



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

---

## **Full Based User Manual Order Management - Medication Order**

|                    |  |
|--------------------|--|
| <b>Version</b>     | <b>: 12<sup>th</sup> Edition</b>           |
| <b>Document ID</b> | <b>: U. MANUAL_MEDICATION ORDER_MOBILE</b> |



**CONFIDENTIAL COPYRIGHTED MATERIAL** – *The information includes all concepts, comments, recommendations, and material, contained herein shall remain the property of Pharmacy Information System & Clinic Pharmacy System (PhIS & CPS) Project. No portion of this document shall be disclosed, duplicated, or used in whole or in part of any purpose other than the purpose of the Pharmacy Information System & Clinic Pharmacy System (PhIS & CPS) Project execution only.*

Reference ID : U. MANUAL\_MEDICATION ORDER\_MOBILE-12<sup>th</sup> E

Application reference: PhIS & CPS v2.5.1



### Table of Contents

- 1. Introduction..... 3
  - 1.1 Overview of PhIS ..... 3
  - 1.2 Purpose and Objectives..... 3
  - 1.3 Organized Sections ..... 3
- 2. Application Standard Features..... 4
  - 2.1 PhIS Legend..... 4
  - 2.2 Login to PhIS Mobile ..... 5
  - 2.3 PhIS Mobile Application Home Page Overview ..... 7
- 3.0 Order Management..... 8
  - Overview ..... 8
  - User Group..... 8
  - Functional Diagram ..... 8
  - Functional Description ..... 9
  - 3.1 Medication Order .....10
    - 3.1.1 Record Allergy .....10
    - 3.1.2 Record Diagnosis.....19
    - 3.1.3 Normal Order .....22
    - 3.1.4 Add to Favorite .....31
    - 3.1.5 Split Dose .....33
    - 3.1.6 Tapering .....36
    - 3.1.7 Discharge Medication .....39
    - 3.1.8 Renew Rx .....41
    - 3.1.9 Renew RX With Different Duration .....44
    - 3.1.10 Change .....47
    - 3.1.11 Stop .....49
  - 3.2 Order Endorsement .....51
  - 3.3 Order Authorisation.....53
    - 3.3.1 Cancel Order Authorisation .....55
    - 3.3.2 Modify and Authorise .....56
  - 3.4 HOD Authorisation.....58
- 4.0 Therapeutic Drug Monitoring .....60
- 5.0 Infusion.....66
  - 5.1 IV Admixture .....66
  - 5.2 Inotrope .....70
- 6.0 Parenteral Nutrition (PN) .....73
  - 6.1 Commercial / MOH PreMix .....73
  - 6.2 Commercial Add Additive.....79
  - 6.3 PN Compounded .....83
  - 6.4 Calorie calculator .....87
- 7.0 Cytotoxic Drug Reconstitution.....92
  - 7.1 CDR Future Order .....99
  - 7.2 View MAR.....102
    - 7.2.1 View MAR – Graph View.....102
    - 7.2.2 View MAR – Table View.....109
    - 7.2.3 View MAR – 7 Days View. ....114
- 8.0 Acronyms .....121
- 9.0 Links to Clinical Modules .....121



## 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



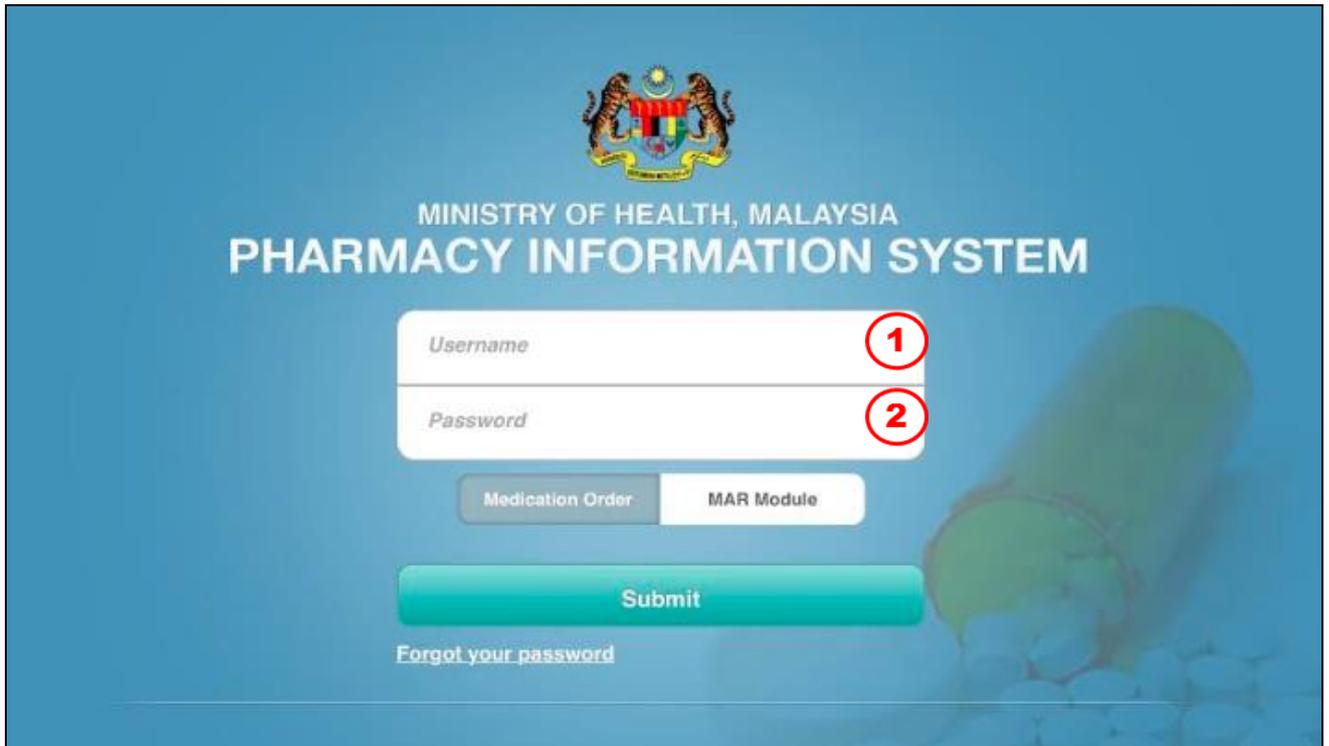
## 2. Application Standard Features

### 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:



The screenshot shows the PhIS login page with a blue background. At the top center is the Ministry of Health Malaysia logo. Below it, the text reads "MINISTRY OF HEALTH, MALAYSIA" and "PHARMACY INFORMATION SYSTEM". There are two input fields: "Username" and "Password". The "Username" field is marked with a red circle containing the number "1", and the "Password" field is marked with a red circle containing the number "2". Below the input fields are two buttons: "Medication Order" and "MAR Module". A large green "Submit" button is centered below these. At the bottom left, there is a link that says "Forgot your password". On the right side of the page, there is a faint image of a green pill bottle.

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.

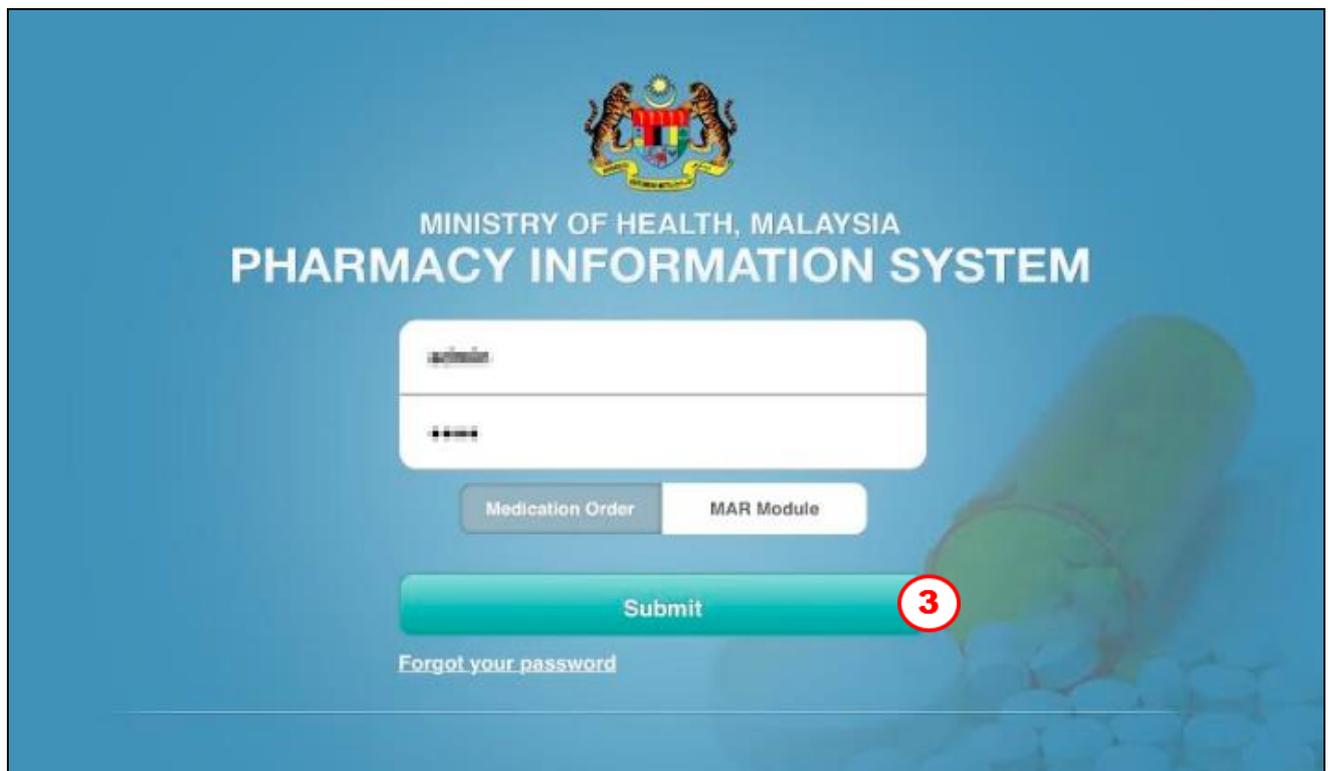


Figure 2.2-3 Wrong password entered.

**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**

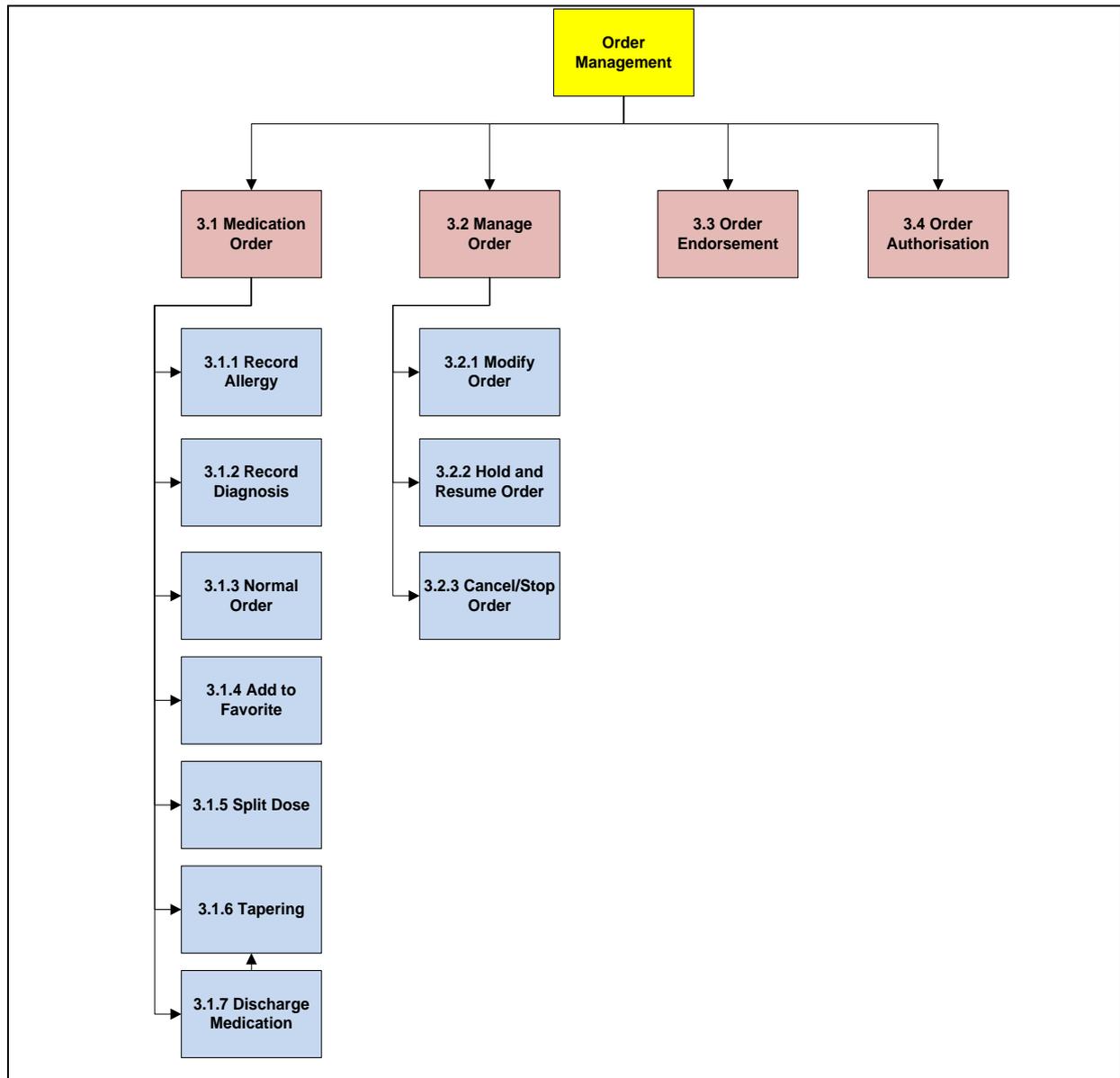
**Overview**

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

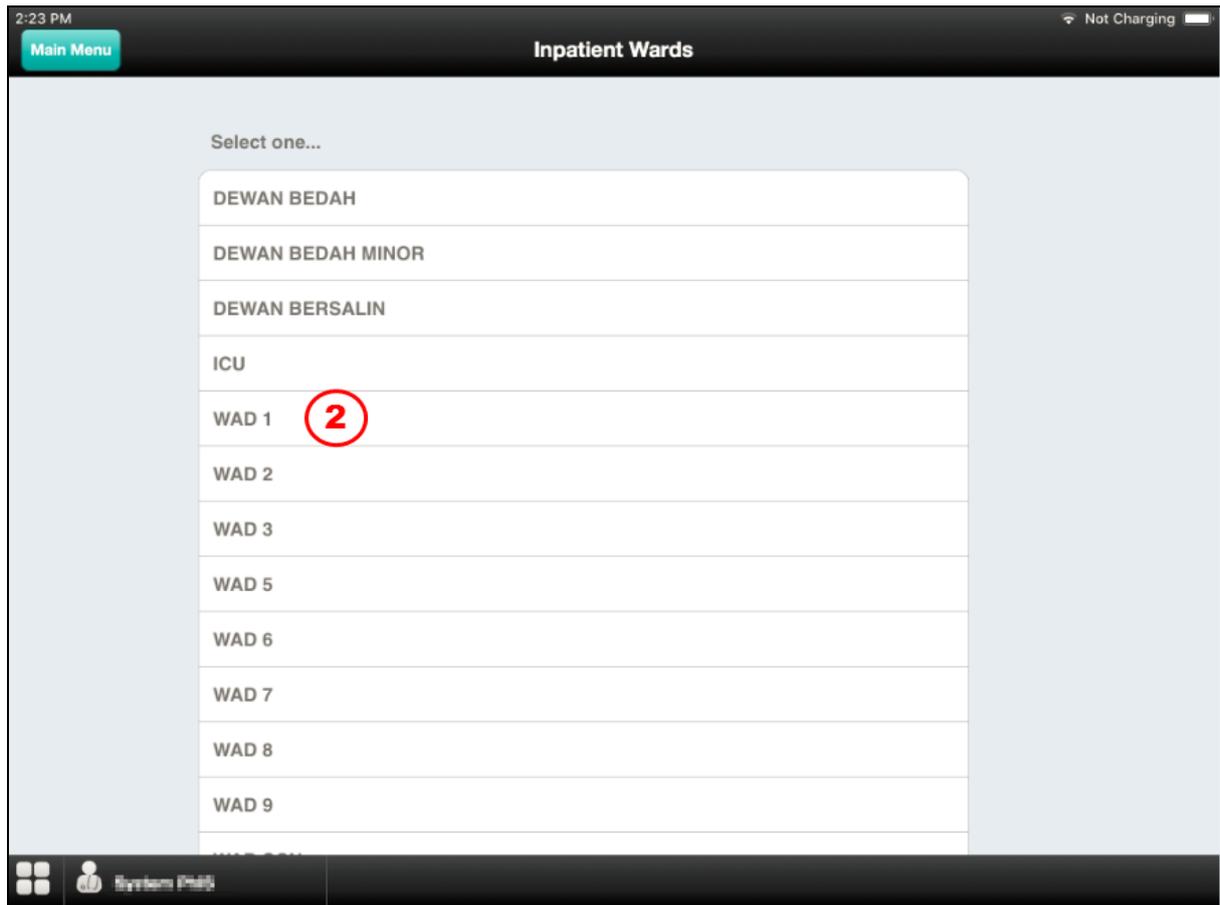
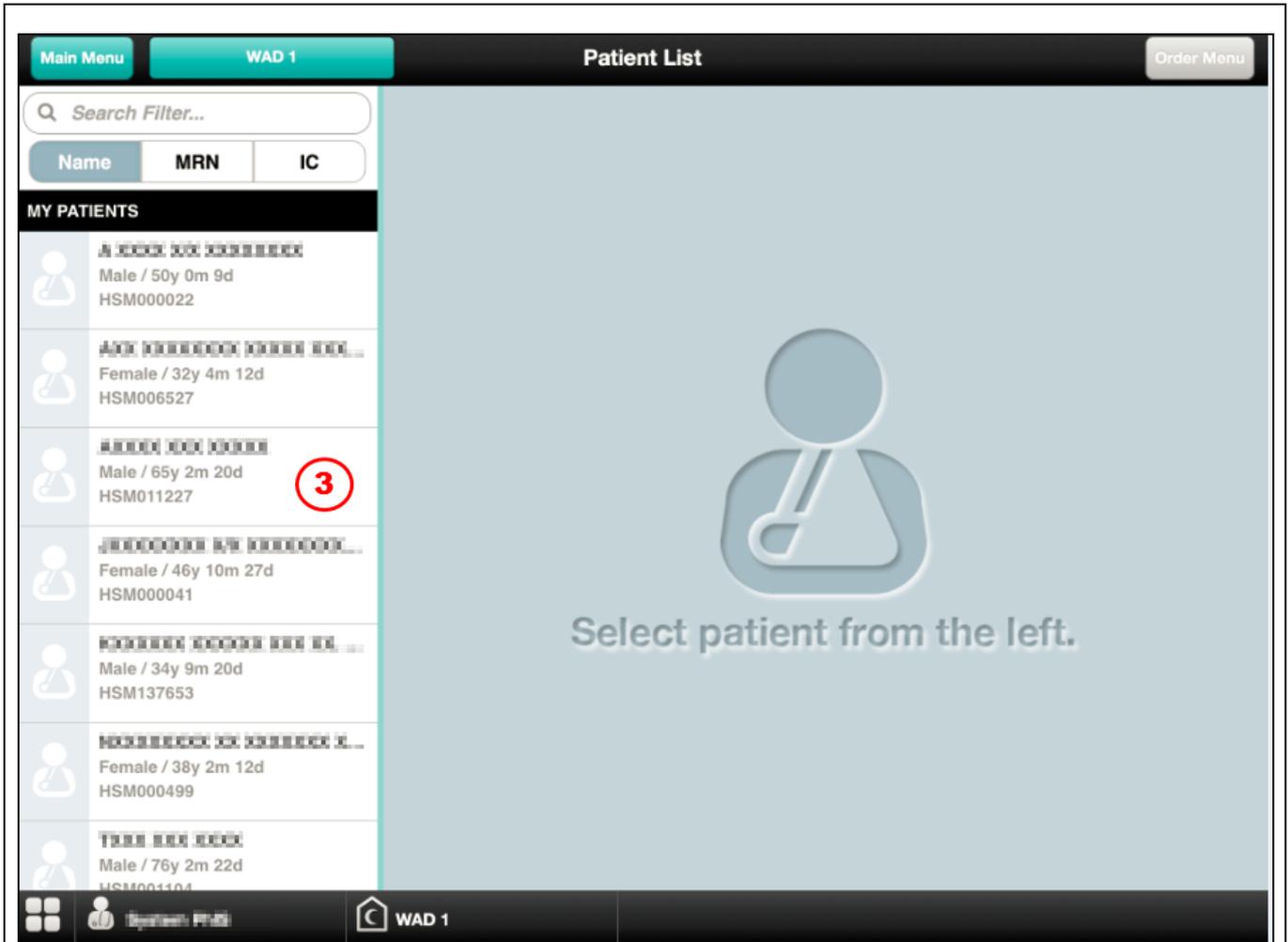


Figure 3.1.1-2 Location Screen Listing Page

**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"> <li>• Type the MRN either full or partial:<br/><i>Example: HPSF00001234 or "1234"</i></li> </ul> |
| 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

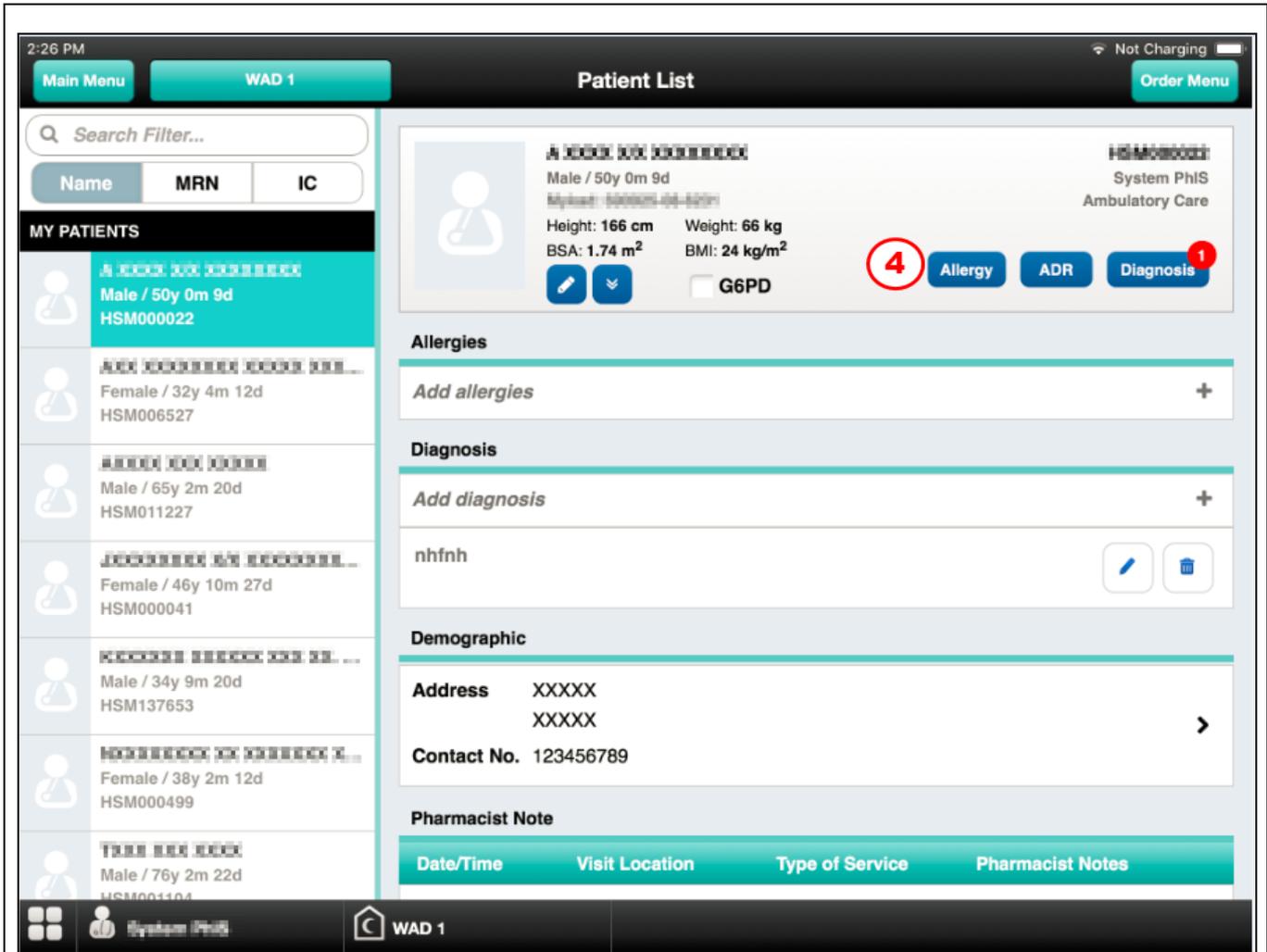


Figure 3.1.1-4 Patient Listing Page

**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

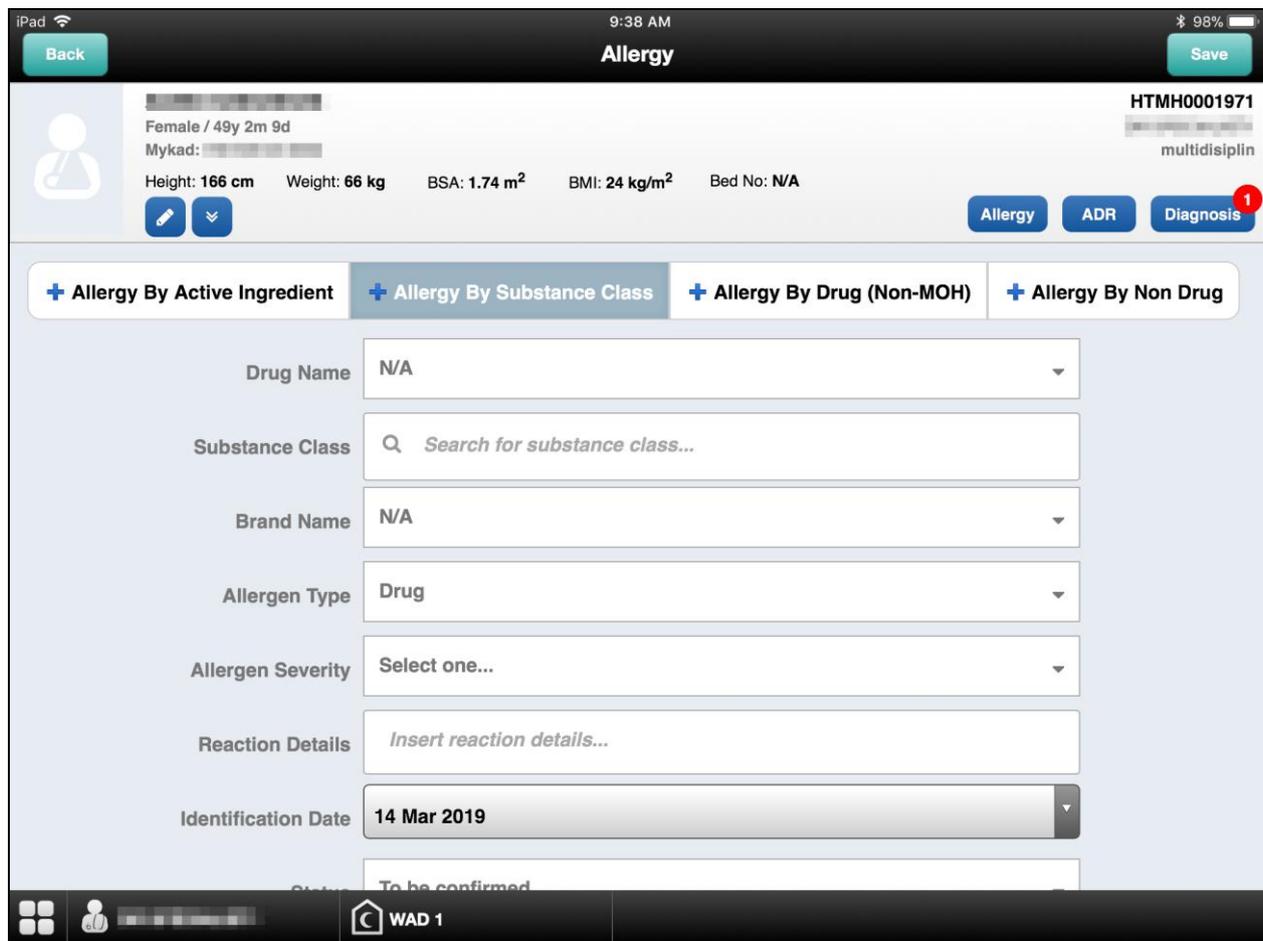


Figure 3.1.1-6 Allergy Screen

**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.*



11:57 AM Mon 27 Dec 48%

Back Allergy Save

Female / 63y 5m 22d  
Mykad: 580705-08-6590  
Height: 165 cm Weight: 56 kg BSA: 1.6 m<sup>2</sup> BMI: 20.6 kg/m<sup>2</sup> Bed No:  
G6PD

DR. [Name]  
General Emergency Medicine

Allergy<sup>14</sup> ADR<sup>1</sup> Diagnosis<sup>1</sup>

6 + Allergy By Active Ingredient + Allergy By Substance Class + Allergy By Drug (Non-MOH) + Allergy By Non Drug

Drug Name Q Aprepitant 7

Substance Class N/A

Brand Name NO BRAND

Allergen Type Drug

Allergen Severity Mild 8

Reaction Details rashes 9

Identification Date 27 Dec 2021 10

Status To be confirmed 11

Status of Allergy Issued 12

Card

DAC Serial No DAC-11-08080019-00065624

WAD 1

Figure 3.1.1-7 Allergy Detail Screen

**STEP 6**

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

**STEP 7**

Tap on the selected active ingredient

**STEP 8**

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

- Mild
- Moderate
- Severe
- Unknown

**STEP 9**

Enter **Reaction Details**

**STEP 10**

Select **Identification Date** of allergy

**STEP 11**

Select **Status** from drop down box:

- Confirmed
- Resolved
- Suspected
- To be confirmed

**STEP 12**

Select **Status of Allergy Card** from dropdown

- Issued
- Not Issued

**Note**

- **Status of Allergy Card** and **DAC Serial No** field will be enabled if user select **Allergen Type** as “Drug”
- If user select **Status of Allergy Card** as **Not Issued**, **Remark** fill will enable for user to enter as shown in figure 3.1.1-8



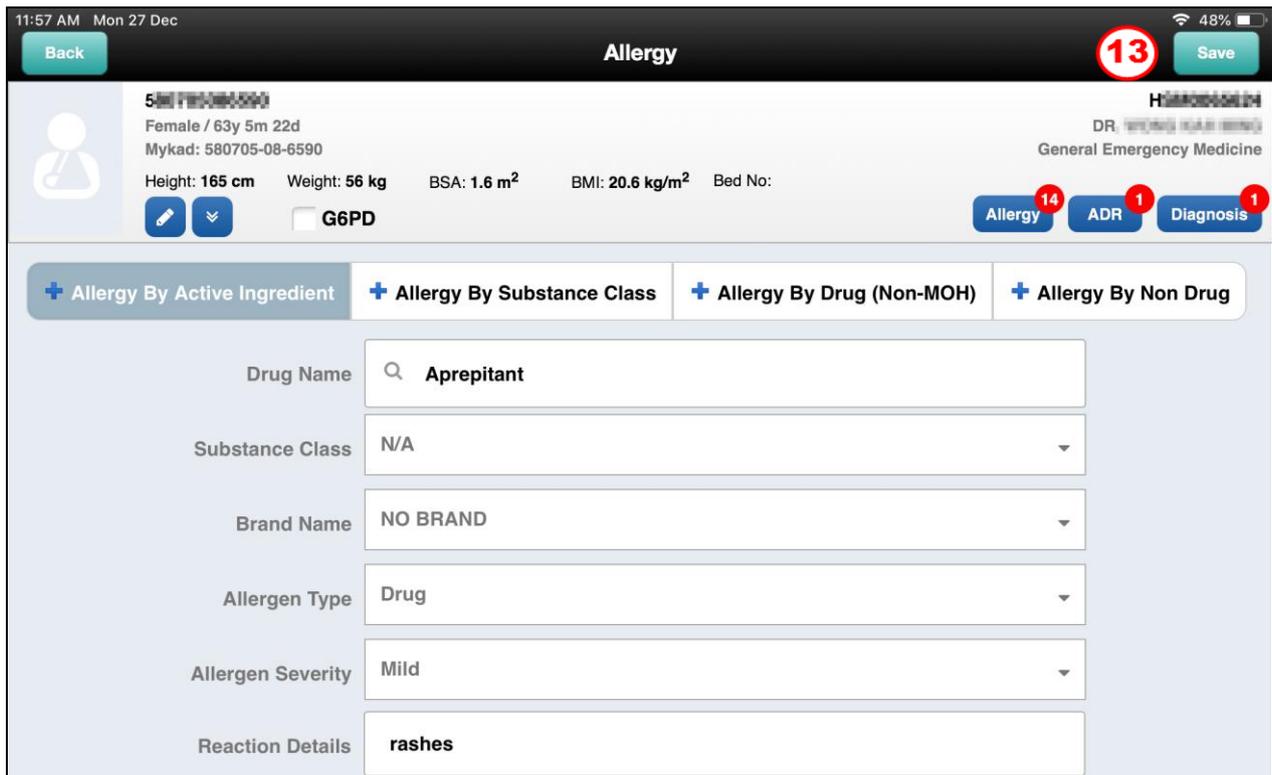
The screenshot displays the 'Allergy Detail Screen' with the following fields and values:

- Status of Allergy Card:** A dropdown menu with 'Not Issued' selected.
- Remarks:** A text input field containing the placeholder text 'Insert Remarks...'.
- DAC Serial No:** A text input field containing the value 'DAC-11-08080019-00065624'.

At the bottom of the screen, there is a navigation bar with the following elements:

- A grid icon on the left.
- A user profile icon and the name 'DR. WONG KAH MING'.
- A home icon and the text 'WAD 1'.

Figure 3.1.1-8 Allergy Detail Screen



11:57 AM Mon 27 Dec 48%

**Allergy** 13 Save

Female / 63y 5m 22d  
Mykad: 580705-08-6590  
Height: 165 cm Weight: 56 kg BSA: 1.6 m<sup>2</sup> BMI: 20.6 kg/m<sup>2</sup> Bed No:  
G6PD

DR. General Emergency Medicine

Allergy 14 ADR 1 Diagnosis 1

+ Allergy By Active Ingredient + Allergy By Substance Class + Allergy By Drug (Non-MOH) + Allergy By Non Drug

Drug Name: Aprepitant  
Substance Class: N/A  
Brand Name: NO BRAND  
Allergen Type: Drug  
Allergen Severity: Mild  
Reaction Details: rashes

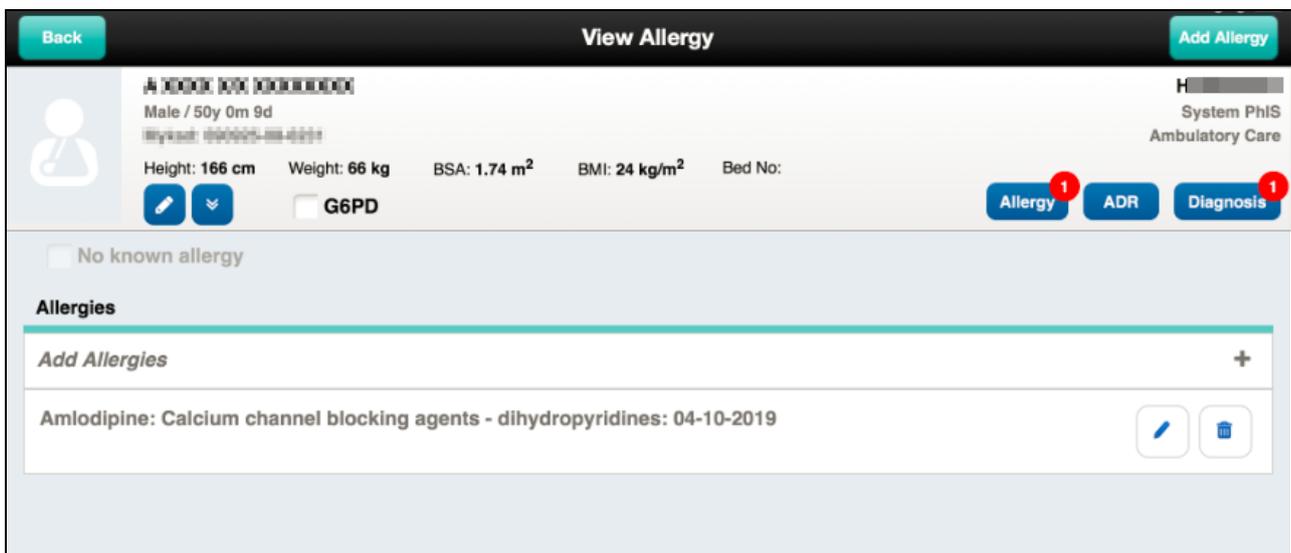
Figure 3.1.1-9 Allergy Detail Screen

**STEP 13**

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

**Note**

Allergy record will be added in the list as shown in figure 3.1.1-10



**View Allergy** Add Allergy

Male / 50y 0m 9d  
Height: 166 cm Weight: 66 kg BSA: 1.74 m<sup>2</sup> BMI: 24 kg/m<sup>2</sup> Bed No:  
G6PD

System PhIS Ambulatory Care

Allergy 1 ADR Diagnosis 1

No known allergy

**Allergies**

Add Allergies +

Amlodipine: Calcium channel blocking agents - dihydropyridines: 04-10-2019

Figure 3.1.1-10 Allergy Detail Screen

### 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.

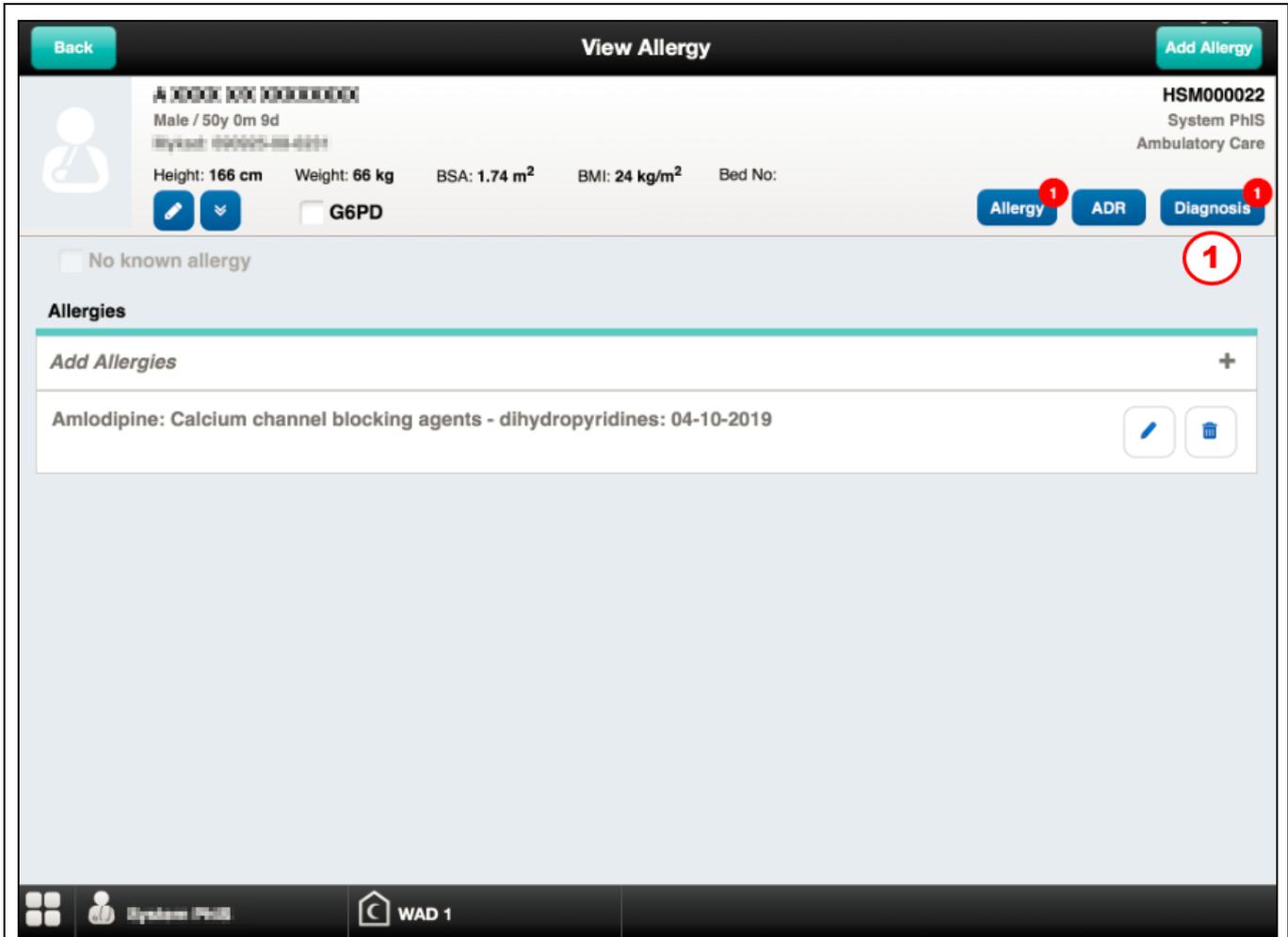


Figure 3.1.2-1 Diagnosis Landing Screen

#### STEP 1

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

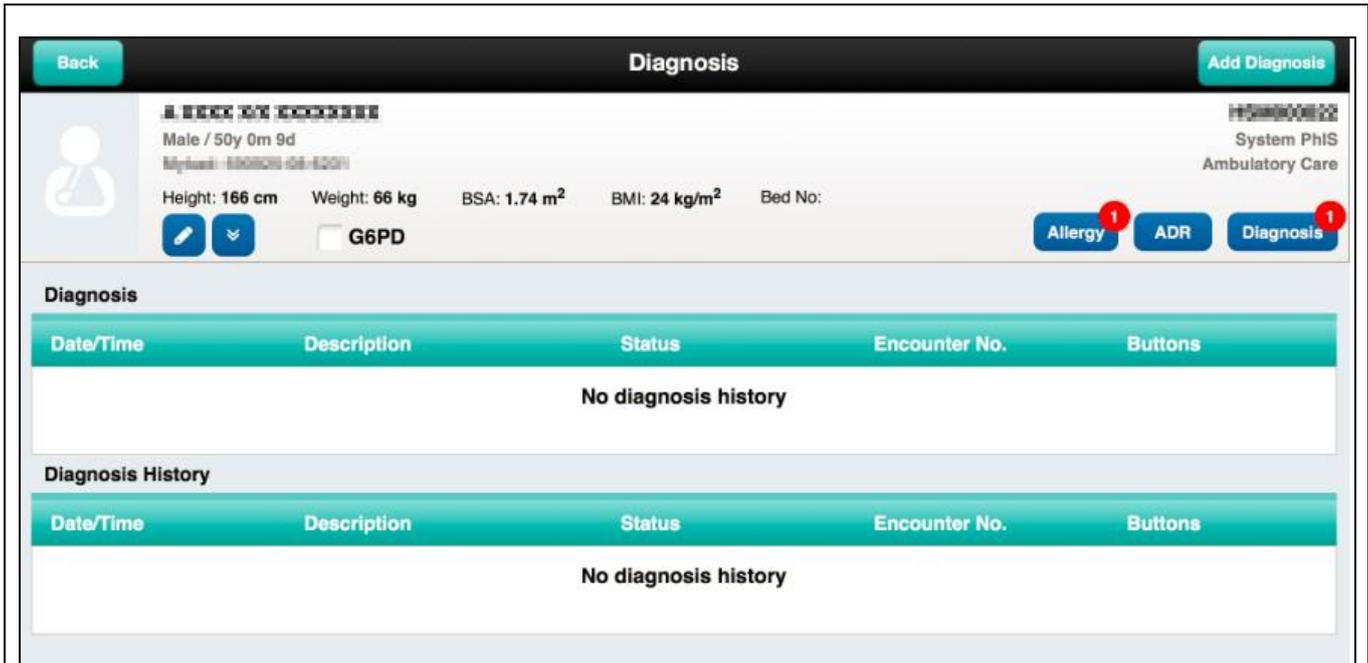


Figure 3.1.2-2 Diagnosis Landing Screen

**Note**

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

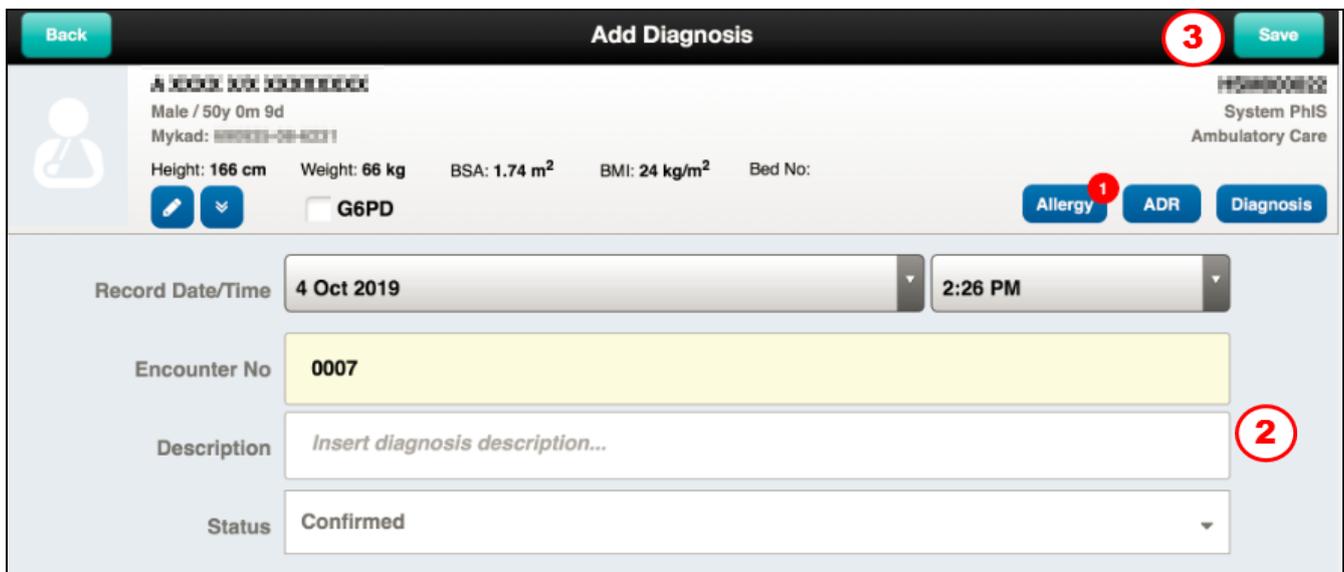


Figure 3.1.2-3 Diagnosis Detail Screen

**STEP 2**

Enter diagnosis **Description**

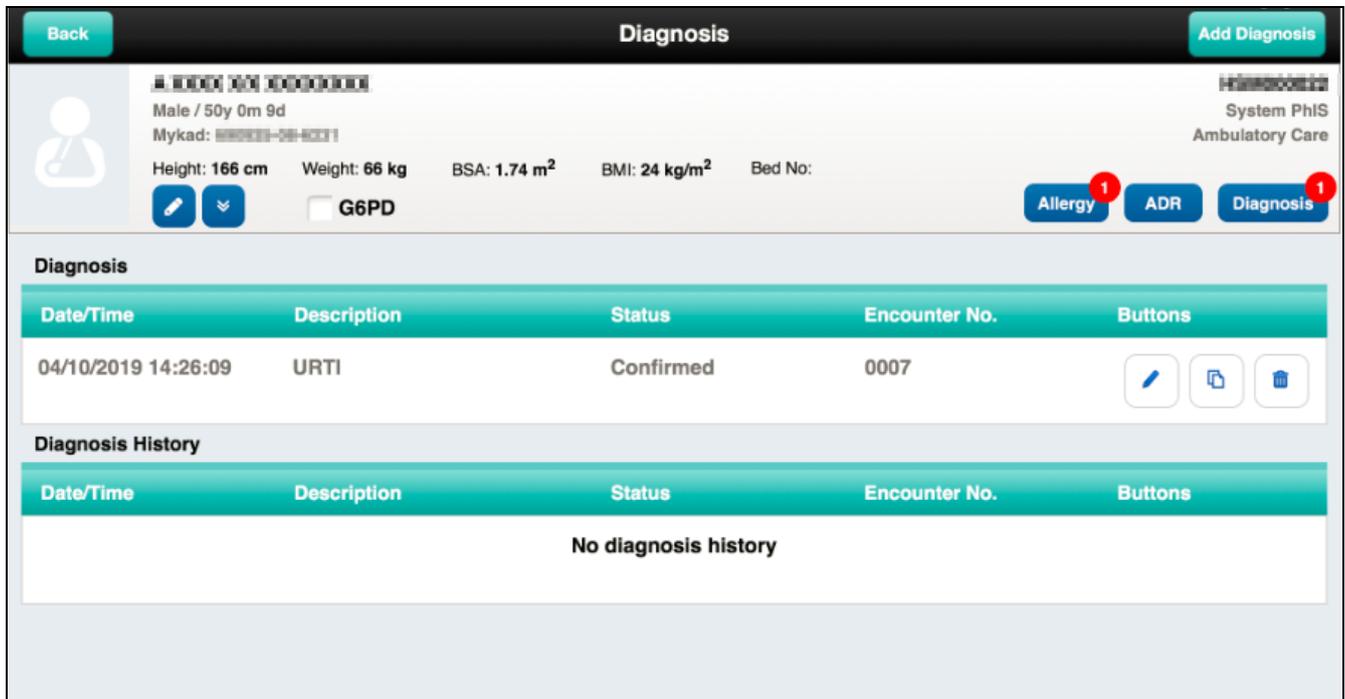
**STEP 3**

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 m<sup>2</sup>   BMI: 24 kg/m<sup>2</sup>   Bed No:

G6PD Allergy <sup>1</sup>   ADR   Diagnosis <sup>1</sup>

| 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.

