication Order' screen. At the top, there are navigation buttons: 'Order Menu', 'View MAR', 'Nutritional Assessment', 'Medication Order', 'Add Normal Drug', 'Add Other Drug', and 'Confirm'. The patient information section includes a profile icon, a barcode, and details such as 'Female', '188 cm', '67 kg', 'BSA: 1.7 m²', 'BMI: 27.5 kg/m²', and 'Bed No: N/A'. There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. The encounter information shows 'Encounter No: 0672', 'Admission Date: 07/03/2019', and 'Room No/Bed No: N/A'. Below this, there are checkboxes for 'Breast Feeding', 'Pregnant', 'Discharge', and 'G6PD', along with an 'Update Status' button. The 'DRAFT MEDICATIONS' section is highlighted in green and contains a table with the following data:

Drug Details	Order Type/Status	Actions
 W30000824391 Oxaliplatin + Capecitabine Others, 21 D, 04/10/2019 to 25/10/2019	CDR/ DRAFT (Future Order)	  Delete Edit

7.1-2 CDR Order Screen

STEP 3

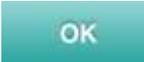
Tap on the  button to add the regimen in the prescription

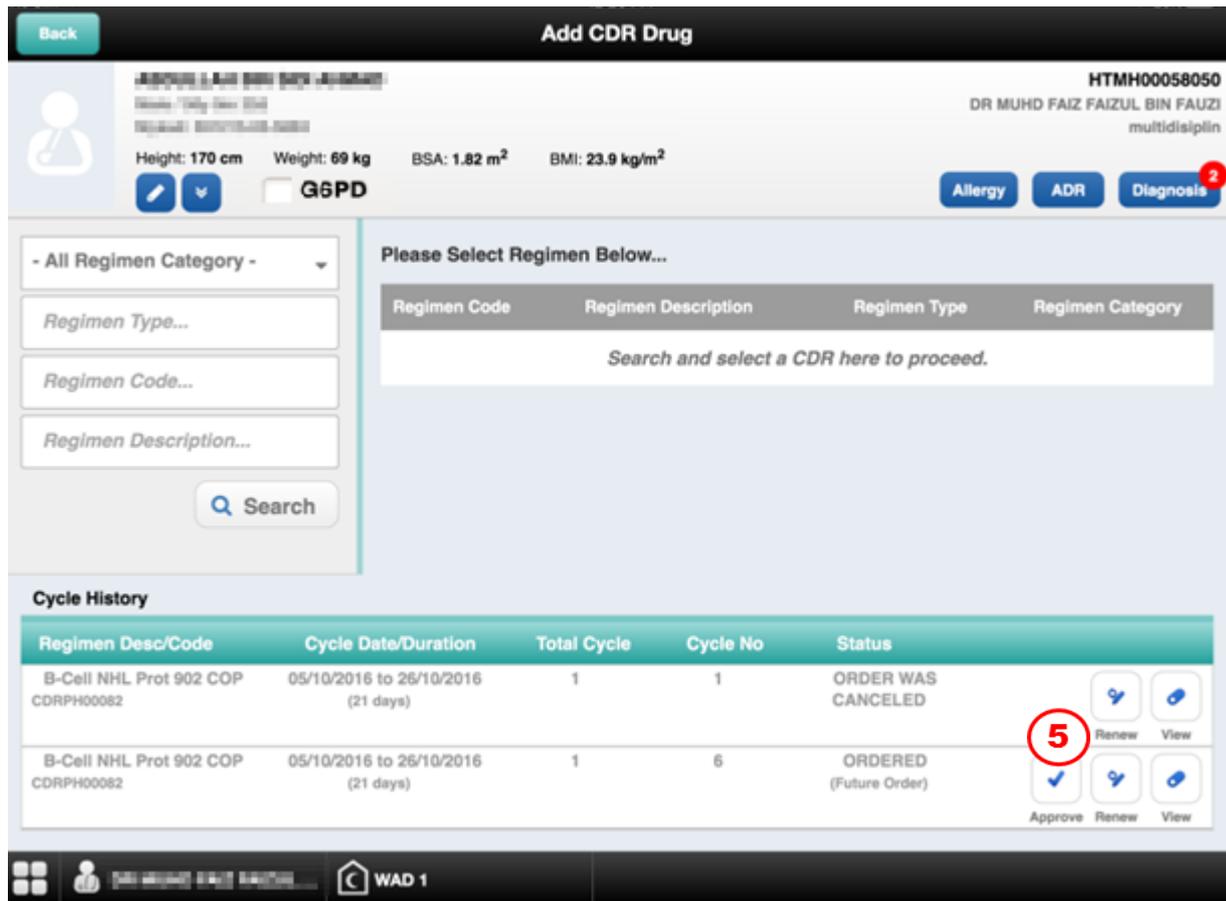


The dialog box contains the text 'Do you want to proceed with the order?' and two buttons: 'Cancel' and 'OK'. A red circle with the number 4 highlights the 'OK' button.

