



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

Full Based

User Manual

**Order Management - Cytotoxic Drug Reconstitution
(CDR)**

Version	: 10th EDITION
Document ID	: FB_U. MANUAL_OM CDR



PhIS & CPS Project
User Manual – Order Management Cytotoxic Drug Reconstitution
(CDR)



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



PhIS & CPS Project
User Manual – Order Management Cytotoxic Drug Reconstitution
(CDR)



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1.0 Introduction

1.1 Overview of PhIS

Pharmacy Information System or better known as PhIS, is a complete and comprehensive system that integrates pharmacy related services geared towards pharmacy excellence. PhIS implementation would transform most of current manual process to electronic system to 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 / Outpatient Pharmacy
3. Medication Counselling
4. Ward Pharmacy
5. Pharmacy Inventory
6. Manufacturing of Cytotoxic Drug Reconstitution, Parenteral Nutrition, IV Admixture & Eye Drop, Radiopharmaceuticals and Extemporaneous
7. Adverse Drug Reaction & Drug Allergic (ADR & DAC)
8. Clinical Pharmacokinetics Services (TDM)
9. Drug Information & Consumer Education (DICE)
10. Medication Therapy Adherence Clinic (MTAC)
11. Data Mining (PhARM)

1.2 Purpose and Objectives

This user manual outlines the Cytotoxic Drug Reconstitution sub-module and its key features and functionalities. The primary objective is to guide user through the process of completing PhIS application process.

User will understand the following activities in details:

- Cytotoxic Drug Reconstitution Order
- Manage Prescription
- Order Endorsement
- Order Authorisation



1.3 Organised Sections

These are the sections within this document:

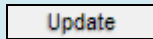


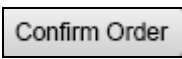
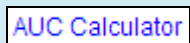

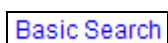
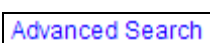
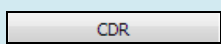
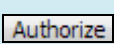
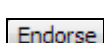
- Section 1 : Introduction
- Section 2 : Application Standard Features
- Section 3 : Cytotoxic Drug Reconstitution
- Section 4 : Acronyms
- Section 5 : Links to Clinical Modules

2.0 Application Standard Features

2.1 PhIS Legend

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

Module Legend

	Update Patient's Height and Weight		Display Regimen Details
	Update Sampling Details		Confirm Order
	AUC Calculator		Save Record
	Basic Search		Advanced Search
	Display CDR Order Screen		Authorize Order
	Endorse Order		

Note

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

3.0 Cytotoxic Drug Reconstitution (CDR)

Overview

The Order Management – Cytotoxic Drug Reconstitution (CDR) module handles all the information to specify the 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 be 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, Doctor, Medical Officer and Medical Assistant.