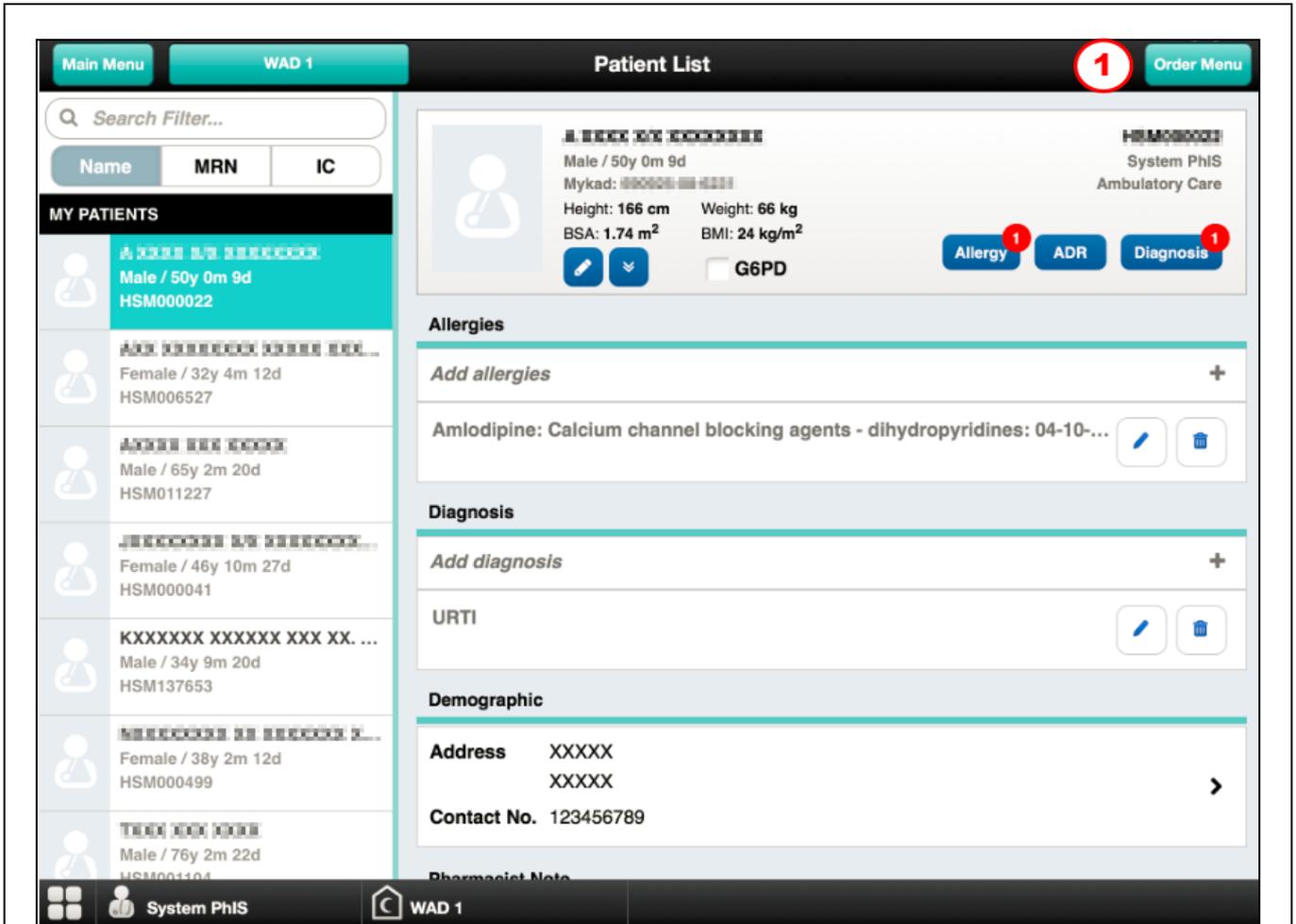


Figure 3.1.3-1 Order Screen Listing Page

**Note**

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

**STEP 1**

Tap on the **Order Menu** button

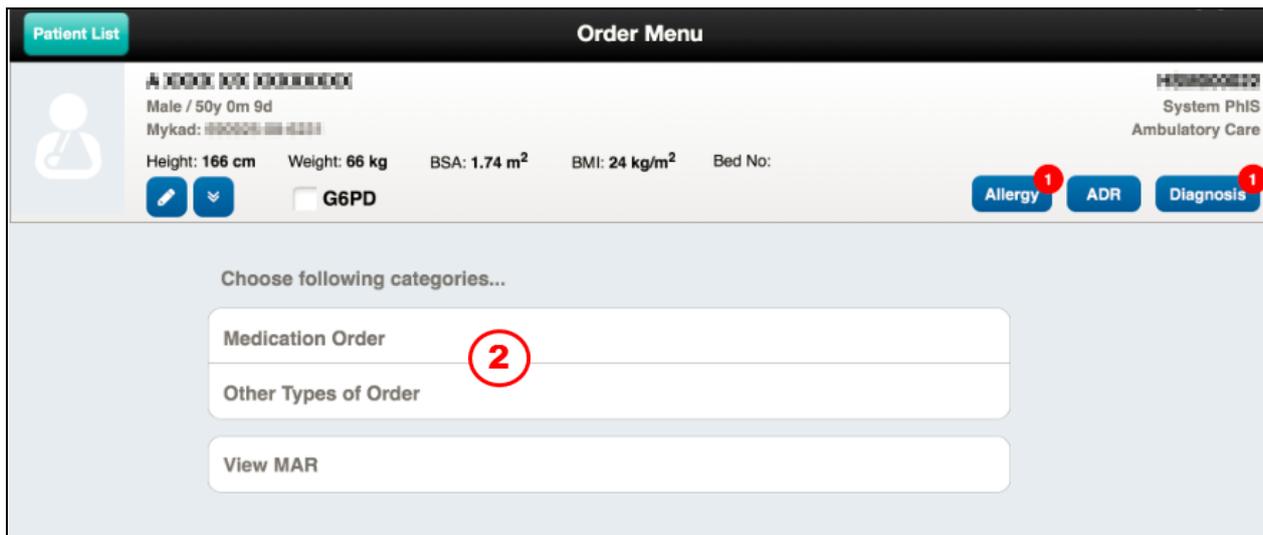


Figure 3.1.3-2 Order Screen Listing Page

**STEP 2**

Tap on the *Medication Order* field

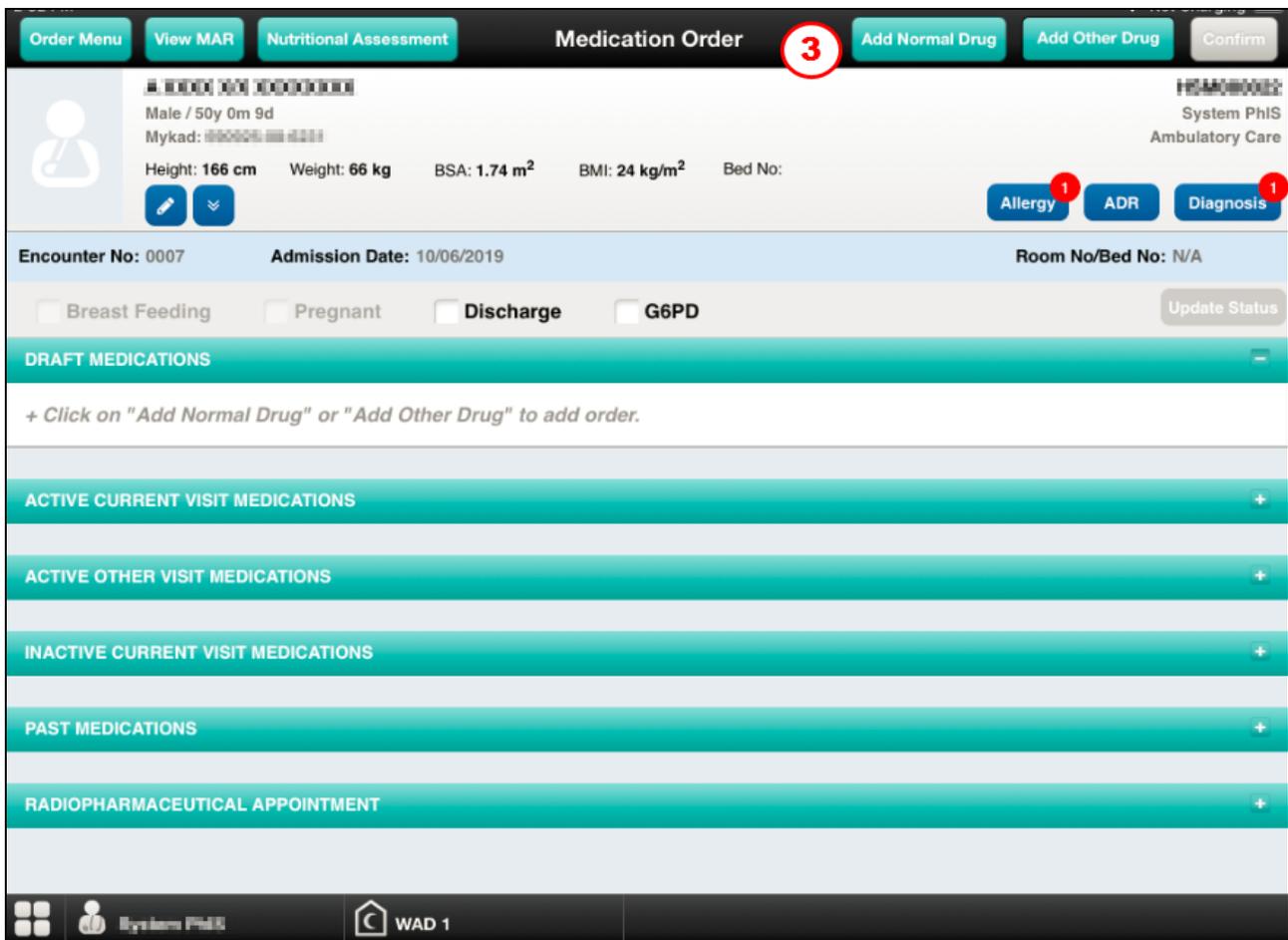


Figure 3.1.3-3 Order Screen Listing Page

**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  button

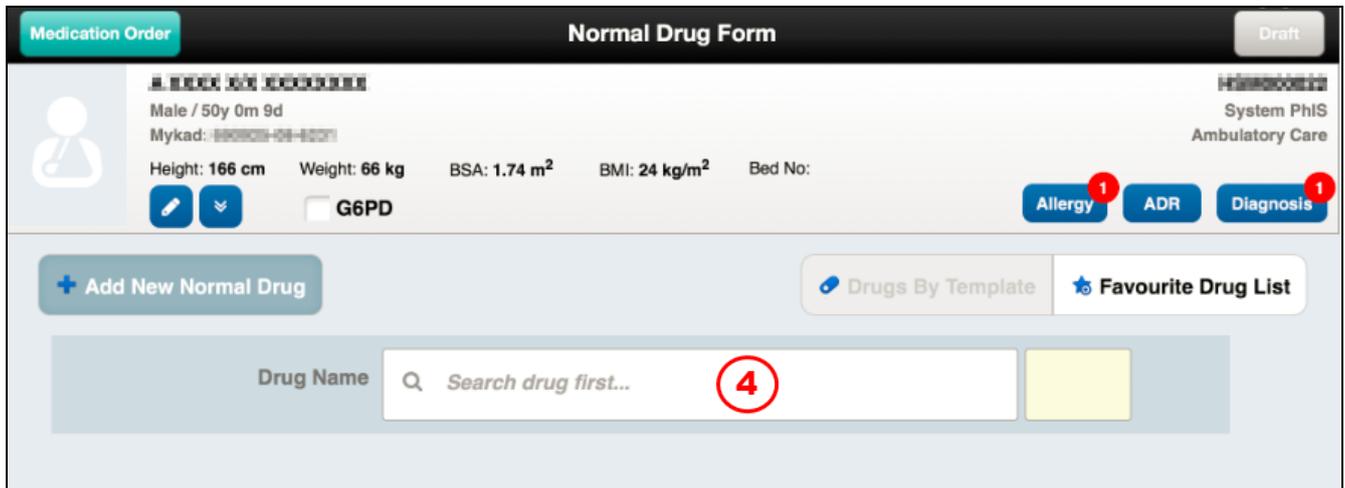


Figure 3.1.3-4 Order Screen Listing Page

**STEP 4**

Search drug by enter keyword of the drug name

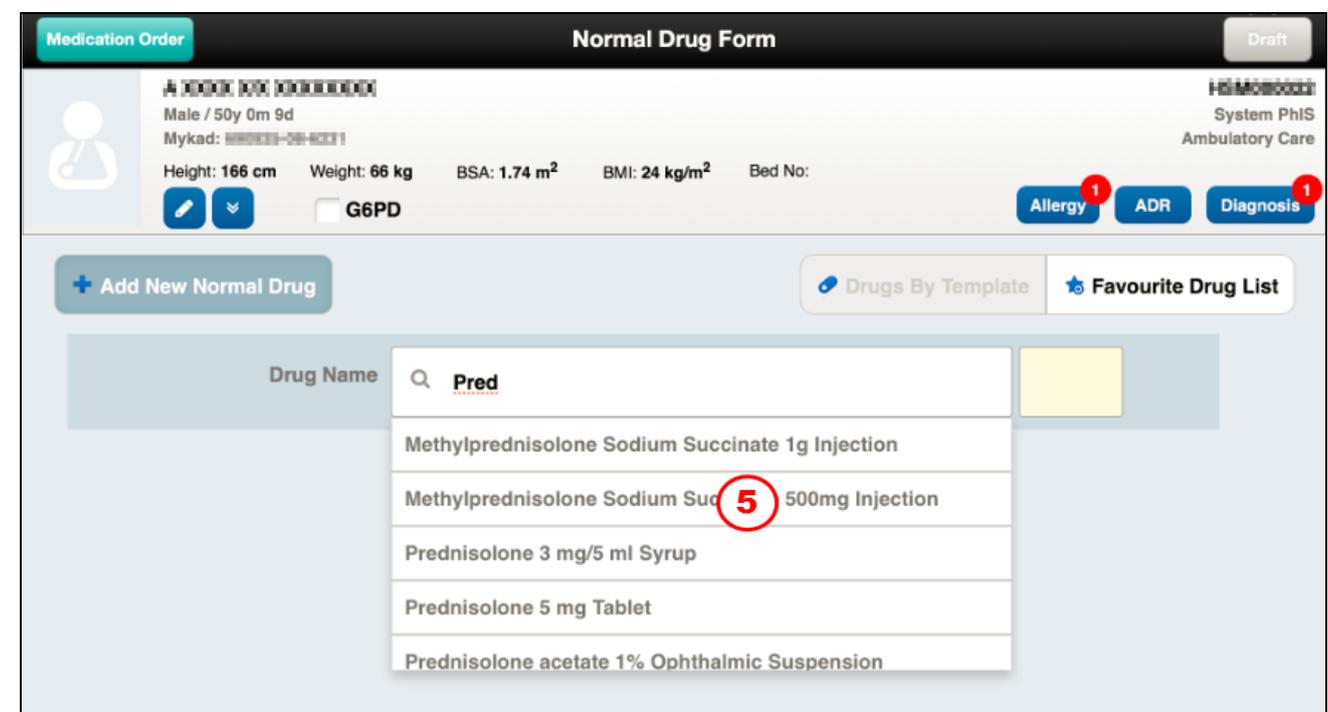


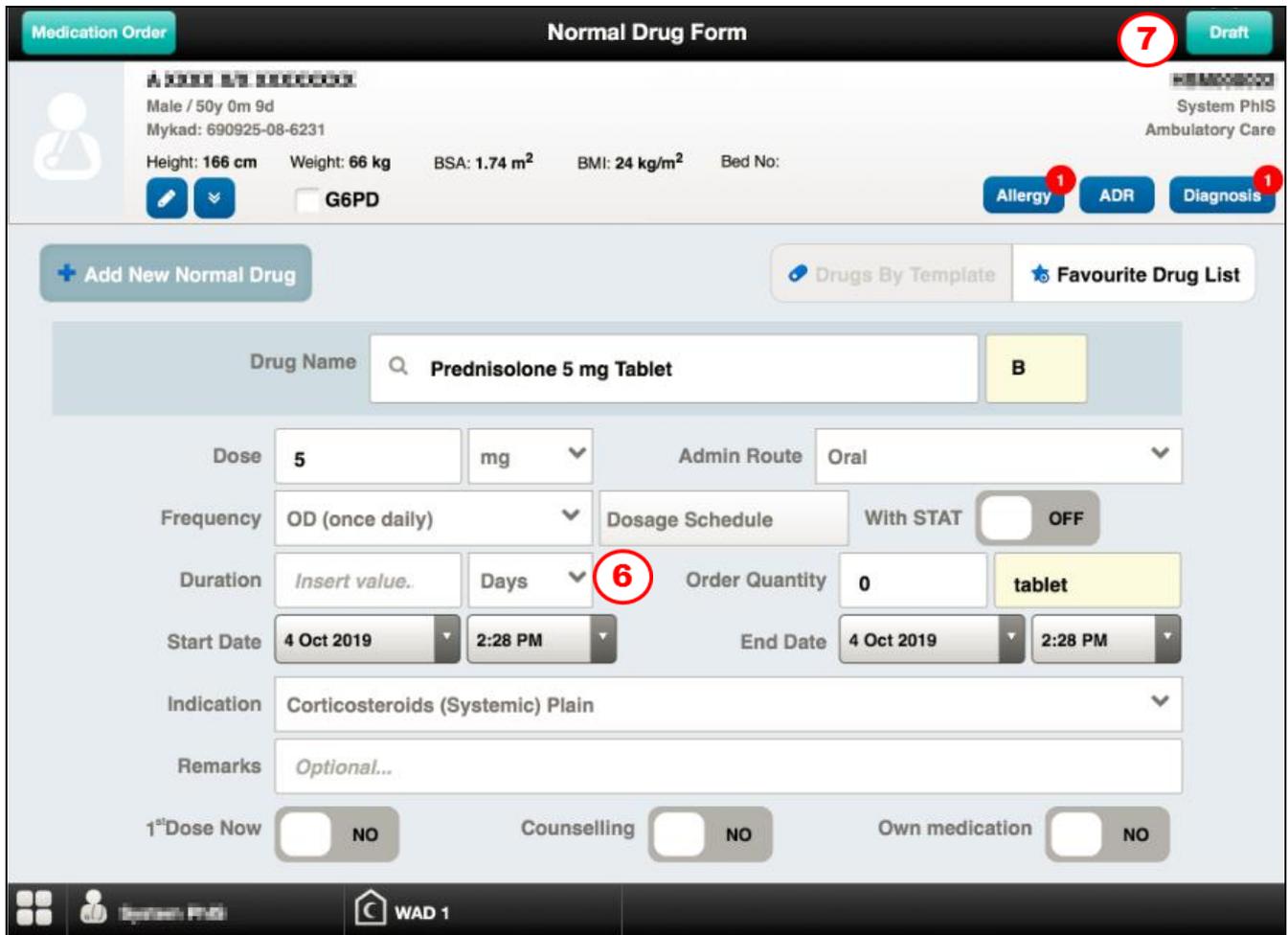
Figure 3.1.3-5 Order Screen Listing Page

### 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 m<sup>2</sup>, BMI: 24 kg/m<sup>2</sup>, and Bed No: . There are also buttons for 'Allergy' (1), 'ADR', and 'Diagnosis' (1). The main section is titled 'Normal Drug Form' and contains a search bar for 'Drug Name' with the text '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 buttons for 'Add New Normal Drug', 'Drugs By Template', and 'Favourite Drug List'. At the bottom, there are buttons for '1<sup>st</sup>Dose Now' (NO), 'Counselling' (NO), and 'Own medication' (NO). The 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

- Prescriber is allowed to check on **With STAT**  OFF button to add STAT frequency on the medicine prescribes. Once user check **With STAT** button, **1<sup>st</sup> Dose Now**  NO button will be disable for user to tap
- Prescriber is allowed to tap on **1<sup>st</sup> Dose Now**  NO button. Once User check on **1<sup>st</sup> Dose Now**, **With STAT** button will be disable for user to tap
- Counselling Indication**  NO button can be selected if prescriber want pharmacist to council the patient on the medicines.
- Check the **Own Medication**  NO button if patient brought and used their own medication. Only applicable for inpatient and where pharmacist do not supply medication to the wards.
- Enter **Remark** if applicable.
- For same patient that have an active medication, alert message will be display upon tap on the **Draft** if there are duplicate drug prescribe as shown in figure 3.1.3-7

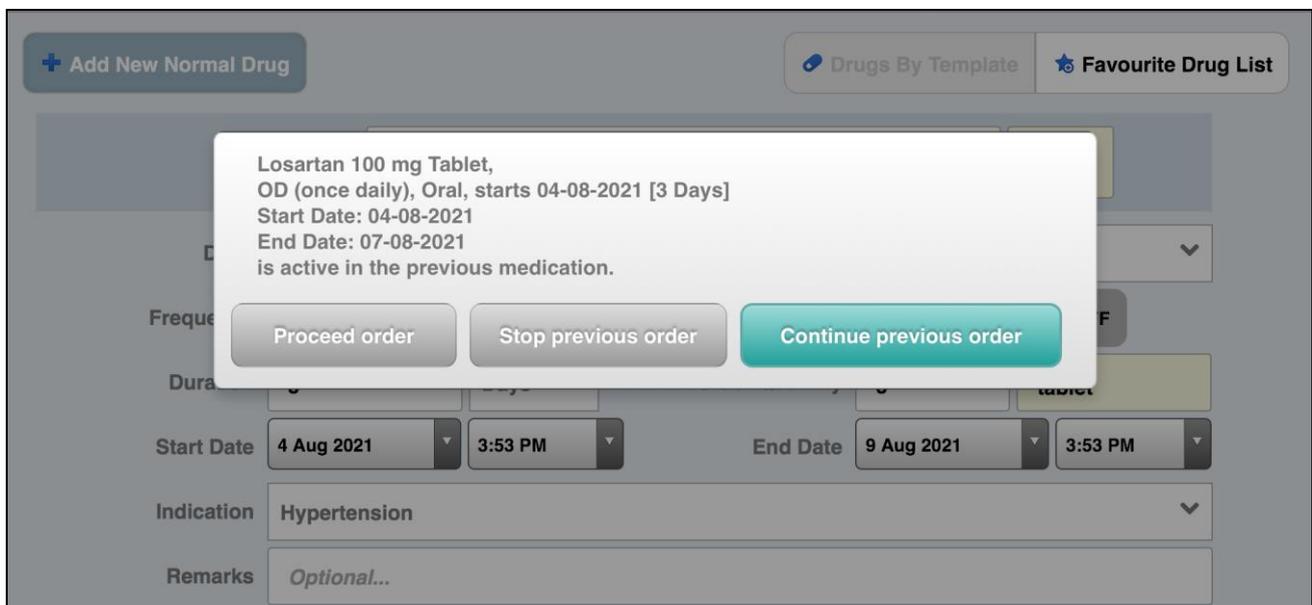


Figure 3.1.3-7 Duplicate Alert Message

- User can tap on :
- Proceed Order** button – Allow to add duplicate drug.
- Stop Previous Order** button – Previous order will be stop and new order will be continue
- Continue Previous Order** button – Previous order will be continue and new order will not be included
- This alert message will display for the drug that has no setting for **'Allow Duplicate'** in **Drug Master**

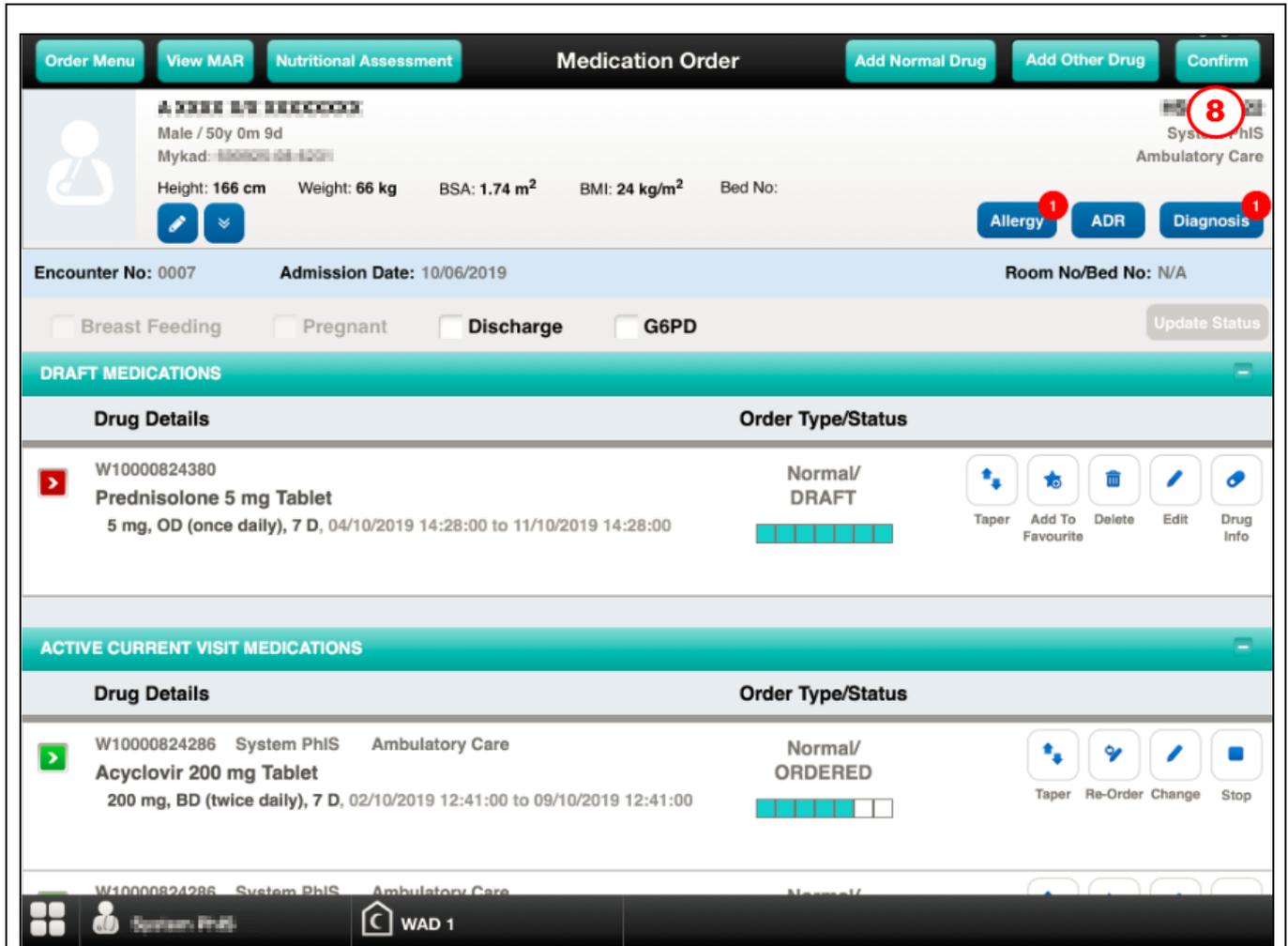


Figure 3.1.3-8 Normal Order Detail Screen

**Note**

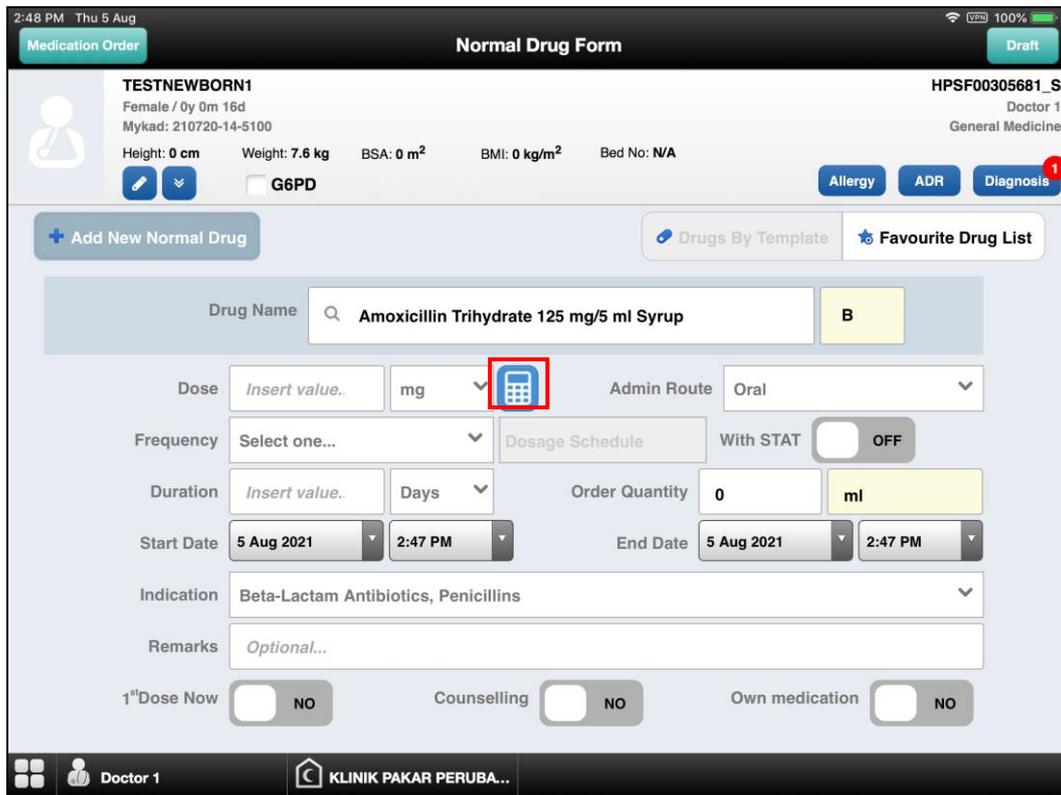
- To add another drug in prescription repeat **Step 1 to 7**
- Order Status = 'Draft' , saved prescription but has not been confirmed.

**STEP 8**

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

**Note**

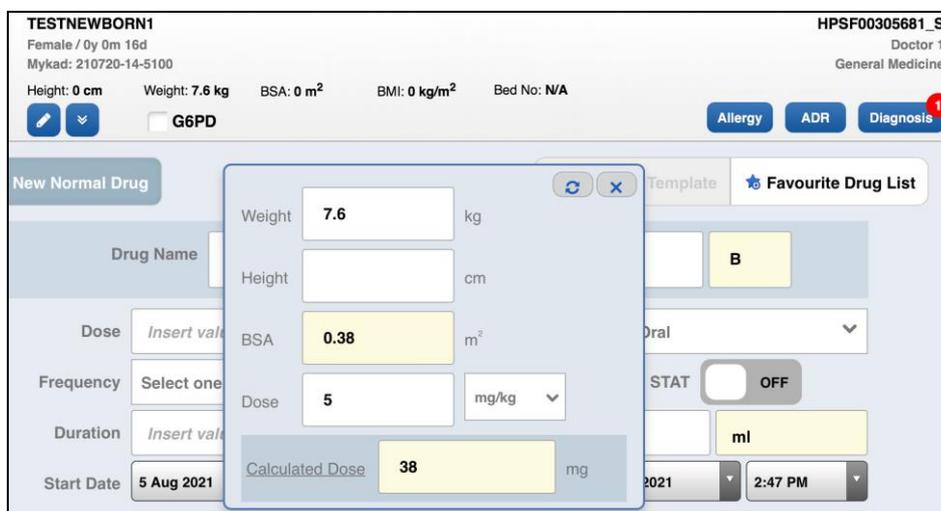
- For paediatric patient, there will be an dose calculator for children dose calculation (dose/kg weight)



The screenshot shows the 'Normal Drug Form' interface for a patient named TESTNEWBORN1. The patient's details include: Female / 0y 0m 16d, Mykad: 210720-14-5100, Height: 0 cm, Weight: 7.6 kg, BSA: 0 m<sup>2</sup>, BMI: 0 kg/m<sup>2</sup>, and Bed No: N/A. The drug selected is Amoxicillin Trihydrate 125 mg/5 ml Syrup. The dose field is currently empty, and a calculator icon is highlighted with a red box. Other fields include Frequency, Duration, Start Date (5 Aug 2021), End Date (5 Aug 2021), and Indication (Beta-Lactam Antibiotics, Penicillins).

Figure 3.1.3-9 Normal Order Detail Screen

- If user used unit mg/kg, calculated dose as below, **height is not mandatory**
  - If select dose UOM as “mg/kg” or any unit dose in “xx/kg”, ignore Height field
  - Calculated Dose = “dose” x “weight”
- If user used unit of mg/m<sup>2</sup>, calculated dose as below, **height will be mandatory**
  - If select dose unit e.g. “mg/BSA” @ “mg/m<sup>2</sup>” or any unit dose in “xx/BSA” @ “xx/m<sup>2</sup>”
  - Calculated dose formula = “dose” x “BSA”

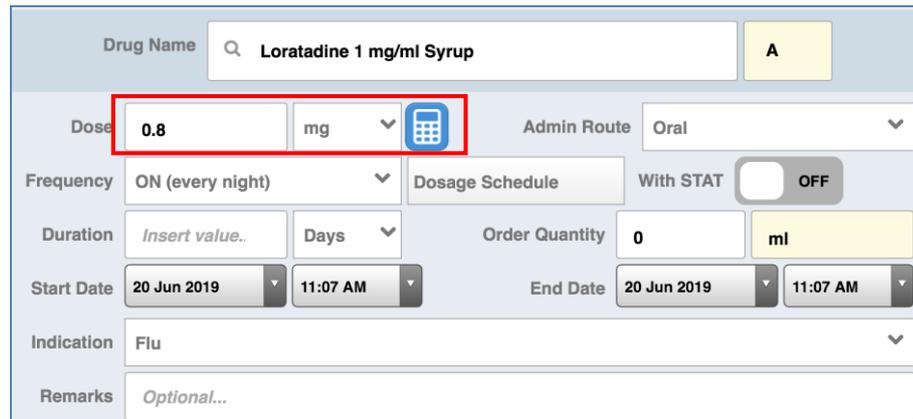


The screenshot shows the same 'Normal Drug Form' interface as Figure 3.1.3-9, but with a 'Calculate Dose' dialog box open. The dialog box contains the following fields: Weight (7.6 kg), Height (empty), BSA (0.38 m<sup>2</sup>), Dose (5 mg/kg), and Calculated Dose (38 mg). The 'Calculate Dose' button is highlighted in blue.

Figure 3.1.3-10 Normal Order Detail Screen

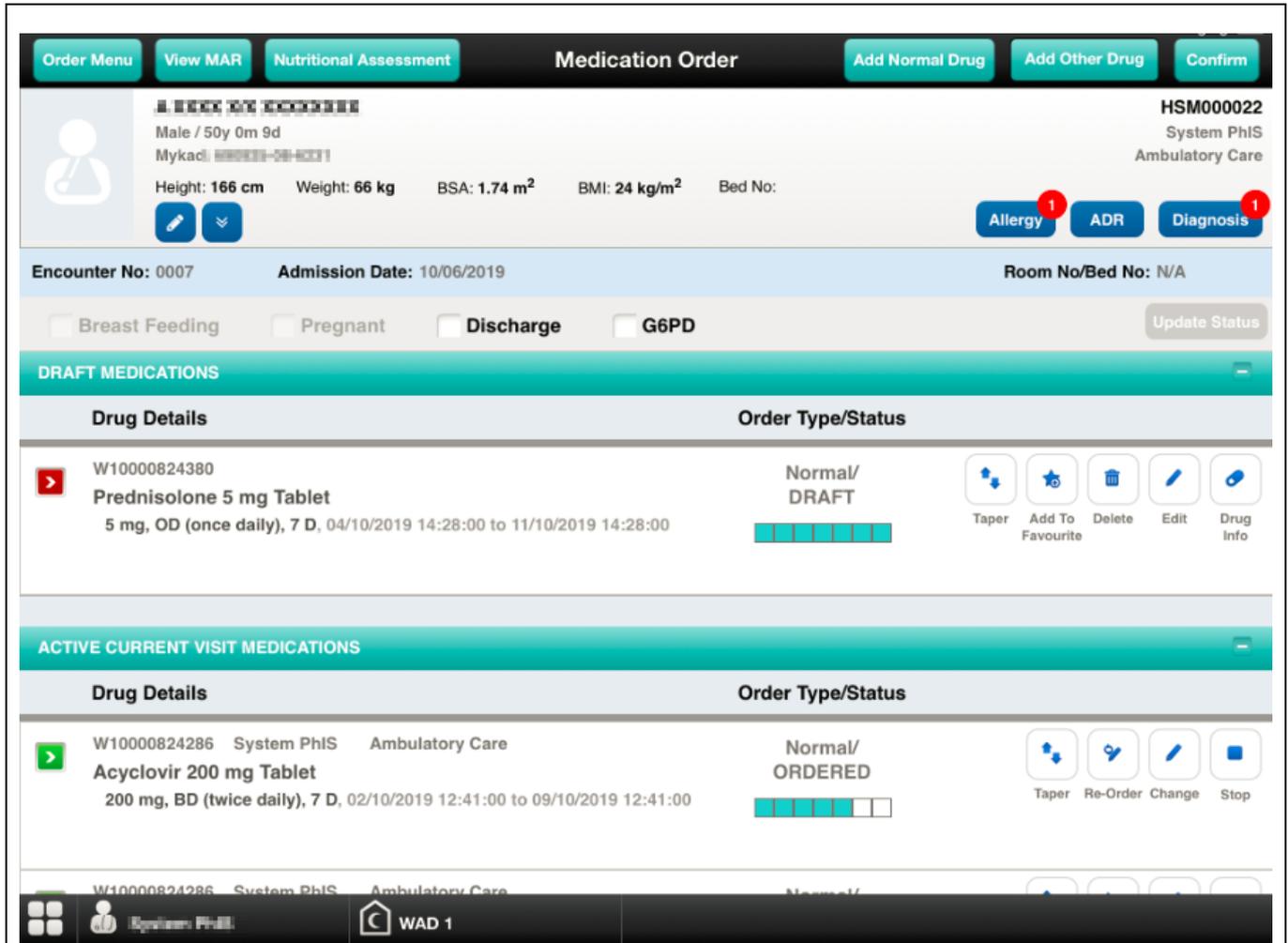
- Tap on **Calculate Dose link** and system will calculate dose for the patient

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



**Figure 3.1.3-11 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 m<sup>2</sup>. Calculated Dose show as IU.
  - If unit dose in ml, Dose will be shown as ml/kg or ml/BSA m<sup>2</sup>. Calculated Dose field show as ml.
  - If unit dose in vial, Dose will be shown as vial/kg or vial/ BSA m<sup>2</sup>. Calculated Dose field show as vial.
  - If unit dose in mcg, Dose will be shown as mcg/kg or mcg/ BSA m<sup>2</sup>. 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 (m<sup>2</sup>) formula as:  $SQRT ([Height(cm) \times Weight(kg)] / 3600)$  – Mosteller formula
  - $BSA (m^2) = SQRT ([11.3kg \times 43cm] / 3600) = SQRT [(485.9 / 3600)] = ROUND UP 2 DIGIT 0.37 m^2$
- Unit Dose depends on selected drug unit dose and has option as <unit dose>/BSA or <unit dose>/kg.



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 profile section with a person icon, name, gender/age (Male / 50y 0m 9d), Mykad, and physical attributes (Height: 166 cm, Weight: 66 kg, BSA: 1.74 m<sup>2</sup>, BMI: 24 kg/m<sup>2</sup>, Bed No:). There are also buttons for 'Allergy', 'ADR', and 'Diagnosis', each with a red notification badge. 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 section is titled 'DRAFT MEDICATIONS' and contains a table with columns for 'Drug Details' and 'Order Type/Status'. The first entry is for 'Prednisolone 5 mg Tablet' (W10000824380) with an order type of 'Normal/DRAFT' and a duration bar of 7 green segments. Action buttons for 'Taper', 'Add To Favourite', 'Delete', 'Edit', and 'Drug Info' are visible. Below this is the 'ACTIVE CURRENT VISIT MEDICATIONS' section, which shows 'Acyclovir 200 mg Tablet' (W10000824286) with an order type of 'Normal/ORDERED' and a duration bar of 7 segments (5 green, 2 white). Action buttons for 'Taper', 'Re-Order', 'Change', and 'Stop' are present. At the bottom, there is a navigation bar with icons for home, back, and other functions, and a status bar showing 'WAD 1'.