7.1-3 CDR Alert Message

STEP 4

Tap on the  button to send the prescription to pharmacy



7.1-4 CDR Order Screen

STEP 5

Tap on the  button to approve future order

7.2 View MAR

View MAR is used to view the medication chart in the system

7.2.1 View MAR – Graph View

View MAR Graph View is used to view the medication chart in Graph format

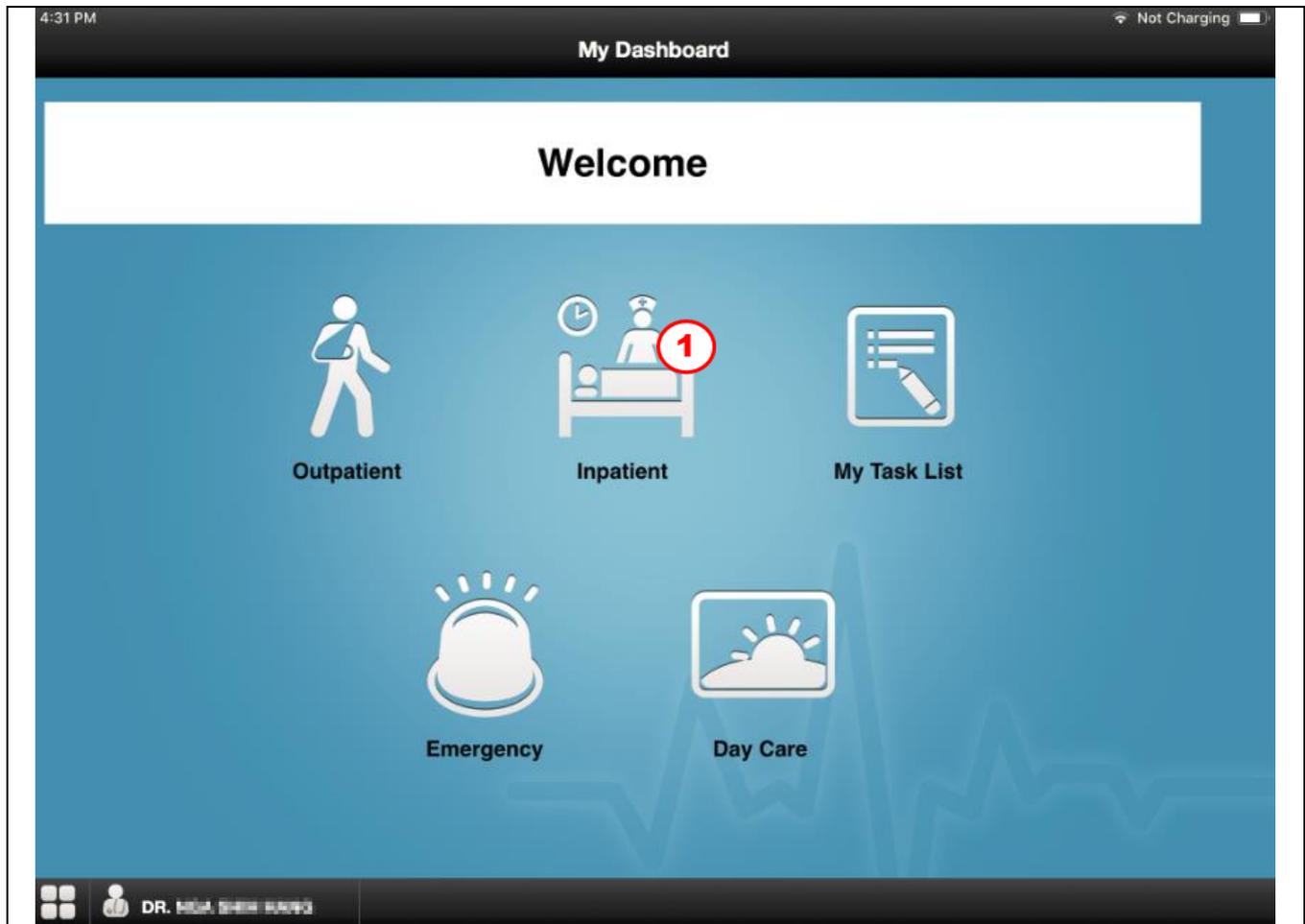


Figure 7.2.1-1 Main Page

STEP 1

Tap on Inpatient Icon

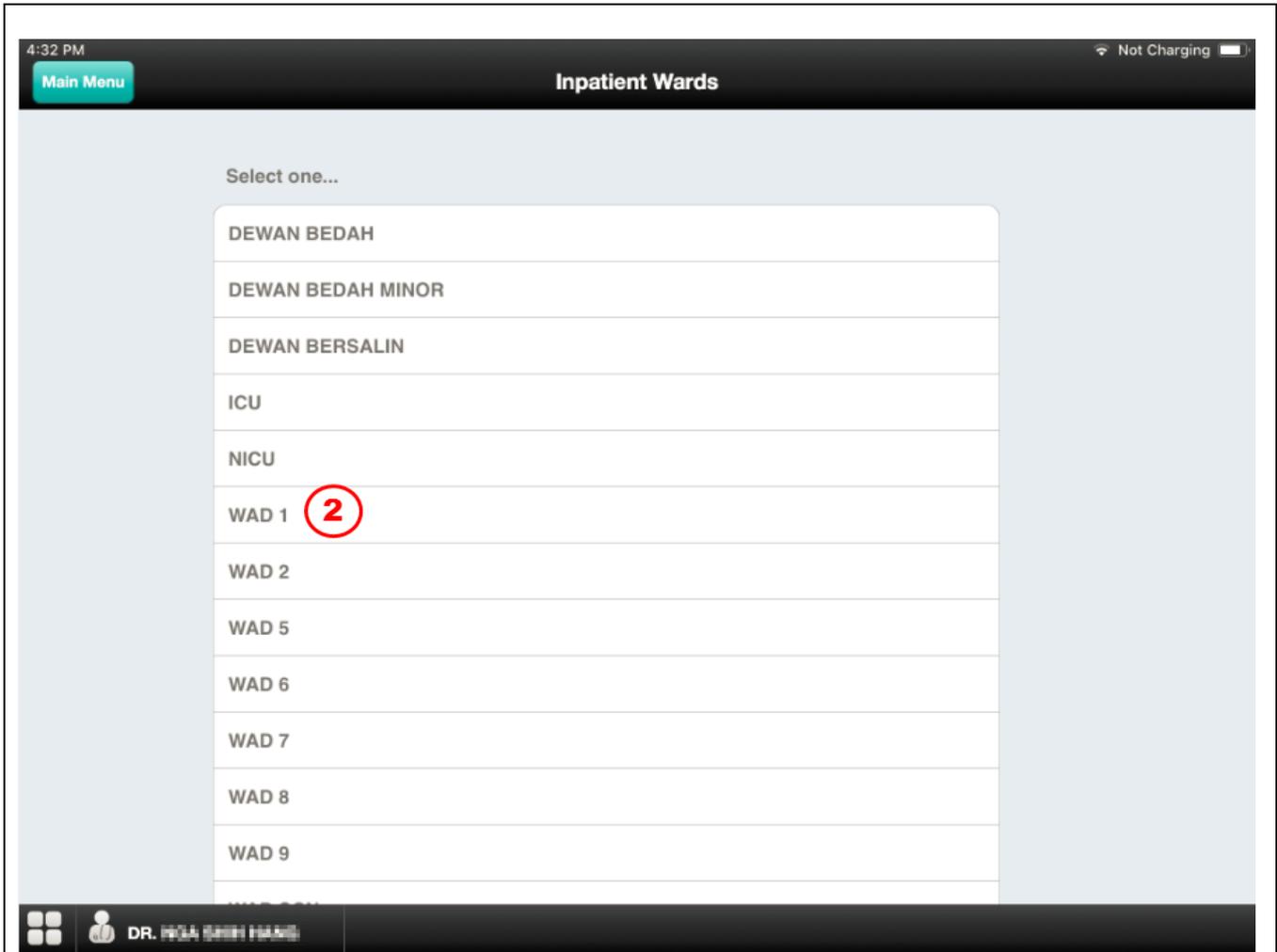


Figure 7.2.1-2 Location Screen Listing Page

STEP 2

Tap on the selected location e.g Dewan Bedah 1, WAD 1 to select patient

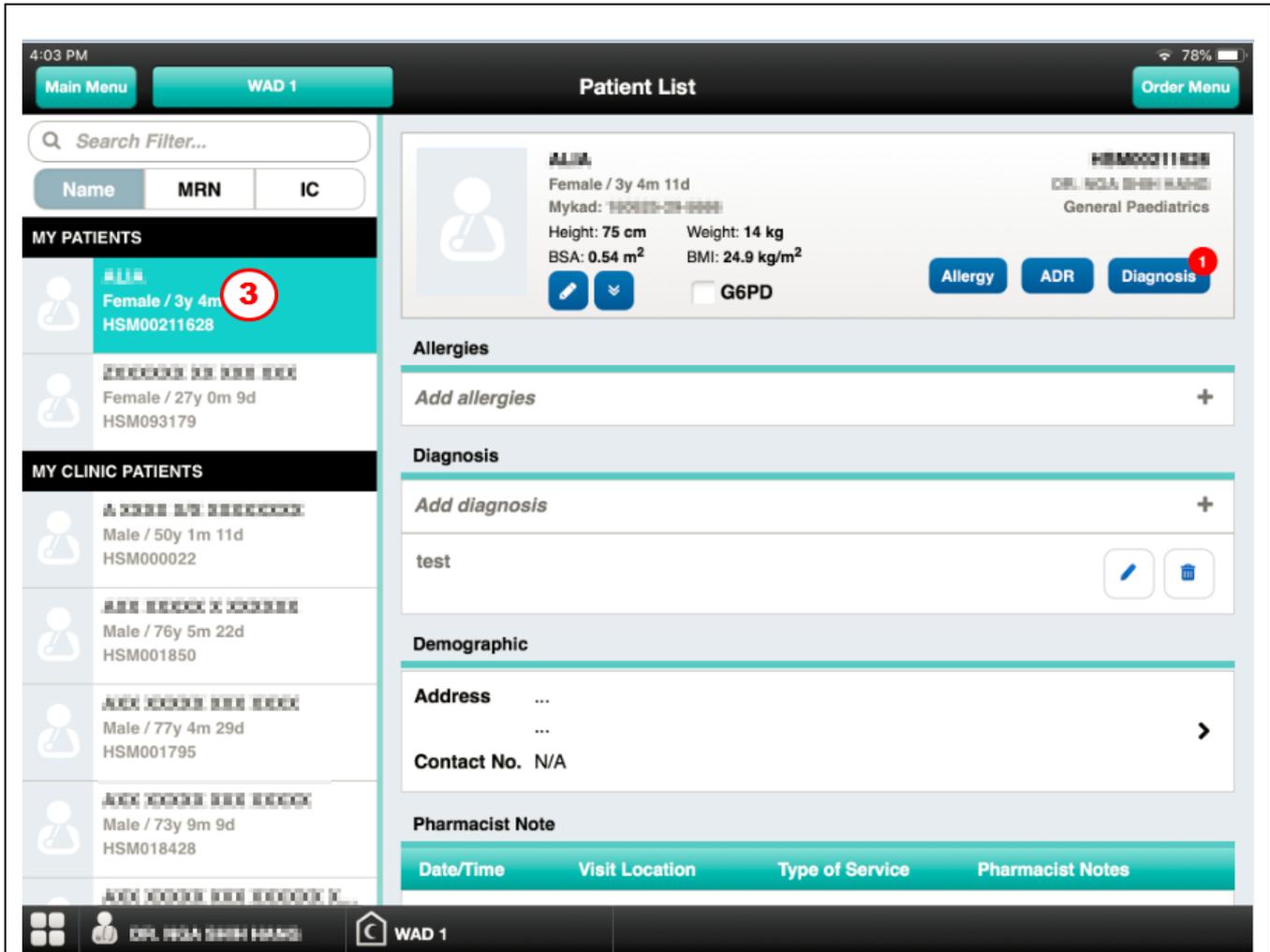


Figure 7.2.1-3 Patient Listing Page

STEP 3

Tap on selected patient name or search the patient by using field. System will display as Figure 7.2.1-3