Figure 3.1.3-12 Normal Order Detail Screen

**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.*

### 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.

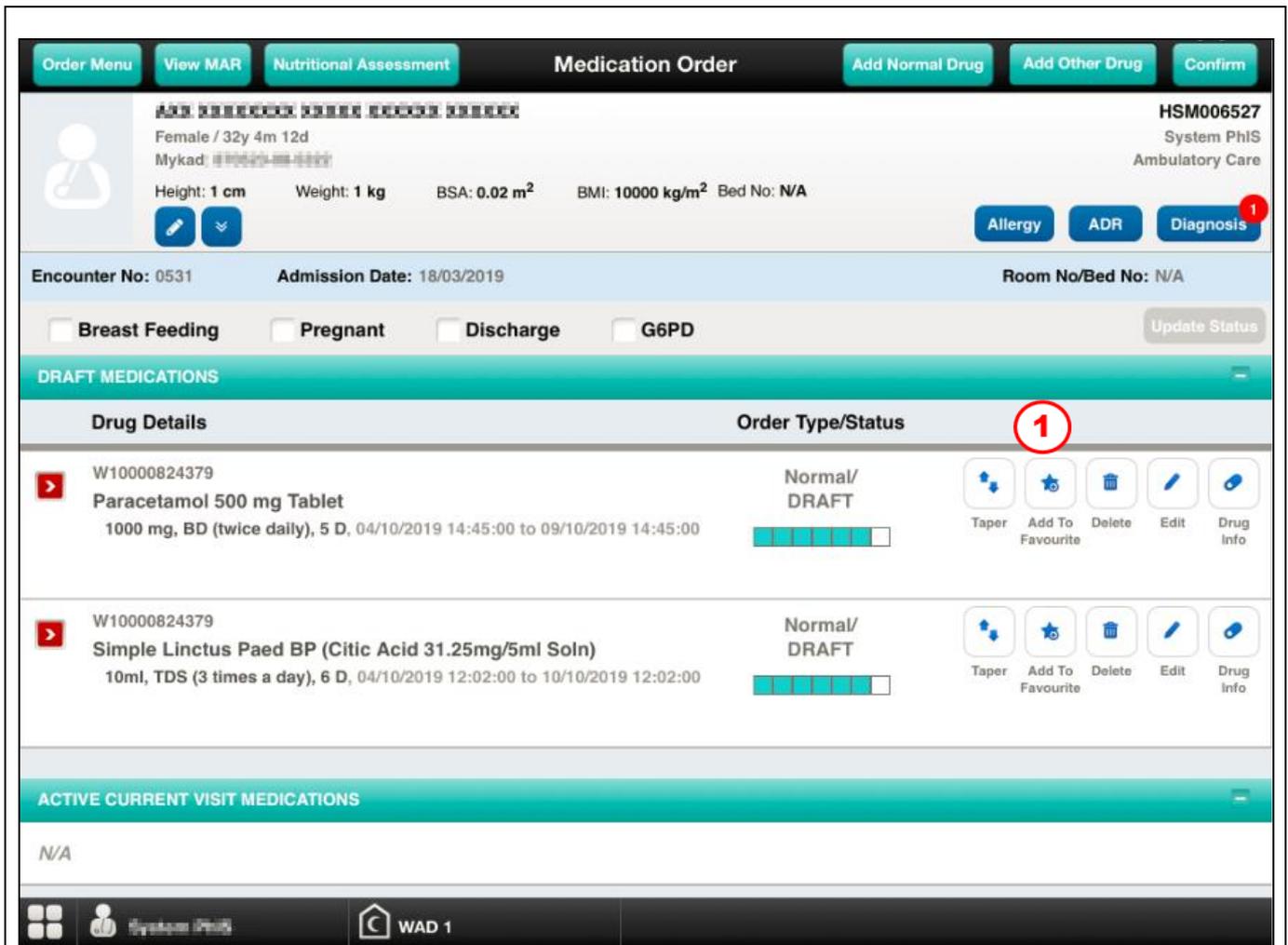


Figure 3.1.4-1 Add to Favorites Option Screen

**Note**

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

**STEP 1**

Tap on the  button from the selected drug

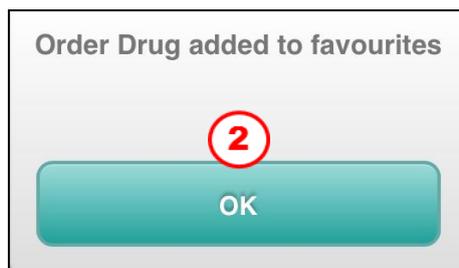


Figure 3.1.4-2 Add to Favorites Option Screen

**STEP 2**

Tap on the  button from displayed alert message

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

Female / 32y 4m 12d  
Mykad: [REDACTED]  
Height: 1 cm Weight: 1 kg BSA: 0.02 m<sup>2</sup> BMI: 10000 kg/m<sup>2</sup> Bed No: N/A

Encounter No: 0531 Admission Date: 18/03/2019 Room No/Bed No: N/A

Breast Feeding  Pregnant  Discharge  G6PD **Update Status**

**DRAFT MEDICATIONS**

| Drug Details   | Order Type/Status | Actions  |
|--|-------------------|--|
|  W10000824379<br>Paracetamol 500 mg Tablet<br>1000 mg, BD (twice daily), 5 D, 04/10/2019 14:45:00 to 09/10/2019 14:45:00                              | Normal/<br>DRAFT  |           |
|  W10000824379<br>Simple Linctus Paed BP (Citric Acid 31.25mg/5ml Soln)<br>10ml, TDS (3 times a day), 6 D, 04/10/2019 12:02:00 to 10/10/2019 12:02:00 | Normal/<br>DRAFT  |      |

**ACTIVE CURRENT VISIT MEDICATIONS**

N/A

System IPHIS WAD 1

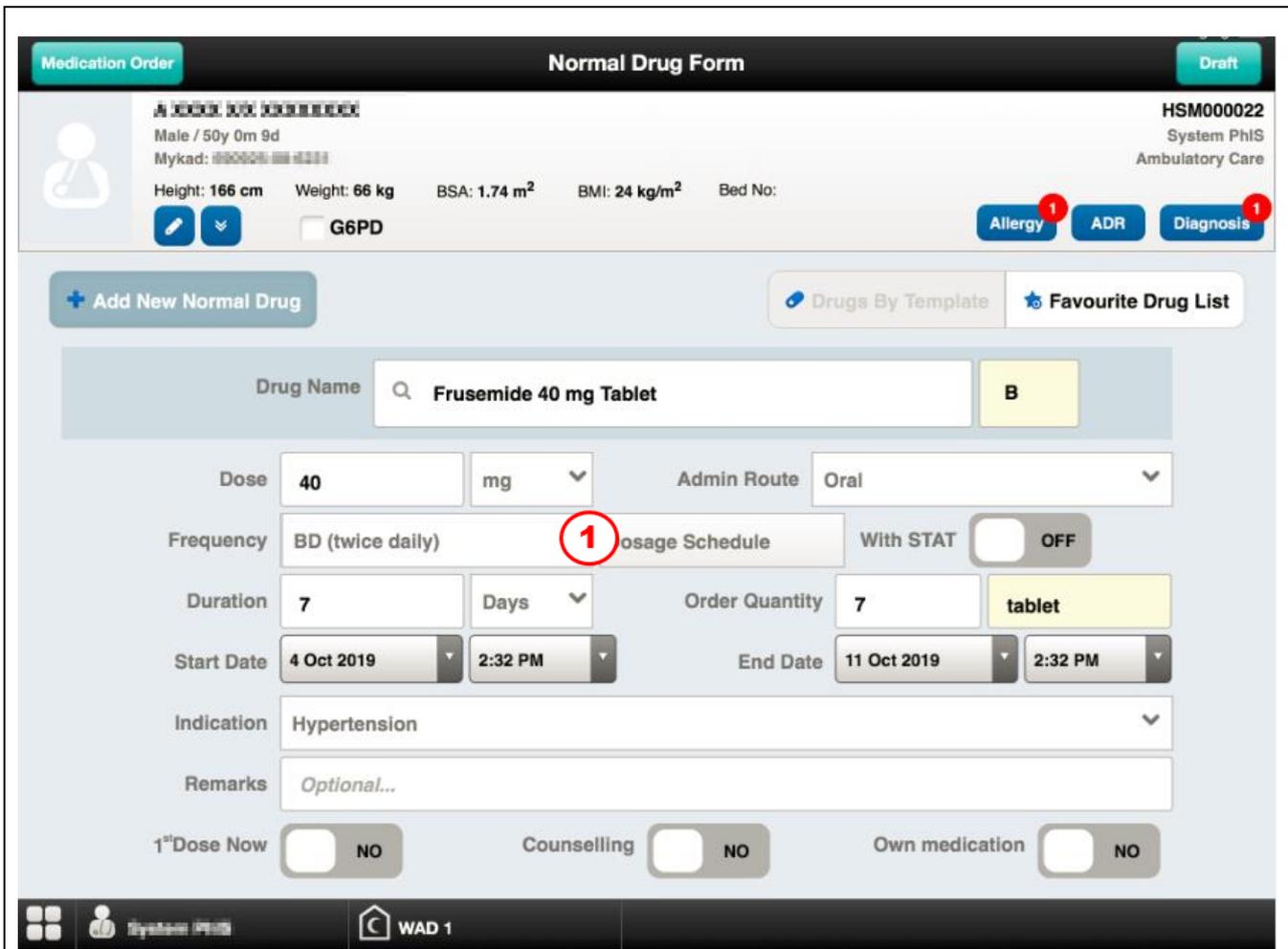
**Figure 3.1.4-3 Add to Favorites Option Screen**

**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.



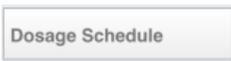
The screenshot shows the 'Normal Drug Form' screen. At the top, there's a 'Medication Order' header and a 'Draft' button. Patient details include 'Male / 50y 0m 9d', 'Mykad: 8809028-88-8333', 'Height: 166 cm', 'Weight: 66 kg', 'BSA: 1.74 m<sup>2</sup>', 'BMI: 24 kg/m<sup>2</sup>', and 'Bed No:'. There 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 '1<sup>st</sup> Dose Now', 'Counselling', and 'Own medication', all set to 'NO'.

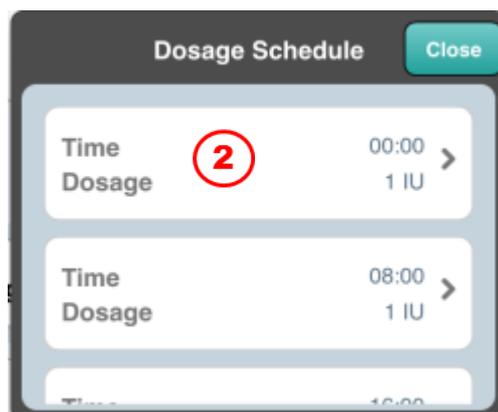
Figure 3.1.5-1 Normal Order Screen

**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. A red circle with the number '2' highlights the 'Dosage' field. 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

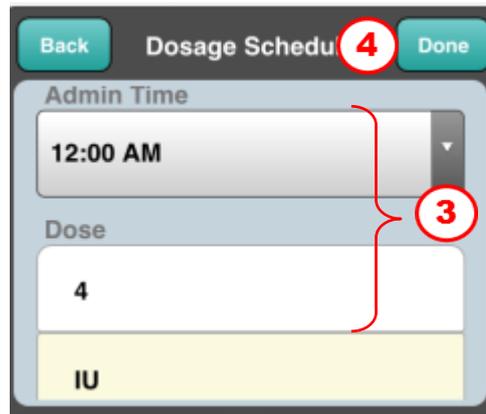


Figure 3.1.5-3 Split Dose Schedule Screen

### 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 maximum up to 8 times dose/time for frequency, example 6x/7x/8x Daily

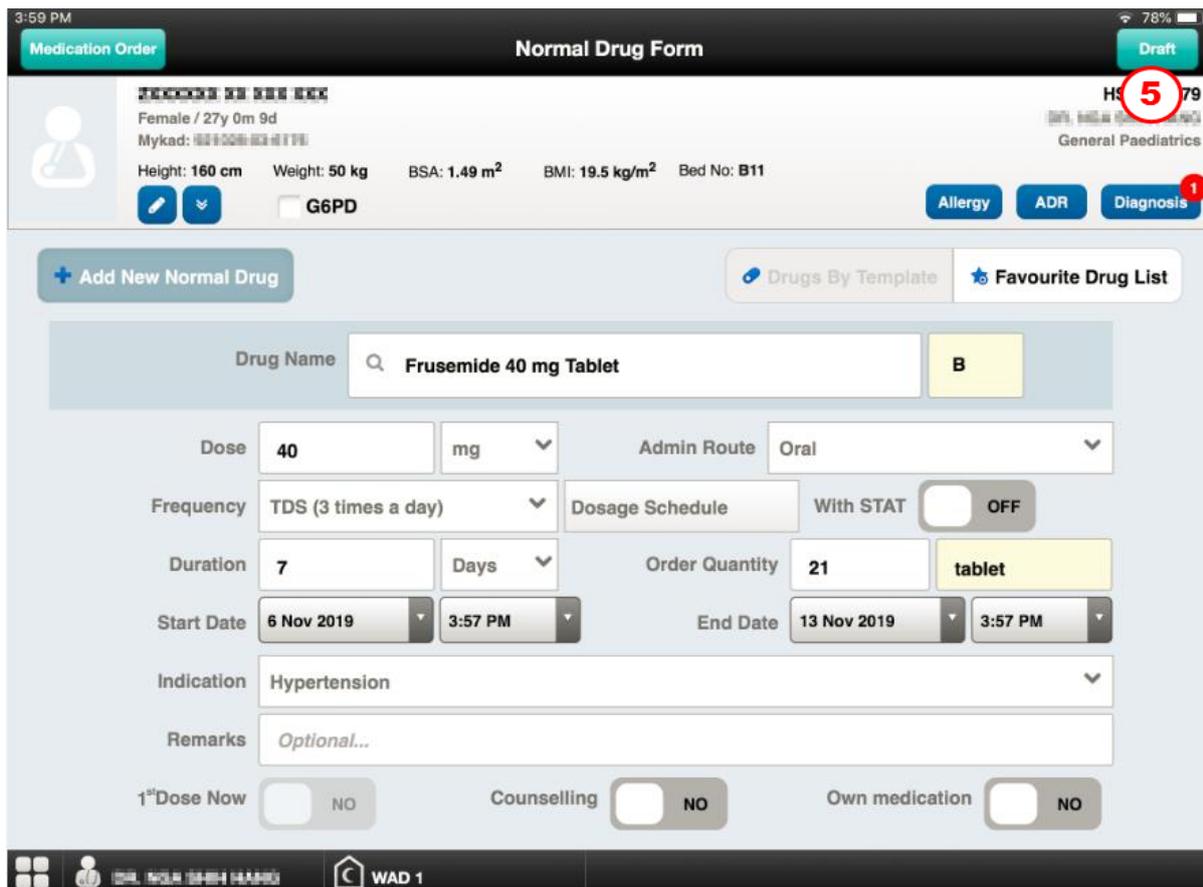


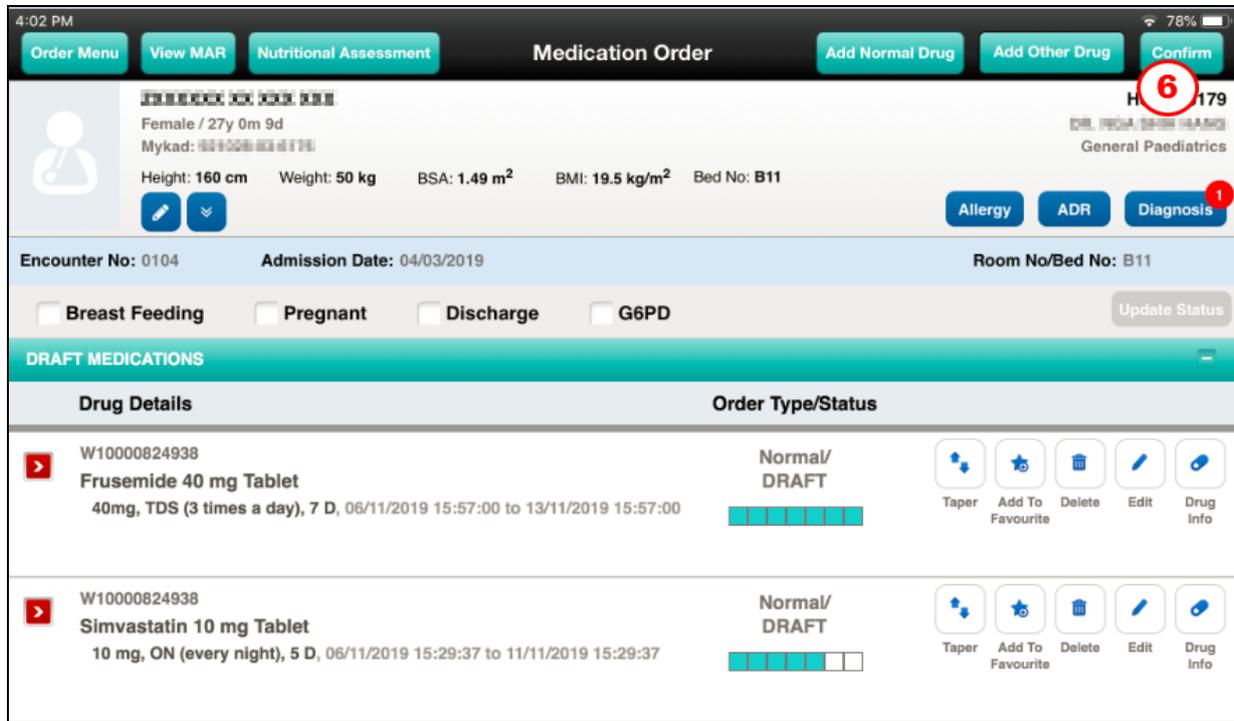
Figure 3.1.5-4 Order Screen

**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

### 3.1.6 Tapering

Tapering is a function to prescribe same drug with gradually decreasing or increasing the drug dosage by specific duration and time. Tapering drug functions divided into two (2) categories which are taper up / increase dosage or taper down /decrease dosage. Only selected drug which has been defined in drug master set up are allowed to do tapering.

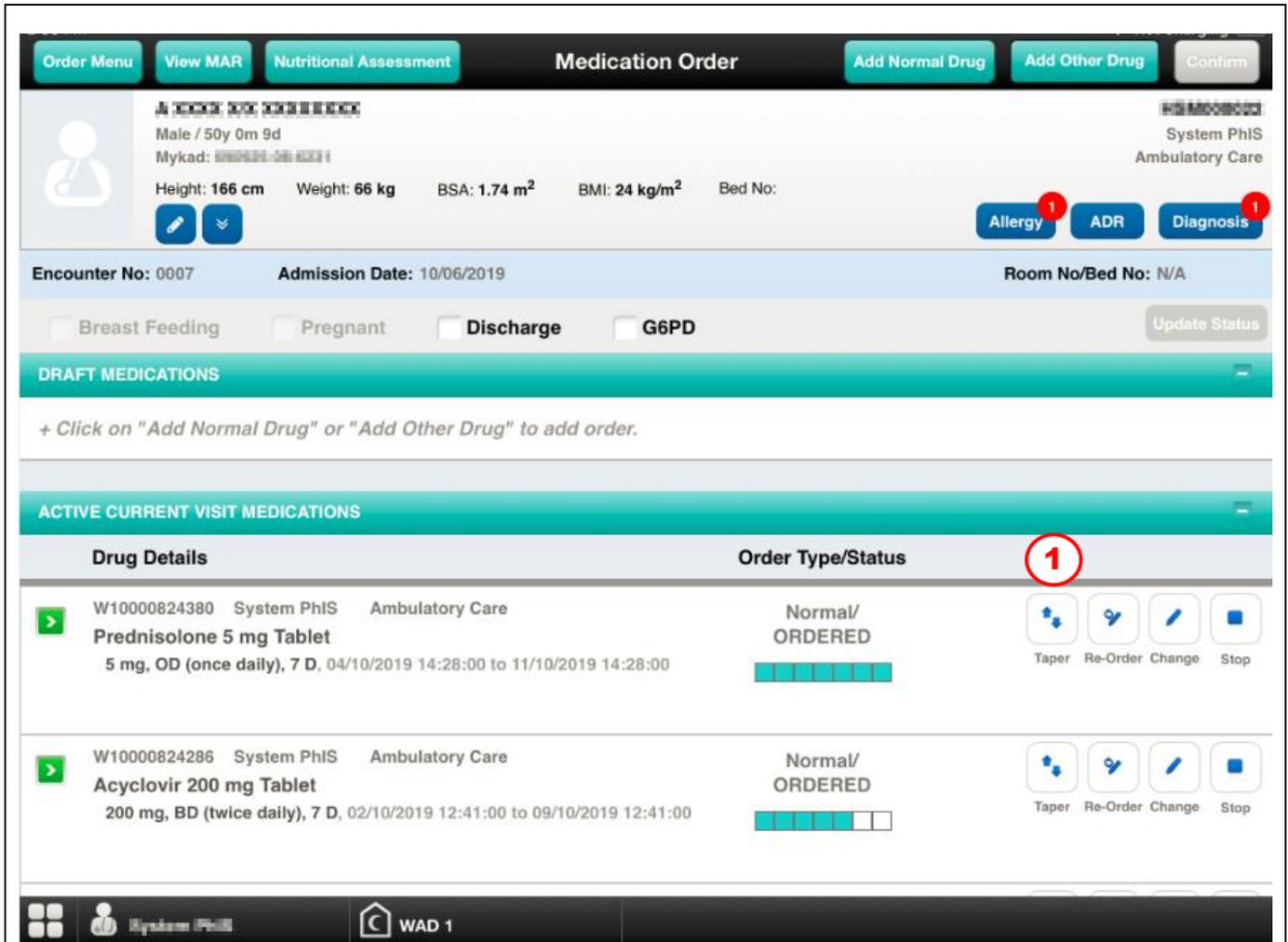


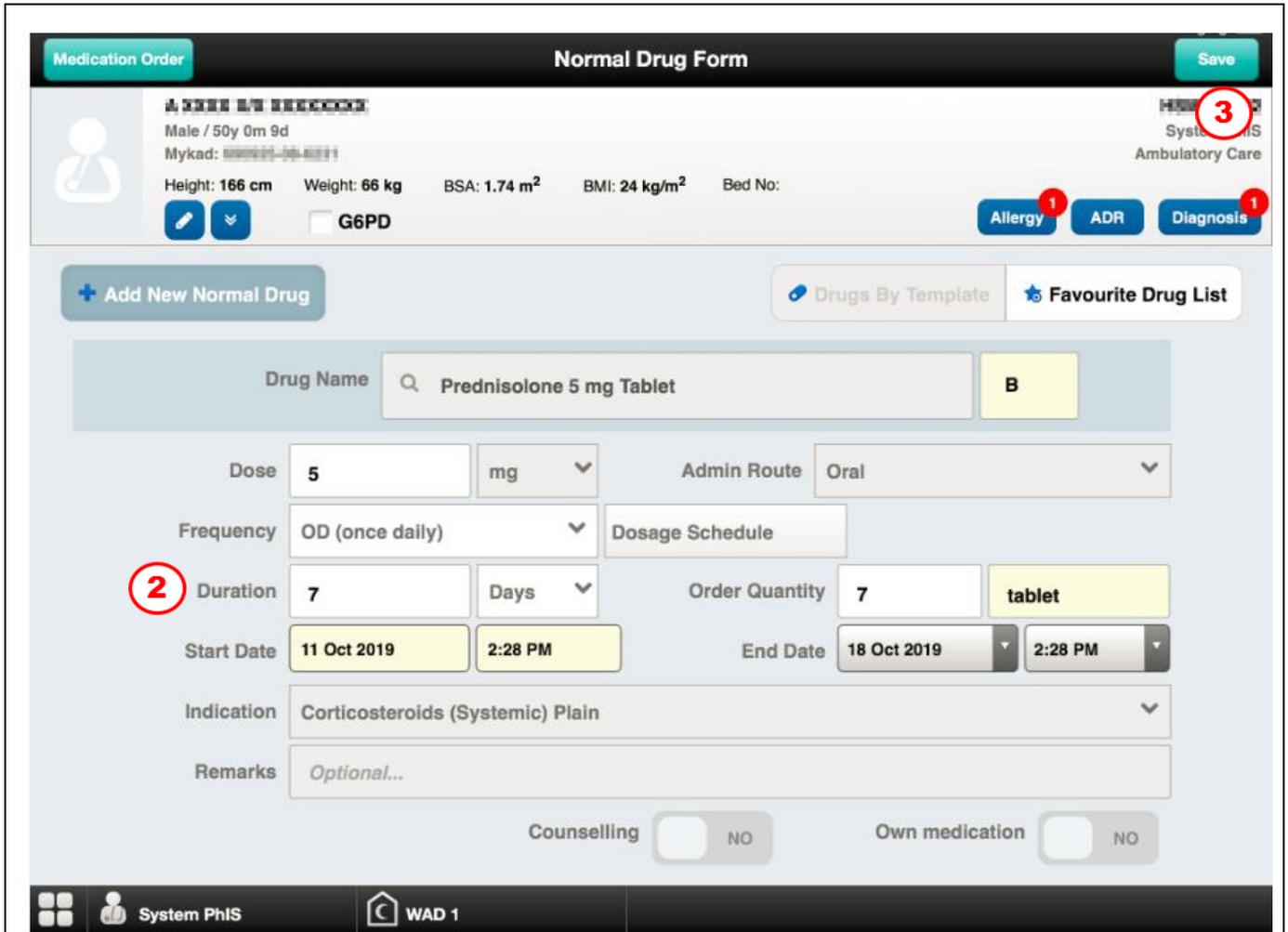
Figure 3.1.6-1 Order Screen

**Note**

To taper prescribed drug, order the first dose as normal order from **Step 1 to 7**.

**STEP 1**

Tap on the  button from the selected drug



The screenshot displays the 'Normal Drug Form' for a medication order. At the top, there are buttons for 'Medication Order', 'Normal Drug Form', and 'Save'. The patient information section includes a profile icon, gender/age (Male / 50y 0m 9d), Mykad, height (166 cm), weight (66 kg), BSA (1.74 m<sup>2</sup>), BMI (24 kg/m<sup>2</sup>), and bed number. There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. Below this is a section for adding new drugs, with options for 'Drugs By Template' and 'Favourite Drug List'. The main form area contains fields for 'Drug Name' (Prednisolone 5 mg Tablet), 'Dose' (5 mg), 'Admin Route' (Oral), 'Frequency' (OD (once daily)), '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), and 'Remarks' (Optional...). At the bottom, there are toggle switches for 'Counselling' and 'Own medication', both set to 'NO'. A bottom navigation bar shows 'System PhIS' and '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

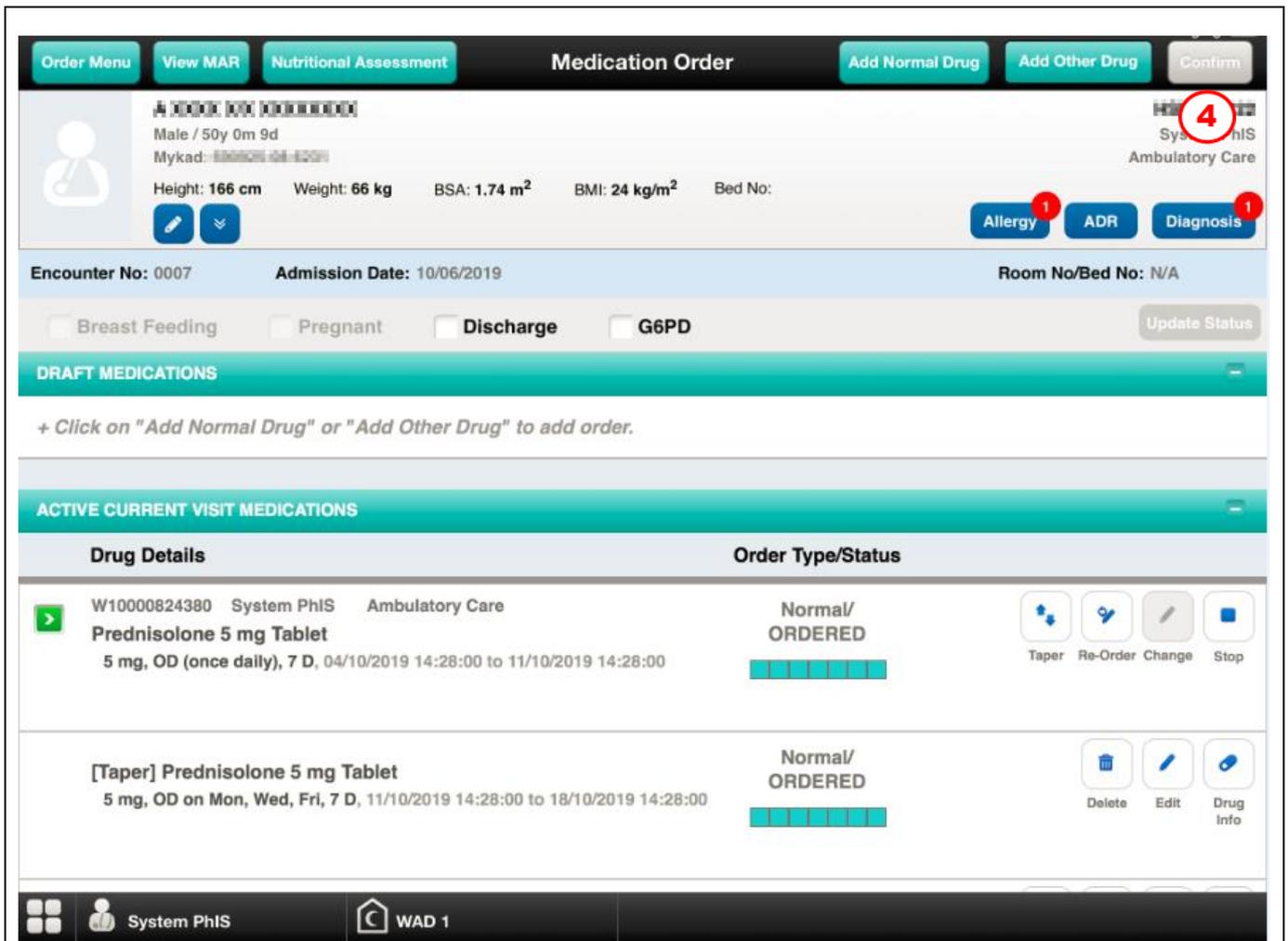


Figure 3.1.6-3 Normal Order Screen After Tapering

**Note**

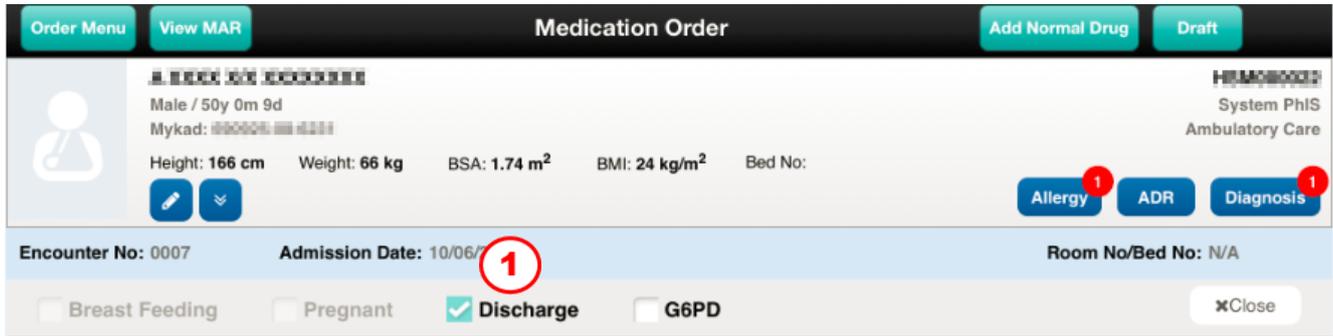
- Repeat **step 1 to 3** if another level of taper is required.
- To modify prescription, delete the latest tapering from the list.

**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.



**Medication Order**

Order Menu View MAR Add Normal Drug Draft

Male / 50y 0m 9d  
Mykad: ██████████  
Height: 166 cm Weight: 66 kg BSA: 1.74 m<sup>2</sup> BMI: 24 kg/m<sup>2</sup> Bed No: ██████████

System PhIS Ambulatory Care

Allergy ADR Diagnosis

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

Breast Feeding Pregnant  Discharge G6PD xClose

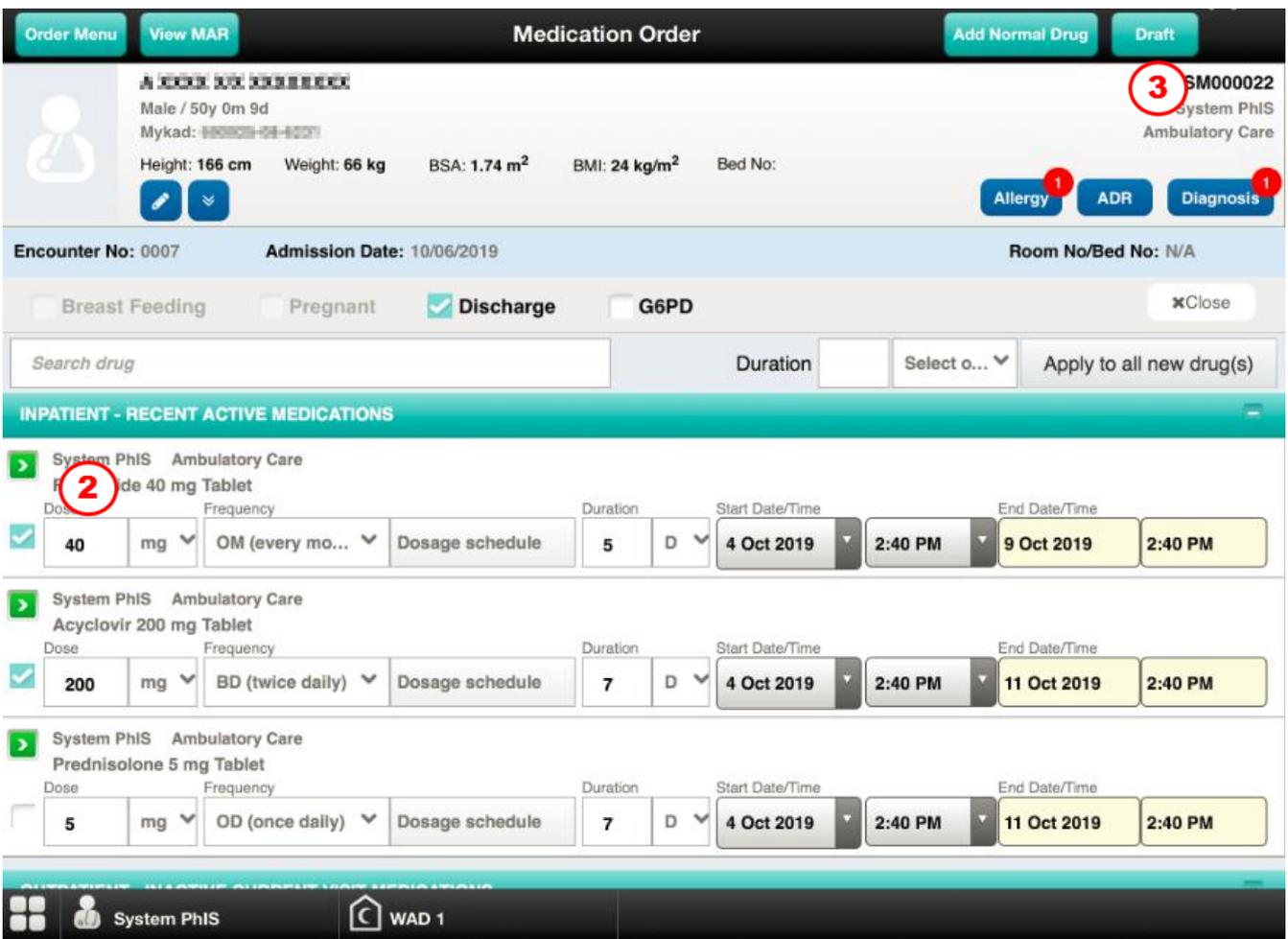
Figure 3.1.7-1 Normal Order Screen After Tapering

**Note**

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

**STEP 1**

Tap on the Discharge  checkbox



**Medication Order**

Order Menu View MAR Add Normal Drug Draft

Male / 50y 0m 9d  
Mykad: ██████████  
Height: 166 cm Weight: 66 kg BSA: 1.74 m<sup>2</sup> BMI: 24 kg/m<sup>2</sup> Bed No: ██████████

System PhIS Ambulatory Care

Allergy ADR Diagnosis

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

Breast Feeding Pregnant  Discharge G6PD xClose

Search drug Duration Select o... Apply to all new drug(s)

**INPATIENT - RECENT ACTIVE MEDICATIONS**

| System PhIS Ambulatory Care                                 | Dose   | Frequency        | Duration | Start Date/Time    | End Date/Time       |
|---|--------|------------------|----------|--------------------|---------------------|
| <input checked="" type="checkbox"/> 40 mg Tablet            | 40 mg  | OM (every mo...) | 5 D      | 4 Oct 2019 2:40 PM | 9 Oct 2019 2:40 PM  |
| <input checked="" type="checkbox"/> Acyclovir 200 mg Tablet | 200 mg | BD (twice daily) | 7 D      | 4 Oct 2019 2:40 PM | 11 Oct 2019 2:40 PM |
| <input type="checkbox"/> Prednisolone 5 mg Tablet           | 5 mg   | OD (once daily)  | 7 D      | 4 Oct 2019 2:40 PM | 11 Oct 2019 2:40 PM |

System PhIS WAD 1

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

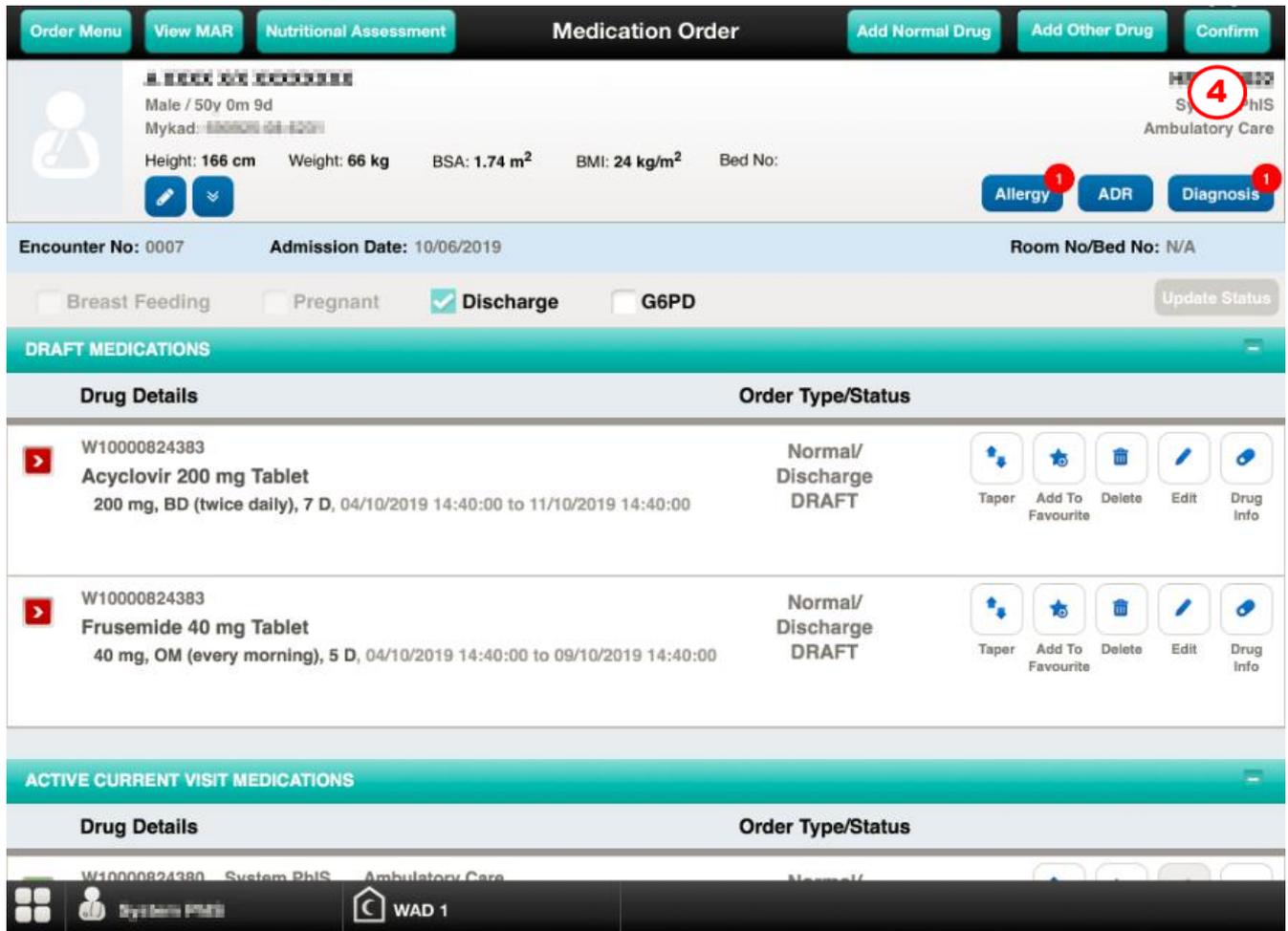


Figure 3.1.7-3 Normal Discharge Medication Screen

**STEP 4**

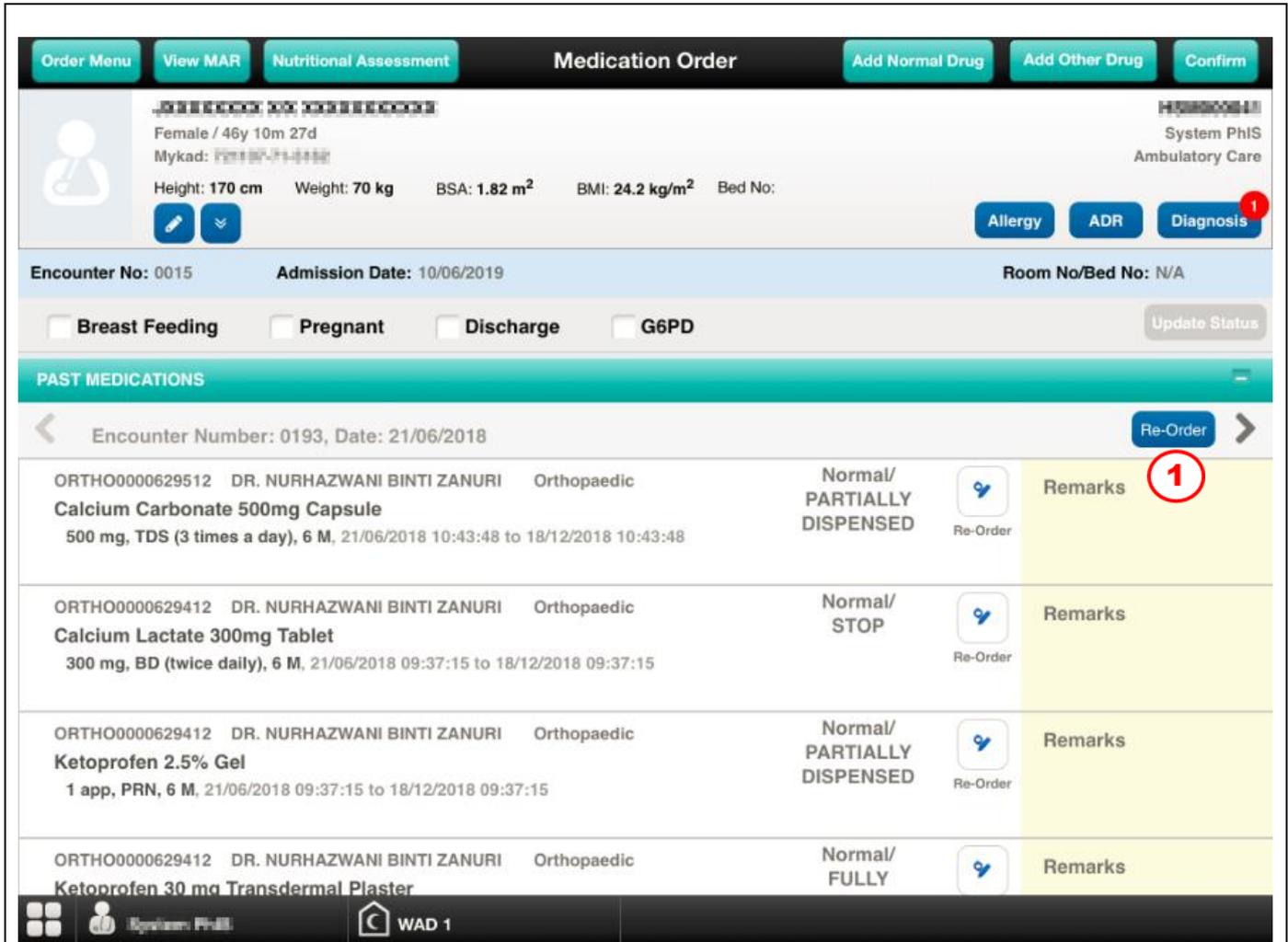
Tap on the **Confirm** button

**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' 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, patient information is shown: 'Female / 46y 10m 27d', 'Mykad: F20107-71-0111', 'Height: 170 cm', 'Weight: 70 kg', 'BSA: 1.82 m<sup>2</sup>', 'BMI: 24.2 kg/m<sup>2</sup>', and 'Bed No:'. There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. Encounter details include 'Encounter No: 0015', 'Admission Date: 10/06/2019', and 'Room No/Bed No: N/A'. A section for 'PAST MEDICATIONS' is visible, with a 'Re-Order' button highlighted in red and circled with a '1'. The list of past medications includes:

| Encounter Number | Date       | Drug Name                            | Status                     | Action   | Remarks |
|------------------|------------|--------------------------------------|----------------------------|----------|---------|
| 0193             | 21/06/2018 | Calcium Carbonate 500mg Capsule      | Normal/PARTIALLY DISPENSED | Re-Order | Remarks |
| 0193             | 21/06/2018 | Calcium Lactate 300mg Tablet         | Normal/STOP                | Re-Order | Remarks |
| 0193             | 21/06/2018 | Ketoprofen 2.5% Gel                  | Normal/PARTIALLY DISPENSED | Re-Order | Remarks |
| 0193             | 21/06/2018 | Ketoprofen 30 mg Transdermal Plaster | Normal/FULLY               | Re-Order | Remarks |

Figure 3.1-8-1 Medication Order Screen

#### STEP 1

Click on the  button

**Medication Order** Draft

Female / 46y 10m 27d  
Mykad:   
Height: 170 cm Weight: 70 kg BSA: 1.82 m<sup>2</sup> BMI: 24.2 kg/m<sup>2</sup> 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**

| Drug Name   | Dose   | Frequency          | Dosage schedule | Duration | Start Date/Time    | End Date/Time      |
|---|--------|--------------------|-----------------|----------|--------------------|--------------------|
| DR. HUSNULNABAH BINTI ISMAIL Orthopaedic<br>Calcium Carbonate 500mg Capsule | mg     | TDS (3 times a...) | Dosage schedule | 6 M      | 4 Oct 2019 2:48 PM | 4 Apr 2020 2:48 PM |
| DR. HUSNULNABAH BINTI ISMAIL Orthopaedic<br>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. HUSNULNABAH BINTI ISMAIL Orthopaedic<br>Ketoprofen 2.5% Gel             | 1 app  | PRN                | Dosage schedule | 6 M      | 4 Oct 2019 2:48 PM | 4 Apr 2020 2:48 PM |

System PMR WAD 1

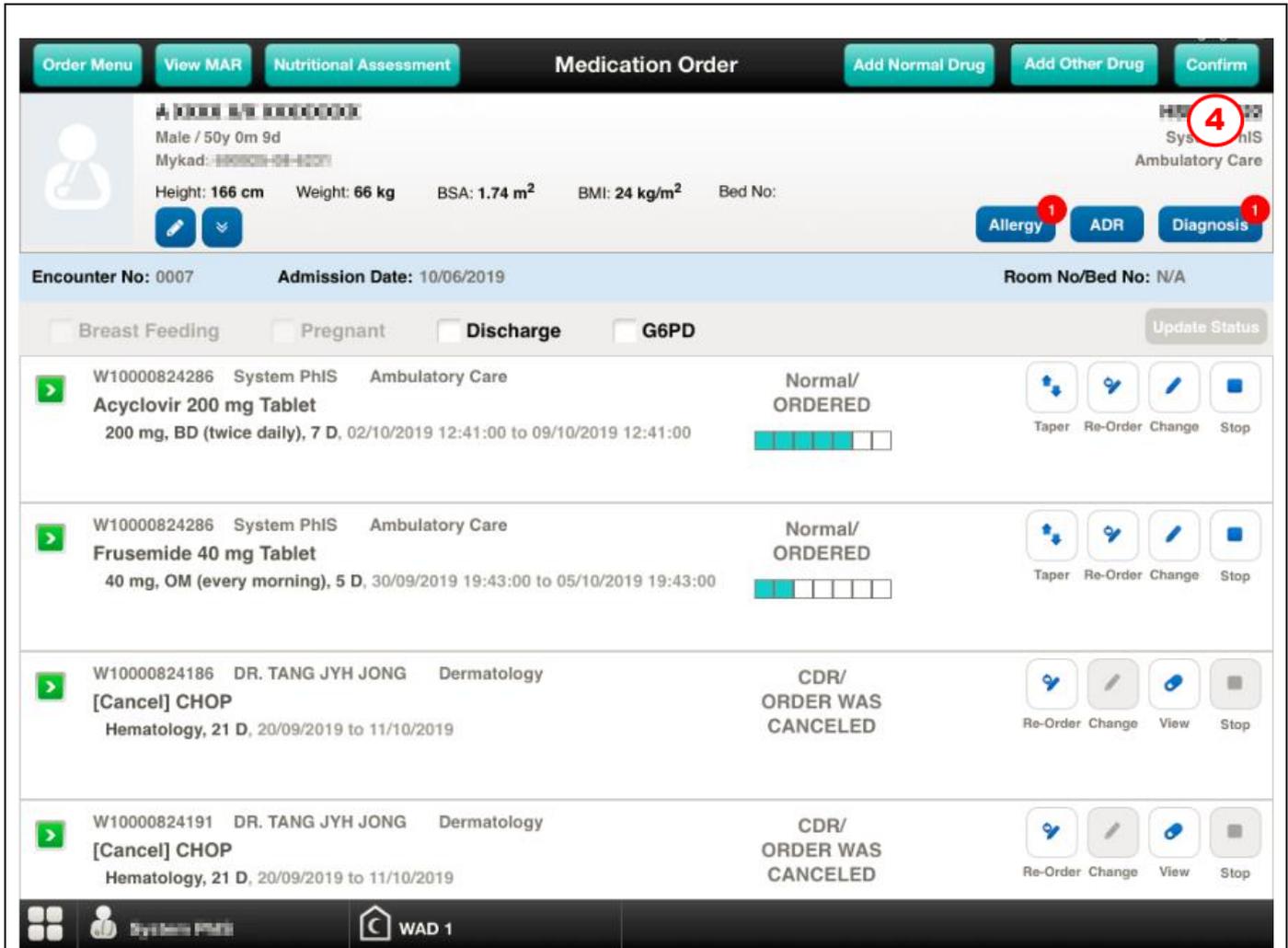
Figure 3.1-8-2 Medication Profile Screen

**STEP 2**

Tap on the  checkbox to select drugs that want to renew

**STEP 3**

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



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 'Confirm' button is circled in red with the number '4'. Below the navigation bar, patient information is shown: 'Male / 50y 0m 9d', 'Mykad: [redacted]', 'Height: 166 cm', 'Weight: 66 kg', 'BSA: 1.74 m<sup>2</sup>', 'BMI: 24 kg/m<sup>2</sup>', and 'Bed No:'. There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. Encounter details include 'Encounter No: 0007', 'Admission Date: 10/06/2019', 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 main area lists medication orders:

- Acyclovir 200 mg Tablet**: 200 mg, BD (twice daily), 7 D, 02/10/2019 12:41:00 to 09/10/2019 12:41:00. Status: Normal/ORDERED. Actions: Taper, Re-Order, Change, Stop.
- 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/ORDERED. Actions: Taper, Re-Order, Change, Stop.
- [Cancel] CHOP**: Hematology, 21 D, 20/09/2019 to 11/10/2019. Status: CDR/ORDER WAS CANCELED. Actions: Re-Order, Change, View, Stop.
- [Cancel] CHOP**: Hematology, 21 D, 20/09/2019 to 11/10/2019. Status: CDR/ORDER WAS CANCELED. Actions: Re-Order, Change, View, Stop.

The bottom navigation bar includes a home icon, 'System PhIS', and 'WAD 1'.

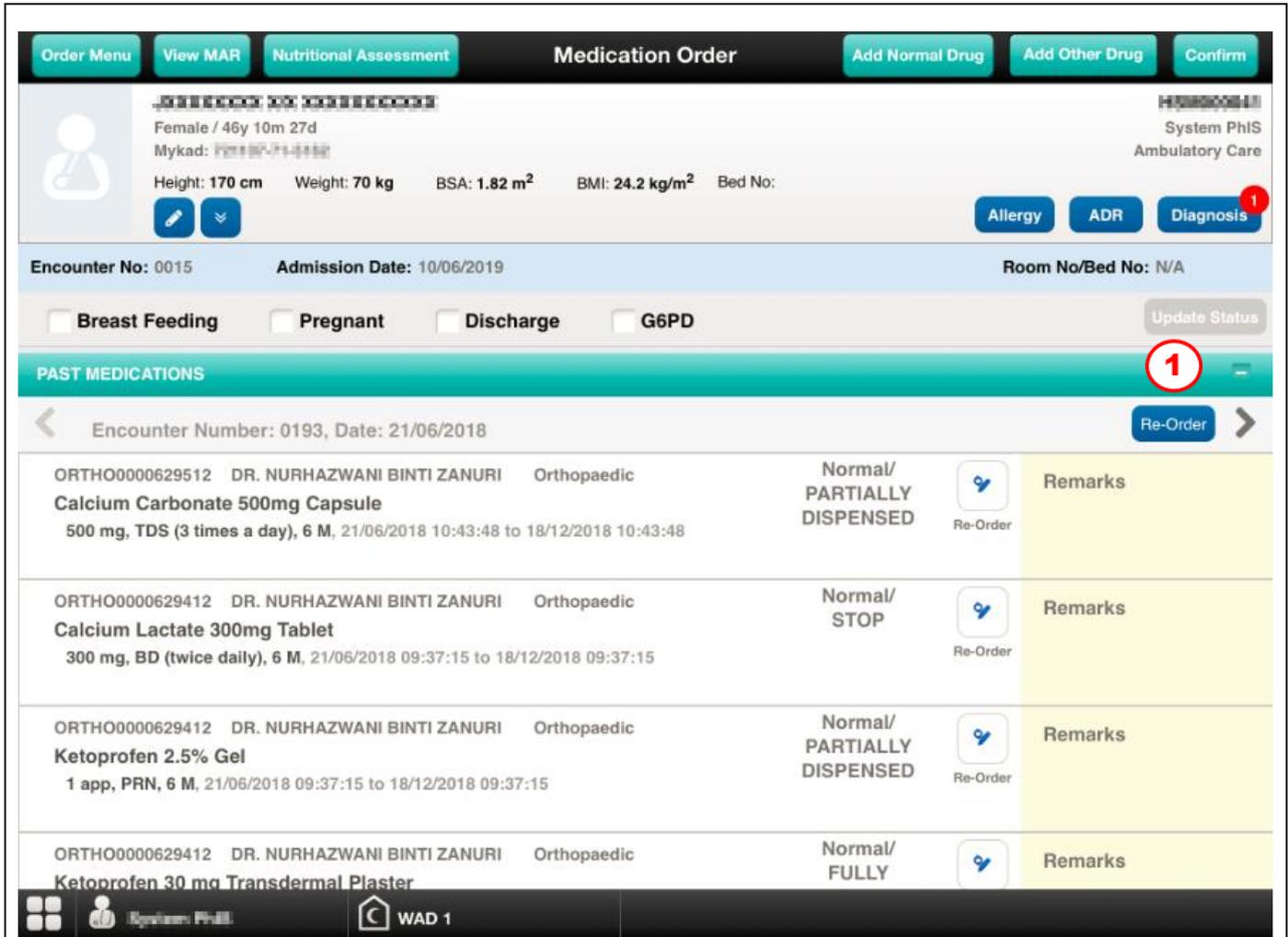
Figure 3.1-8-3 Normal Order Screen

**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 information is shown: Female / 46y 10m 27d, Mykad: [redacted], Height: 170 cm, Weight: 70 kg, BSA: 1.82 m<sup>2</sup>, BMI: 24.2 kg/m<sup>2</sup>, and Bed No: [redacted]. There are buttons for Allergy, ADR, and Diagnosis (with a red '1' notification). Encounter No: 0015, Admission Date: 10/06/2019, and Room No/Bed No: N/A are also visible. A section for 'PAST MEDICATIONS' is highlighted with a red circle and '1'. It lists four medications with their respective status and a 'Re-Order' button for each. The first medication is Calcium Carbonate 500mg Capsule, with a status of 'Normal/PARTIALLY DISPENSED'. The second is Calcium Lactate 300mg Tablet, with a status of 'Normal/STOP'. The third is Ketoprofen 2.5% Gel, with a status of 'Normal/PARTIALLY DISPENSED'. The fourth is Ketoprofen 30 mg Transdermal Plaster, with a status of 'Normal/FULLY'. The bottom navigation bar includes icons for home, back, and a 'WAD 1' indicator.

Figure 3.1-9-1 Medication Order Screen

#### STEP 1

Click on the  button

**Medication Order** Draft

Female / 46y 10m 27d  
Mykad: F0000-P1-0000  
Height: 170 cm Weight: 70 kg BSA: 1.82 m<sup>2</sup> BMI: 24.2 kg/m<sup>2</sup> 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      |
|---|--------|--------------------|----------|--------------------|--------------------|
| Orthopaedic<br>m Carbonate 500mg Capsule    | 500 mg | TDS (3 times a...) | 6 M      | 4 Oct 2019 2:48 PM | 4 Apr 2020 2:48 PM |
| Orthopaedic<br>Calcium Lactate 300mg Tablet | 300 mg | BD (twice daily)   | 6 M      | 4 Oct 2019 2:48 PM | 4 Apr 2020 2:48 PM |
| Orthopaedic<br>Ketoprofen 2.5% Gel          | 1 app  | PRN                | 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'. The patient information section includes a profile icon, name, gender/age (Male / 50y 0m 9d), Mykad, height (166 cm), weight (66 kg), BSA (1.74 m<sup>2</sup>), BMI (24 kg/m<sup>2</sup>), and Bed No. There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. The encounter details section shows '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 medication list contains four entries:

- 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. Status: Normal/ORDERED. Actions: Taper, Re-Order, Change, Stop.
- 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/ORDERED. Actions: Taper, Re-Order, Change, Stop.
- W10000824186 DR. TAMU JYH JOHO Dermatology: [Cancel] CHOP, Hematology, 21 D, 20/09/2019 to 11/10/2019. Status: CDR/ORDER WAS CANCELED. Actions: Re-Order, Change, View, Stop.
- W10000824191 DR. TAMU JYH JOHO Dermatology: [Cancel] CHOP, Hematology, 21 D, 20/09/2019 to 11/10/2019. Status: CDR/ORDER WAS CANCELED. Actions: Re-Order, Change, View, Stop.

The bottom navigation bar shows a grid icon, a profile icon, 'System PhIS', a home icon, and 'WAD 1'.

Figure 3.1-9-3 Normal Order Screen

**STEP 4**

The user should 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. 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: 880001-08-8001, Height: 166 cm, Weight: 66 kg, BSA: 1.74 m<sup>2</sup>, BMI: 24 kg/m<sup>2</sup>, and Bed No: [redacted]. There are also buttons for Allergy, ADR, and Diagnosis, with red circles and the number '1' next to them. Encounter No: 0007, Admission Date: 10/06/2019, and Room No/Bed No: N/A are displayed. Below this, there are checkboxes for Breast Feeding, Pregnant, Discharge, and G6PD, and a Status button with a red circle and the number '1'. The main area shows a list of medication orders:

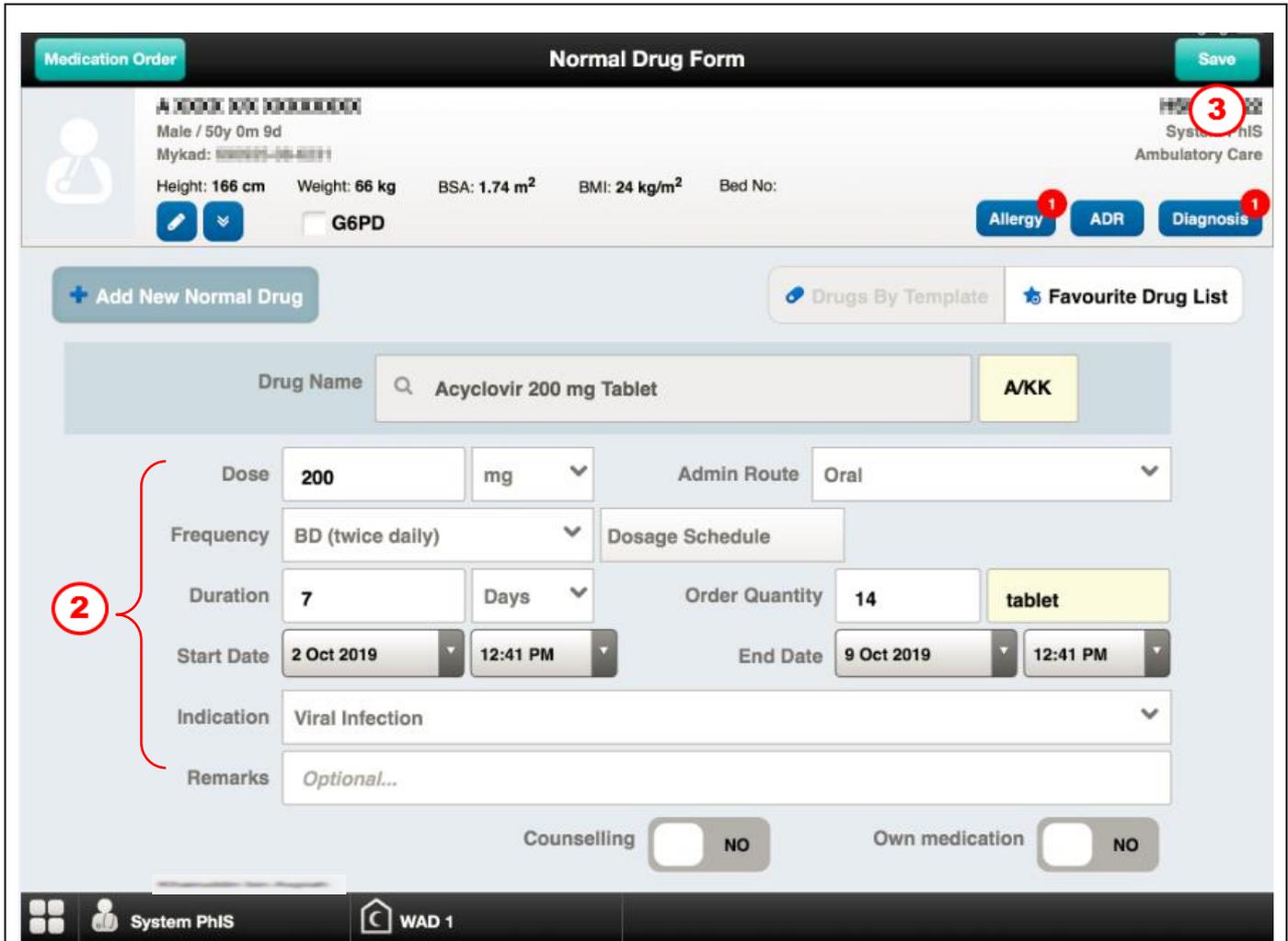
| Order ID     | System            | Care Type       | Drug Name               | Dosage/Freq  | Status                 | Actions                       |
|--------------|-------------------|-----------------|-------------------------|--|------------------------|-------------------------------|
| W10000824286 | 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  |

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

Figure 3.1-10-1 Medication Order Screen

#### STEP 1

Tap on the  button to modify the drug details



The screenshot displays the 'Medication Order' screen for a 'Normal Drug Form'. At the top, there is a 'Save' button (circled 3) and a patient profile section with fields for gender, age, height, weight, BSA, BMI, and bed number. Below this are buttons for 'Allergy', 'ADR', and 'Diagnosis' (each with a circled 1). The main area features a search bar for 'Drug Name' containing 'Acyclovir 200 mg Tablet' and an 'A/KK' button. A bracket (circled 2) groups the 'Dose' (200 mg), 'Frequency' (BD twice daily), and 'Duration' (7 Days) fields. Other fields include 'Admin Route' (Oral), 'Dosage Schedule', 'Order Quantity' (14 tablet), 'Start Date' (2 Oct 2019, 12:41 PM), 'End Date' (9 Oct 2019, 12:41 PM), 'Indication' (Viral Infection), and 'Remarks' (Optional...). At the bottom, there are 'Counselling' and 'Own medication' toggle switches, both set to 'NO'. The footer shows 'System PhIS' and 'WAD 1'.

Figure 3.1-10-2 Medication Profile Screen

**STEP 2**

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

**STEP 3**

Tap on the **Save** button to save the changes

### 3.1.11 Stop

Prescriber is allowed to stop current medication.

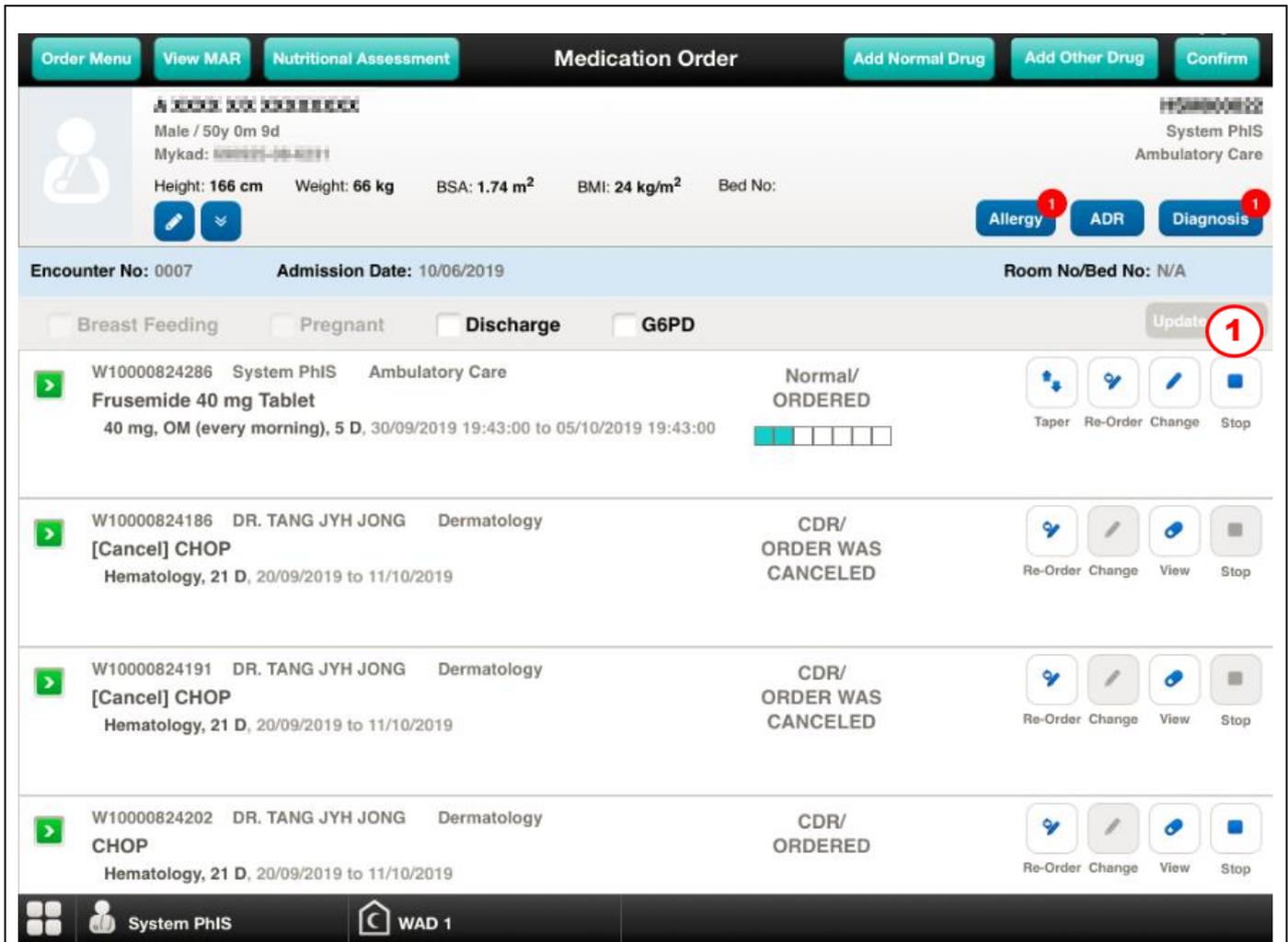


Figure 3.1-11-1 Medication Order Screen

#### STEP 1

Click on the  button to stop the drug

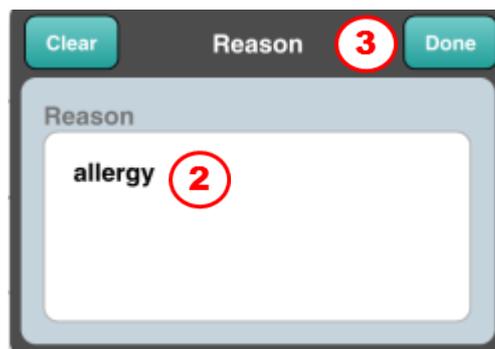


Figure 3.1-11-2 Stop Reason screen

**STEP 2**

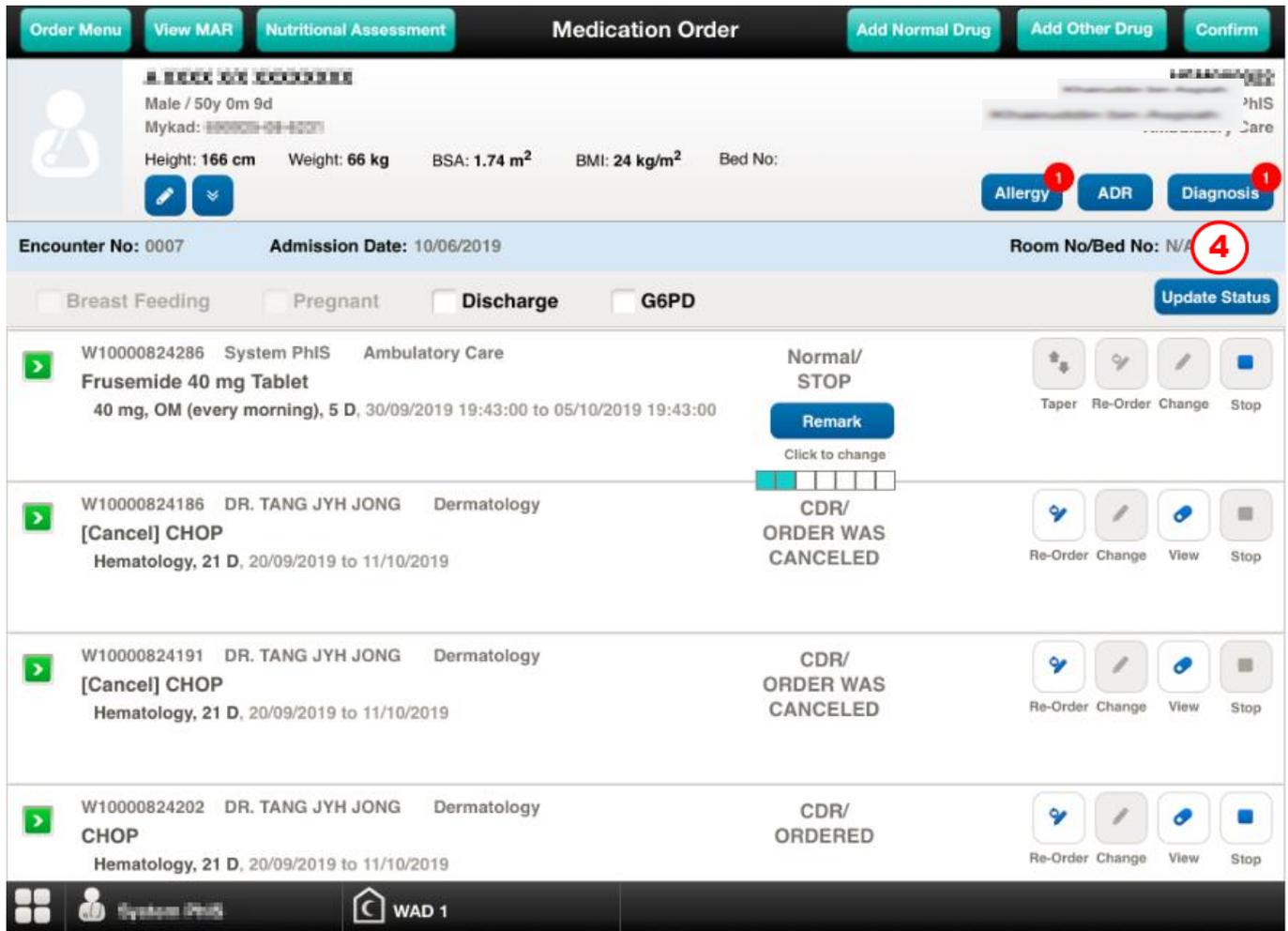
Enter reason in the displayed window as per Figure 3.1-11-2

**Note**

Stop Remarks is not mandatory

**STEP 3**

Tap on **Done** to update stop remarks.



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, patient information is shown: 'Male / 50y 0m 9d', 'Mykad: 880002-08-8001', 'Height: 166 cm', 'Weight: 66 kg', 'BSA: 1.74 m<sup>2</sup>', 'BMI: 24 kg/m<sup>2</sup>', and 'Bed No:'. There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. The encounter information includes 'Encounter No: 0007', 'Admission Date: 10/06/2019', and 'Room No/Bed No: N/A' (with a red circle and '4' next to it). Below this, there are checkboxes for 'Breast Feeding', 'Pregnant', 'Discharge', and 'G6PD', along with an 'Update Status' button. The main area lists medication orders:

- 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).
- W10000824186 DR. TANG JYH JONG Dermatology: [Cancel] CHOP, Hematology, 21 D, 20/09/2019 to 11/10/2019. Status: CDR/ ORDER WAS CANCELED. Actions: 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. Actions: 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. Actions: 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.

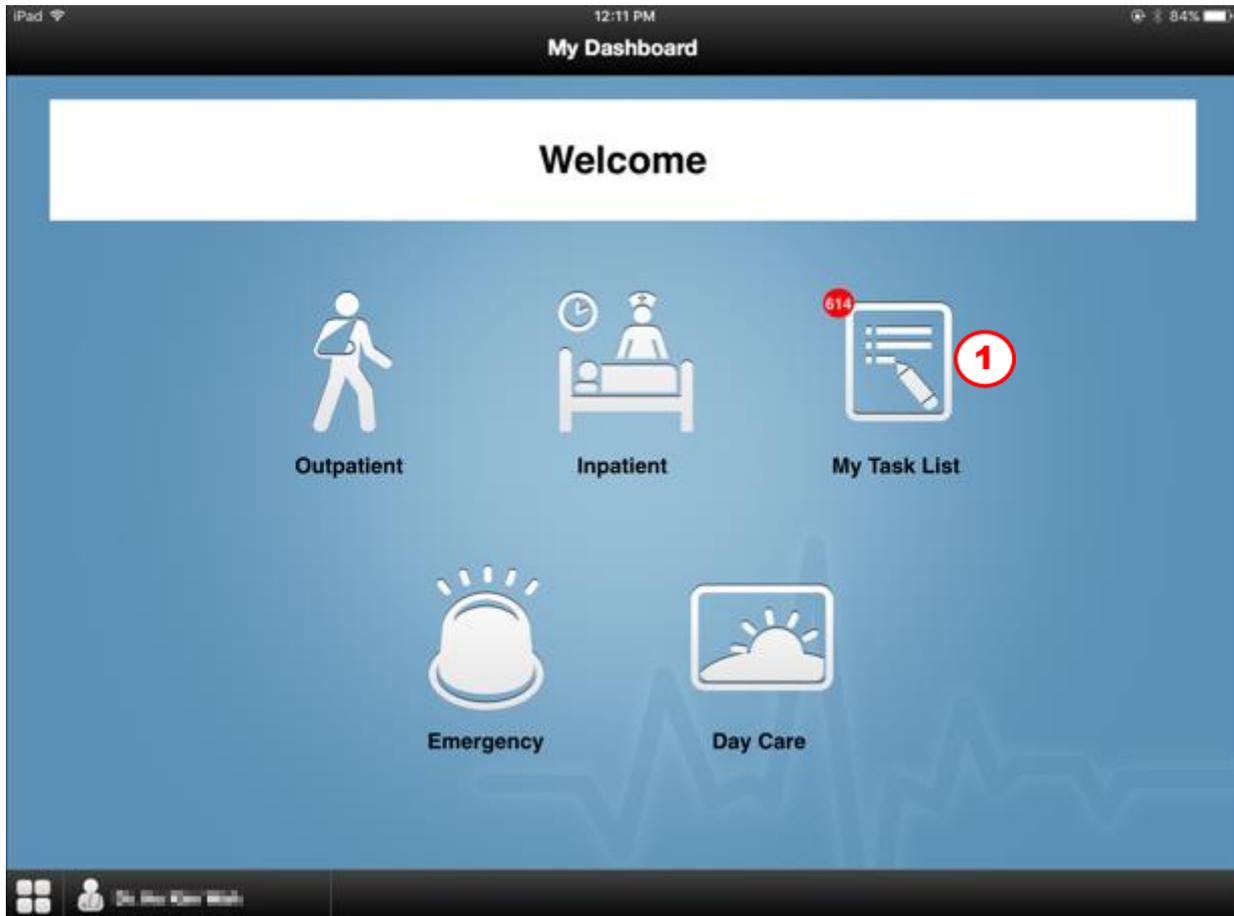


Figure 3.2-1 Home Page Listing Screen

#### STEP 1

Tap on **My Task List** menu

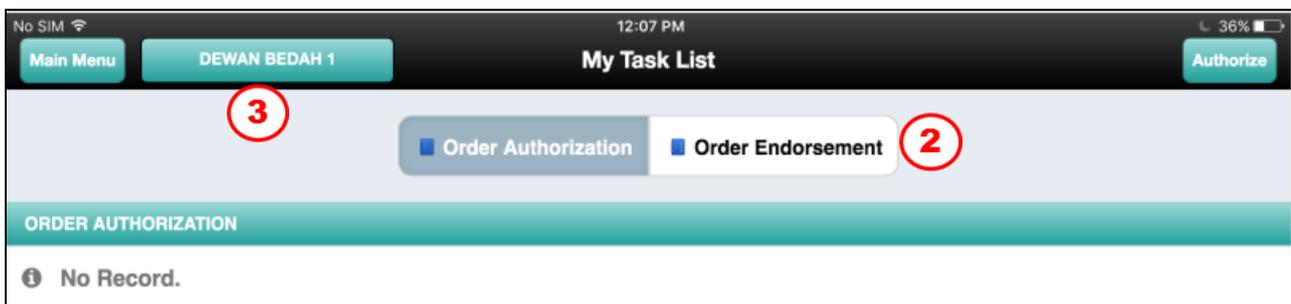


Figure 3.2-2 Endorsement Listing Screen

#### STEP 2

Tap on **Order Endorsement** tab to search endorsement listing

#### STEP 3

Tap on the location button e.g. **DEWAN BEDAH 1** to search patient

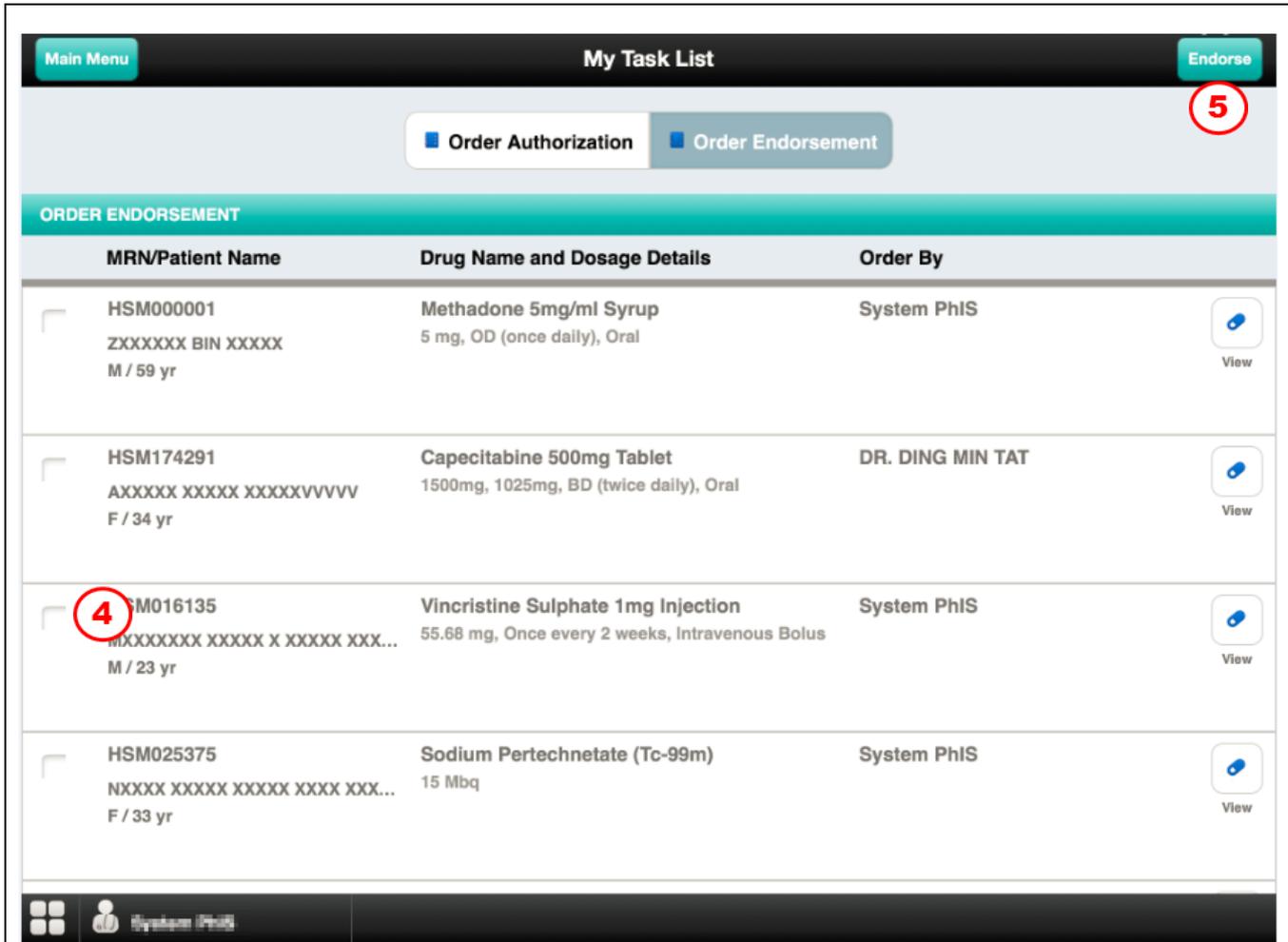


Figure 3.2-3 Endorsement Screen

**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

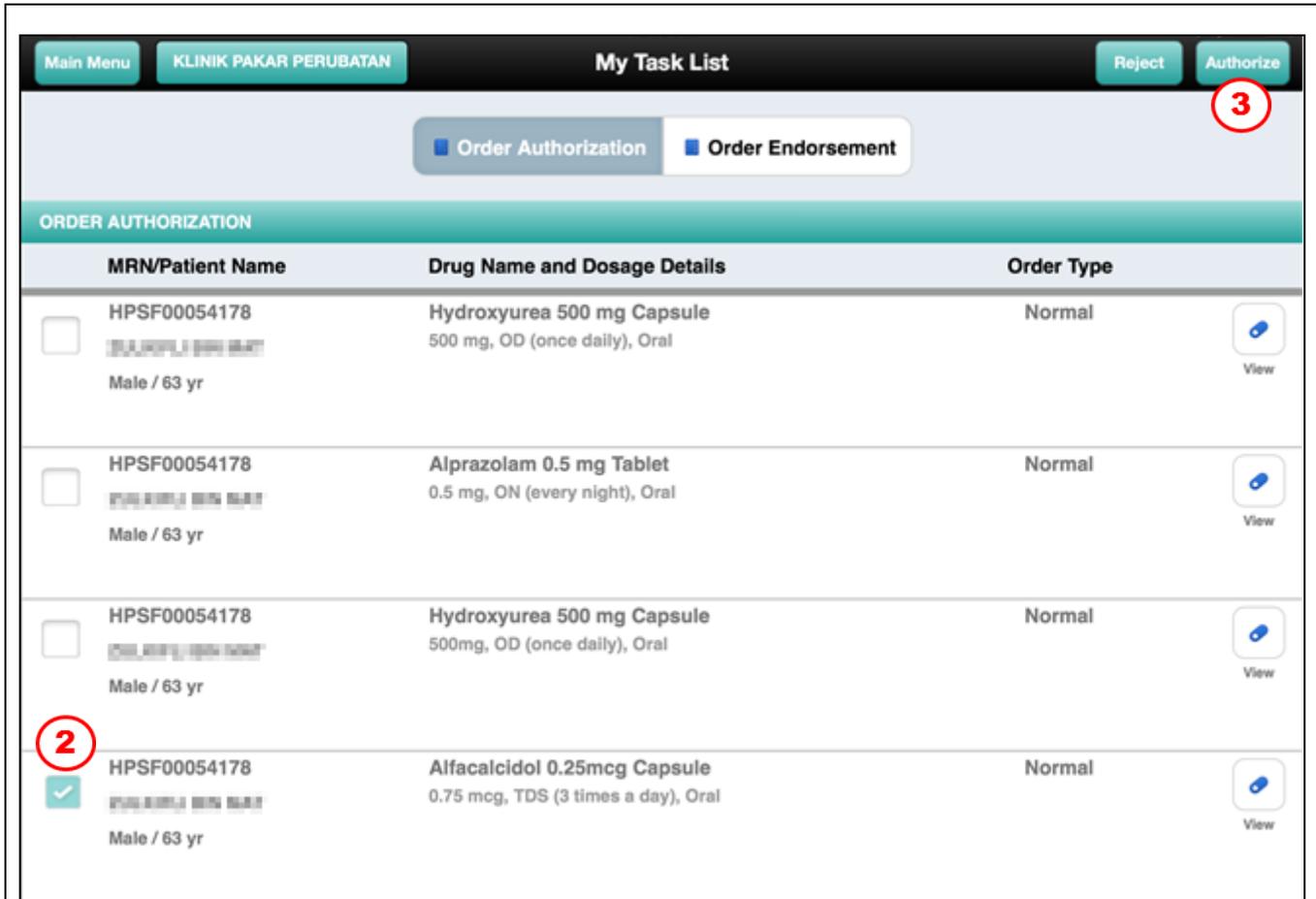
This function is used by specialist or authorised person to approve list A/ A\*/ A/KK drug that requires authorisation.