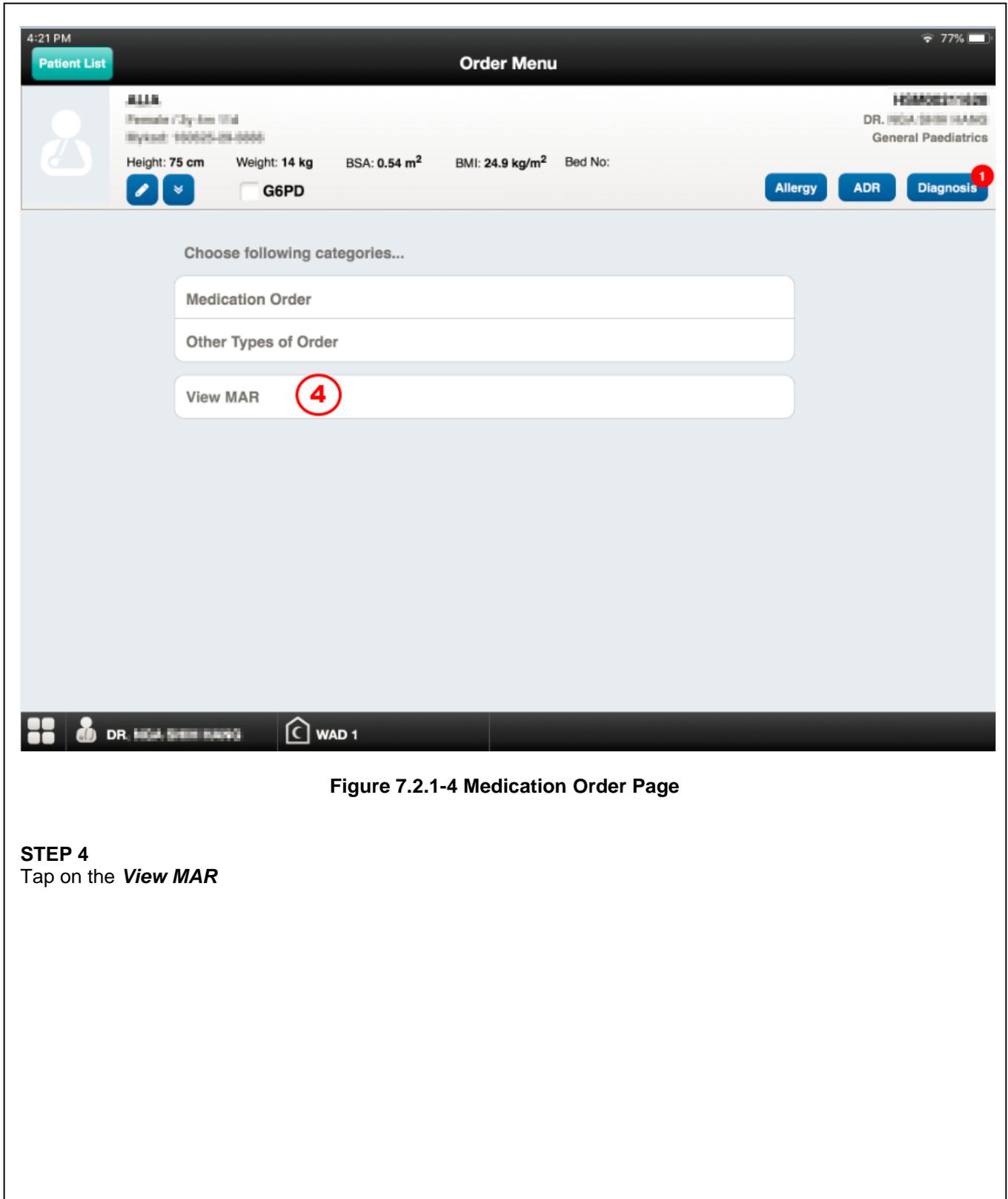


Figure 7.2.1-4 Medication Order Page

STEP 4

Tap on the *View MAR*

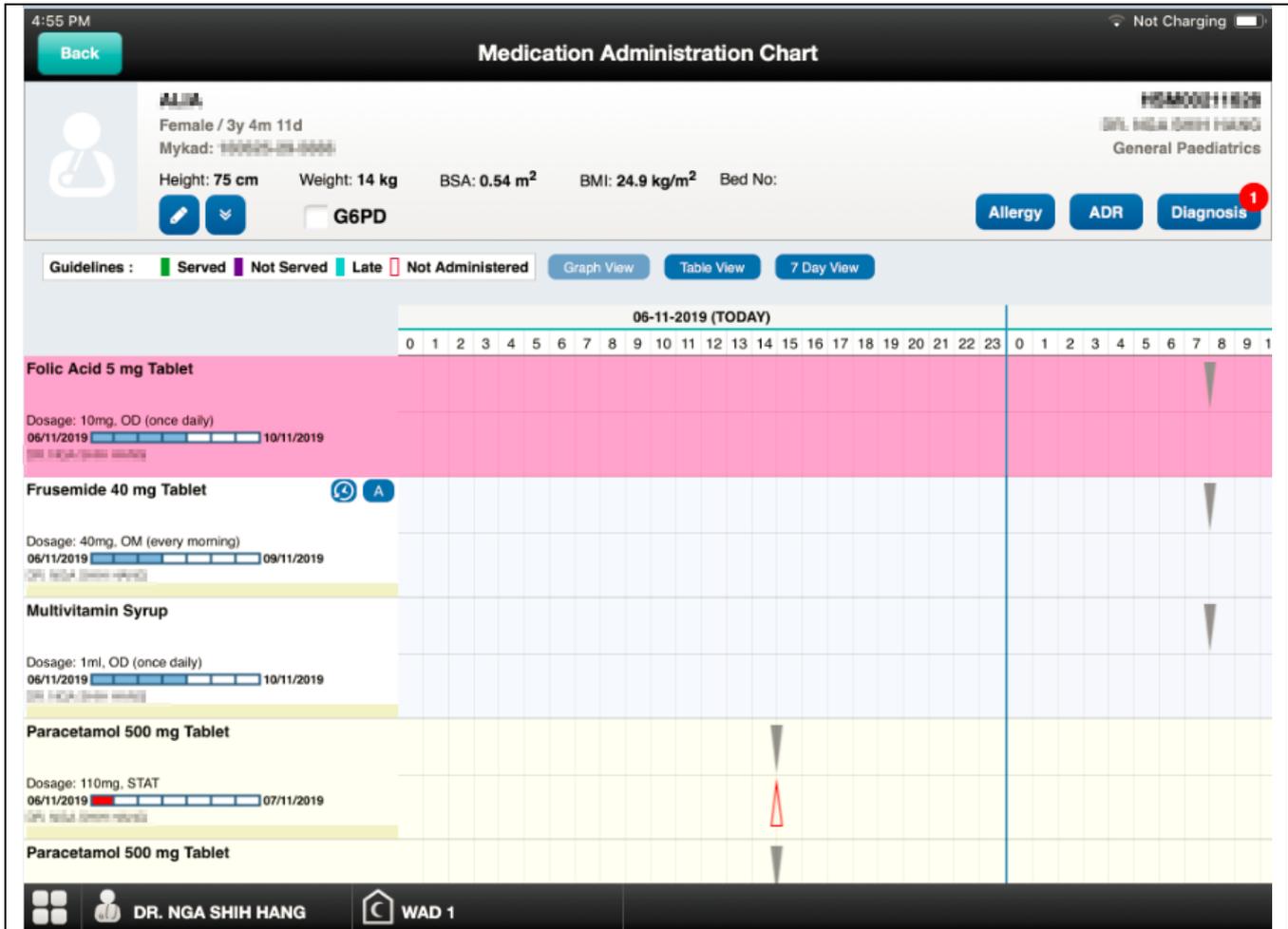


Figure 7.2.1-5 View MAR Graph View

Note

The  icon indicates the drug has an alternate record. Tapping the  icon will display the Alternate Drug List

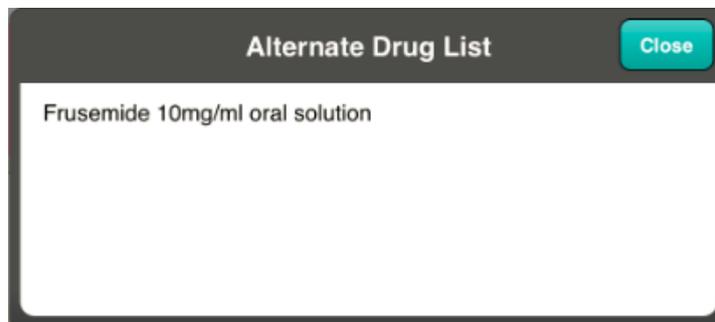


Figure 7.2.1-6 Alternate Drug List

The  icon indicates that the drug has a history record. Tapping the  icon will display the History Records

History Records	
Frusemide 40 mg Tablet	System PhIS Ambulatory Care Frusemide 40 mg Tablet 40 mg, OM (every morning), 5 D, 30/09/2019 19:43:00 to 05/10/2019 19:43:00
Frusemide 40 mg Tablet	System PhIS Ambulatory Care Frusemide 40 mg Tablet 40 mg, OM (every morning), 5 D, 30/09/2019 19:24:00 to 05/10/2019 19:24:00
Frusemide 40 mg Tablet	DR. LEE LI YUAN General Medicine Frusemide 40 mg Tablet 40 mg, OM (every morning), 4 D, 31/07/2019 11:49:00 to 04/08/2019 11:49:00

Figure 7.2.1-7 History Records

Discontinued Drug in View MAR

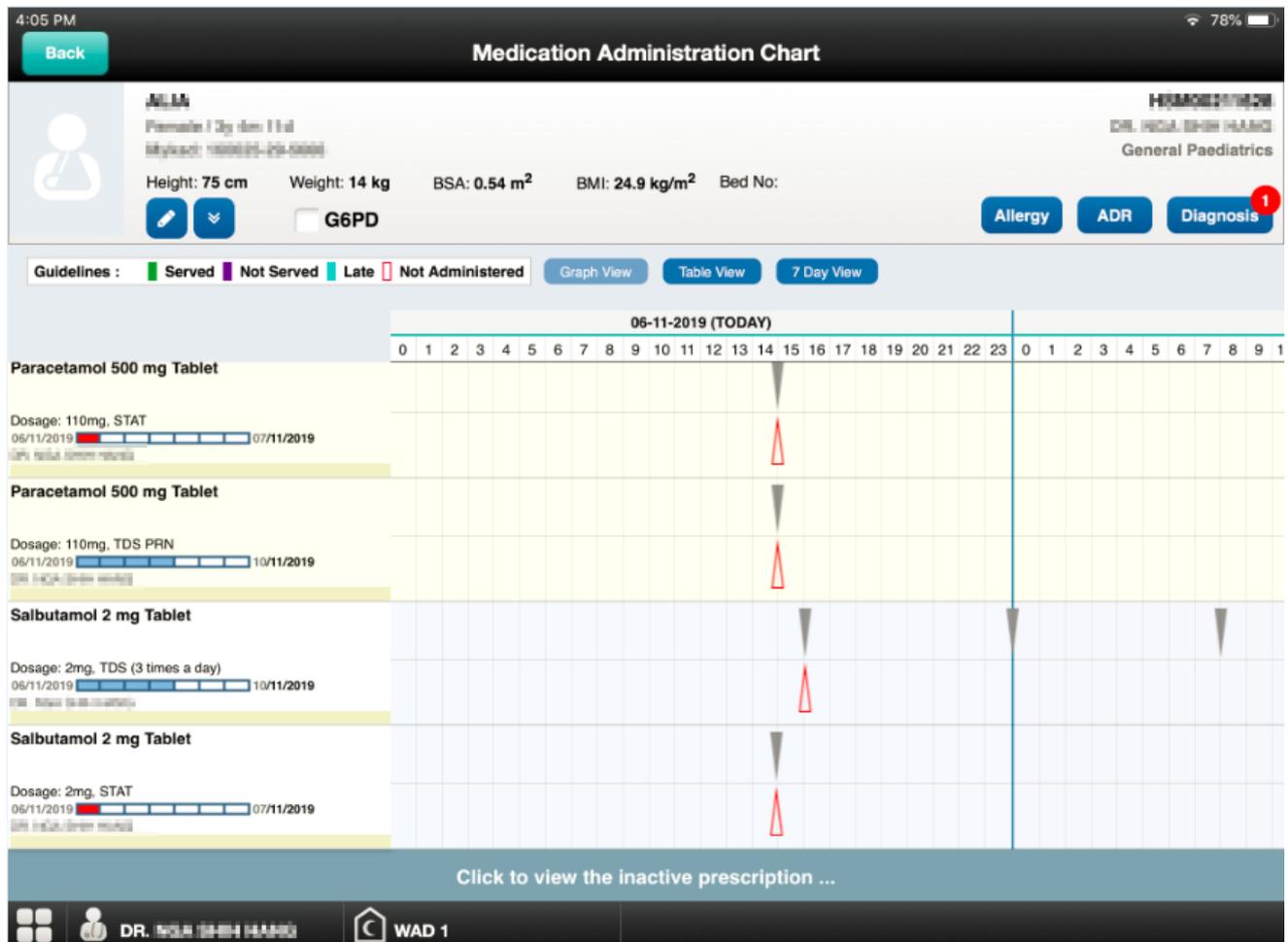


Figure 7.2.1-8 View MAR

- User need to tap **Click to view the inactive prescription ...** to view inactive prescription as per Figure 7.2.1-8

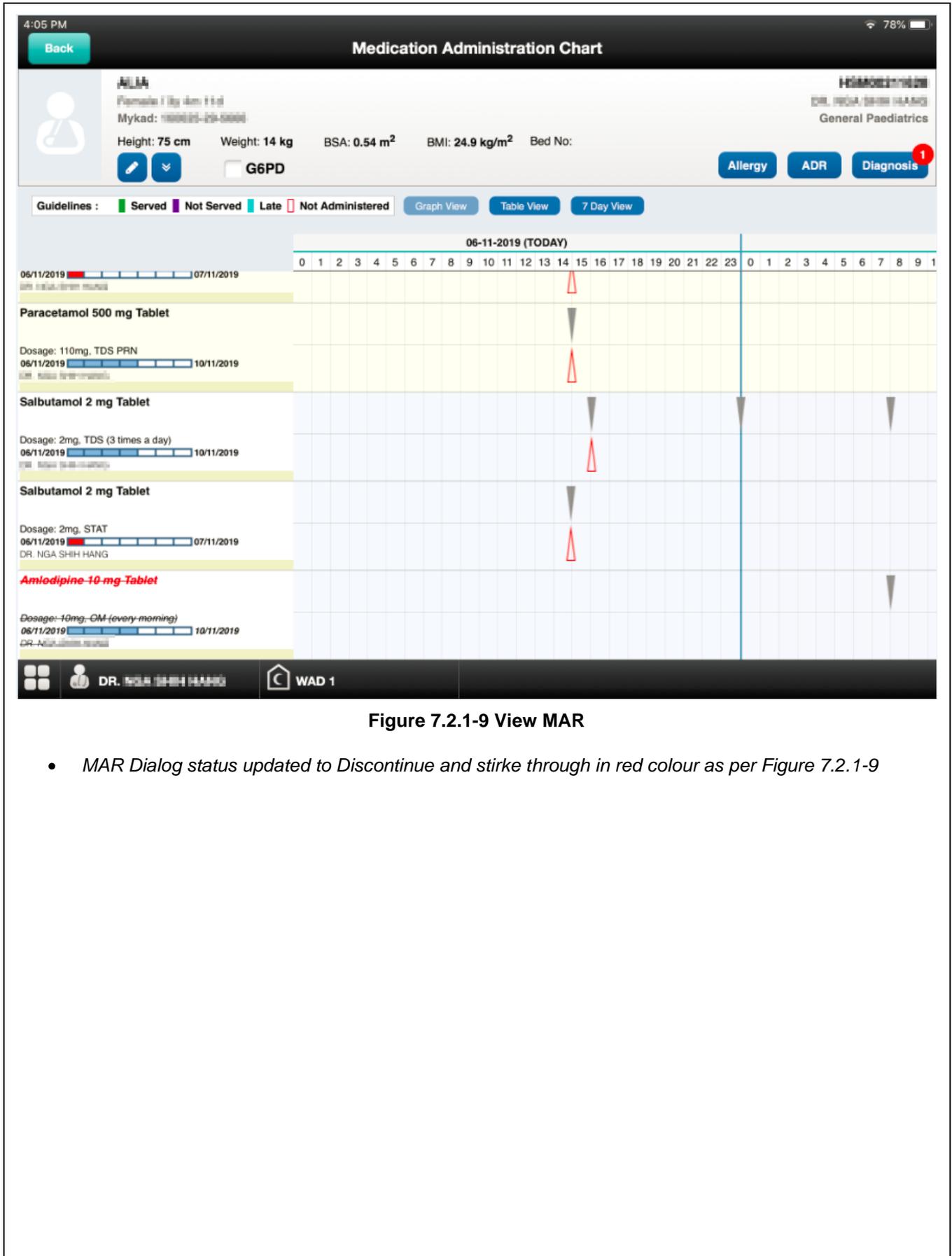


Figure 7.2.1-9 View MAR

- MAR Dialog status updated to Discontinue and strike through in red colour as per Figure 7.2.1-9