Figure 3.3-1 Listing Screen

#### STEP 1

Tap on the *My Task List* menu



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

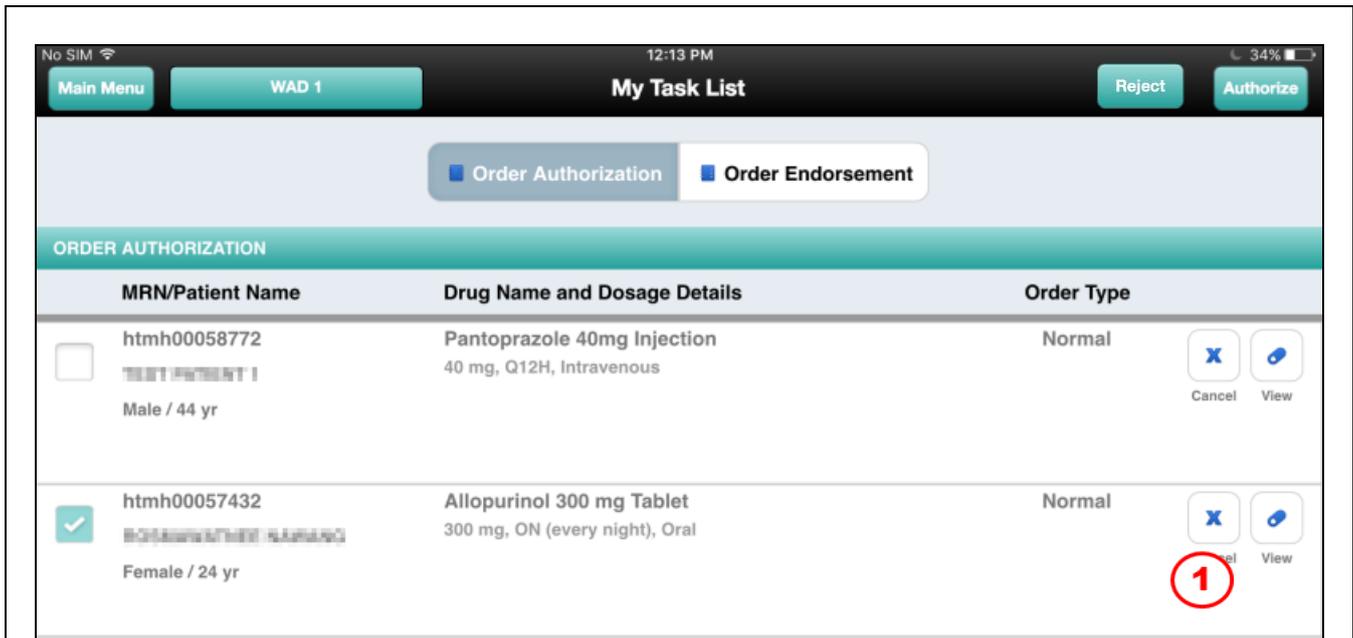


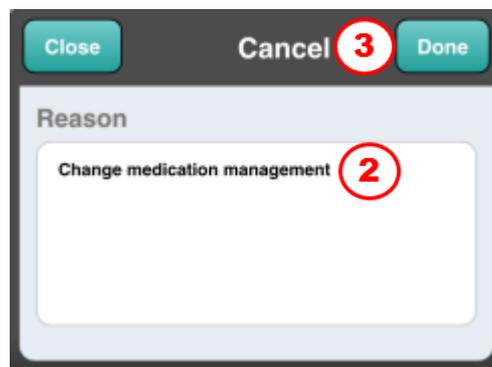
Figure 3.3-1 Order Authorisation Screen

**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**

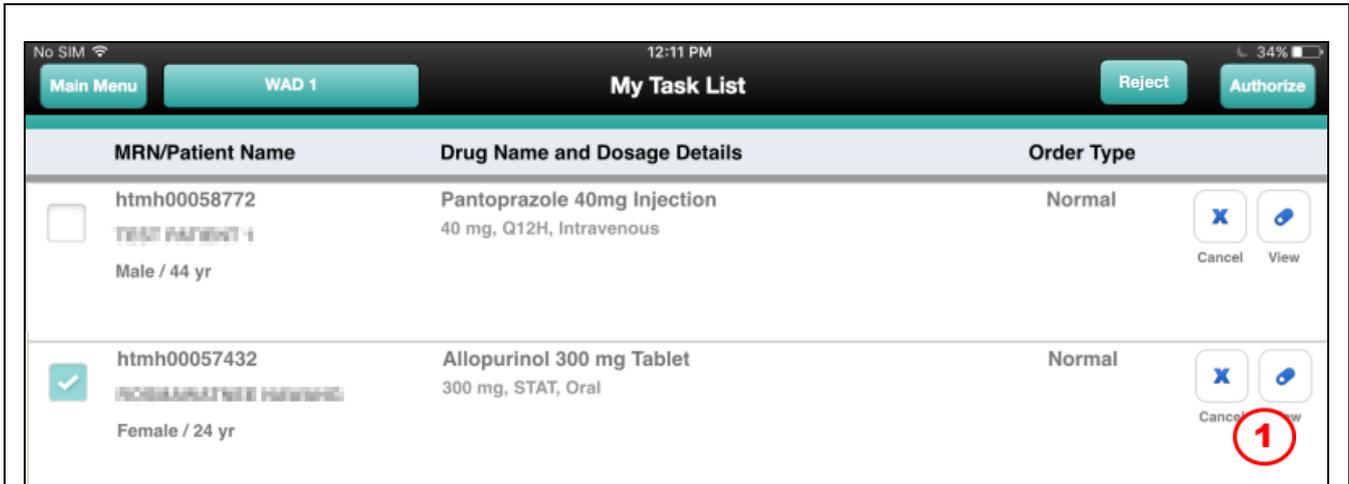
Tap on the  button to confirm the cancellation

**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.



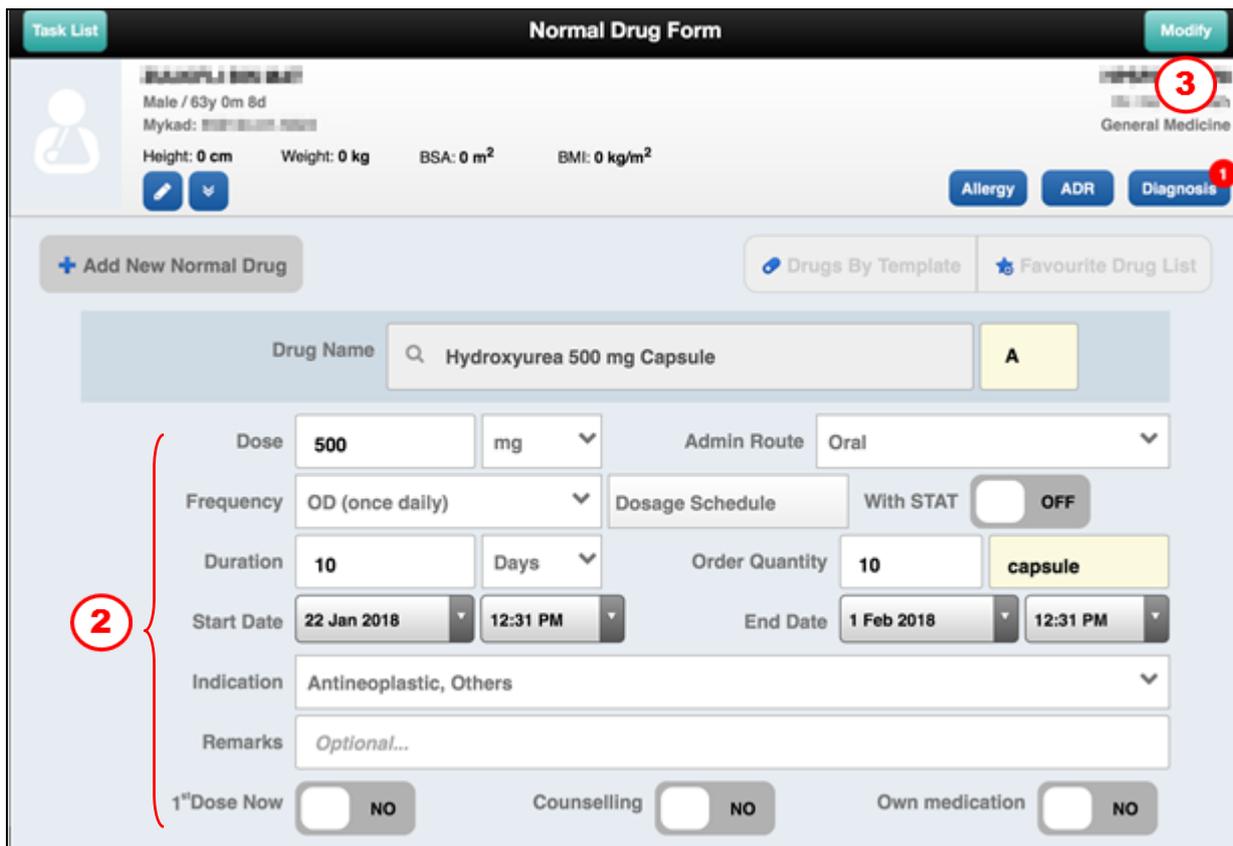
#### 3.3.2-1 Order Authorisation Screen

**Note**

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

**STEP 1**

Tap on the  button to view the drug



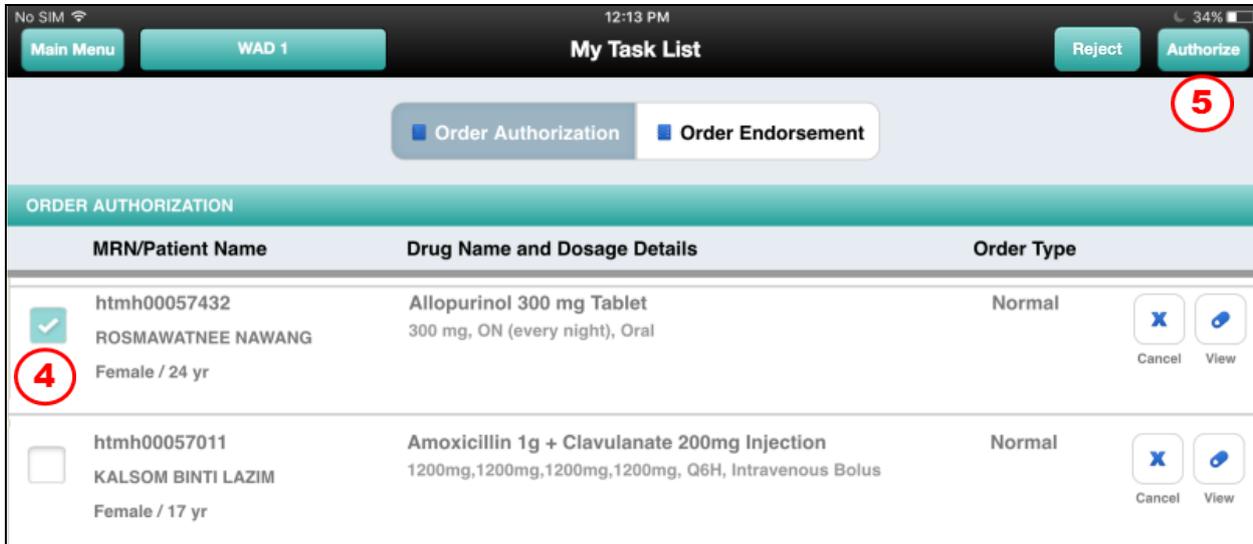
#### 3.3.2-2 Order Authorisation Screen

**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

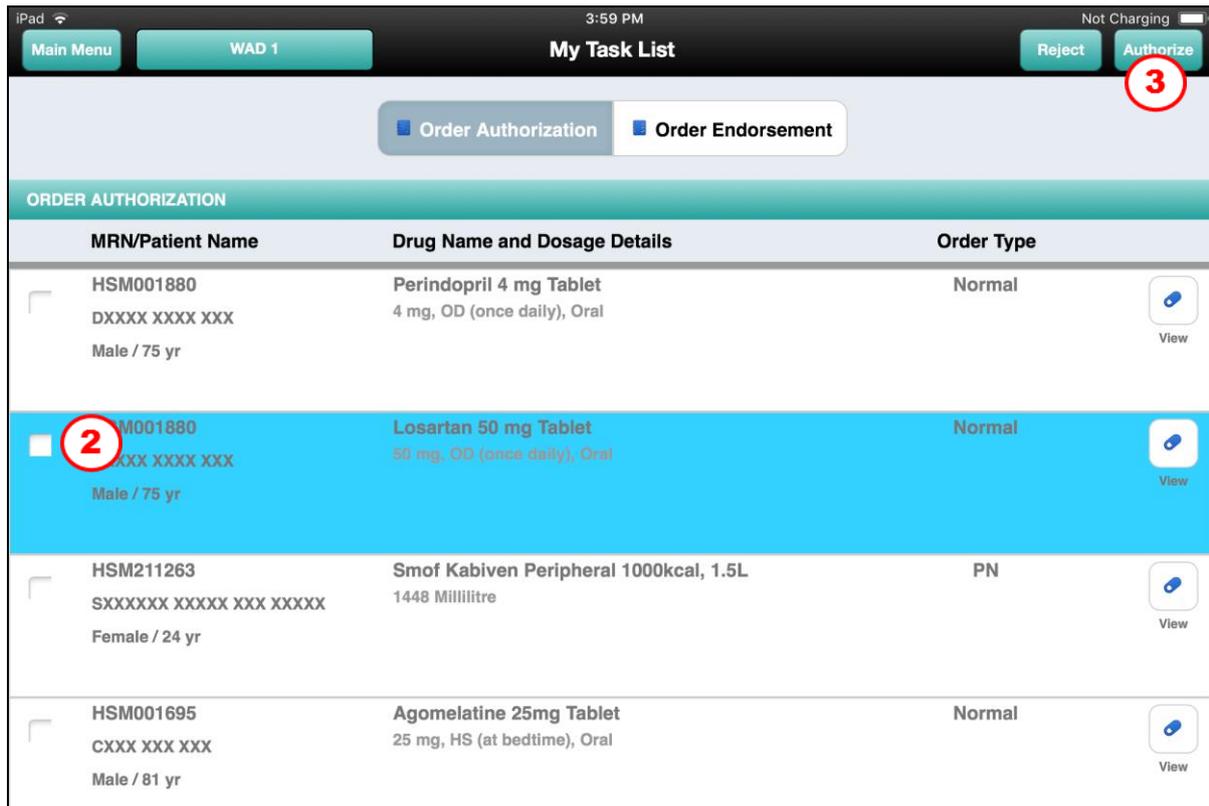
This function is used by HOD to approve list A/ A\*/ A/KK drug that requires authorisation.



Figure 3.4-1 Listing Screen

#### STEP 1

Tap on the *My Task List* menu



| MRN/Patient Name  | Drug Name and Dosage Details                              | Order Type |                               |
|---|---|------------|-------------------------------|
| <input type="checkbox"/> HSM001880<br>DXXX XXXX XXX<br>Male / 75 yr             | Perindopril 4 mg Tablet<br>4 mg, OD (once daily), Oral    | Normal     | <input type="checkbox"/> View |
| <input checked="" type="checkbox"/> HSM001880<br>DXXX XXXX XXX<br>Male / 75 yr  | Losartan 50 mg Tablet<br>50 mg, OD (once daily), Oral     | Normal     | <input type="checkbox"/> View |
| <input type="checkbox"/> HSM211263<br>SXXXXXX XXXXX XXX XXXXX<br>Female / 24 yr | Smof Kabiven Peripheral 1000kcal, 1.5L<br>1448 Millilitre | PN         | <input type="checkbox"/> View |
| <input type="checkbox"/> HSM001695<br>CXXX XXX XXX<br>Male / 81 yr              | Agomelatine 25mg Tablet<br>25 mg, HS (at bedtime), Oral   | Normal     | <input type="checkbox"/> View |

**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**

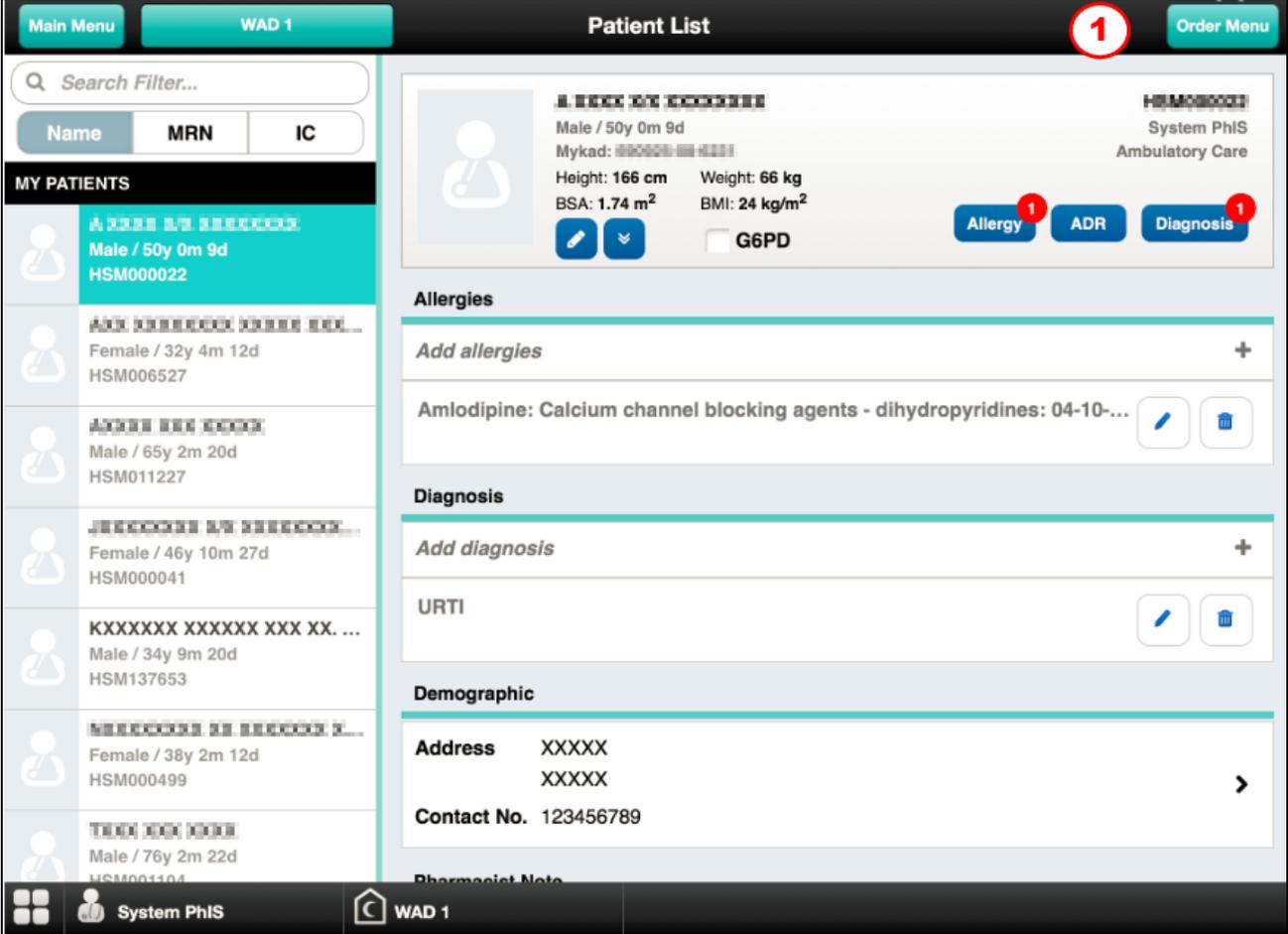
Tap on the  button

**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 selected patient's details are shown on the right, including demographic information, allergies, diagnosis, and demographic data. A red circle with the number '1' highlights the 'Order Menu' button in the top right corner.

| Name                 | MRN       | IC |
|----------------------|-----------|----|
| Male / 50y 0m 9d     | HSM000022 |    |
| Female / 32y 4m 12d  | HSM006527 |    |
| Male / 65y 2m 20d    | HSM011227 |    |
| Female / 46y 10m 27d | HSM000041 |    |
| Male / 34y 9m 20d    | HSM137653 |    |
| Female / 38y 2m 12d  | HSM000499 |    |
| Male / 76y 2m 22d    | HSM001100 |    |

**Selected Patient Details:**

- Demographic: Male / 50y 0m 9d, Mykad: [REDACTED], Height: 166 cm, Weight: 66 kg, BSA: 1.74 m<sup>2</sup>, BMI: 24 kg/m<sup>2</sup>, G6PD [REDACTED]
- Allergies: Amlodipine: Calcium channel blocking agents - dihydropyridines: 04-10-...
- Diagnosis: URTI
- Demographic: Address XXXXX, Contact No. 123456789

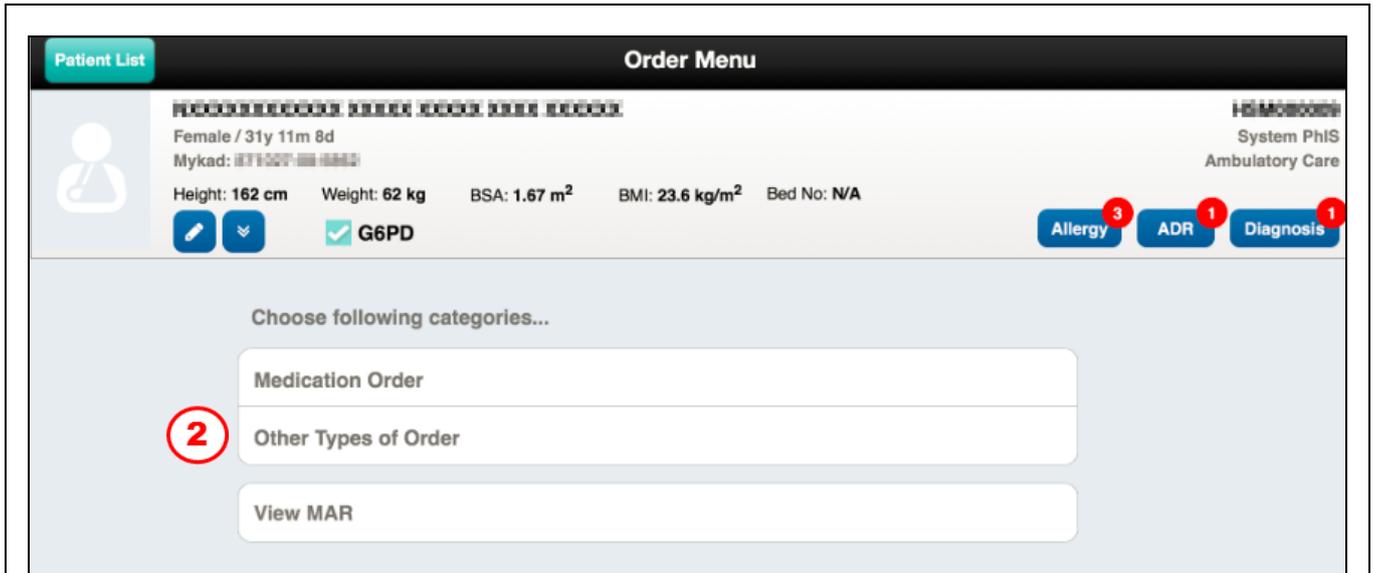
4.0-1 Patient Listing Screen

### Note

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

### STEP 1

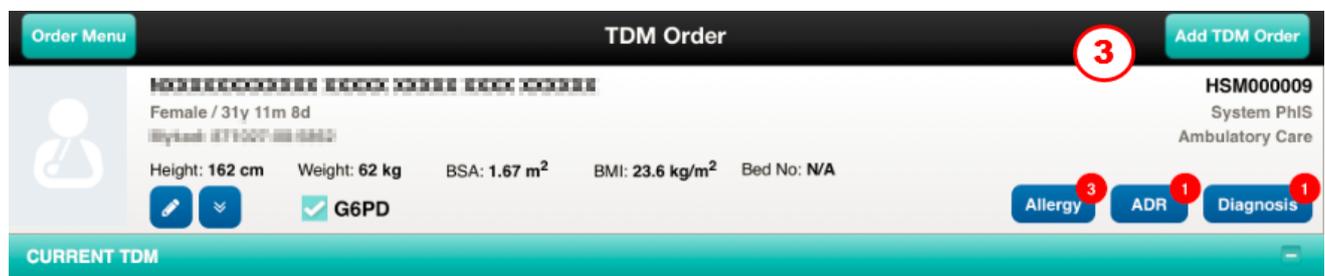
Tap on the **Order Menu**



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







**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:

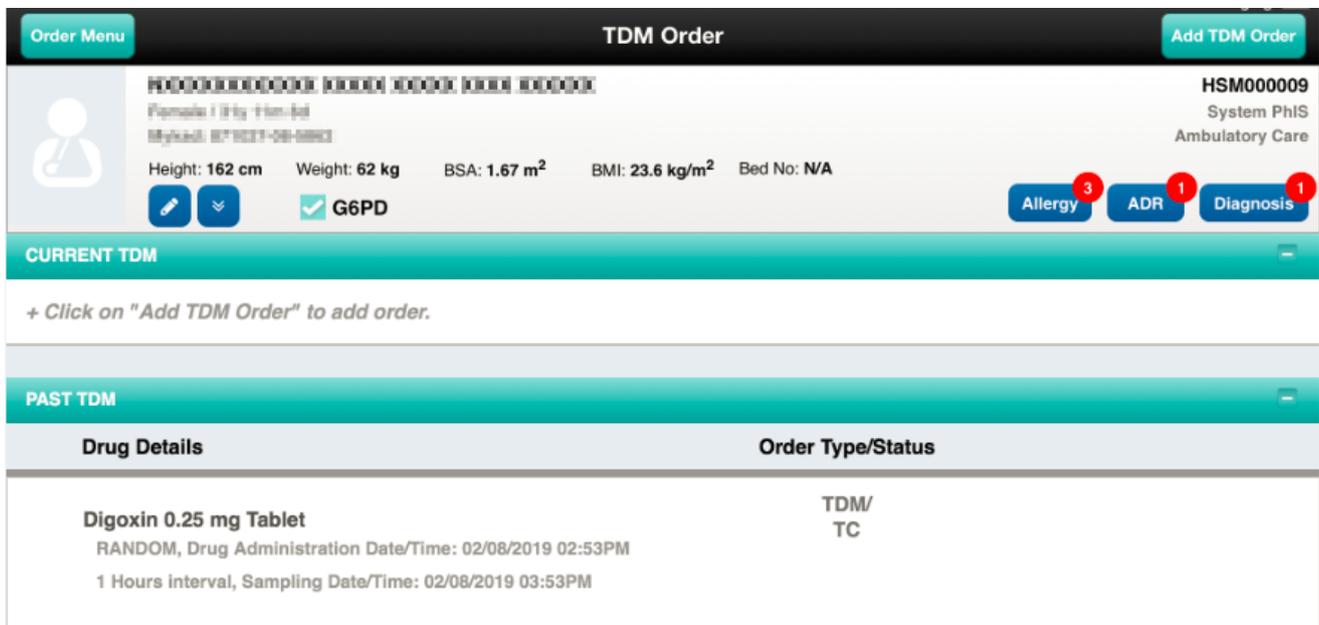
- Pre
- Post
- Random

**STEP 10**

Tap on the  button

**STEP 11**

Tap on the  to send the order to pharmacy



The screenshot displays the 'TDM Order' screen. At the top, there is an 'Order Menu' on the left and an 'Add TDM Order' button on the right. The patient information section includes a profile icon, name 'Female / (Ily Han-jel)', MyKad ID '871027-08-0803', and physical attributes: Height: 162 cm, Weight: 62 kg, BSA: 1.67 m<sup>2</sup>, BMI: 23.6 kg/m<sup>2</sup>, and Bed No: N/A. There are also buttons for 'Allergy' (with a red '3' notification), 'ADR' (with a red '1' notification), and 'Diagnosis' (with a red '1' notification). A 'G6PD' status is shown as checked. Below this is a 'CURRENT TDM' section with a note: '+ Click on "Add TDM Order" to add order.' The 'PAST TDM' section contains a table with the following data:

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

**4.0-8 TDM Guideline**

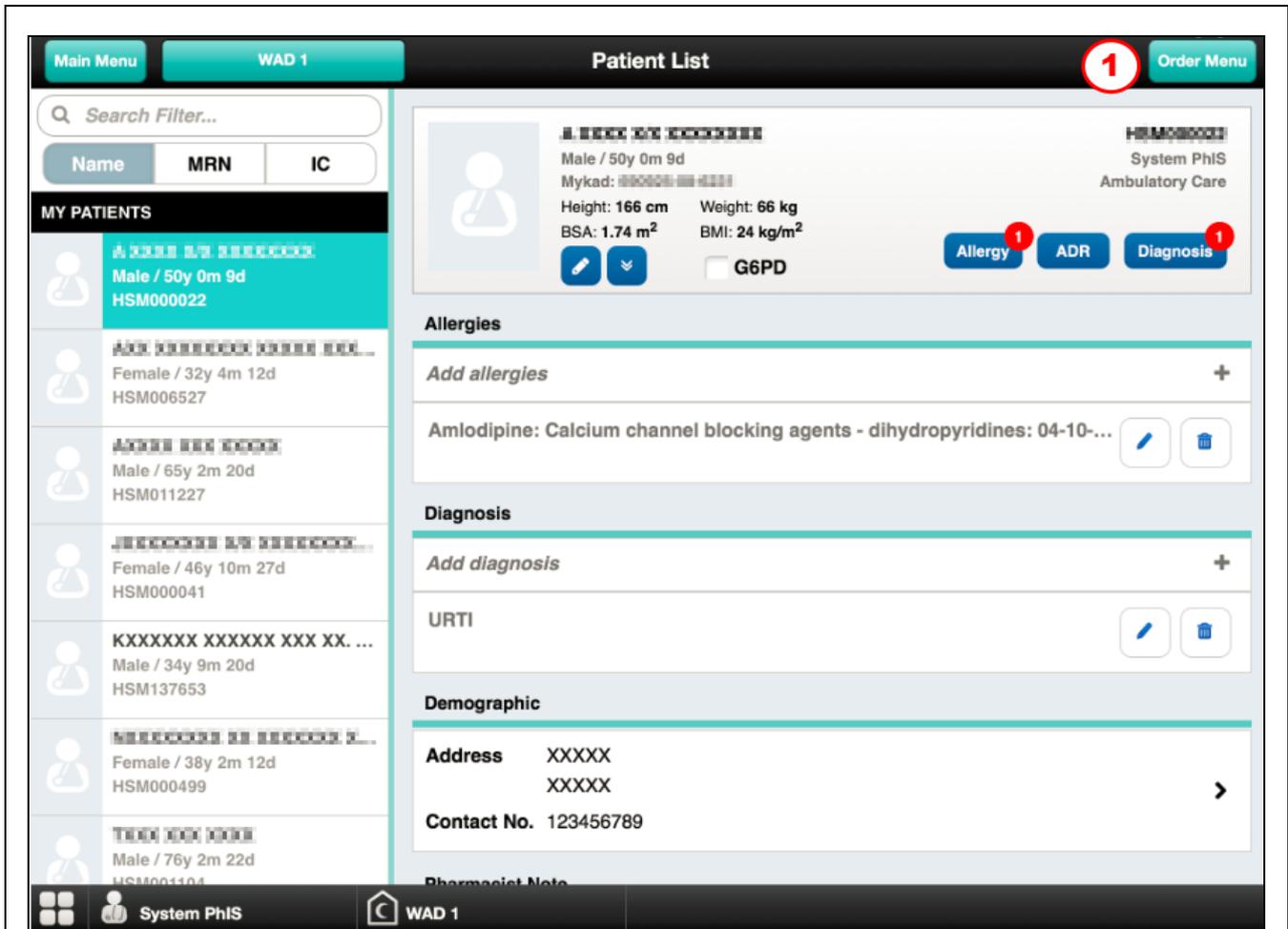
**Note**

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:
 

- Demographic: Male / 50y 0m 9d, Mykad: [redacted], Height: 166 cm, Weight: 66 kg, BSA: 1.74 m<sup>2</sup>, BMI: 24 kg/m<sup>2</sup>, G6PD status.
- Allergies: Amlodipine: Calcium channel blocking agents - dihydropyridines: 04-10-...
- Diagnosis: URTI
- Demographic: Address (XXXXX), Contact No. 123456789

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

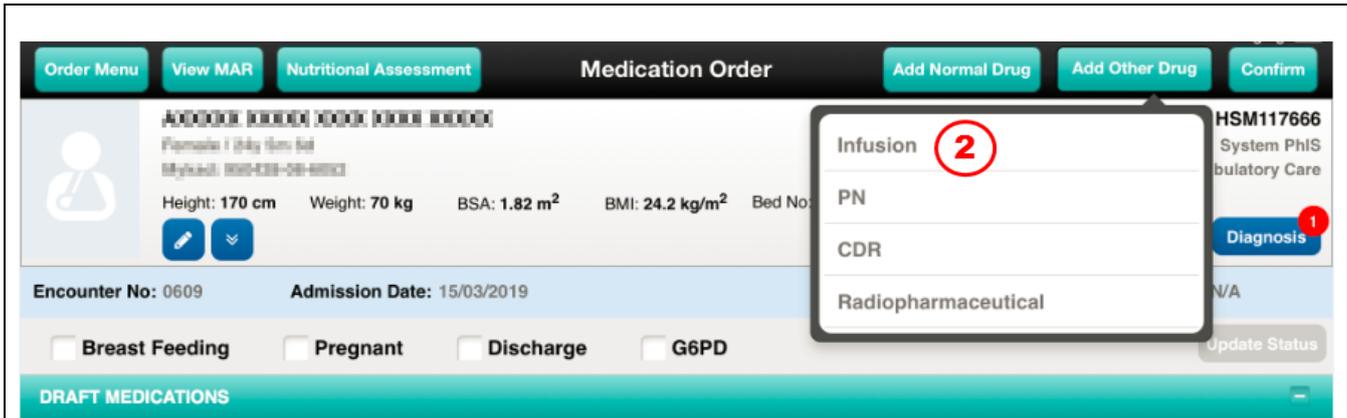
5.0-1 Order Screen

**Note**

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

**STEP 1**

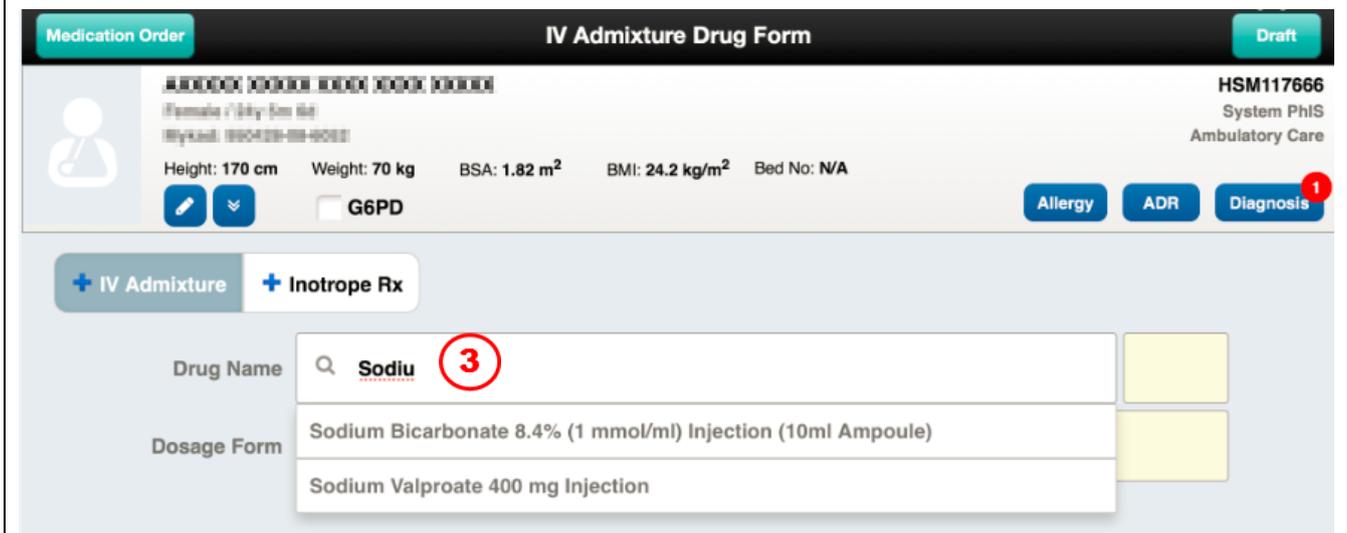
Tap on the 



### 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', MyKad 'M12028 04-0000', and physical metrics: Height: 170 cm, Weight: 70 kg, BSA: 1.82 m<sup>2</sup>, BMI: 24.2 kg/m<sup>2</sup>, 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'. The encounter details show '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 contains two entries:

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

The 'ACTIVE CURRENT VISIT MEDICATIONS' section is currently empty, showing 'N/A'. The bottom navigation bar includes 'System PhIS' and 'WAD 2'.

5.0-5 IV Admixture Order Screen

**STEP 6**

Tap on the  button to add the prescription

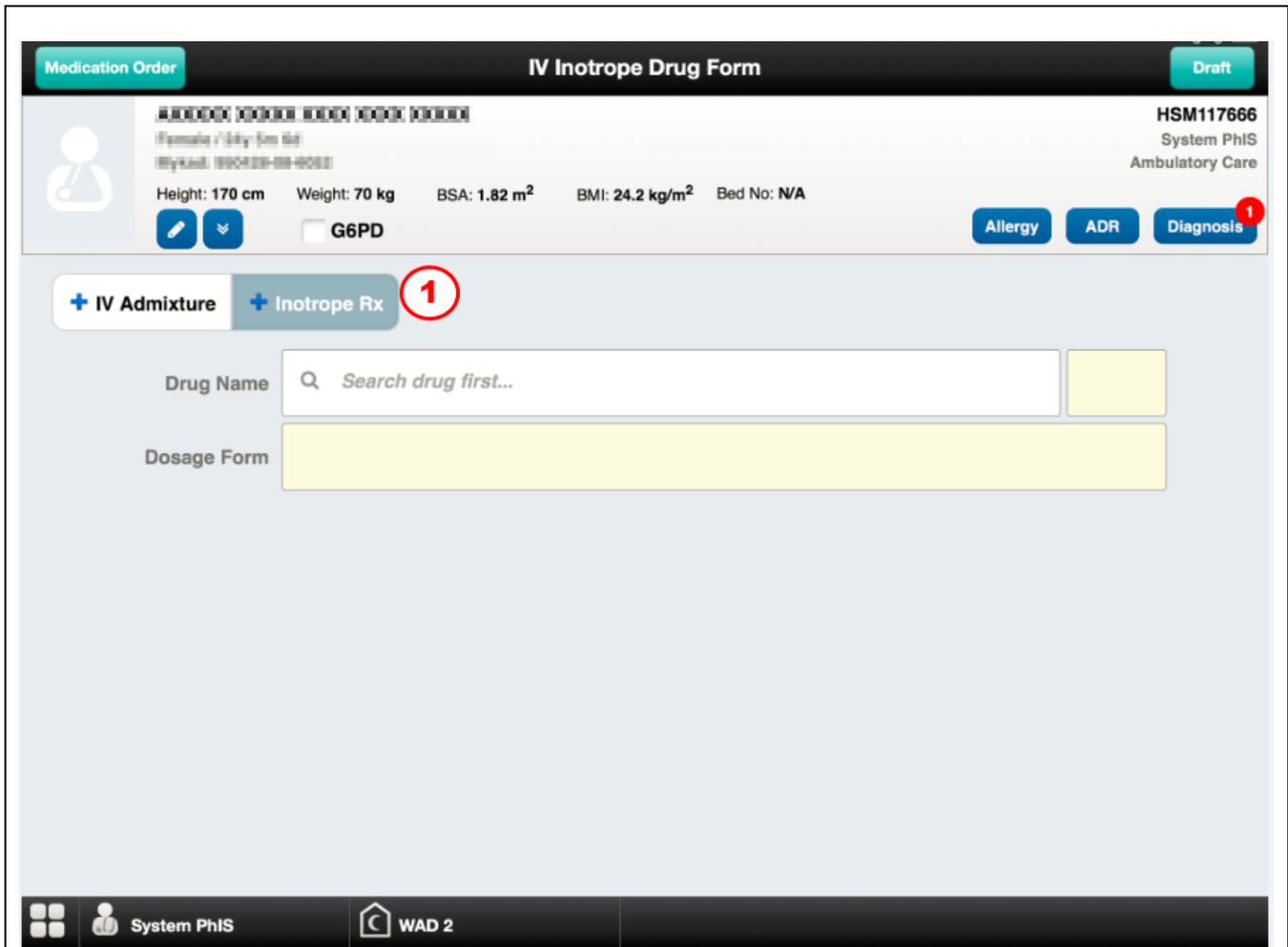
The dialog box contains the text 'Do you want to proceed with the order?'. Below the text are two buttons: a grey 'Cancel' button and a teal 'OK' button. A red circle with the number '7' highlights the 'OK' button.

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 m<sup>2</sup>), BMI (24.2 kg/m<sup>2</sup>), 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.

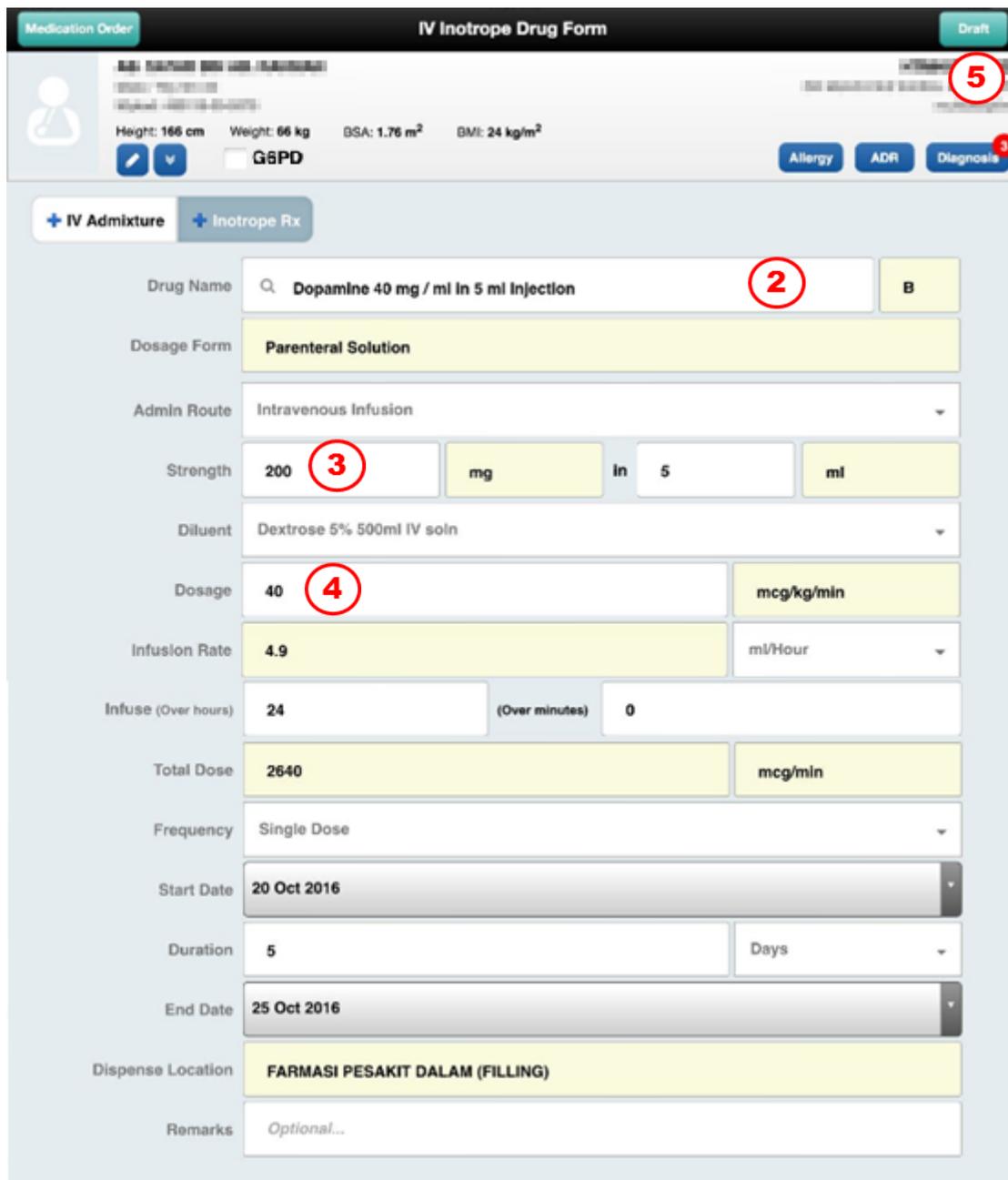
### 5.2-1 IV Admixture Order Screen

#### 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

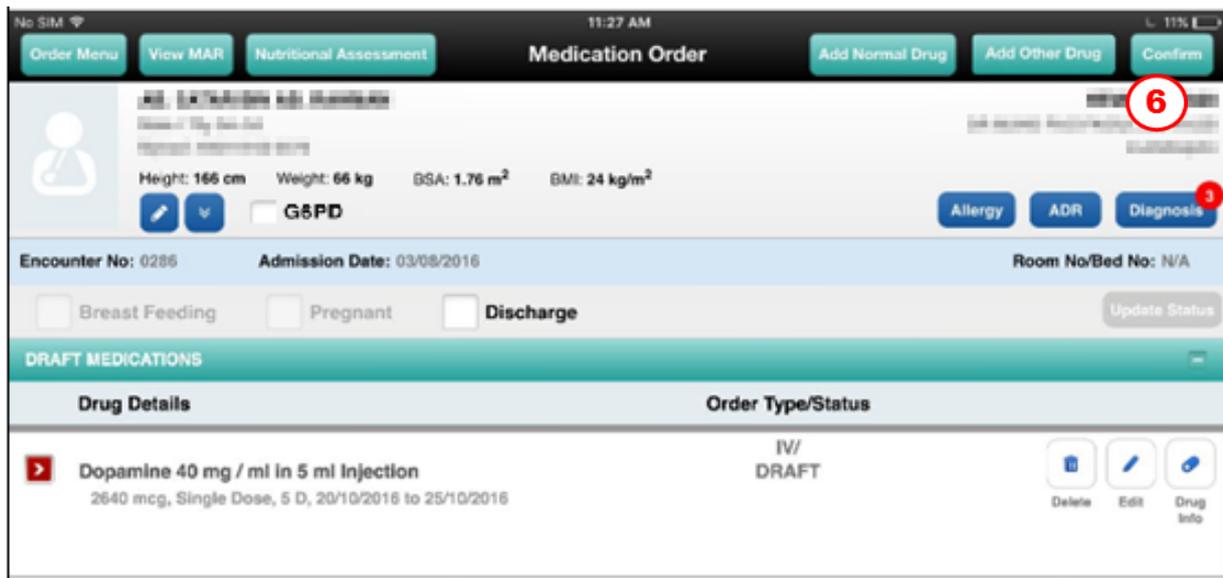
Decide the strength of preparation e.g. 200mg in 50ml

#### STEP 4

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

#### STEP 5

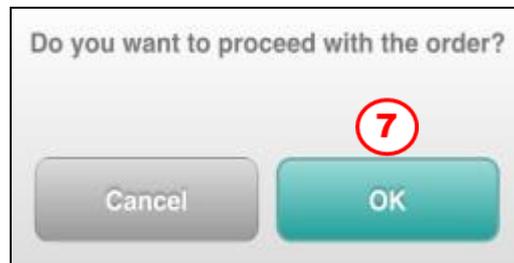
Tap on the  button to save the prescription



### 5.2-3 IV Admixture Order Screen

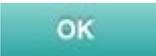
#### STEP 6

Tap on the  button to add the prescription



### 5.2-4 IV Admixture Order Screen

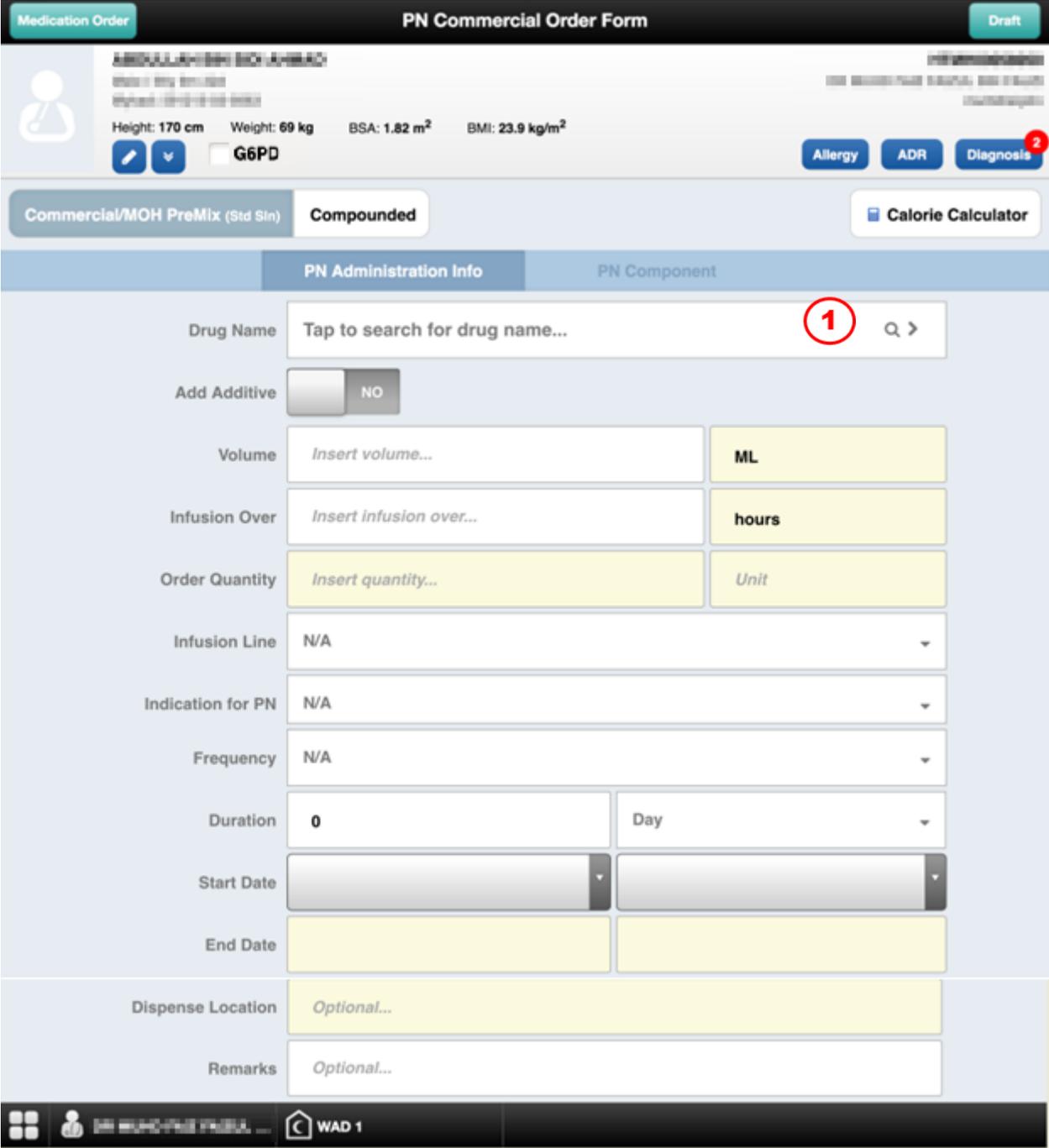
#### STEP 7

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.