7.2.2 View MAR – Table View

View MAR Table View is used to view the medication chart in Table format

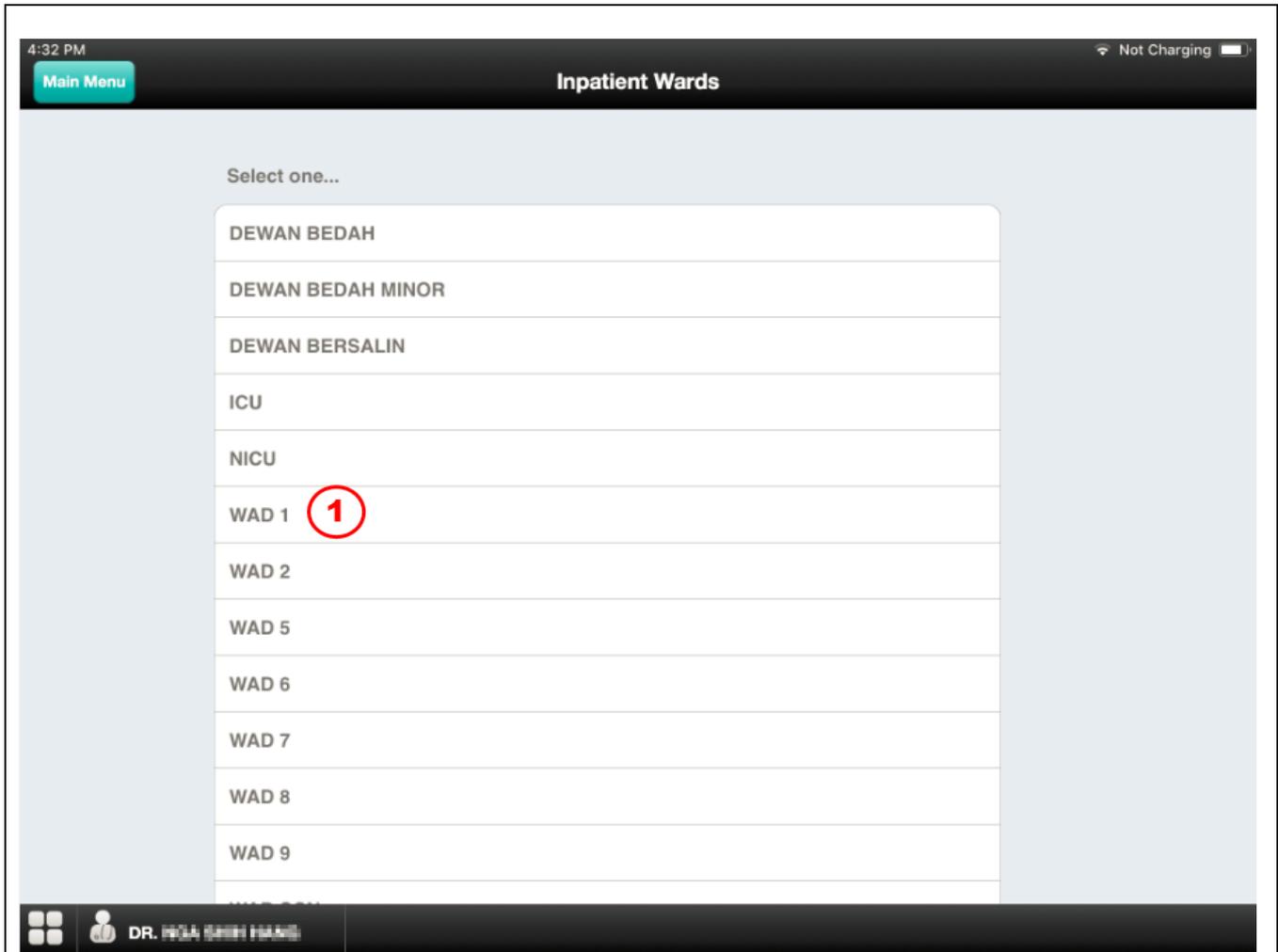


Figure 7.2.2-1 Location Screen Listing Page

STEP 1

Tap on the selected location e.g Dewan Bedah 1, WAD 1 to select patient

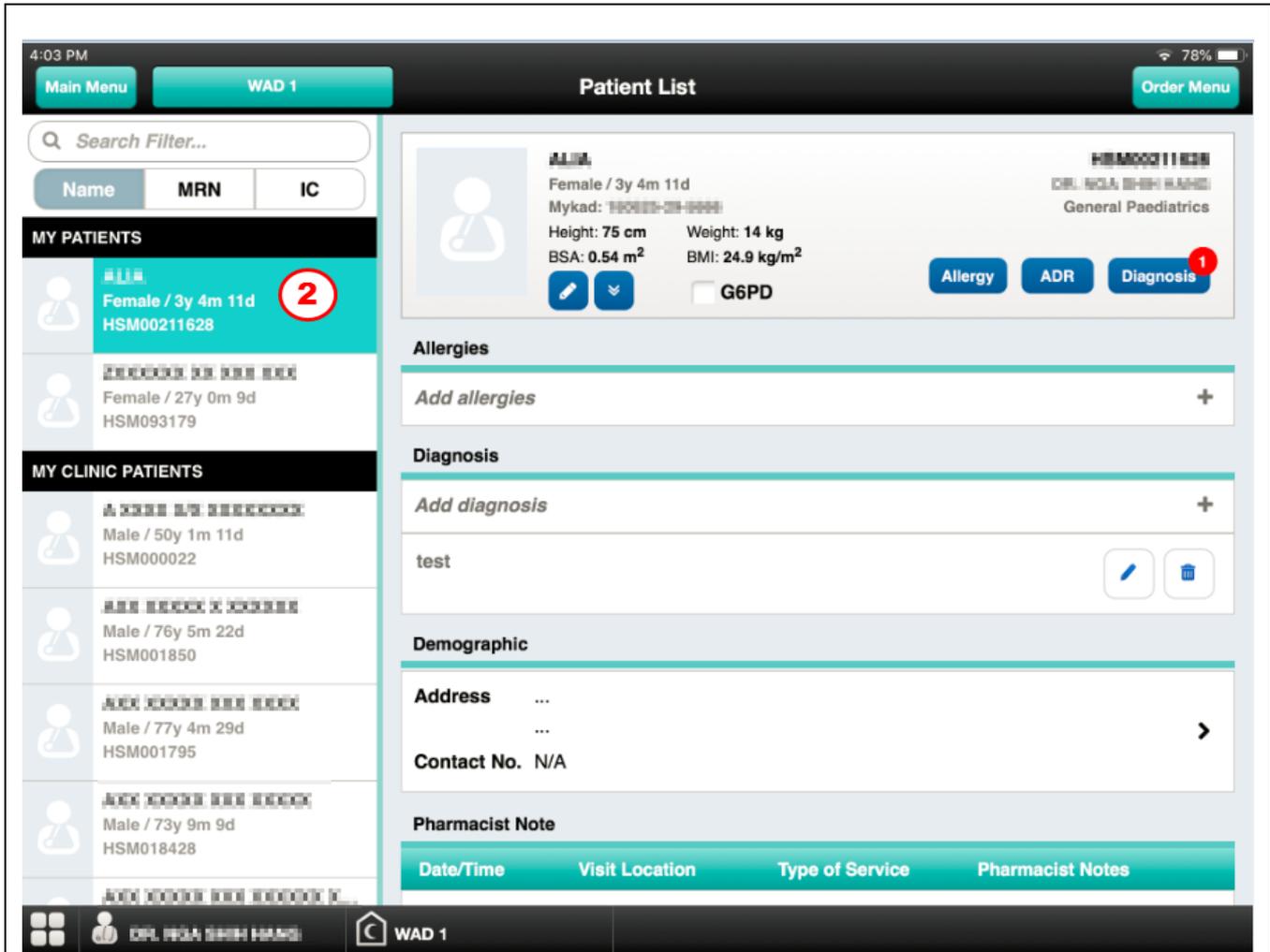


Figure 7.2.2-2 Patient Listing Page

STEP 2

Tap on selected patient name or search the patient by using  field. System will display as Figure 7.2.2-2