The screenshot displays the 'PN Commercial Order Form' interface. At the top, it shows 'Medication Order' and 'Draft' buttons. Patient details include 'ABDULLAH BIN MOHAMMAD' with height 170 cm, weight 69 kg, BSA 1.82 m<sup>2</sup>, and BMI 23.9 kg/m<sup>2</sup>. There are buttons for 'Allergy', 'ADR', and 'Diagnosis' (with a red circle '2'). The form is set to 'Commercial/MOH PreMix (Std Soln)' and 'Compounded', with a 'Calorie Calculator' button. The 'PN Administration Info' section includes a search bar for 'Drug Name' (with a red circle '1'), 'Add Additive' (set to NO), 'Volume' (ML), 'Infusion Over' (hours), 'Order Quantity' (Unit), 'Infusion Line' (N/A), 'Indication for PN' (N/A), 'Frequency' (N/A), 'Duration' (0 Day), 'Start Date', 'End Date', 'Dispense Location' (Optional...), and 'Remarks' (Optional...).

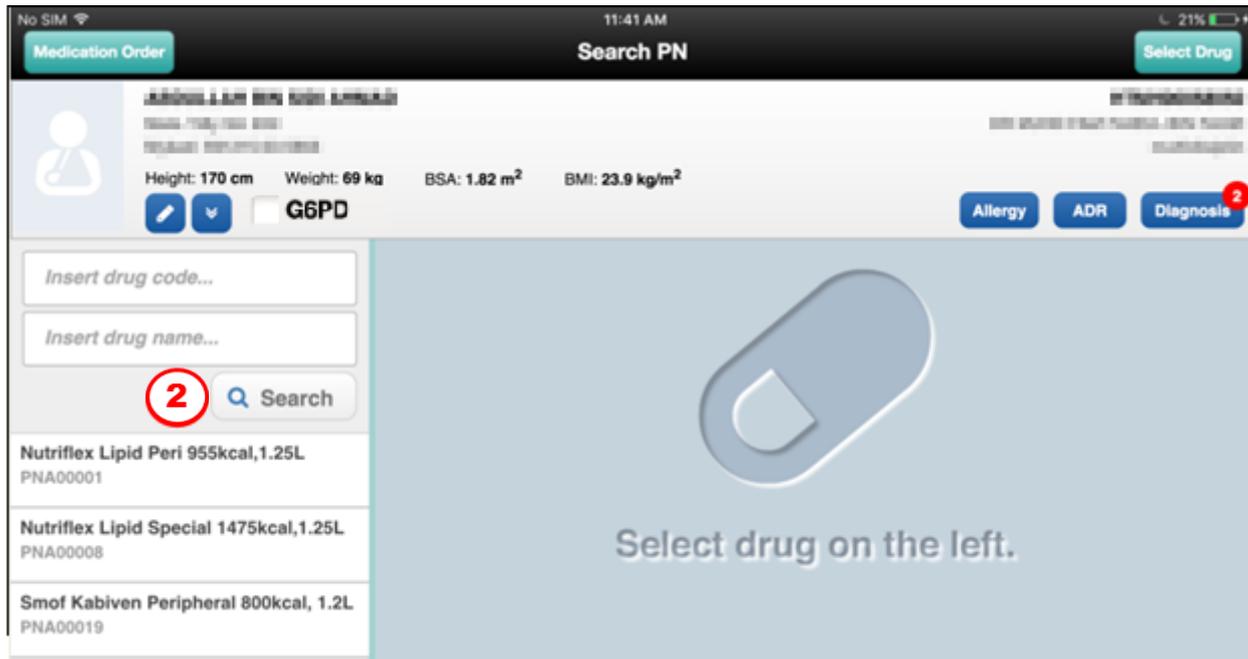
6.1-1 PN Order Screen

**Note**

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

### STEP 1

Tap on the **Drug Name** search field



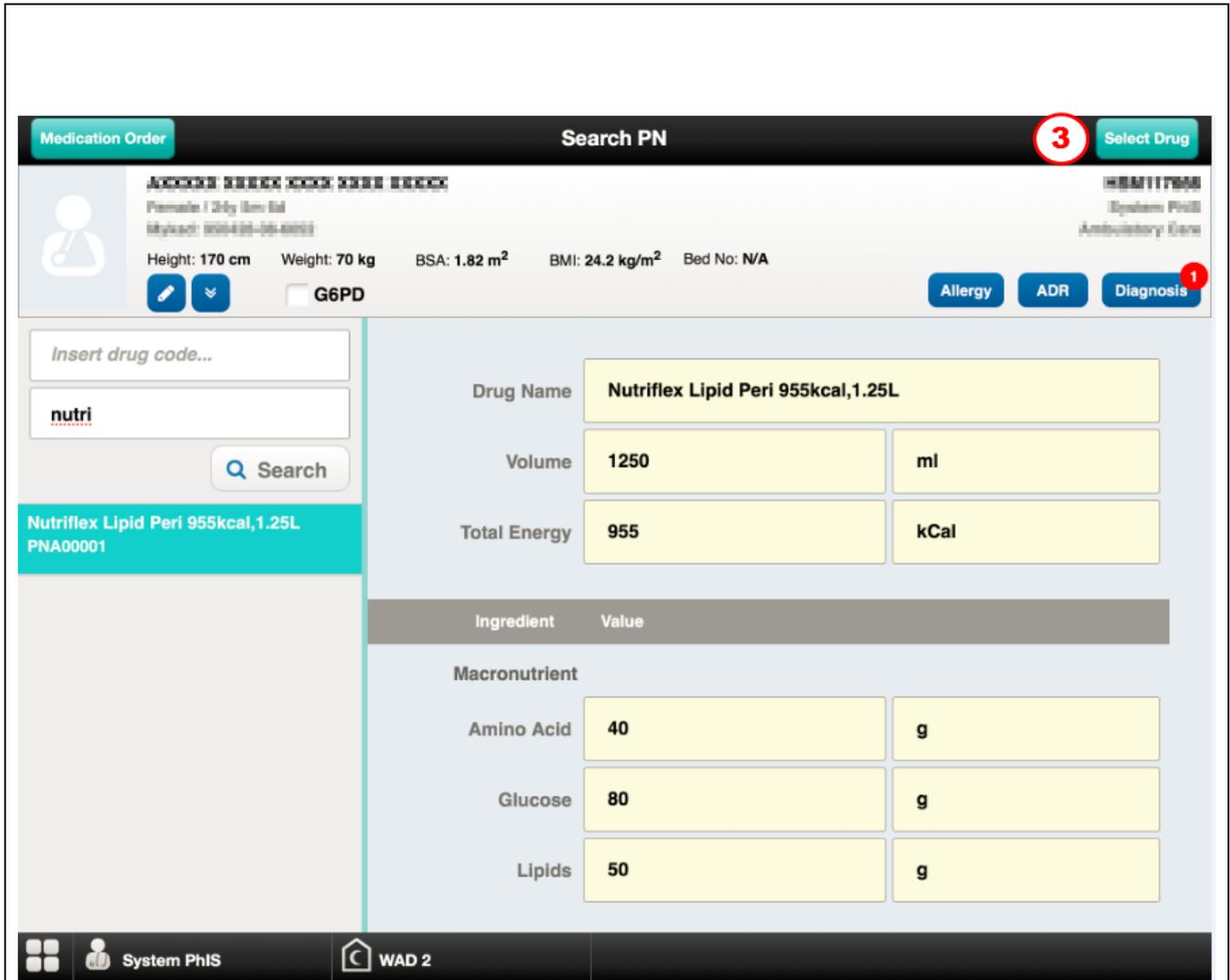
6.1-2 PN Order Screen

### 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**

**Patient Information:**  
Female / 20y / 160 cm / 50 kg  
MyKad: 990401-00-0000  
Height: 170 cm Weight: 70 kg BSA: 1.82 m<sup>2</sup> BMI: 24.2 kg/m<sup>2</sup> Bed No: N/A  
 G6PD

**Buttons:** Allergy, ADR, 1 Diagnosis

**Drug Search:**  
Insert drug code...  
nutri  
Search

**Selected Drug:**  
Nutriflex Lipid Peri 955kcal, 1.25L  
PNA00001

| Ingredient           | Value |
|----------------------|-------|
| <b>Macronutrient</b> |       |
| 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 Book Full Book Book**

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

Height: 170 cm   Weight: 70 kg   BSA: 1.82 m<sup>2</sup>   BMI: 24.2 kg/m<sup>2</sup>   Bed No: N/A

G6PD

Hospital/Unit  
System/Phis  
Ambulatory-Care

Allergy
ADR
Diagnosis 1

Commercial/MOH PreMix (Std Sin)
Compounded
Calorie Calculator

| PN Administration Info   | PN Component   |
|--|--|
| Frequency: <input type="text" value="OD (once daily)"/>  | Duration: <input type="text" value="1"/> Days  |
| Infusion Over: <input type="text" value="24"/> hours   | Infusion Line: <input type="text" value="Central"/> <span style="color: red; font-weight: bold; border: 1px solid red; border-radius: 50%; padding: 2px;">4</span> |
| Start Date: <input type="text" value="4 Oct 2019"/> <input type="text" value="5:00 PM"/>   | End Date: <input type="text" value="5 Oct 2019"/> <input type="text" value="5:00 PM"/>   |
| Indication for PN: <input type="text" value="Select one..."/> <span style="color: red; font-weight: bold; border: 1px solid red; border-radius: 50%; padding: 2px;">5</span> |  |
| Dispense Location: <input type="text" value="Satellite Pharmacy"/>   |  |
| Remarks: <input type="text" value="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.

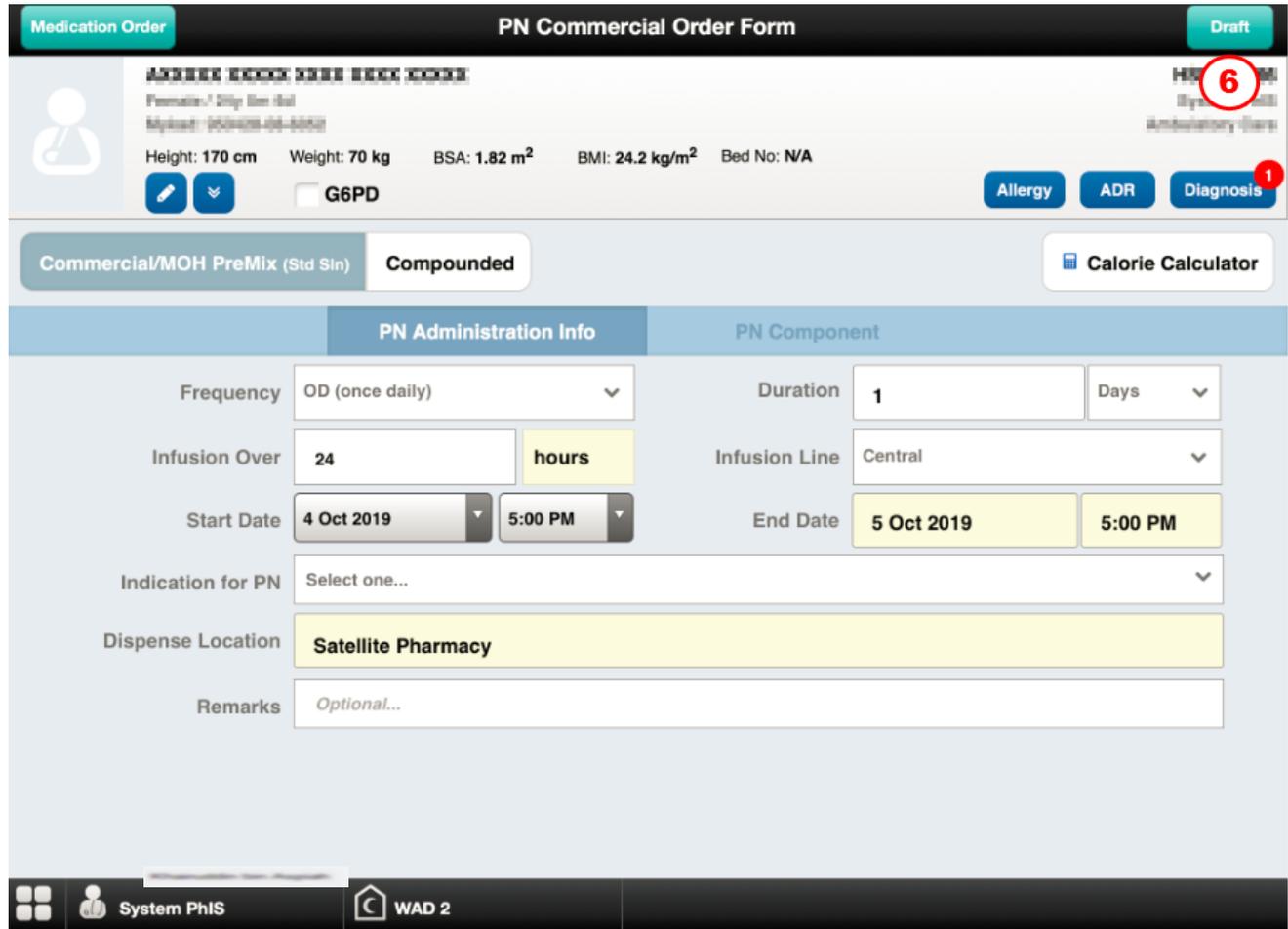
#### STEP 4

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 / 20y / 160cm / 50kg / 160cm / 50kg  
Height: 170 cm Weight: 70 kg BSA: 1.82 m<sup>2</sup> BMI: 24.2 kg/m<sup>2</sup> Bed No: N/A  
G6PD **Allergy** **ADR** **Diagnosis**

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

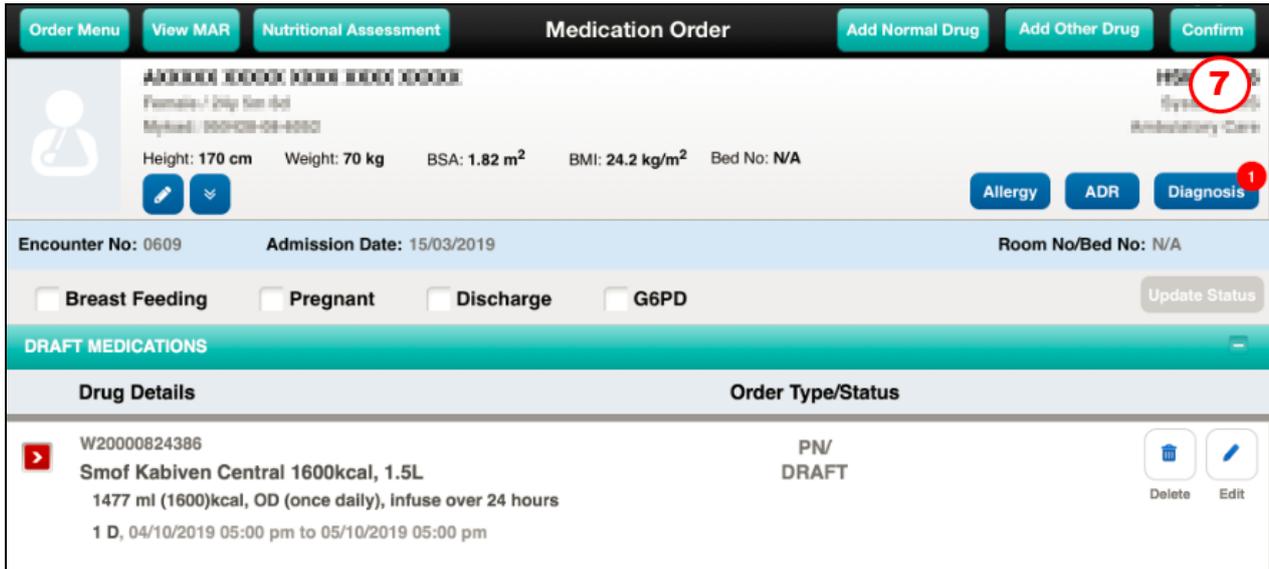
| PN Administration Info |                    | PN Component  |                    |
|------------------------|--------------------|---------------|--------------------|
| Frequency              | OD (once daily)    | Duration      | 1 Days             |
| Infusion Over          | 24 hours           | Infusion Line | Central            |
| 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



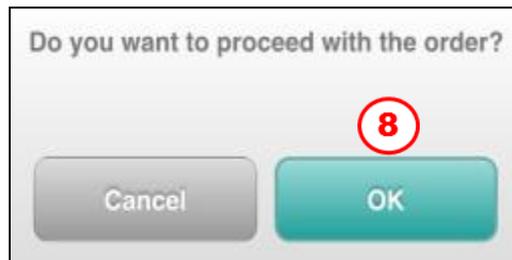
The screenshot displays the 'Medication Order' interface. At the top, there are navigation buttons: 'Order Menu', 'View MAR', 'Nutritional Assessment', 'Medication Order', 'Add Normal Drug', 'Add Other Drug', and 'Confirm'. The patient information section includes a name, gender (Female), age (54), and various physical metrics: Height: 170 cm, Weight: 70 kg, BSA: 1.82 m<sup>2</sup>, BMI: 24.2 kg/m<sup>2</sup>, 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<br>Smof Kabiven Central 1600kcal, 1.5L<br>1477 ml (1600)kcal, OD (once daily), infuse over 24 hours<br>1 D, 04/10/2019 05:00 pm to 05/10/2019 05:00 pm | PN/<br>DRAFT      |  <br>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.

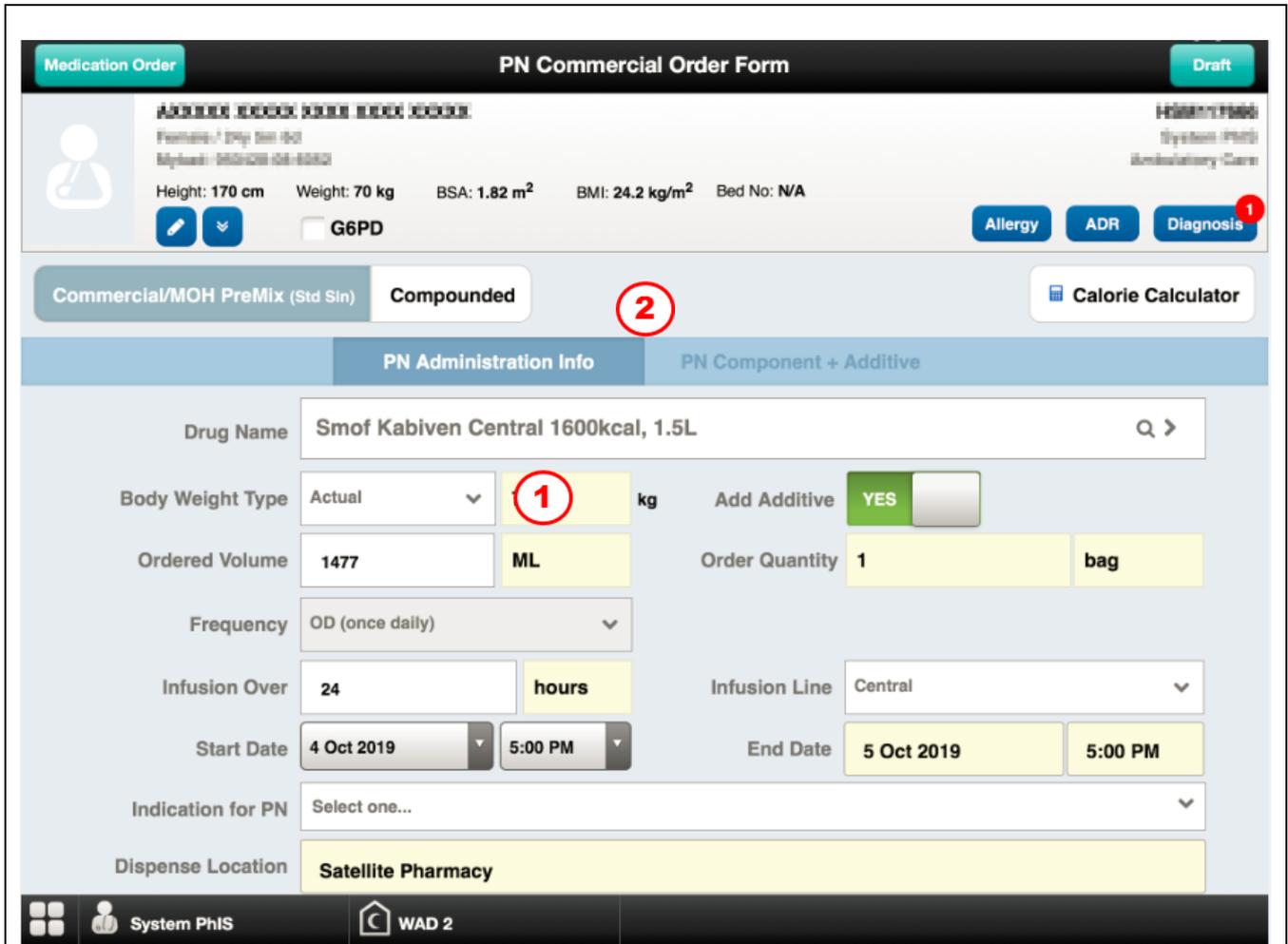
6.1-7 PN Alert Order Screen

**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 m<sup>2</sup>), BMI (24.2 kg/m<sup>2</sup>), 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 highlighted by a red circle '2'. Below this, there are two tabs: 'PN Administration Info' and 'PN Component + Additive'. The 'PN Component + Additive' tab is selected, showing the drug name 'Smof Kabiven Central 1600kcal, 1.5L'. The 'Add Additive' toggle is set to 'YES' and is highlighted by a red circle '1'. Other fields include 'Body Weight Type' (Actual), 'Ordered Volume' (1477 ML), 'Frequency' (OD (once daily)), 'Infusion Over' (24 hours), 'Start Date' (4 Oct 2019, 5:00 PM), 'End Date' (5 Oct 2019, 5:00 PM), 'Indication for PN' (Select one...), and 'Dispense Location' (Satellite Pharmacy). The bottom navigation bar shows 'System PhIS' and 'WAD 2'.

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 m<sup>2</sup>   BMI: 23.9 kg/m<sup>2</sup>

3

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 <sup>2+</sup>                   | <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 <sub>4</sub> ) <sup>2-</sup> | <input type="text"/> mmol            | <input type="text" value="9.9(9.90)"/> mmol |
| Acetate, CH <sub>3</sub> 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          |

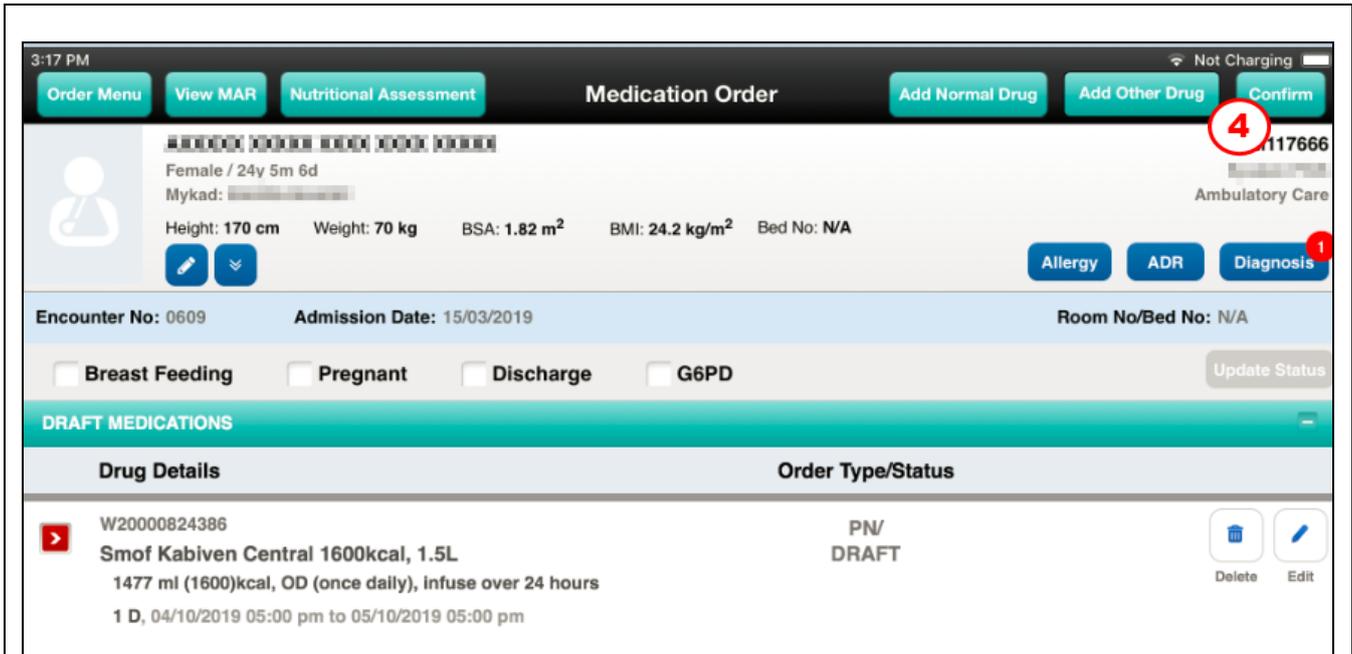
6.2-3 Single Vitamin Screen

| 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**

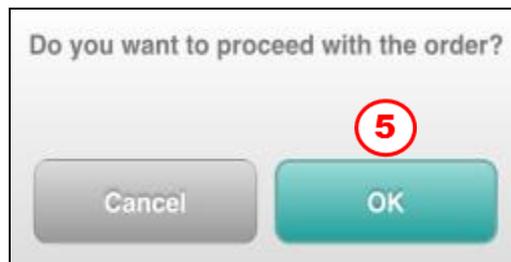
Tap on the **Draft** button to save the prescription



#### 6.2-6 Order Screen

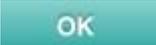
##### STEP 4

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 m<sup>2</sup> BMI: 24 kg/m<sup>2</sup> Bed No:  
G6PD Allergy <sup>1</sup> ADR <sup>1</sup> Diagnosis <sup>1</sup>

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 <sup>+</sup>            | <input type="text" value=""/> mmol/kg  | <input type="text" value="1-2"/> mmol/kg       | <input type="text" value="0"/> mmol |
| Potassium(Kalium), K <sup>+</sup>           | <input type="text" value=""/> mmol/kg  | <input type="text" value="0.7-1.5"/> mmol/kg   | <input type="text" value="0"/> mmol |
| Calcium, Ca <sup>2+</sup>                   | <input type="text" value=""/> mmol/kg  | <input type="text" value="0.1-0.15"/> mmol/kg  | <input type="text" value="0"/> mmol |
| Magnesium, Mg <sup>+</sup>                  | <input type="text" value=""/> mmol/kg  | <input type="text" value="0.05-0.15"/> mmol/kg | <input type="text" value="0"/> mmol |
| Phosphate, (PO <sub>4</sub> ) <sup>2-</sup> | <input type="text" value=""/> mmol/kg  | <input type="text" value="0.7-1.5"/> mmol/kg   | <input type="text" value="0"/> mmol |
| Chloride, Cl <sup>-</sup>                   | <input type="text" value=""/> mmol/kg  | <input type="text" value="1.3-2"/> mmol/kg     | <input type="text" value="0"/> mmol |
| Acetate, (CH <sub>3</sub> 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: 880808-08-8808  
Height: 166 cm Weight: 66 kg BSA: 1.74 m<sup>2</sup> BMI: 24 kg/m<sup>2</sup> Bed No:  
G6PD Allergy ADR Diagnosis

Commercial/MOH PreMix (Std Sin) Compounded Calorie Calculator

PN Component PN Administration Info

Age Group Adult Body Weight Type Actual 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

Male / 50y 1m 6d  
Mykad: 880808-08-8808  
Height: 170 cm Weight: 69 kg BSA: 1.82 m<sup>2</sup> BMI: 23.9 kg/m<sup>2</sup>  
Allergy ADR Diagnosis

Encounter No: 0022 Admission Date: 07/08/2016 Room No/Bed No: N/A  
Breast Feeding Pregnant Discharge Update Status

**DRAFT MEDICATIONS**

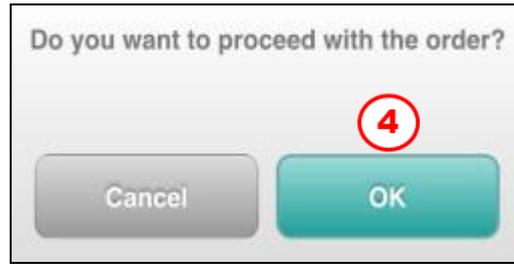
| Drug Details  | Order Type/Status |
|---|-------------------|
| PN Compounded<br>ADULT, 28.99 ml(6900kcal), infuse over 24 hours<br>1 day, 05/10/2016 05:00 pm to 06/10/2016 05:00 pm | PN/<br>DRAFT      |

Delete Edit

6.3-4 PN Order Screen

STEP 3

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



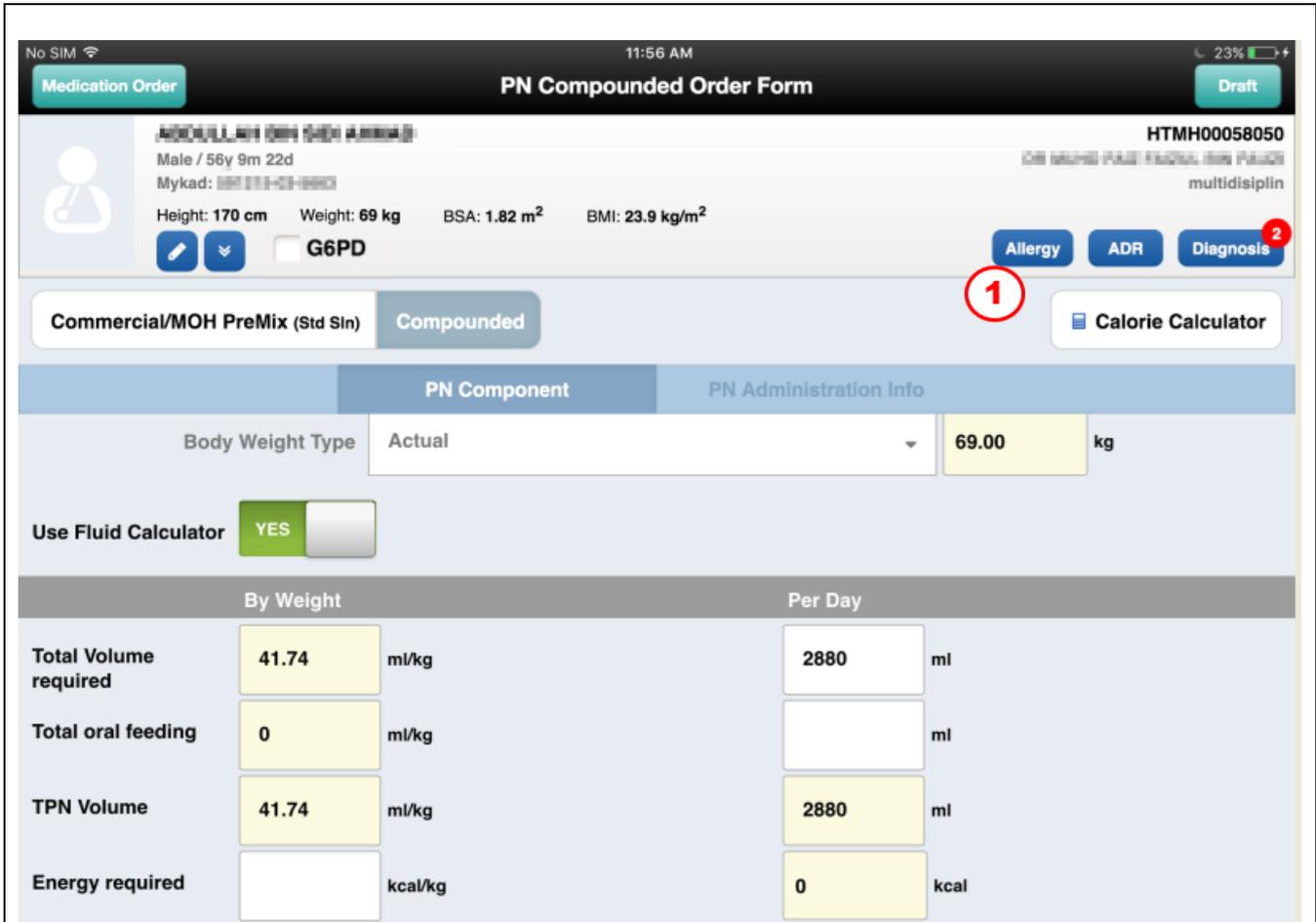
6.3-5 PN Alert Order Screen

**STEP 4**

Tap on the  button to proceed with the order

## 6.4 Calorie calculator

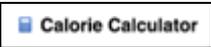
Calorie calculator allow user to calculate patient’s calorie requirement. This value will out as a guideline for user to order the required TPN order for patient.



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

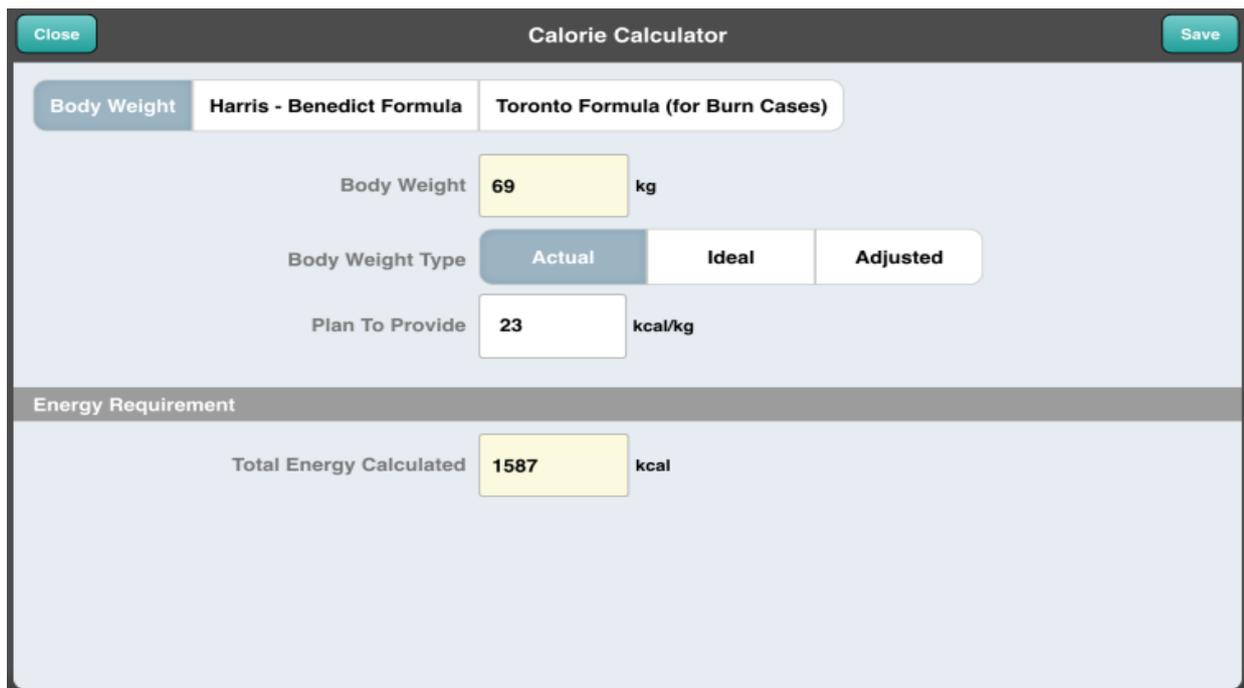
6.4-1 PN Order Screen

### STEP 1

Tap on the  button

### Note

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



Close Calorie Calculator Save

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

Body Weight 69 kg

Body Weight Type Actual Ideal Adjusted

Plan To Provide 23 kcal/kg

Energy Requirement

Total Energy Calculated 1587 kcal

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

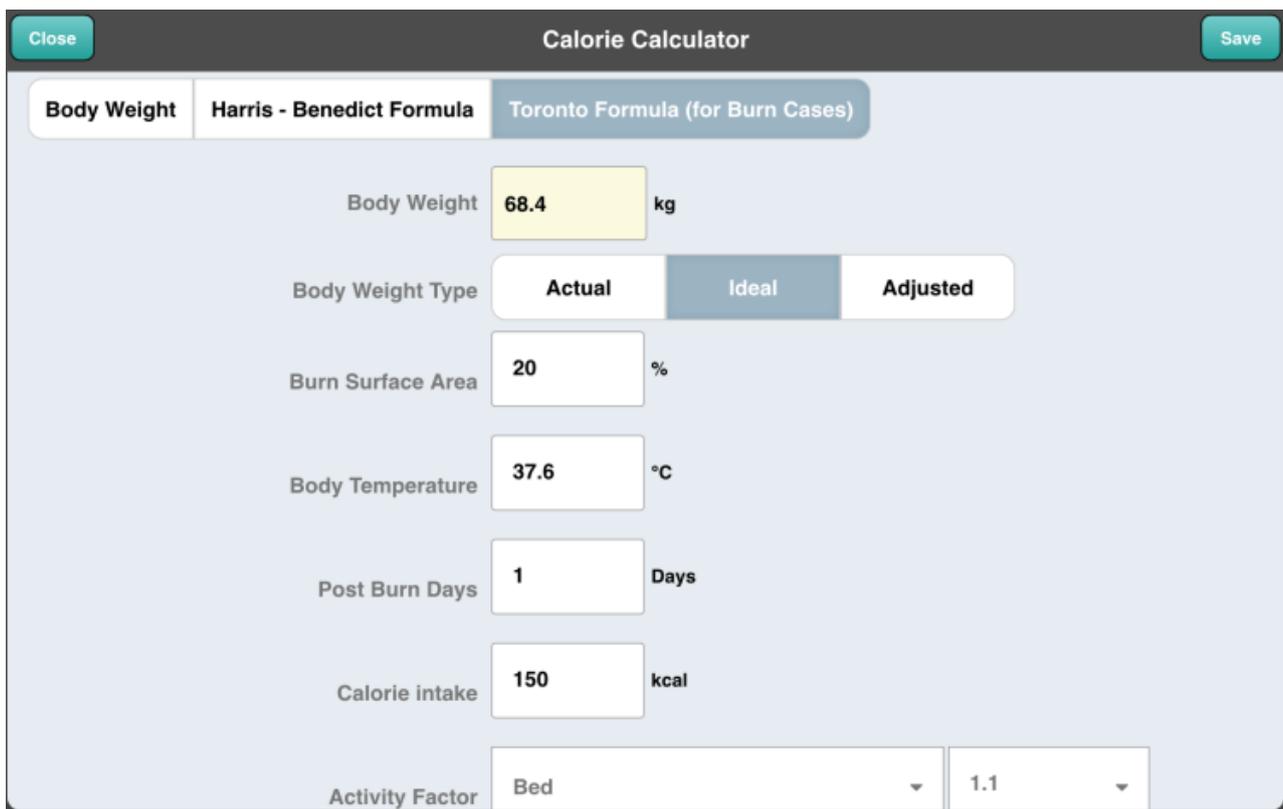
**Note**

**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.



The screenshot displays the 'Calorie Calculator' interface. At the top, there are 'Close' and 'Save' buttons. Below the title, three formula options are shown: 'Body Weight', 'Harris - Benedict Formula', and 'Toronto Formula (for Burn Cases)'. The 'Toronto Formula' is selected. The input fields are: 'Body Weight' (68.4 kg), 'Body Weight Type' (Actual), 'Burn Surface Area' (20%), 'Body Temperature' (37.6°C), 'Post Burn Days' (1 Days), 'Calorie intake' (150 kcal), and 'Activity Factor' (Bed, 1.1).

6.4-4 PN calculator Screen

**Note**

**PN Calculator : Toronto Formula**

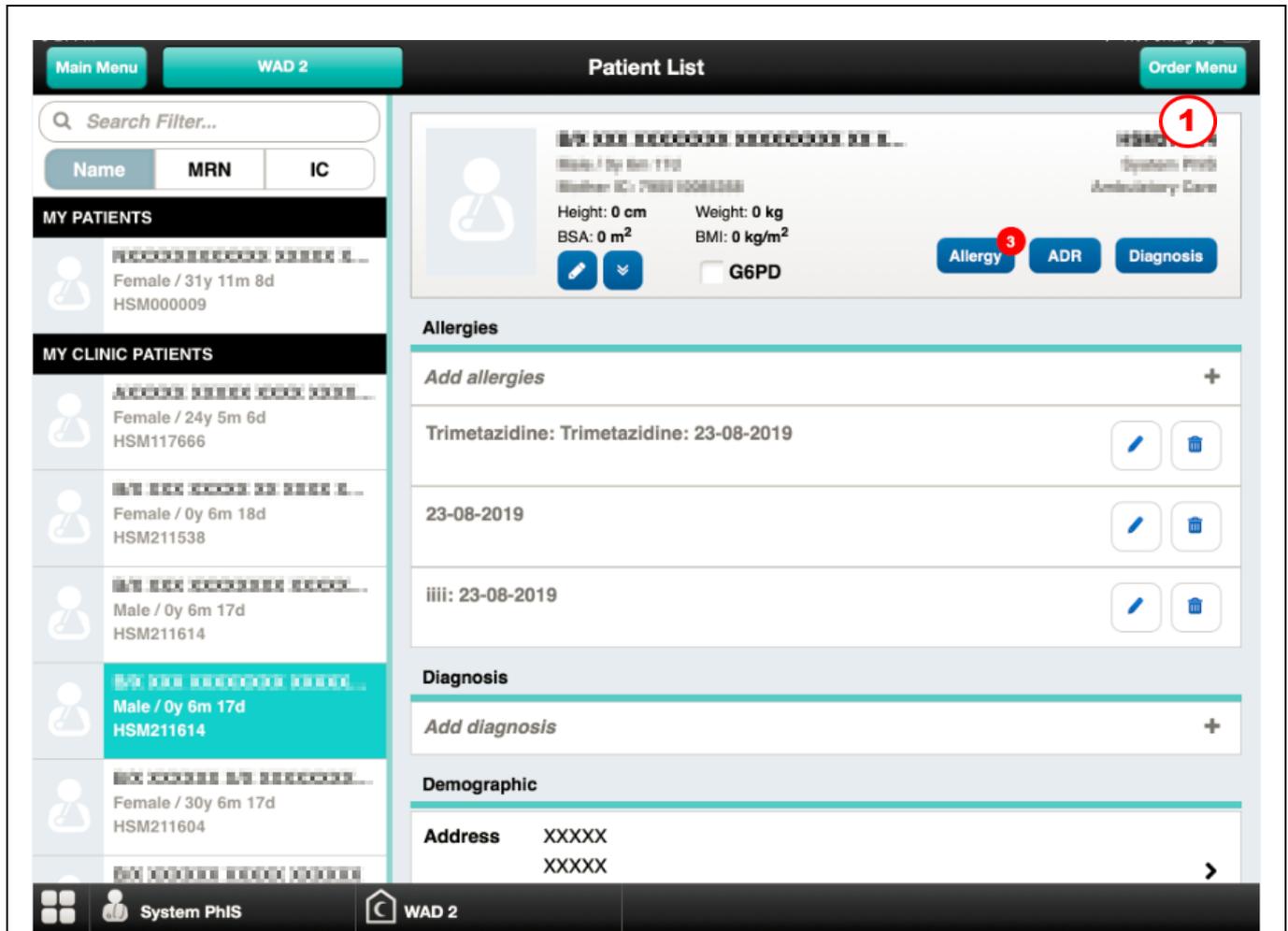
- Select **Toronto Formula (for Burn Cases)** from **PN Calculator** dropdown box.
- Enter all field below:
  - Burn Surface Area
  - Body Temperature
  - Post Burn Days
  - Calorie Intake
- User have to select type of **Activity Factor** from the dropdown box:
  - Bed
  - In Bed but mobile
  - Mobile



- 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. On the left, there are filters for 'Name', 'MRN', and 'IC', and two lists: 'MY PATIENTS' and 'MY CLINIC PATIENTS'. The main area shows a patient profile for 'HSM211614' (Male / 0y 6m 17d). Key fields include Height: 0 cm, Weight: 0 kg, BSA: 0 m<sup>2</sup>, and BMI: 0 kg/m<sup>2</sup>. There are buttons for 'Allergy', 'ADR', and 'Diagnosis'. The 'Allergies' section lists 'Trimetazidine: Trimetazidine: 23-08-2019' and 'iiii: 23-08-2019'. The 'Diagnosis' section has an 'Add diagnosis' button. The 'Demographic' section shows 'Address XXXXX XXXXX'. A red circle with the number 1 is around the patient name field.