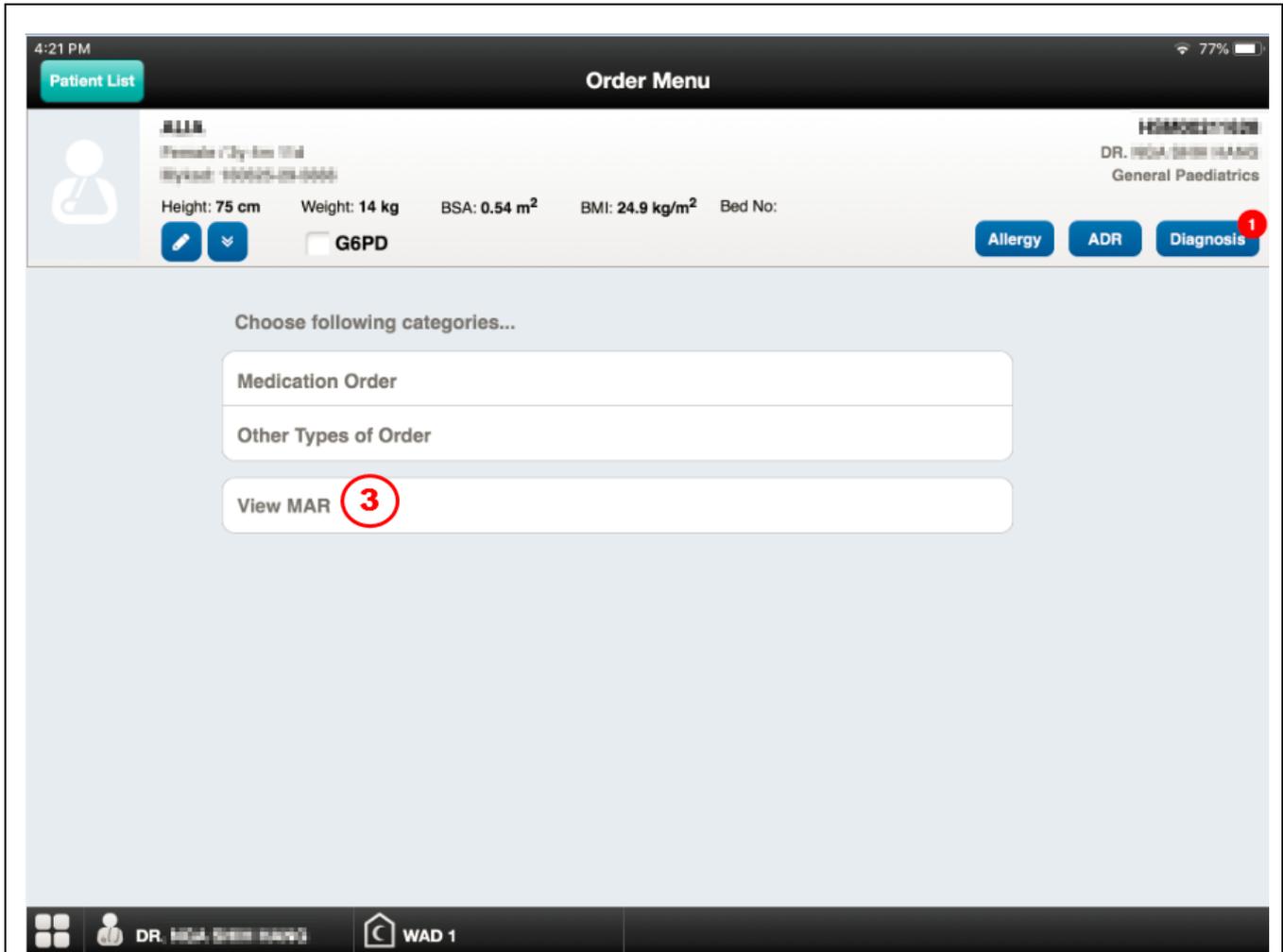


Figure 7.2.2-3 Medication Order Page

STEP 3

Tap on the **View MAR**

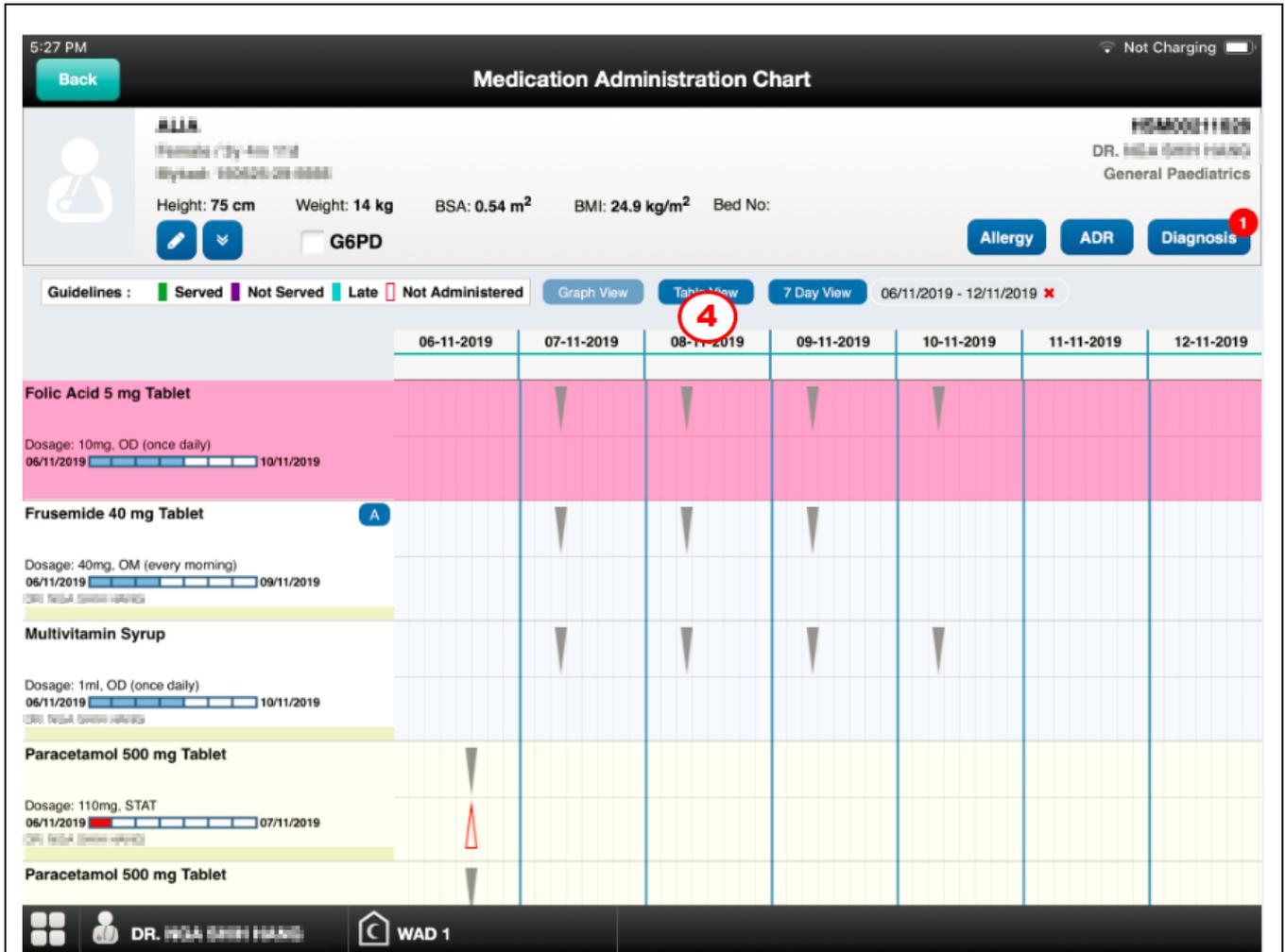


Figure 7.2.2-4 View MAR Graph View

STEP 4

Tap on the **Table View** button and system will display as Figure 7.2.2-5

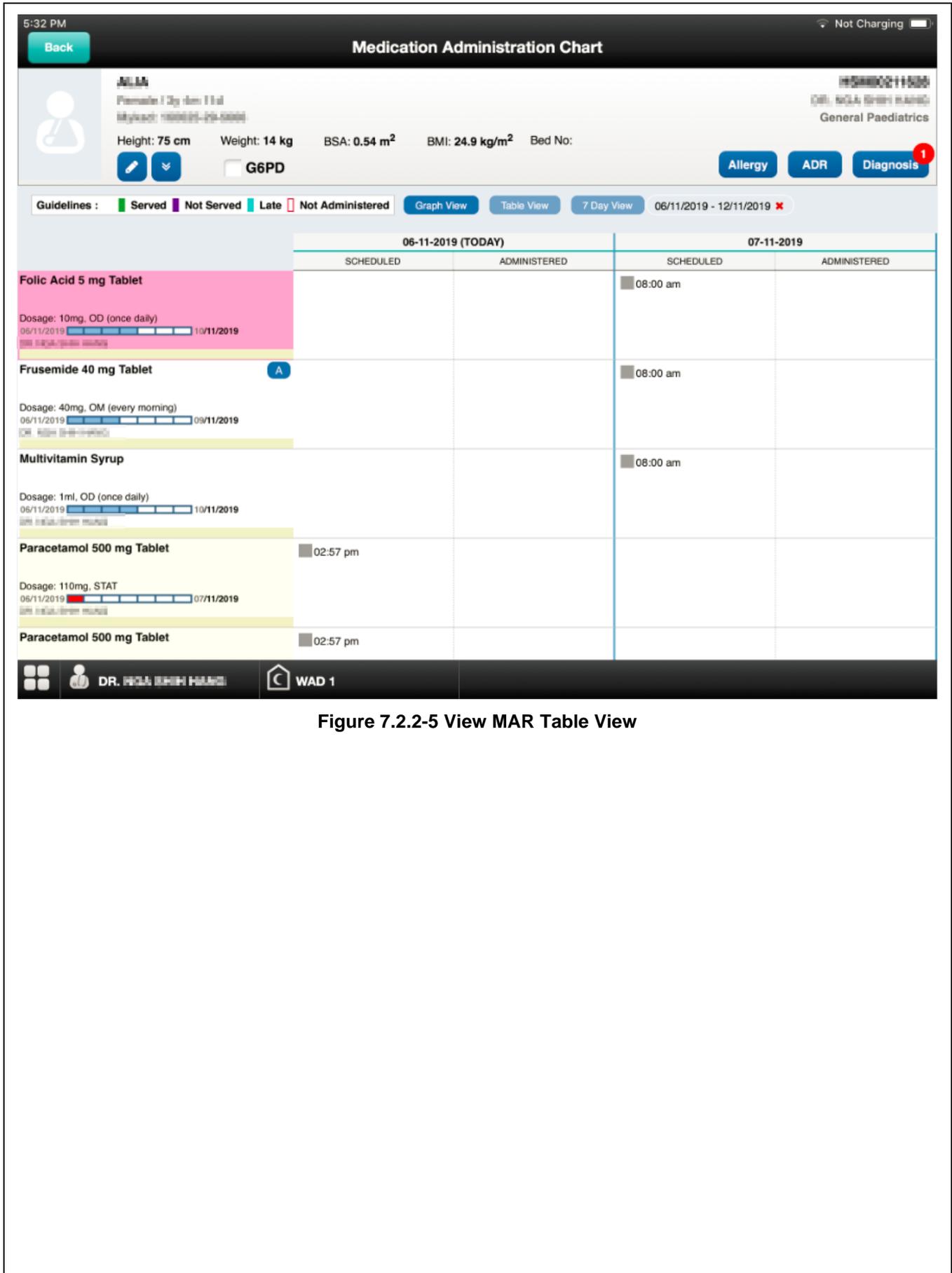


Figure 7.2.2-5 View MAR Table View

7.2.3 View MAR – 7 Days View.

View MAR Graph View is used to view the medication chart for duration of 7 days

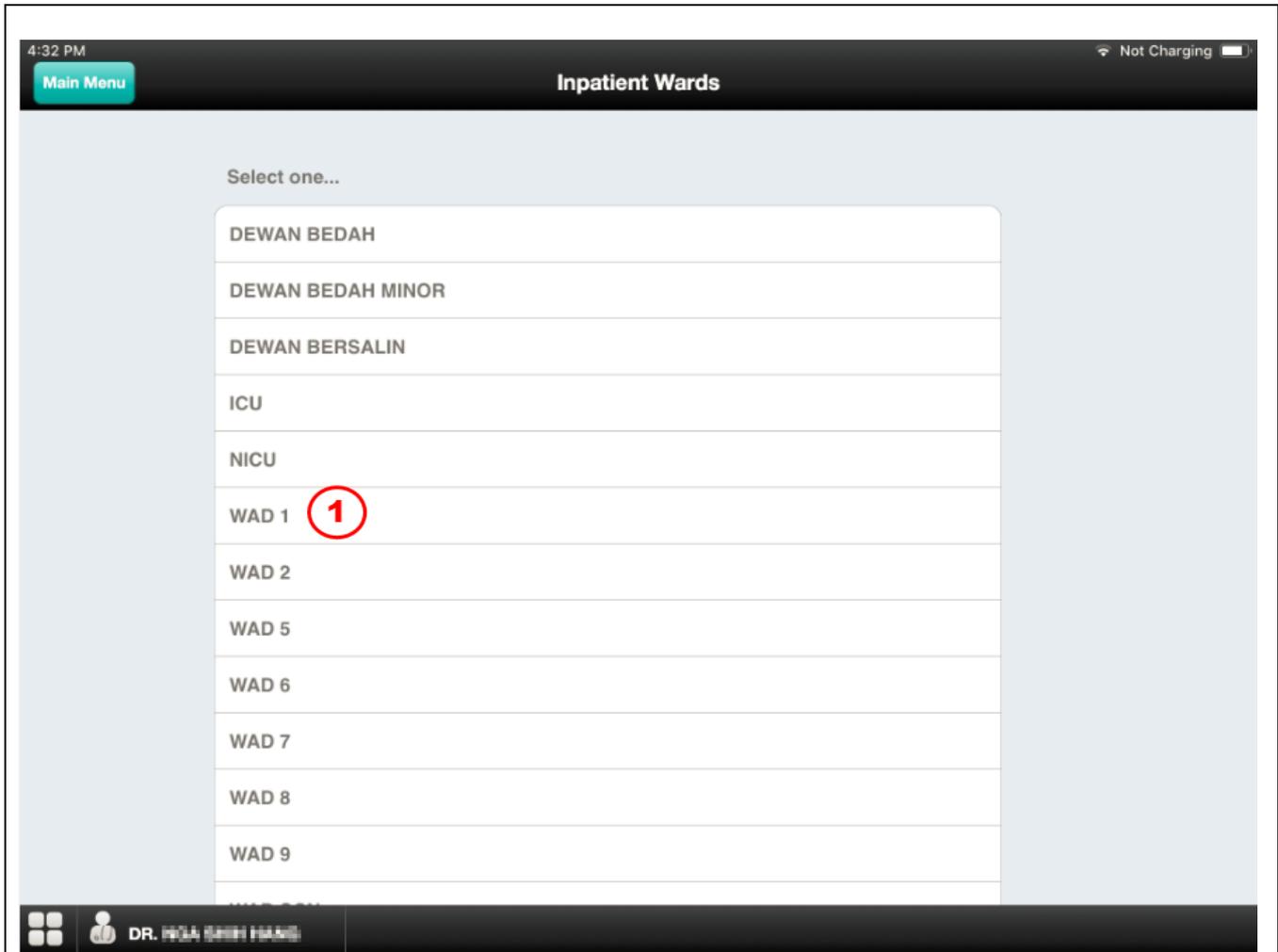


Figure 7.2.3-1 Location Screen Listing Page

STEP 1

Tap on the selected location e.g Dewan Bedah 1, WAD 1 to select patient

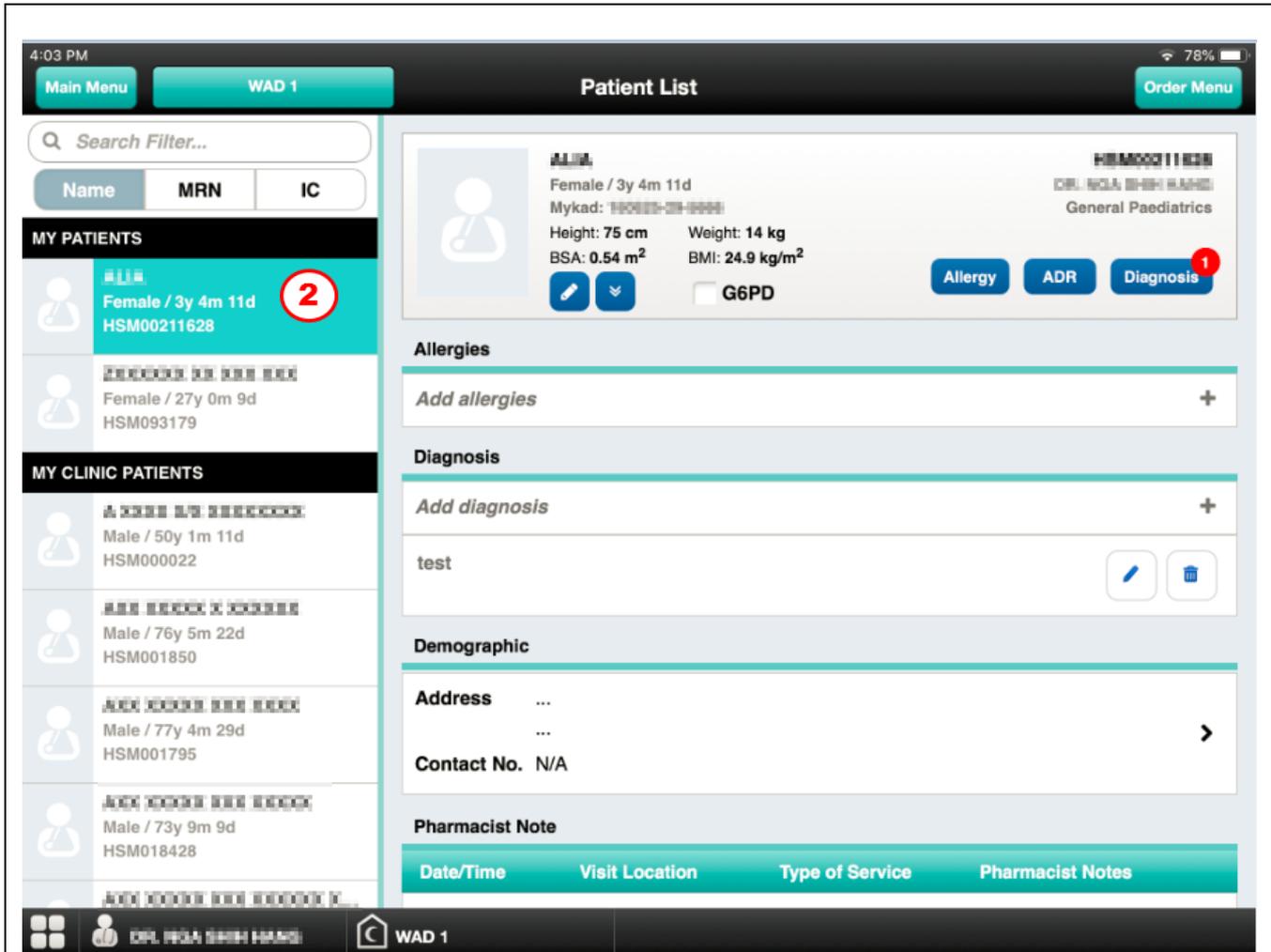


Figure 7.2.3-2 Patient Listing Page

STEP 2

Tap on selected patient name or search the patient by using field. System will display as Figure 7.2.3-2