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

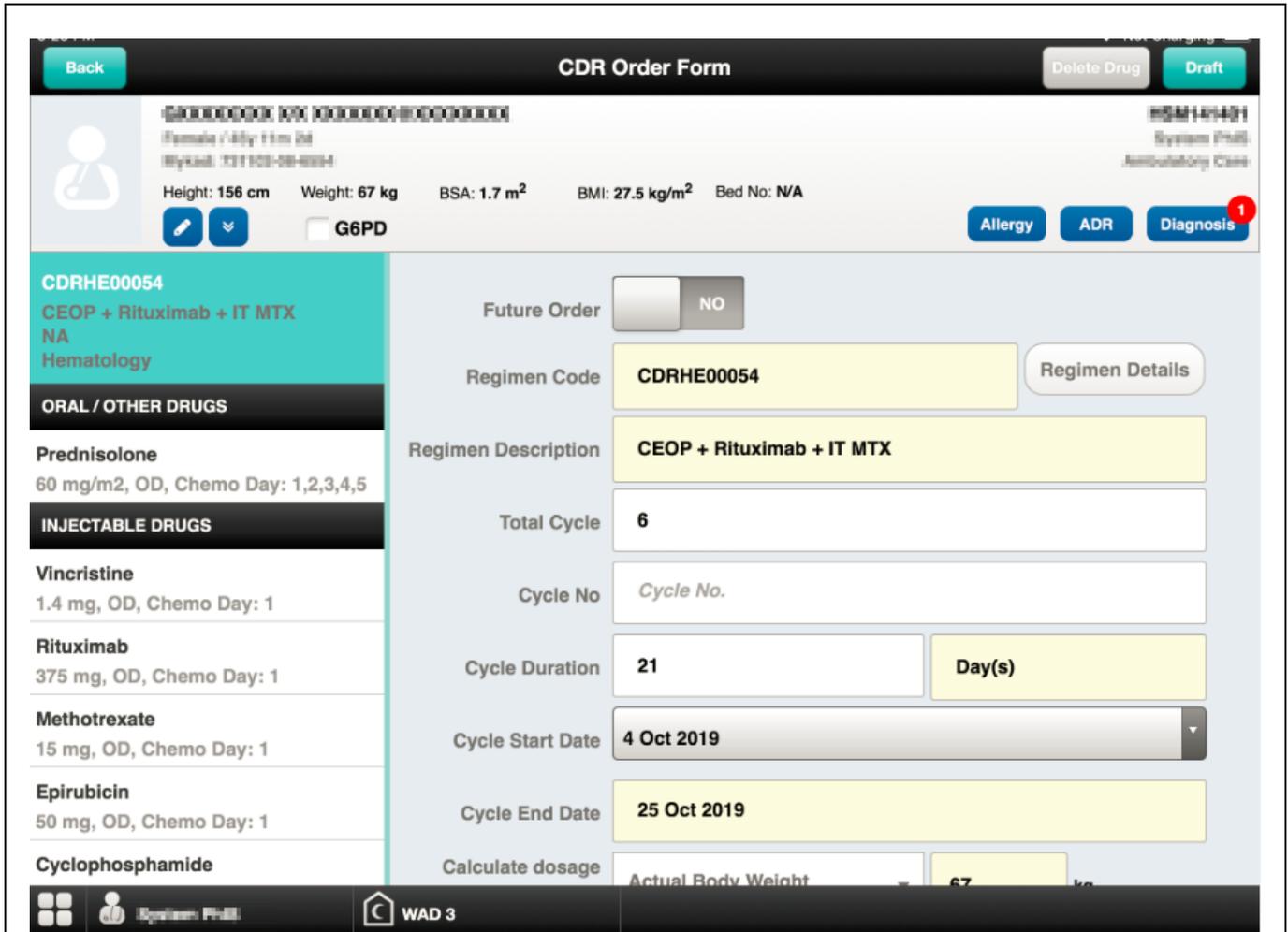
**STEP 3**

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 |

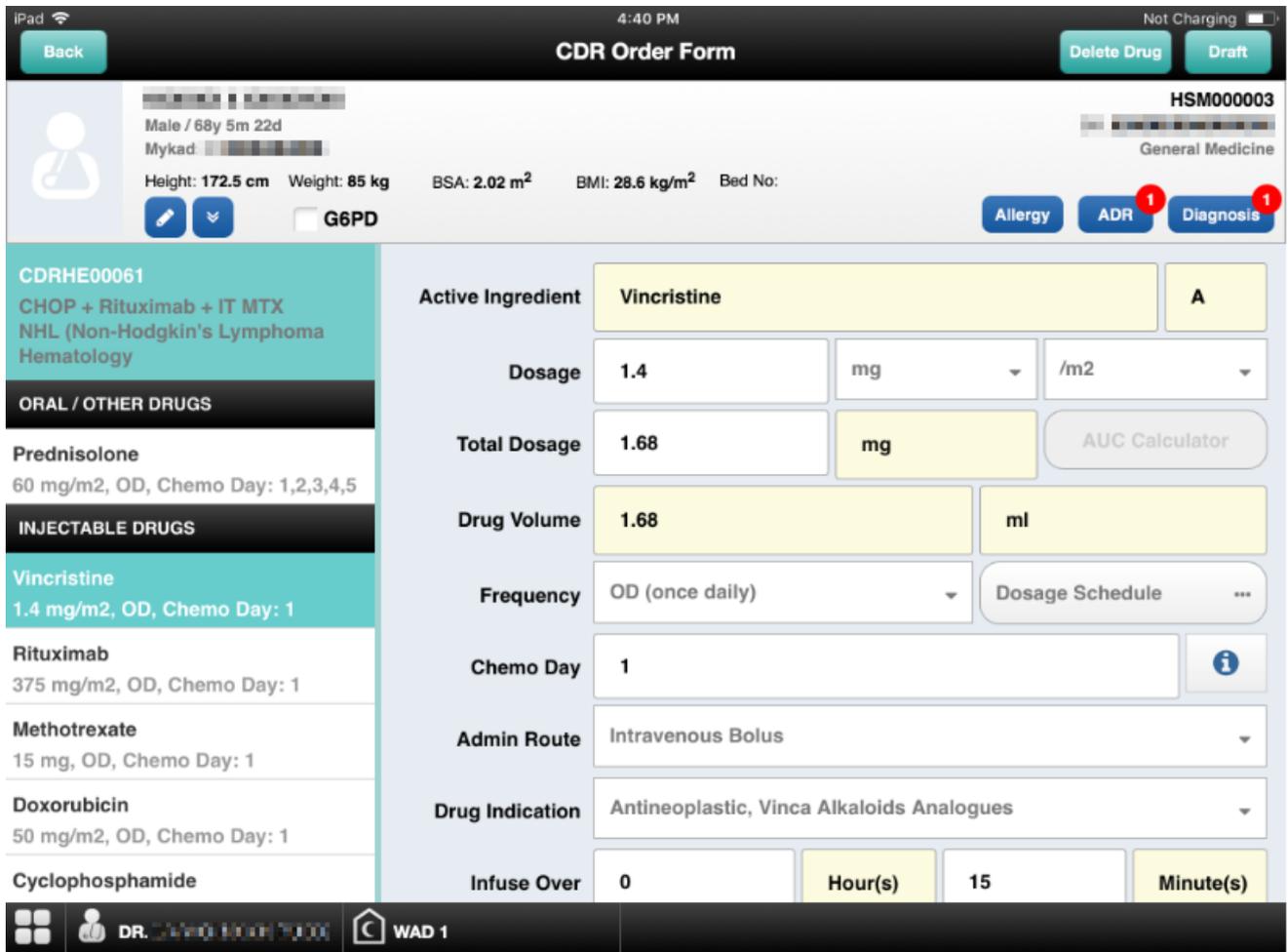
**7.0-5 CDR Regimen Order Screen**

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

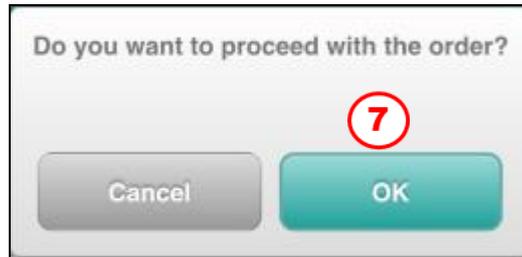
**STEP 5**

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

7.0-7 CDR Order Screen

**STEP 6**

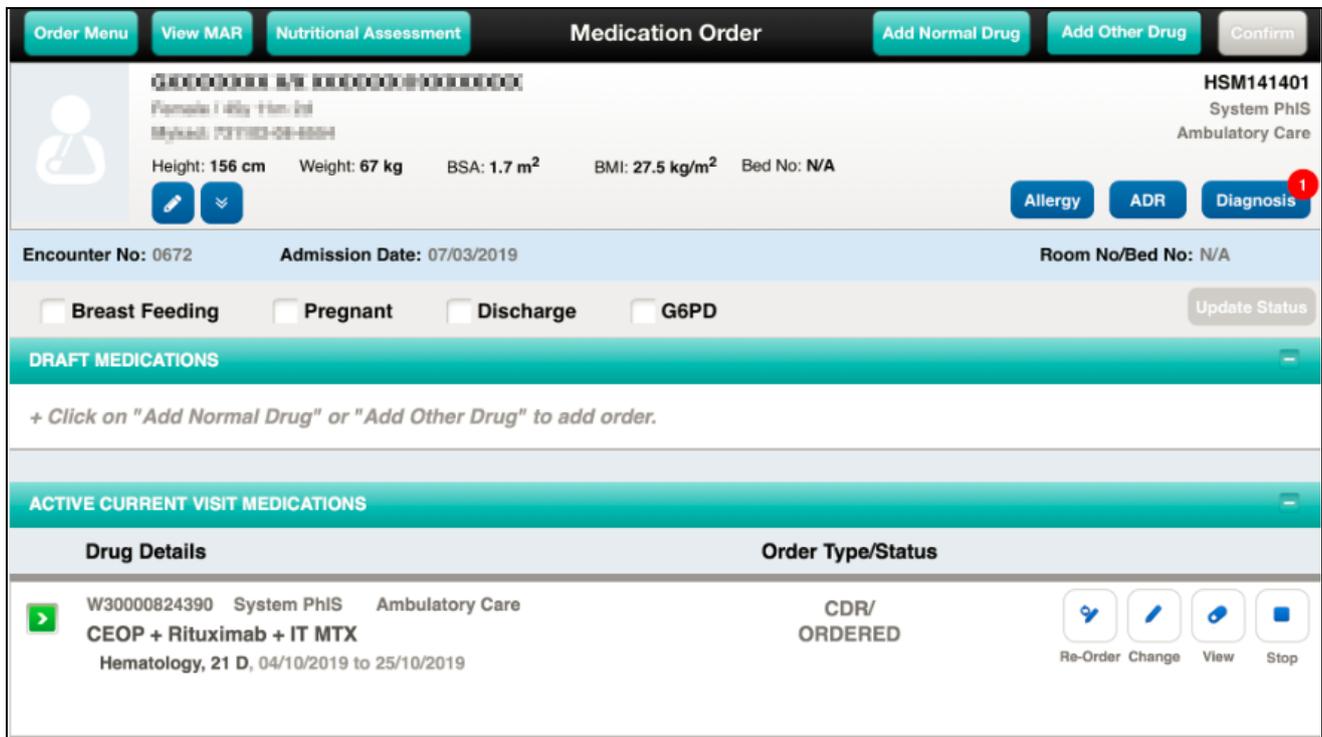
Tap on the  button to add the regimen in the prescription



**7.0-7 CDR Alert Message**

**STEP 7**

Tap on the  button to send the prescription to pharmacy

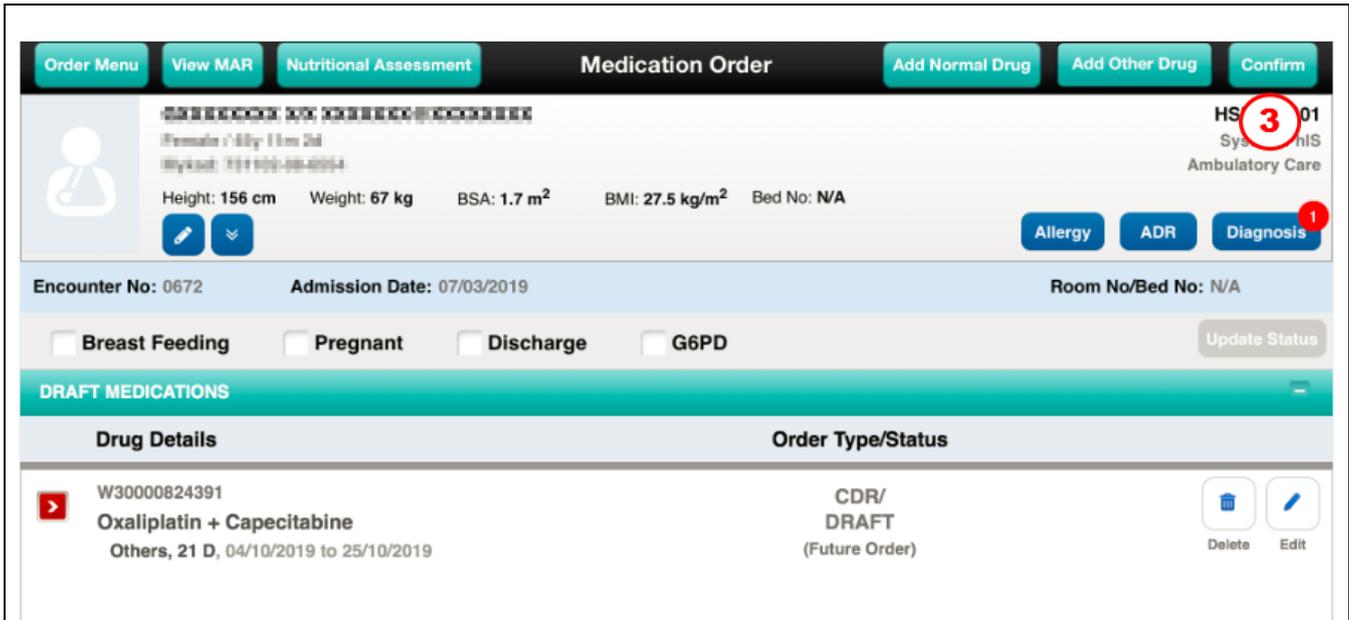


**7.0-8 CDR Order Screen**

**Note**

Confirmed prescription will be displayed as per Figure 7.0-8





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 'Confirm' button is circled in red with the number 3. Below the navigation bar, patient information is shown, including a profile icon, name, gender, age, height, weight, BSA, BMI, and bed number. There are also buttons for 'Allergy', 'ADR', and 'Diagnosis'. The 'Diagnosis' button is circled in red with the number 1. Below the patient information, encounter and admission details are provided. A section for clinical status includes checkboxes for 'Breast Feeding', 'Pregnant', 'Discharge', and 'G6PD', along with an 'Update Status' button. The 'DRAFT MEDICATIONS' section is highlighted in green. It contains a table with columns for 'Drug Details' and 'Order Type/Status'. The first entry is 'Oxaliplatin + Capecitabine' with a red arrow icon, 'Others, 21 D, 04/10/2019 to 25/10/2019', and 'CDR/DRAFT (Future Order)'. There are 'Delete' and 'Edit' icons for this entry.

### 7.1-2 CDR Order Screen

#### STEP 3

Tap on the  button to add the regimen in the prescription

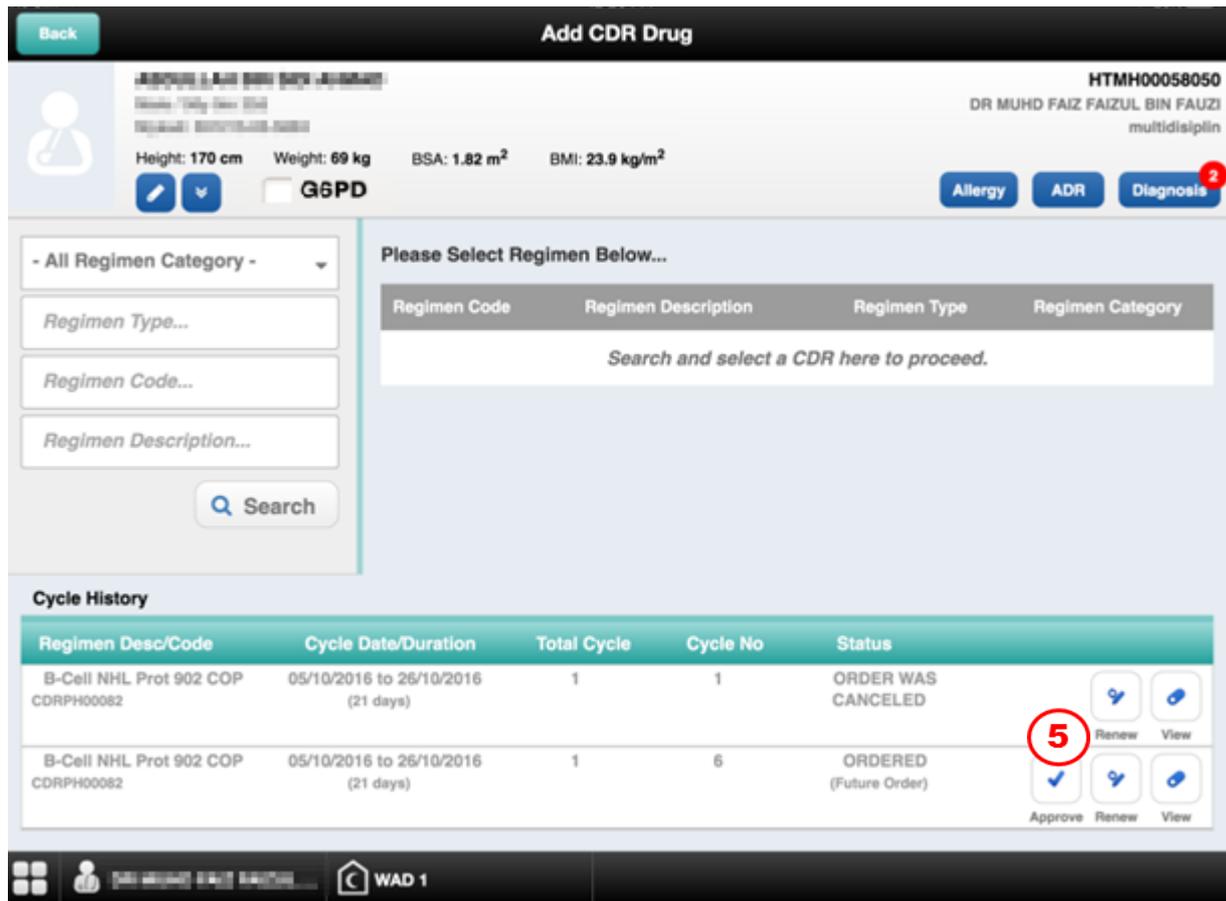


The dialog box has a title 'Do you want to proceed with the order?'. It contains two buttons: 'Cancel' and 'OK'. The 'OK' button is circled in red with the number 4.

### 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

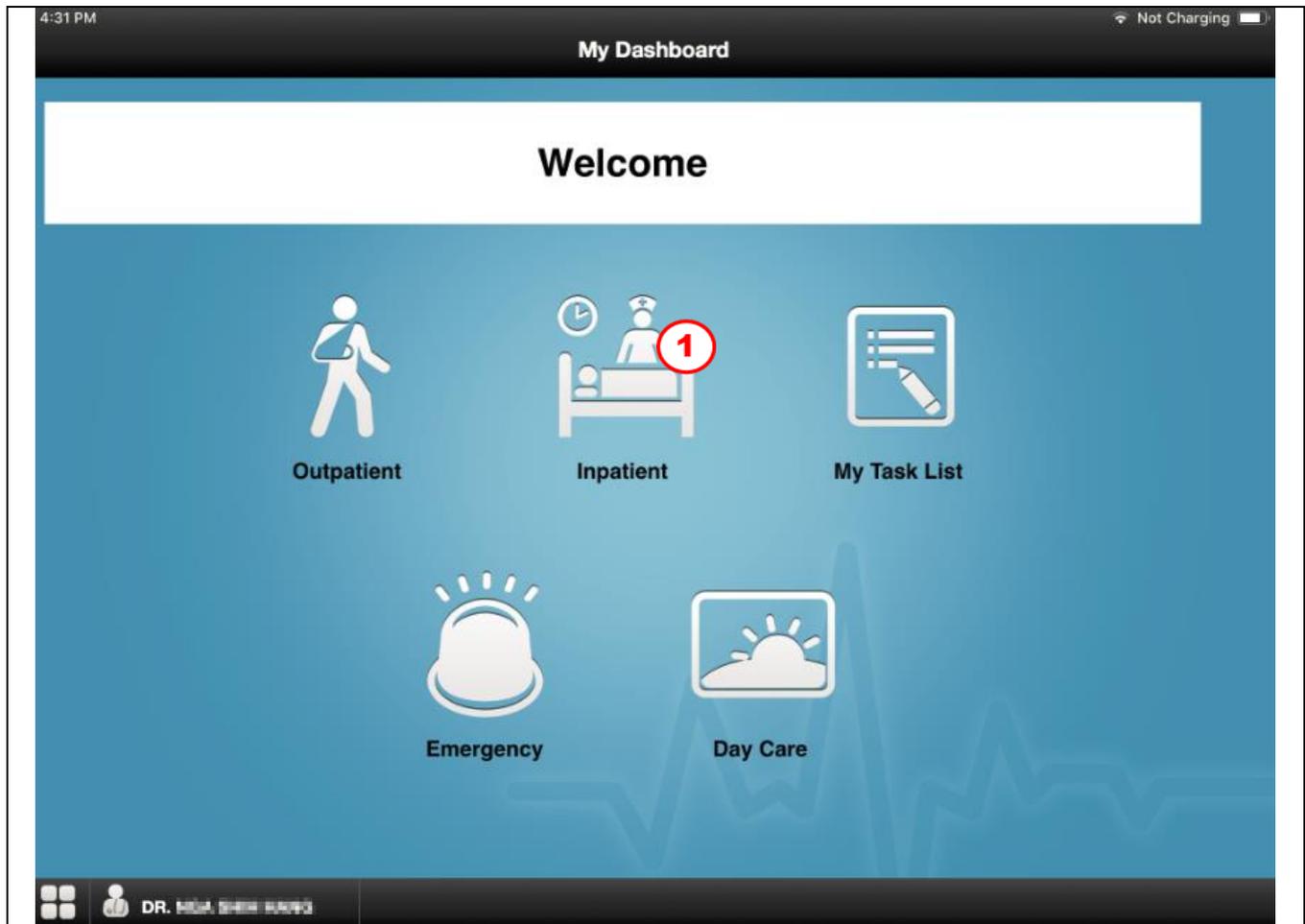


Figure 7.2.1-1 Main Page

#### STEP 1

Tap on Inpatient Icon

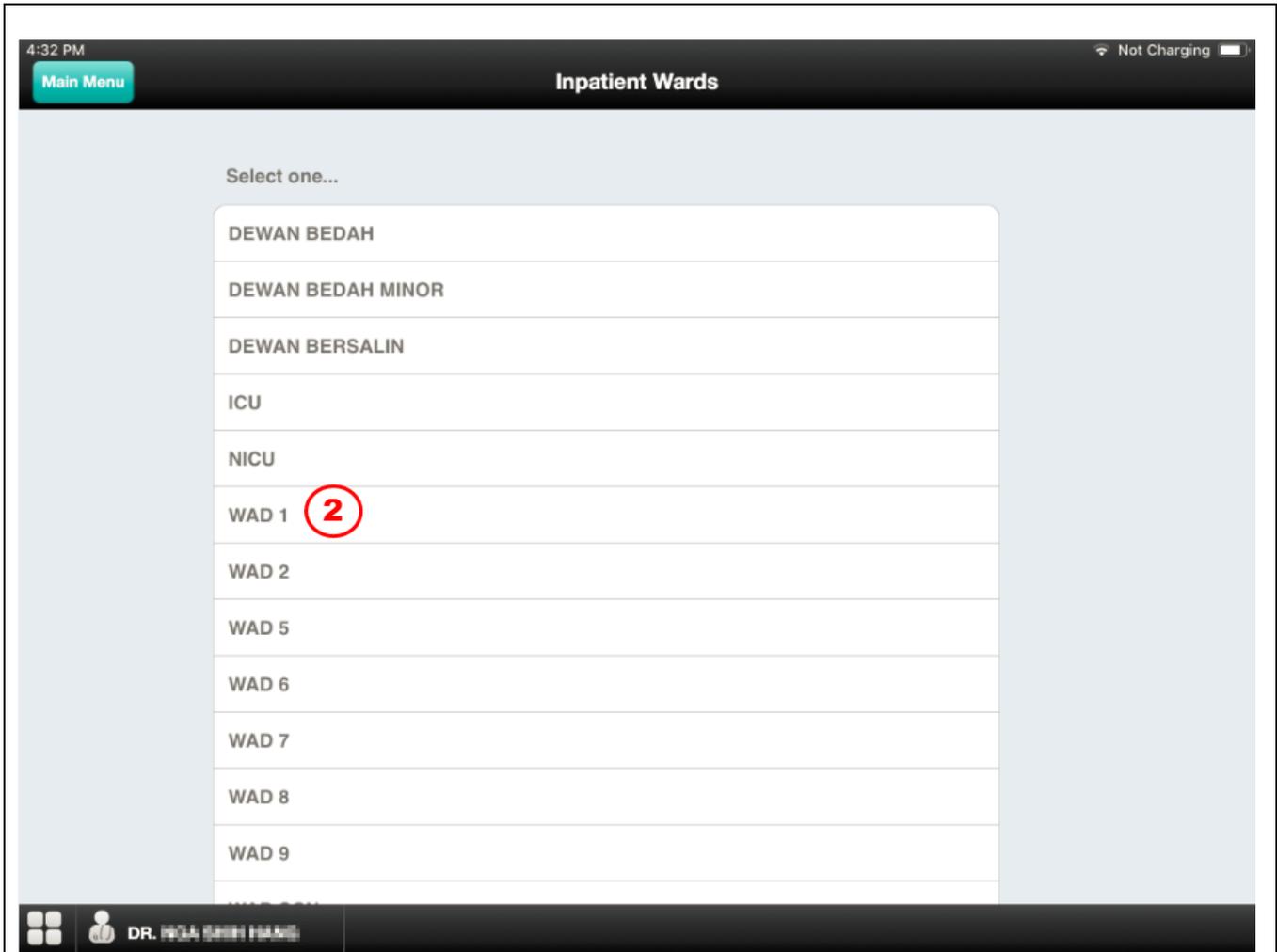


Figure 7.2.1-2 Location Screen Listing Page

**STEP 2**

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

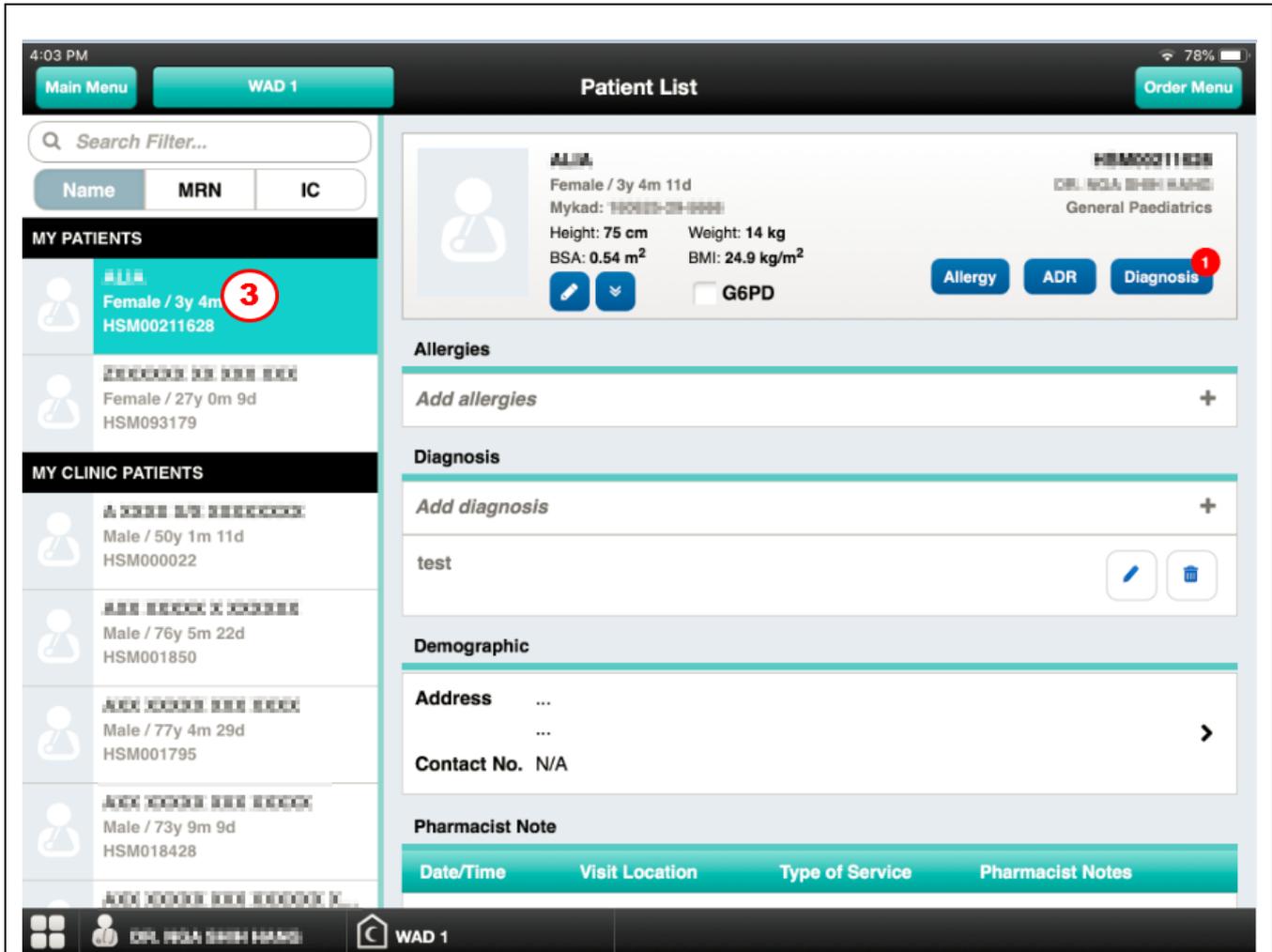


Figure 7.2.1-3 Patient Listing Page

**STEP 3**

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

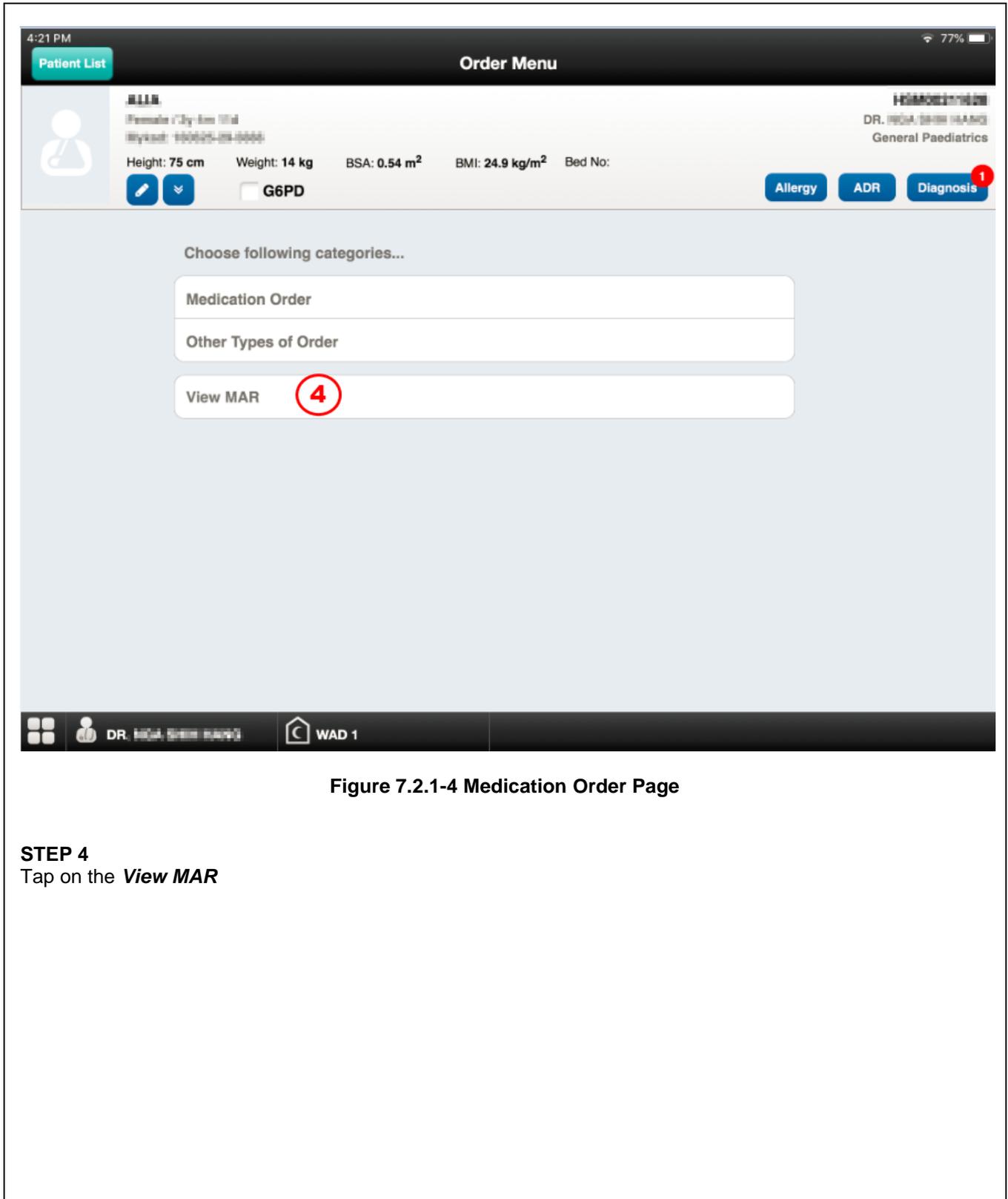


Figure 7.2.1-4 Medication Order Page

**STEP 4**

Tap on the **View MAR**

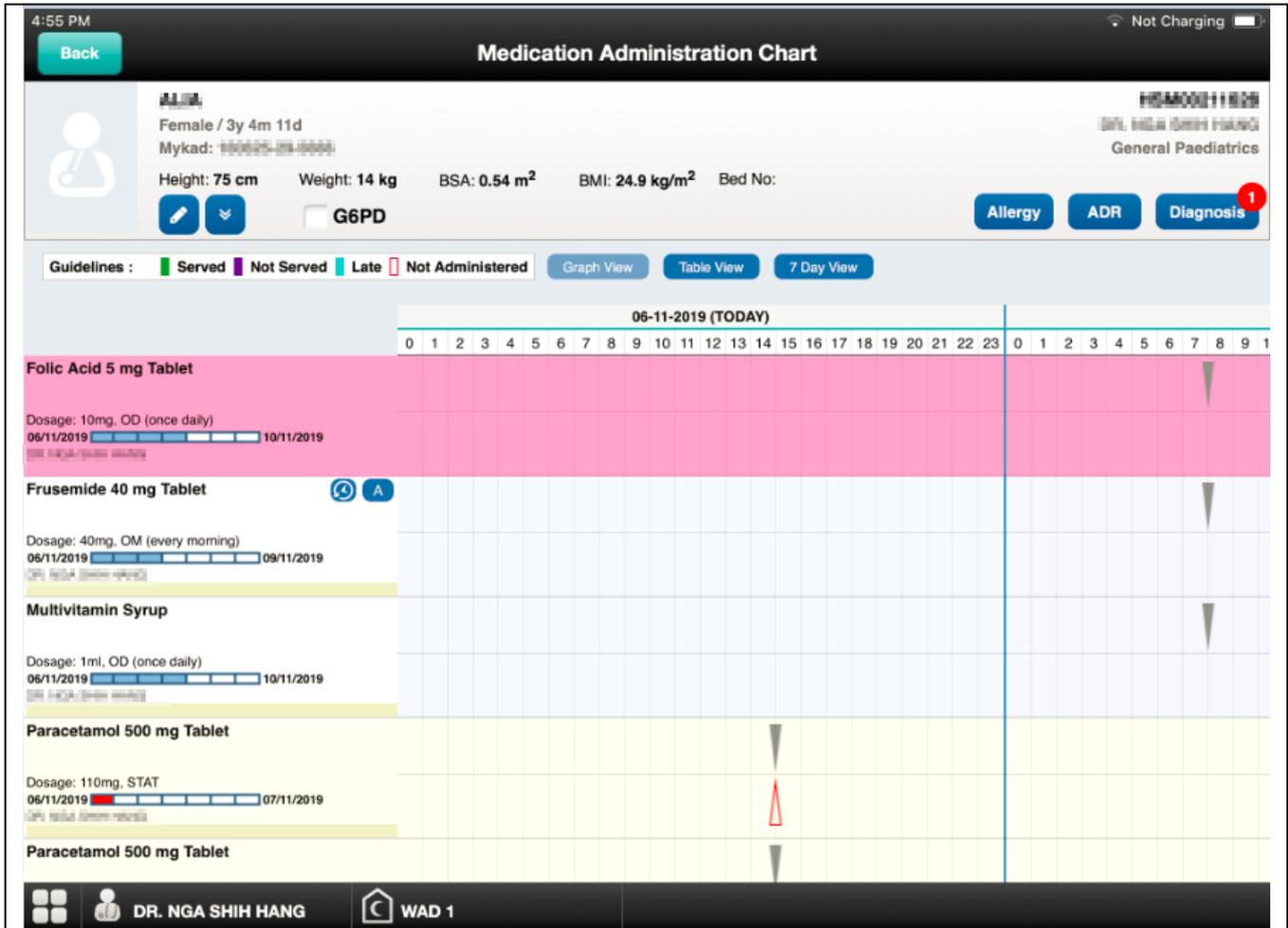


Figure 7.2.1-5 View MAR Graph View

**Note**

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

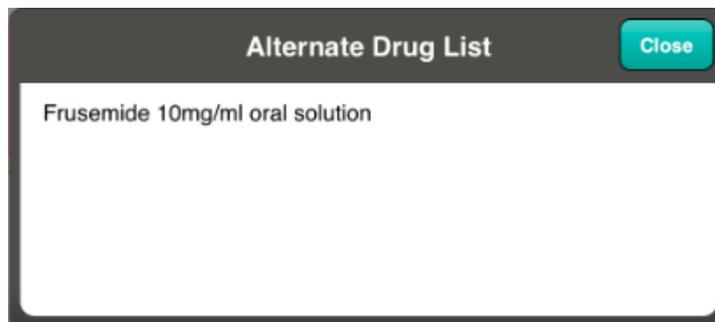


Figure 7.2.1-6 Alternate Drug List

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

| History Records  |                  |
|--|------------------|
| 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 |                  |
| 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 |                  |
| 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**