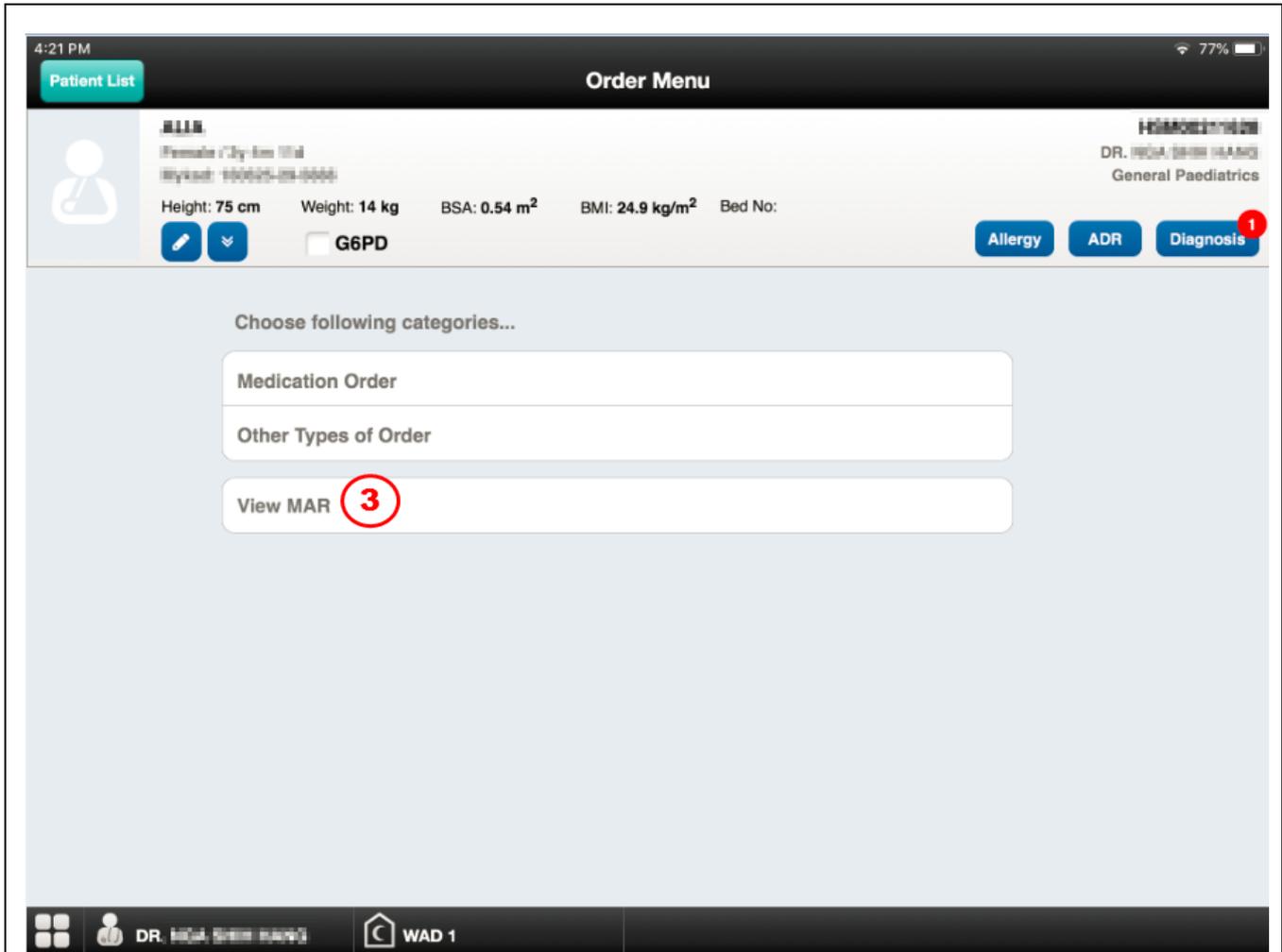


Figure 7.2.3-3 Medication Order Page

STEP 3

Tap on the *View MAR*

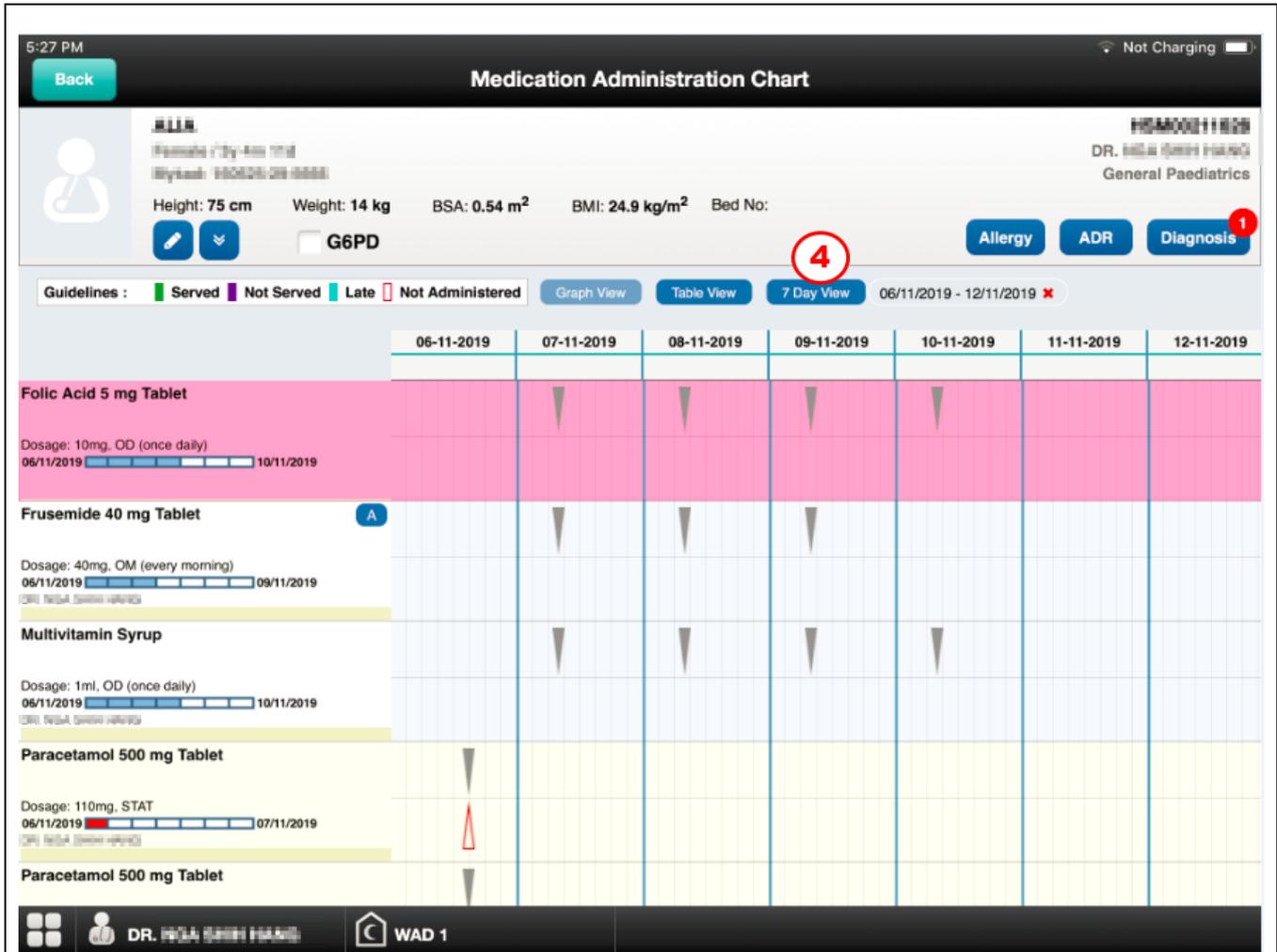


Figure 7.2.3-4 View MAR Graph View

STEP 4

Tap on the **7 Day View** button

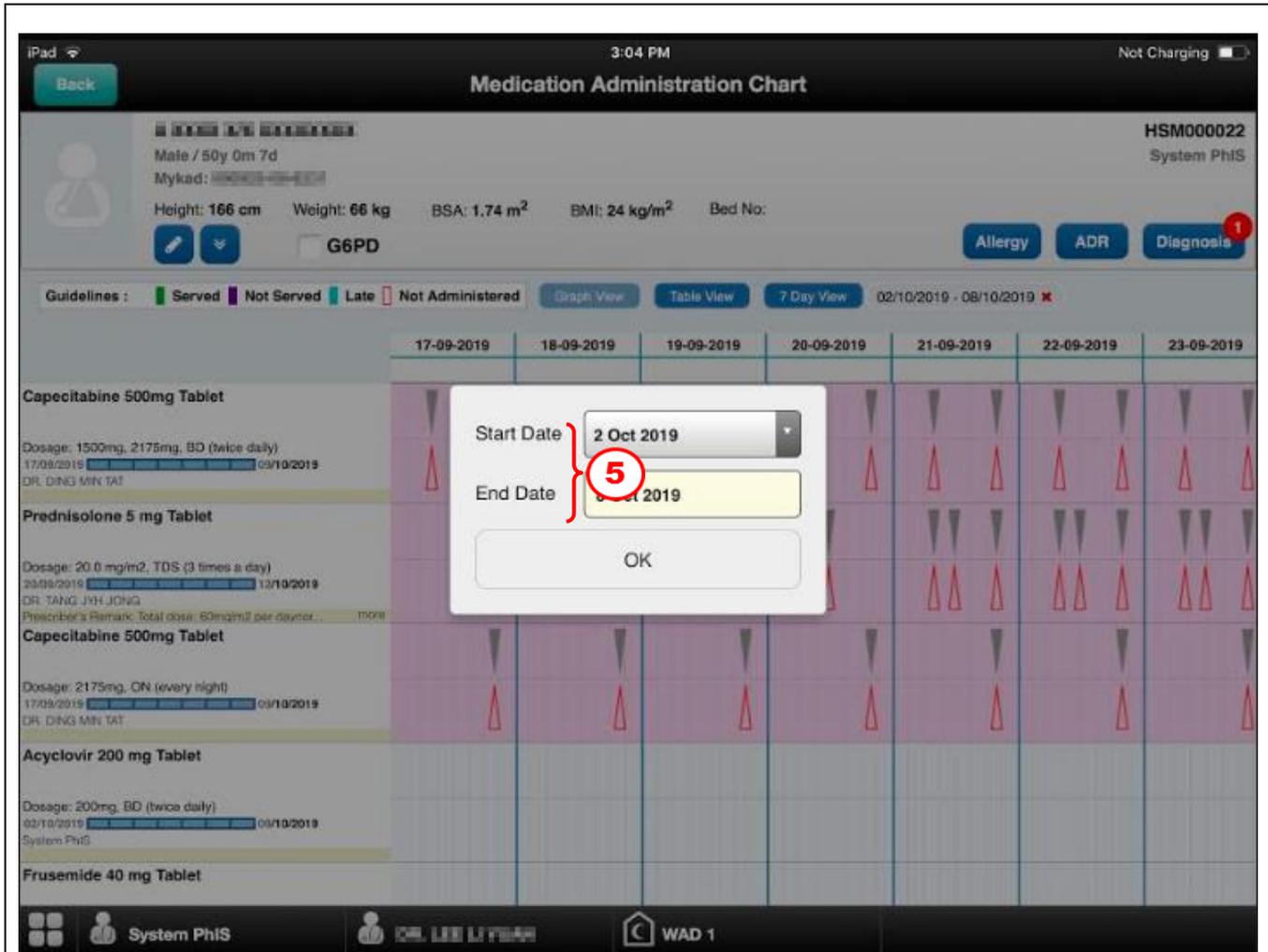


Figure 7.2.3-5 View MAR Graph View

STEP 5

Enter the **Start Date** and **End Date** then tap on the **OK** button and system will display as Figure 7.2.3-6

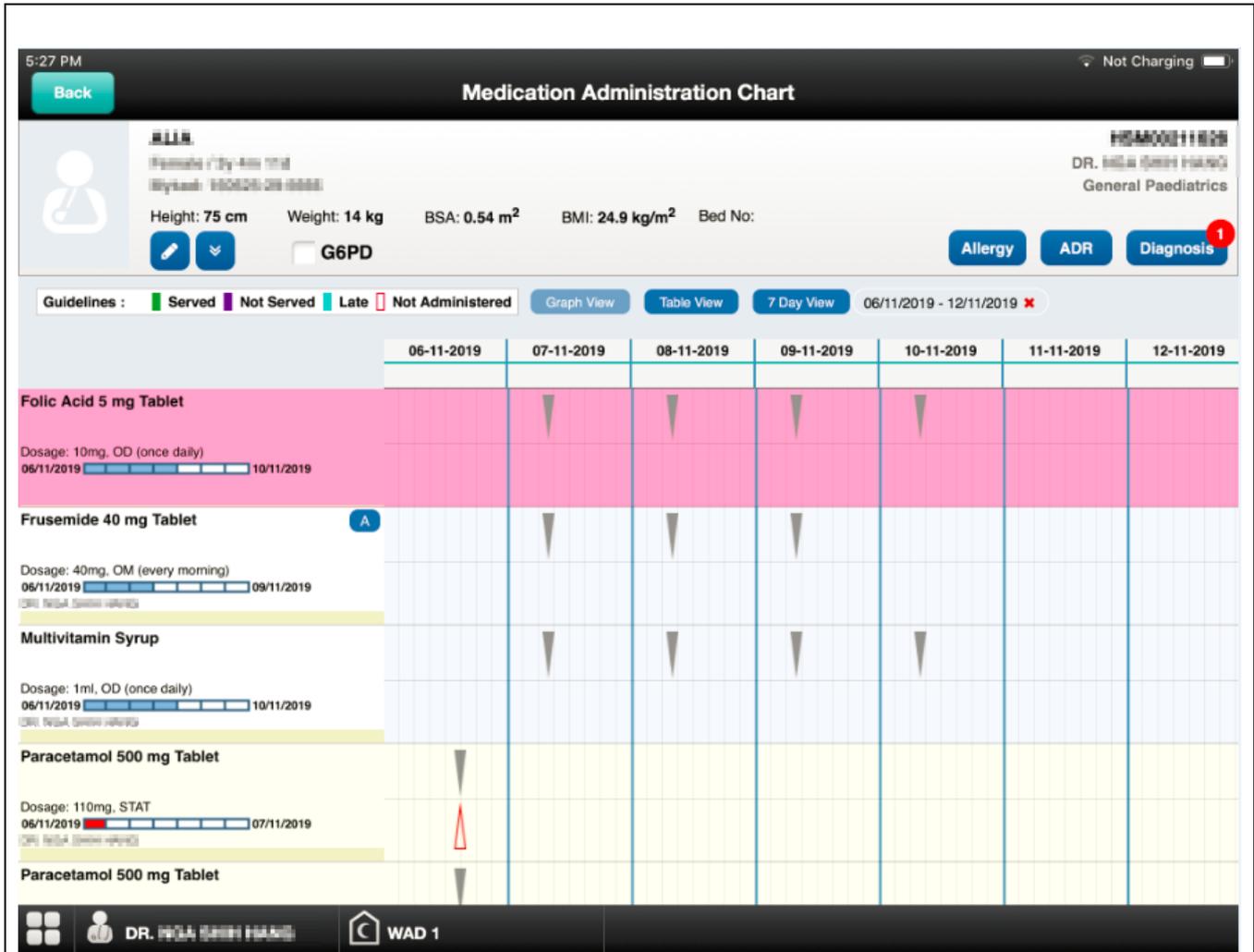


Figure 7.2.3-6 View MAR 7 Days View

View MAR Legend

ICON / SCREENSHOT	DESCRIPTION
	Drug Not Serve
<p>Prednisolone 5 mg Tablet</p> <p>Dosage: 5mg, OD (once daily)</p> <p>18/10/2016 <input type="checkbox"/> 25/10/2016</p> <p>DR FARIDAH BTE SULONG @ AB. HADI</p>	Drug prescribe for 7 days

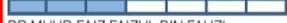
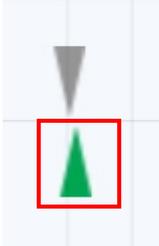
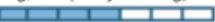
<p>Prednisolone 5 mg Tablet</p> <p>Dosage: 10mg, OD (once daily)</p> <p>16/10/2016 21/10/2016</p>  <p>DR MUHD FAIZ FAIZUL BIN FAUZI</p> <p>Stock:</p>	<p>Drug to be served remain 3 days</p>
	<p>Drug served</p>
	<p>Drug is not administered</p>
<p>Amlodipine 10 mg Tablet</p> <p>Dosage: 10mg, QM (every morning)</p> <p>06/11/2019 10/11/2019</p>  <p>DR. NGA SHIH HANG</p>	<p>Dispense medication discontinued/stop by prescriber / doctor</p>

Table 7.2-1 View MAR Legend

8.0 Acronyms

Abbreviation	Definition
PhIS	Pharmacy Information System
CPS	Clinical Pharmacy System
OM	Order Management
MRN	Medical Record Number
TDM	Clinical Pharmacokinetics Services
ADR & DAC	Adverse Drug Reaction and Drug Allergic Card
MTAC	Medication Therapy Adherence Clinic
MOH	Ministry Of Health
CDR	Cytotoxic Drug Reconstitution
TDM	Therapeutic Drug Monitoring
PN	Parenteral Nutrition

9.0 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	Radiopharmaceuticals	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		