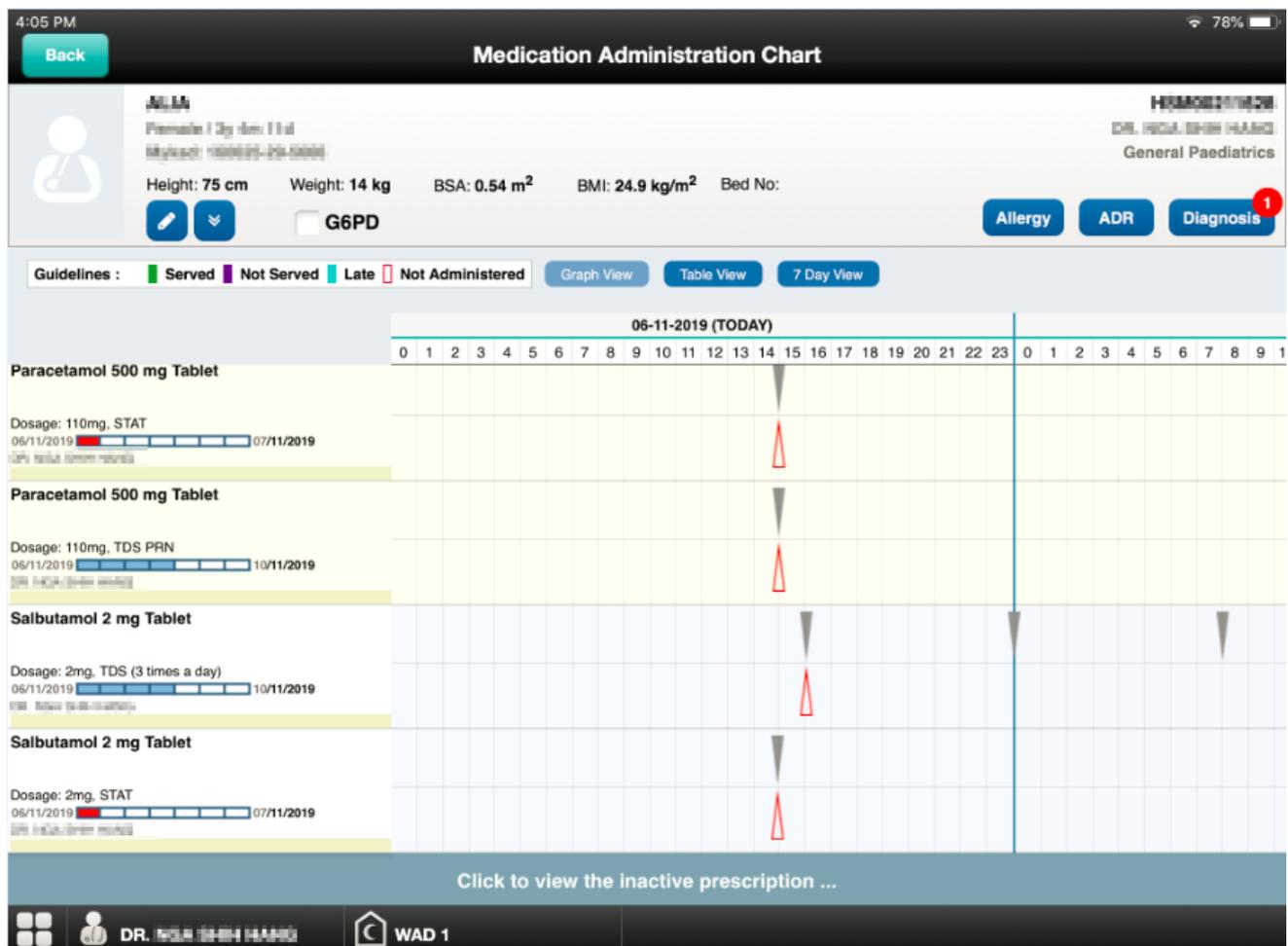


Figure 7.2.1-8 View MAR

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

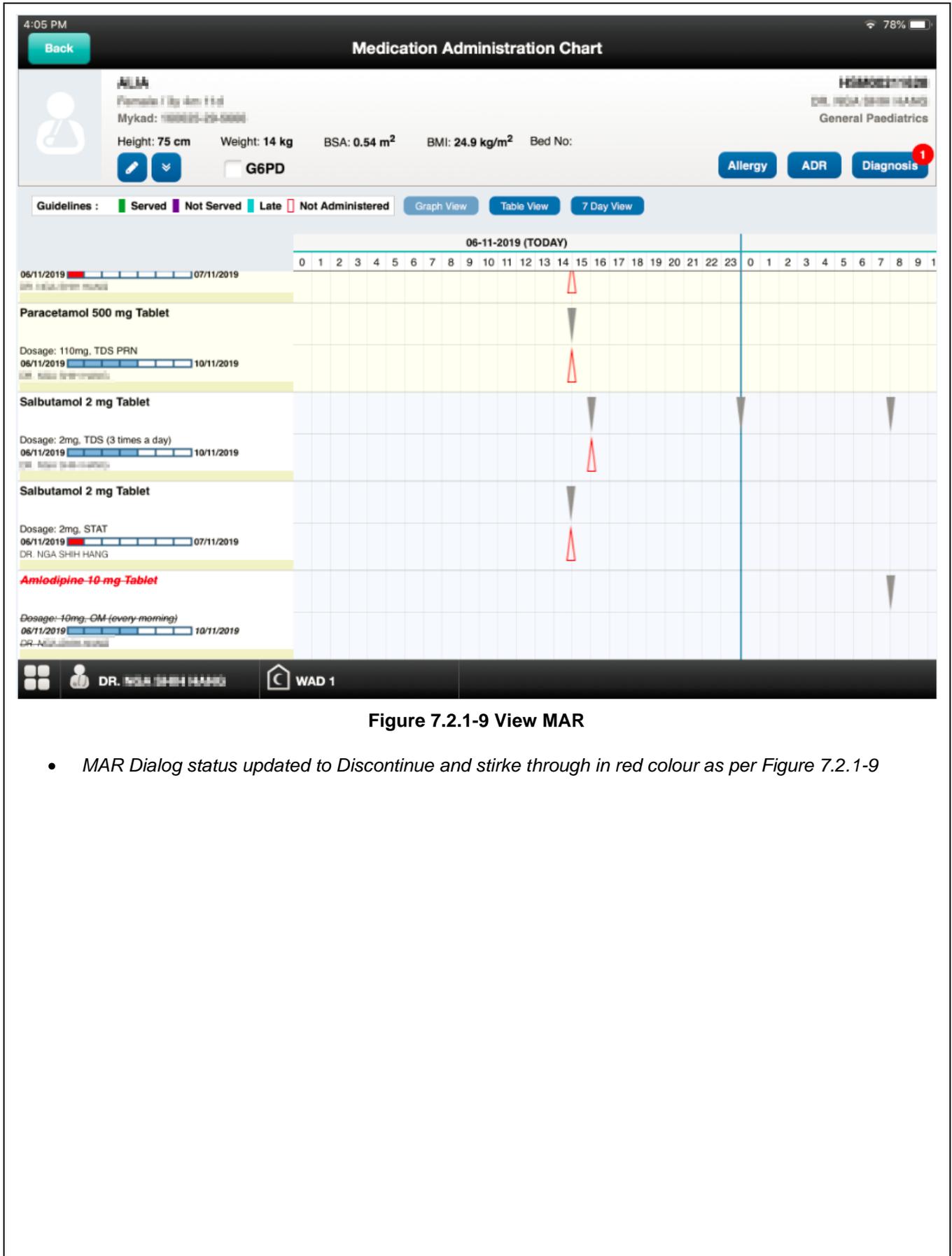


Figure 7.2.1-9 View MAR

- 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

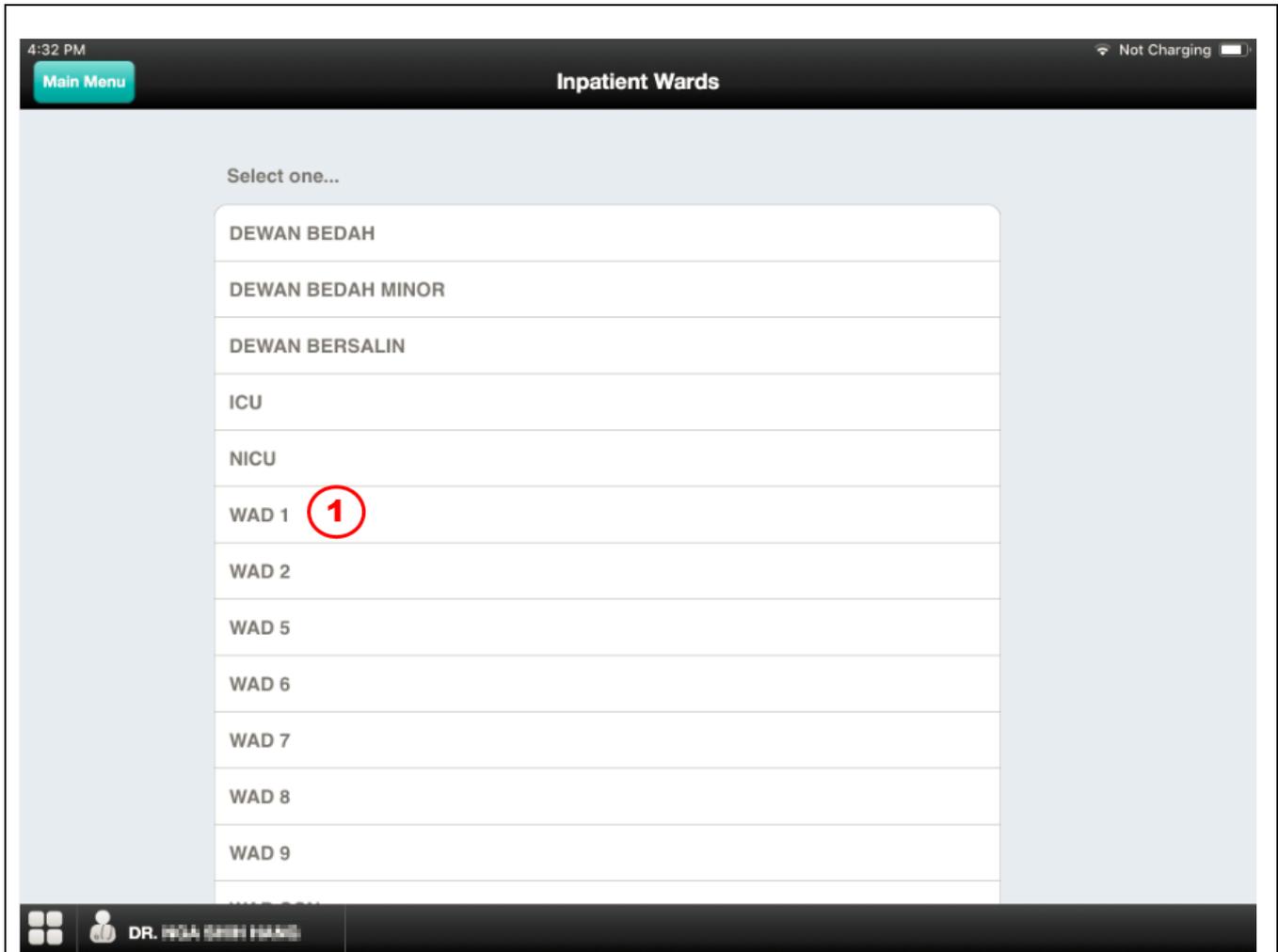


Figure 7.2.2-1 Location Screen Listing Page

### STEP 1

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

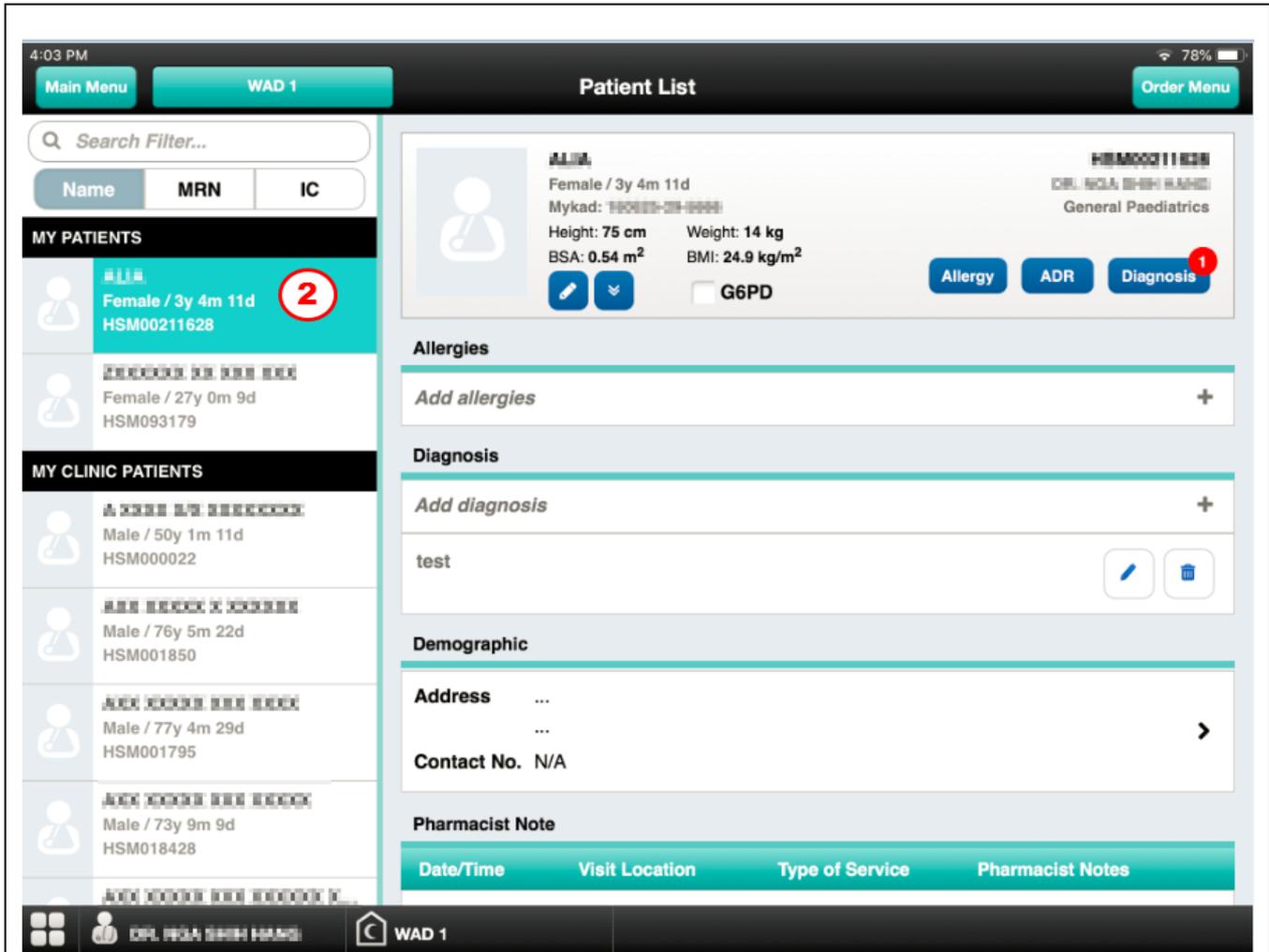


Figure 7.2.2-2 Patient Listing Page

**STEP 2**

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

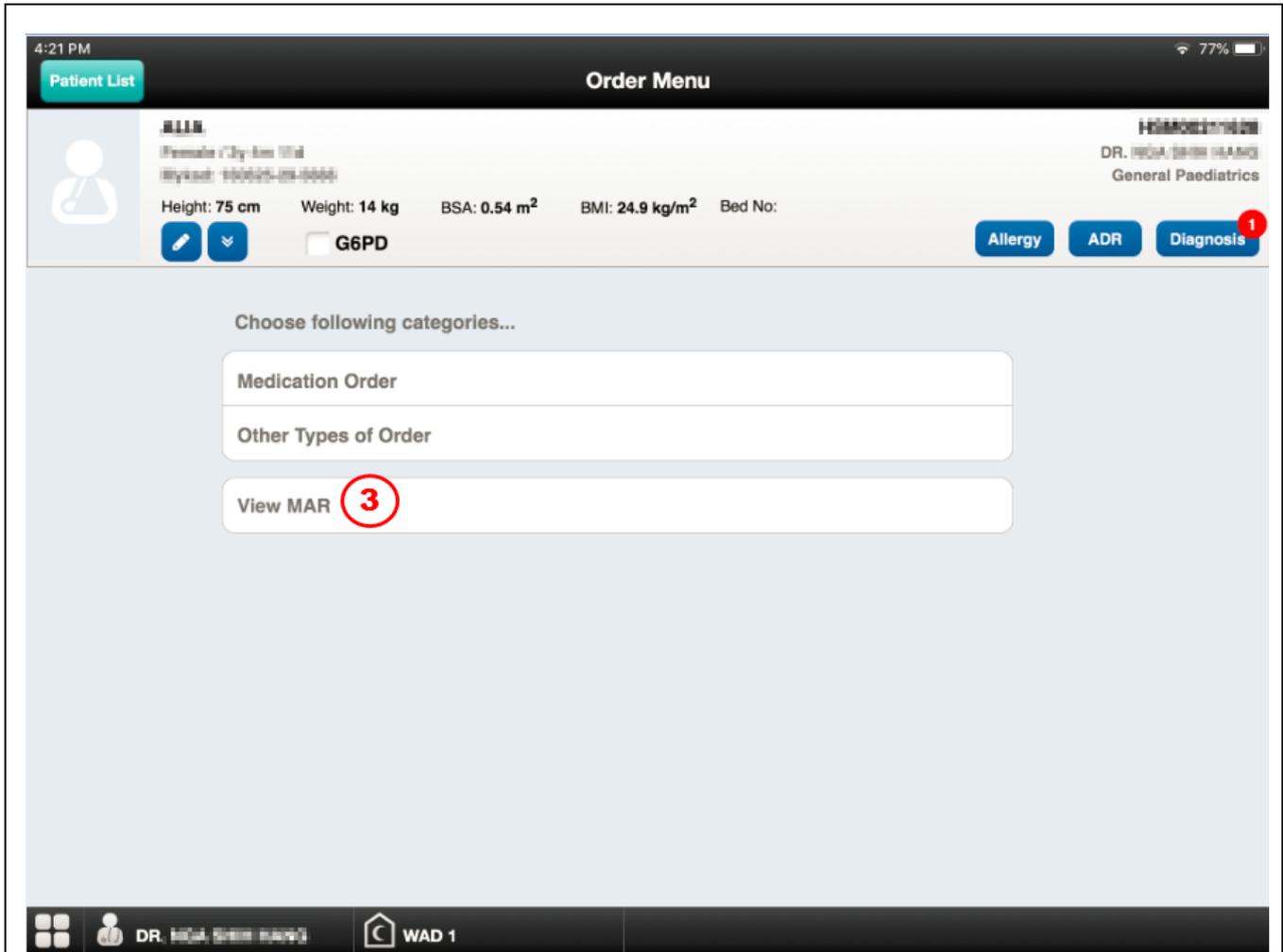


Figure 7.2.2-3 Medication Order Page

**STEP 3**

Tap on the *View MAR*

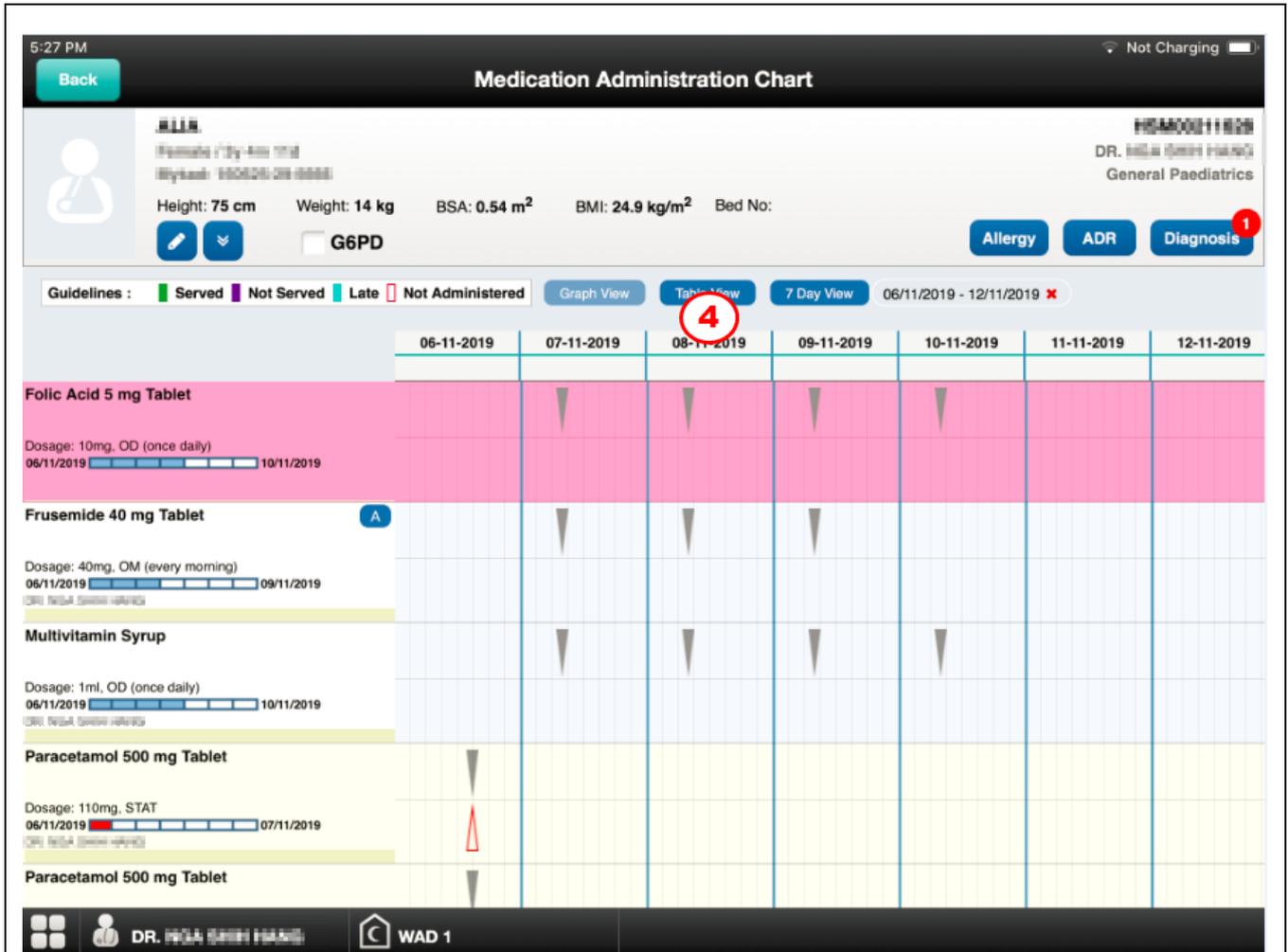


Figure 7.2.2-4 View MAR Graph View

**STEP 4**

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

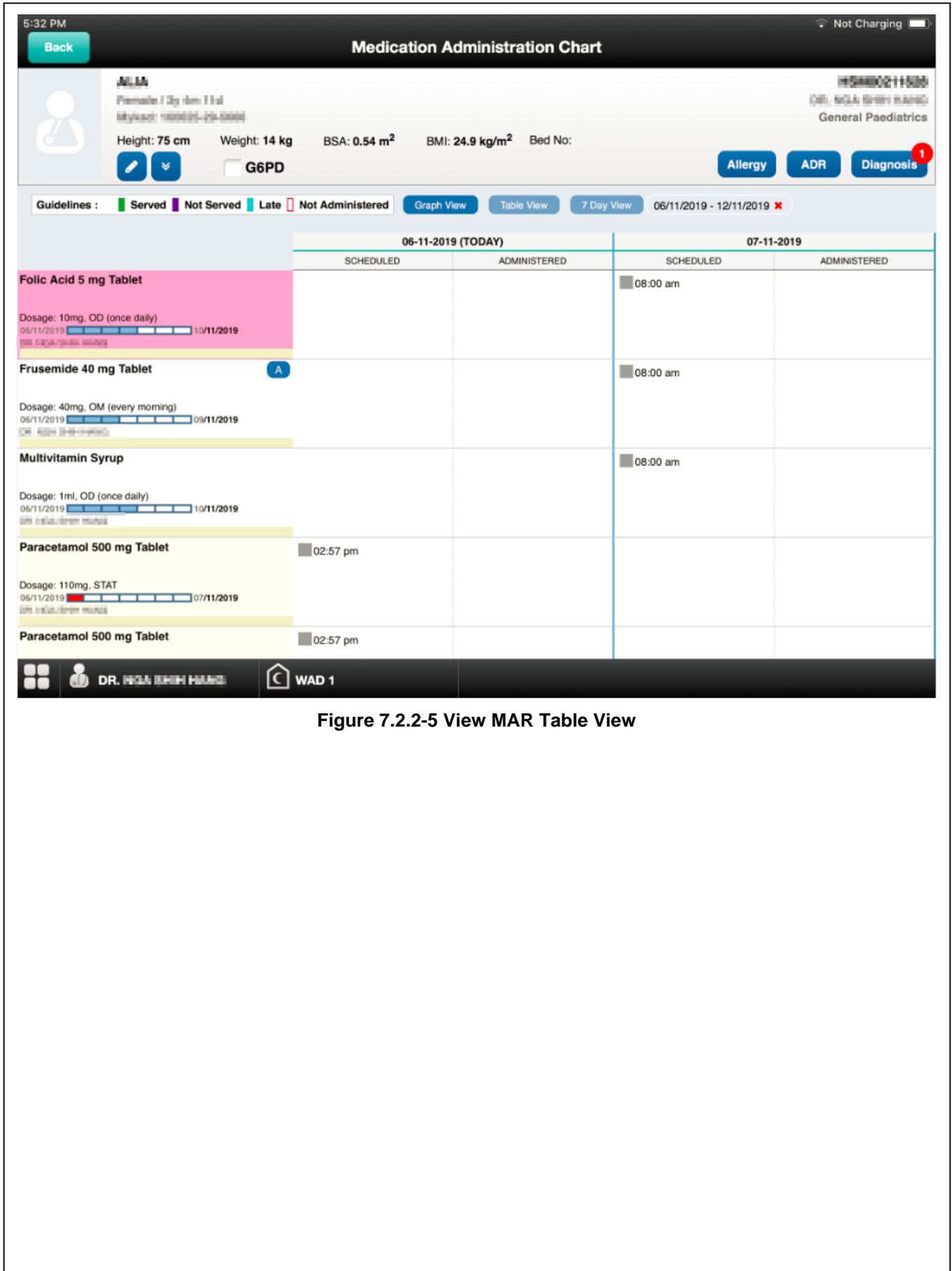


Figure 7.2.2-5 View MAR Table View

### 7.2.3 View MAR – 7 Days View.

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

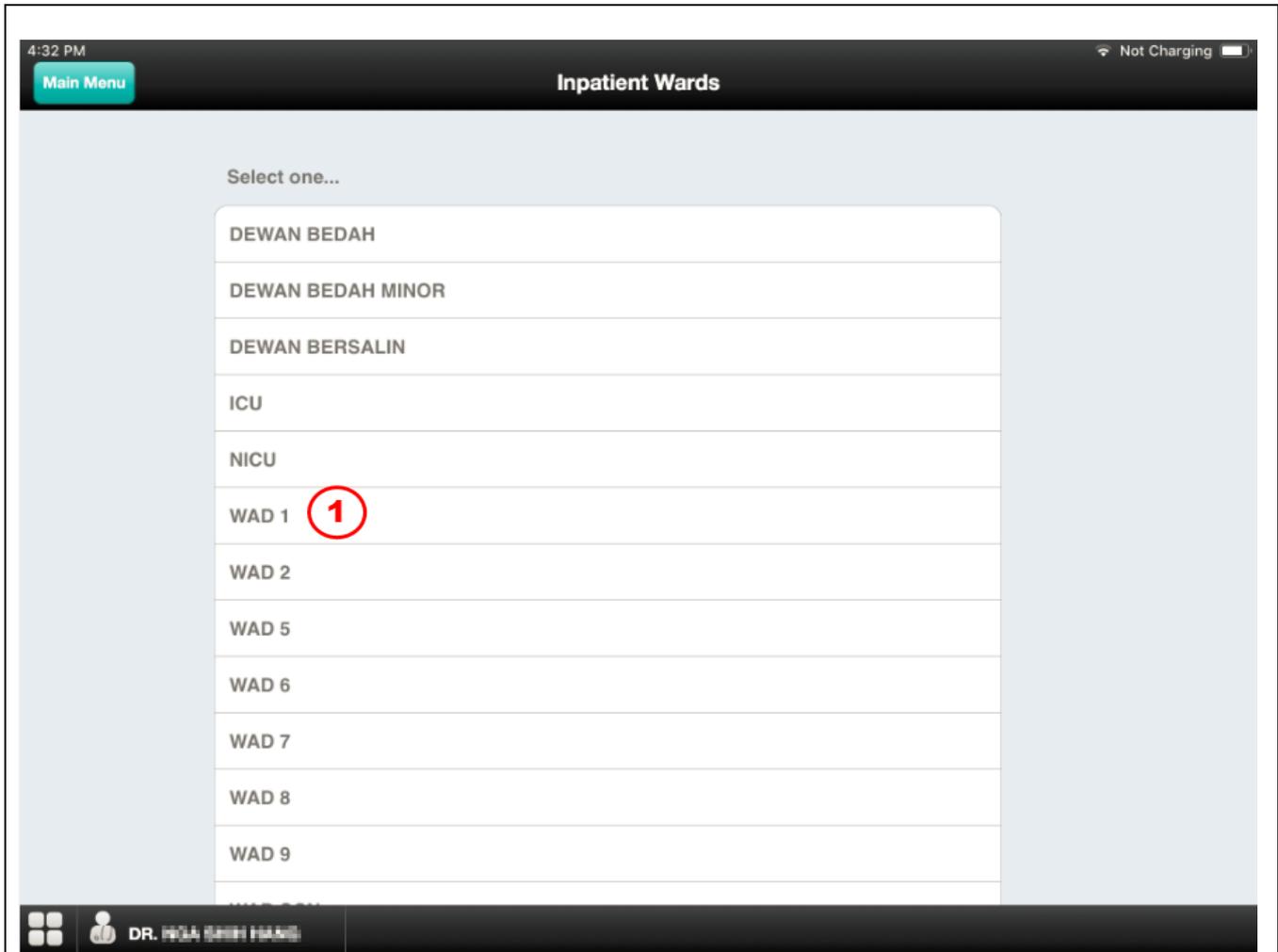


Figure 7.2.3-1 Location Screen Listing Page

#### STEP 1

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

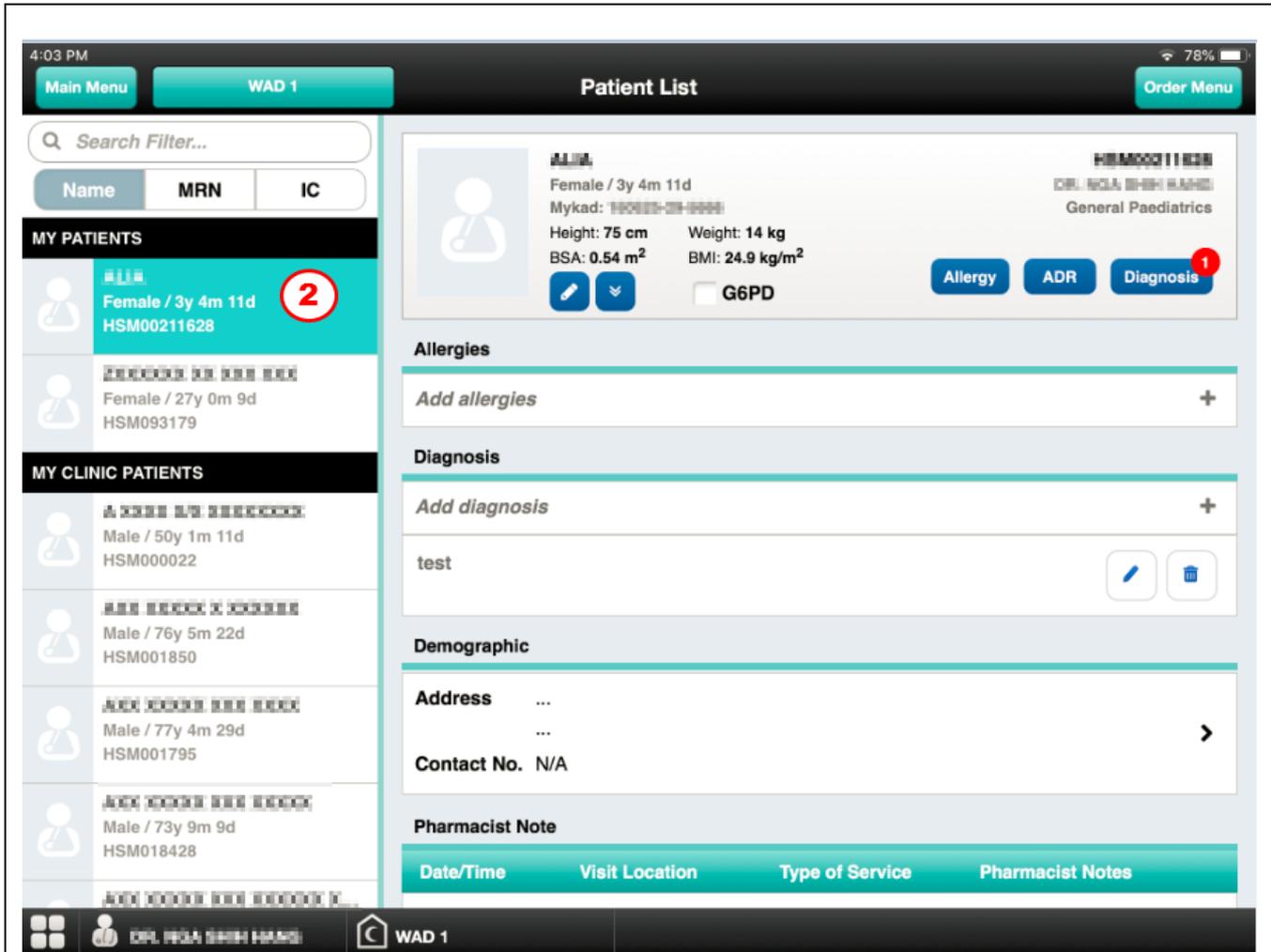


Figure 7.2.3-2 Patient Listing Page

**STEP 2**

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

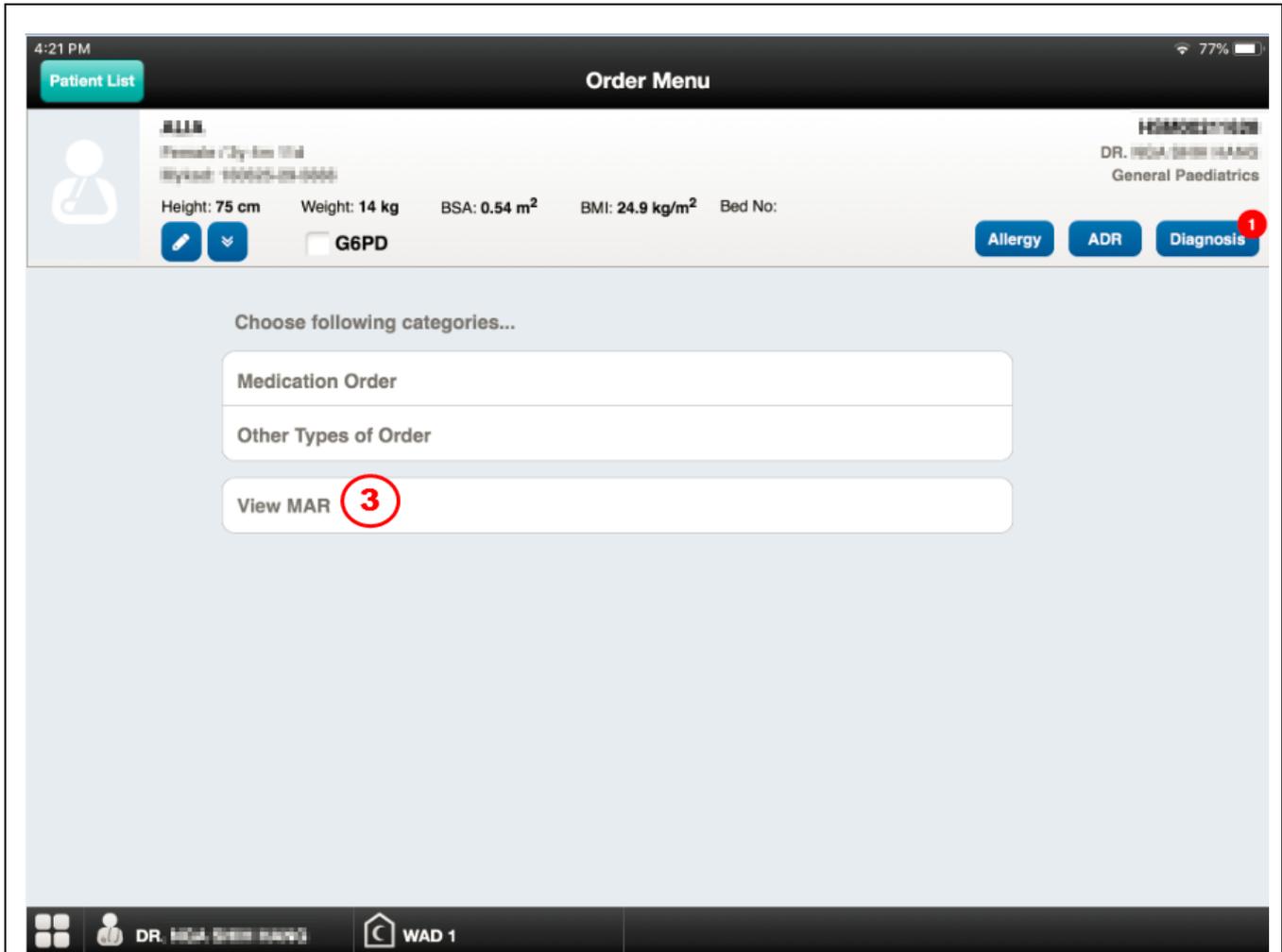


Figure 7.2.3-3 Medication Order Page

**STEP 3**

Tap on the *View MAR*

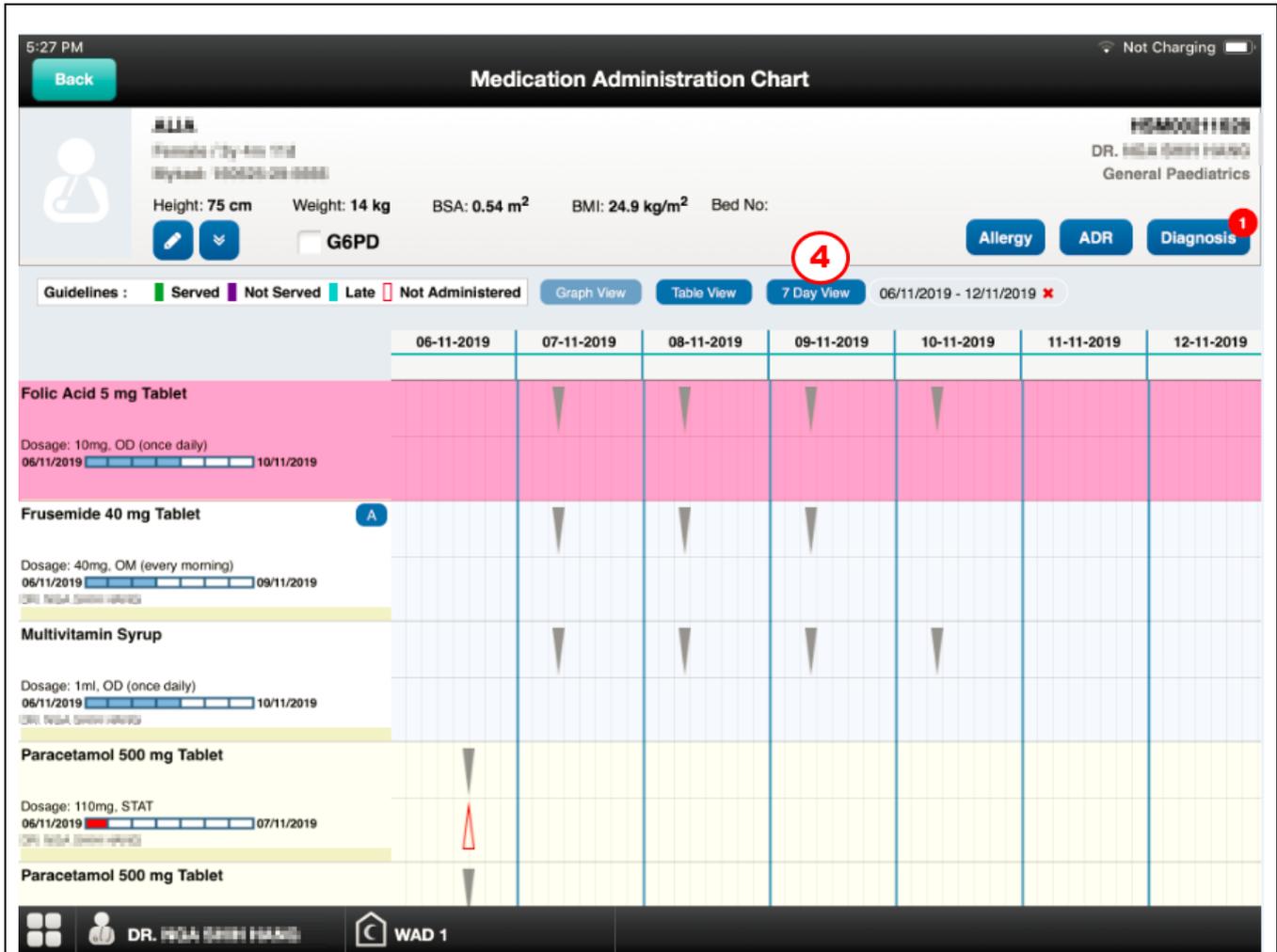


Figure 7.2.3-4 View MAR Graph View

**STEP 4**

Tap on the **7 Day View** button

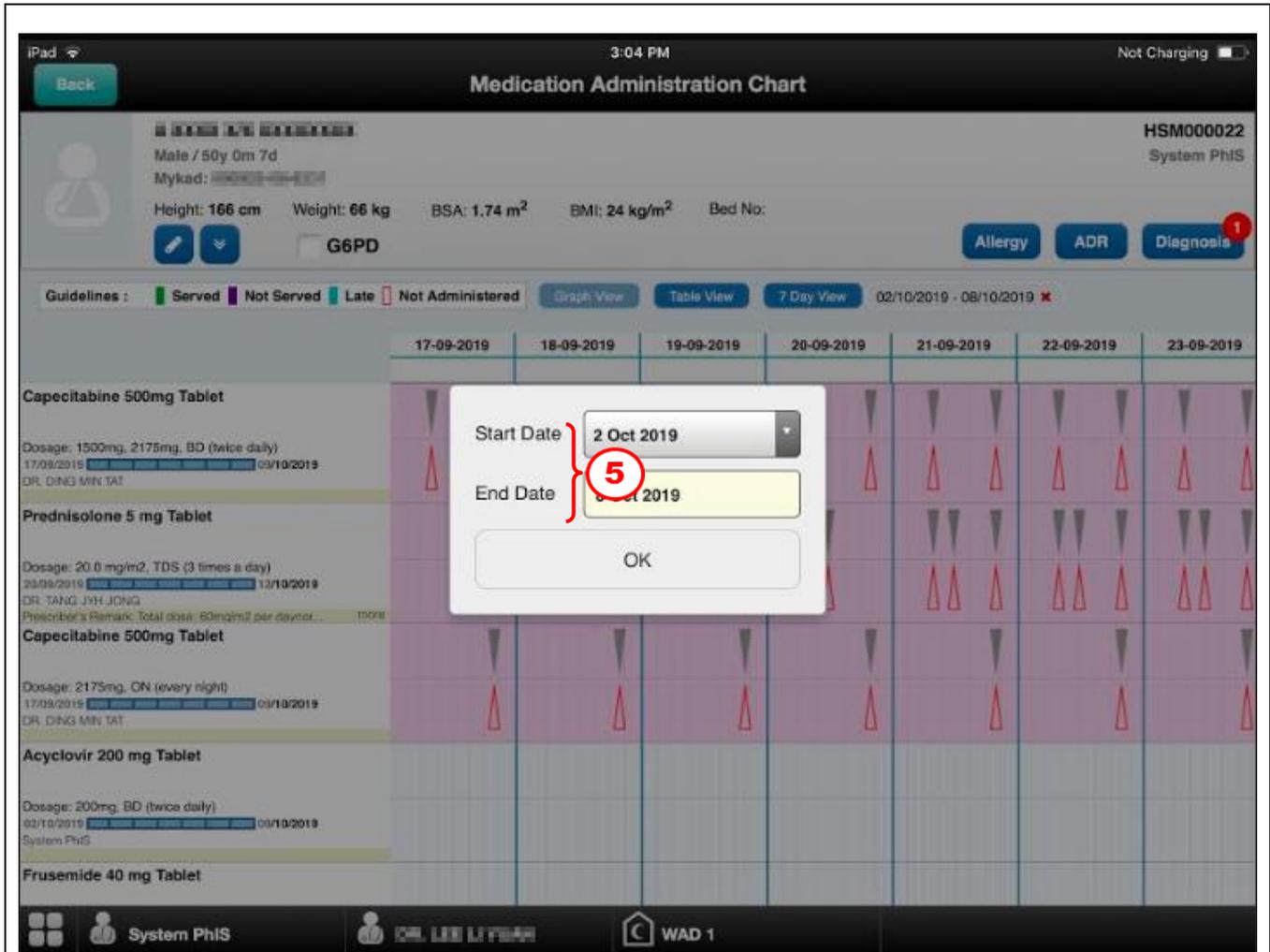


Figure 7.2.3-5 View MAR Graph View

### 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

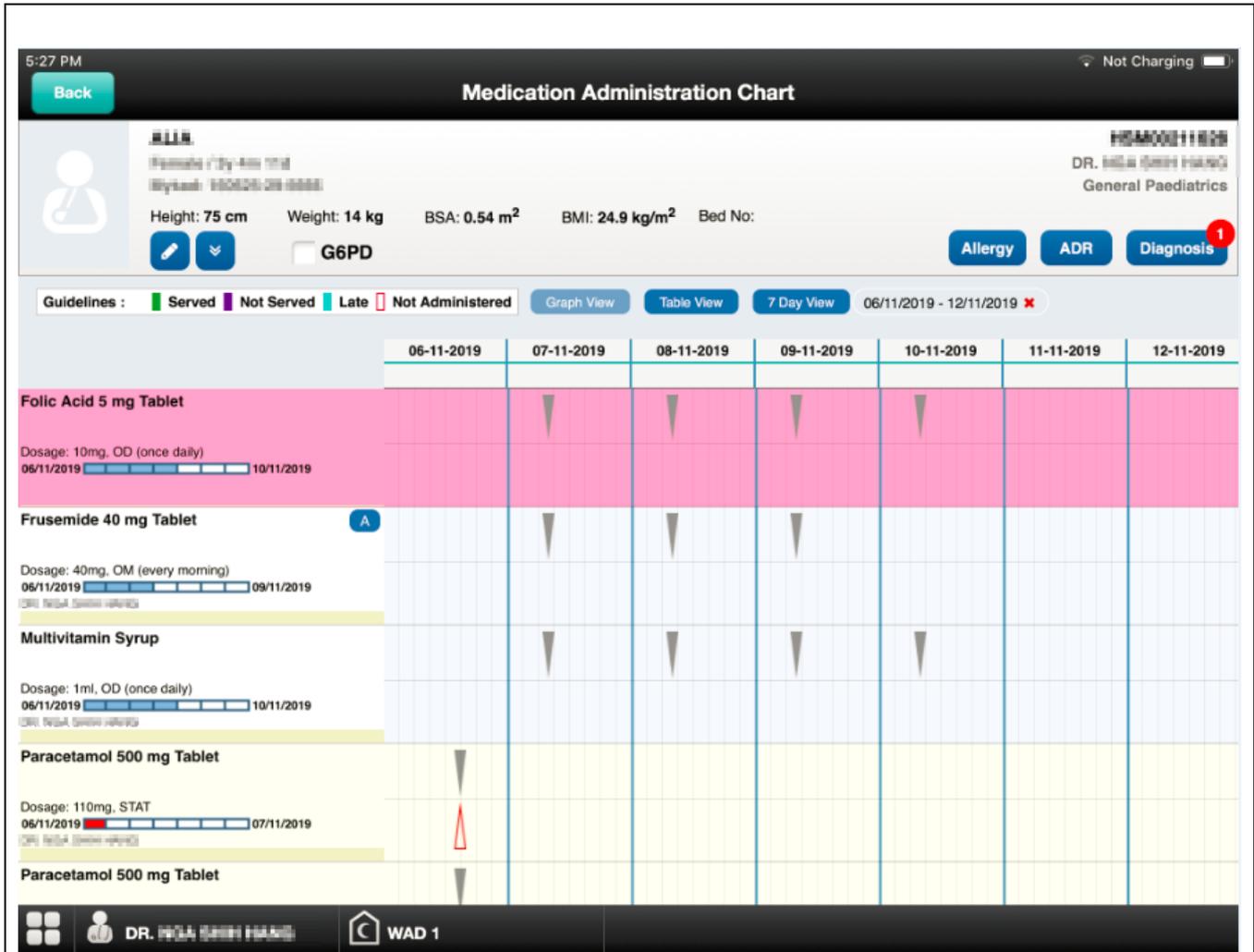
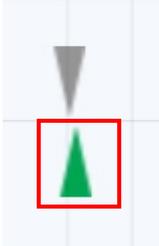


Figure 7.2.3-6 View MAR 7 Days View

**View MAR Legend**

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

|   |   |
|---|---|
| <p><b>Prednisolone 5 mg Tablet</b></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><b>Amlodipine 10 mg Tablet</b></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              | <a href="#">Click Here</a> | 12 | CDR Dispensing       | <a href="#">Click Here</a> |
| 2  | CDR Order              | <a href="#">Click Here</a> | 13 | Methadone Dispensing | <a href="#">Click Here</a> |
| 3  | TDM Order              | <a href="#">Click Here</a> | 14 | PN Dispensing        | <a href="#">Click Here</a> |
| 4  | PN Order               | <a href="#">Click Here</a> | 15 | Order Management     | <a href="#">Click Here</a> |
| 5  | IV Order               | <a href="#">Click Here</a> | 16 | Patient Management   | <a href="#">Click Here</a> |
| 6  | Prepacking             | <a href="#">Click Here</a> | 17 | Radiopharmaceuticals | <a href="#">Click Here</a> |
| 7  | Galenical              | <a href="#">Click Here</a> | 18 | Outpatient           | <a href="#">Click Here</a> |
| 8  | MTAC                   | <a href="#">Click Here</a> | 19 | Special Drug Request | <a href="#">Click Here</a> |
| 9  | ADR & DAC              | <a href="#">Click Here</a> | 20 | MAR                  | <a href="#">Click Here</a> |
| 10 | Medication Counselling | <a href="#">Click Here</a> | 21 | DICE                 | <a href="#">Click Here</a> |
| 11 | Ward Pharmacy          | <a href="#">Click Here</a> | 22 |                      |                            |