Functional Diagram

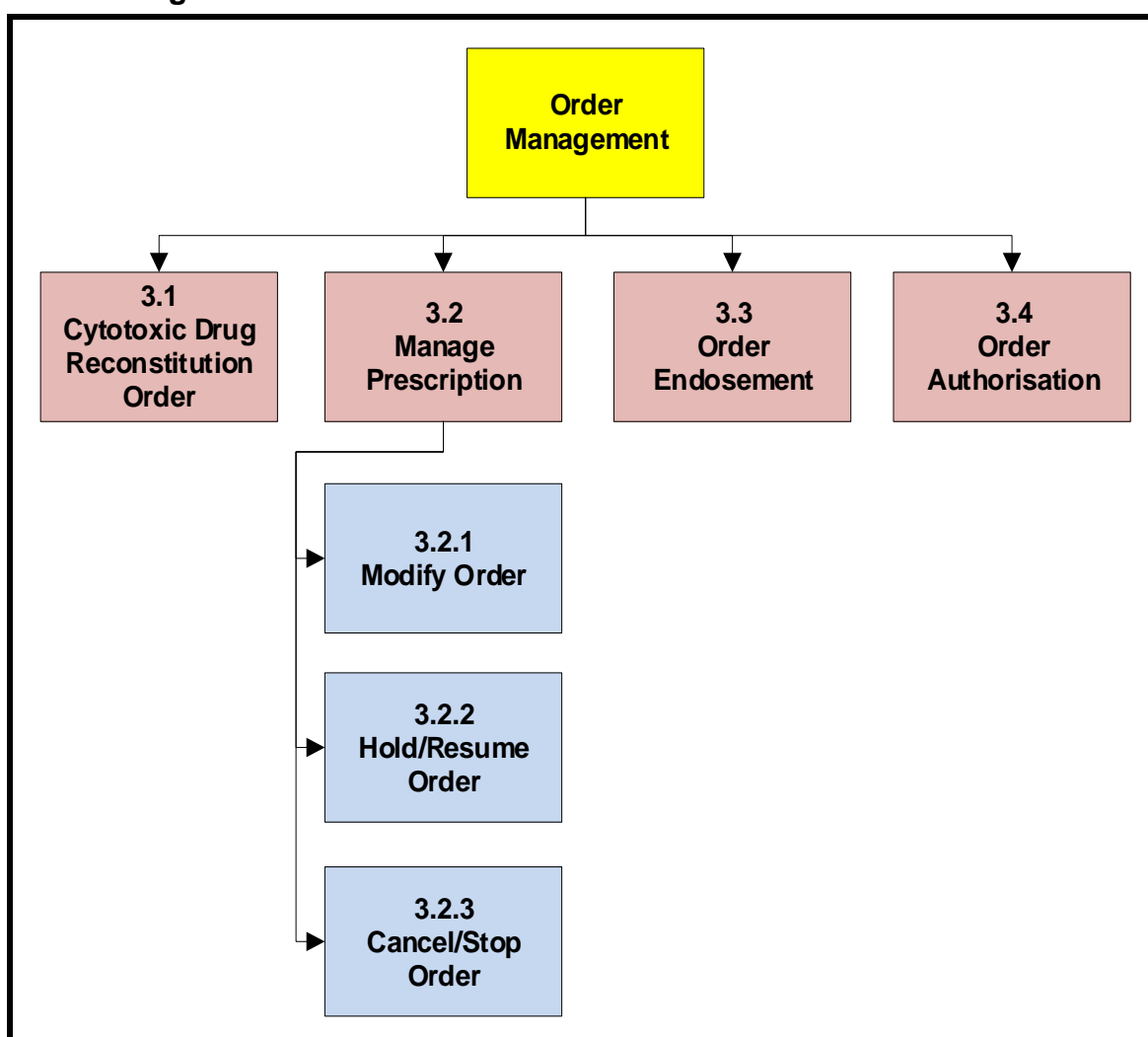


Figure 3.0

Functional Description

Cytotoxic Drug Reconstitution (CDR) comprises of four (4) main functions:

- **Cytotoxic Drug Reconstitution (CDR) Order**
CDR Order is used to prescribe Chemotherapy Drug.
- **Manage Prescription**
This function to monitor patient's prescription including modify order, hold/resume order- and cancel/stop order.
- **Order Endorsement**
Order endorsement is used to notify the prescriber of prescription changes made by the pharmacist.
The prescriber may endorse the intervention made by the pharmacist.
- **Order Authorisation**
This function is used to approve list A/ A*/ A/KK drugs that require authorization

3.1 Cytotoxic Drug Reconstitution Order

CDR Order allows Prescriber to place a cytotoxic order. Order will be sent to Pharmacist for the process of verification, preparation and dispensing.

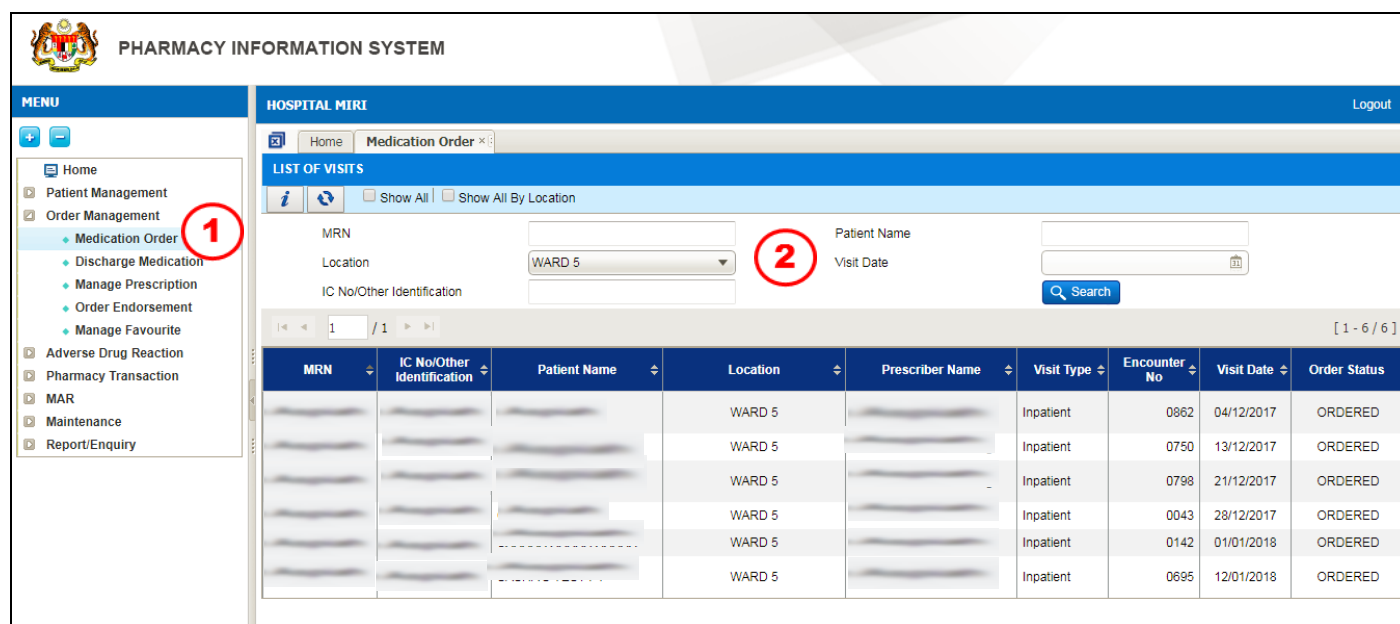


Figure 3.1-1 Medication Order Listing Page

STEP 1

Click on the 'Order Management' menu followed by 'Medication Order' sub menu

STEP 2

Search patients record based on the fields below:

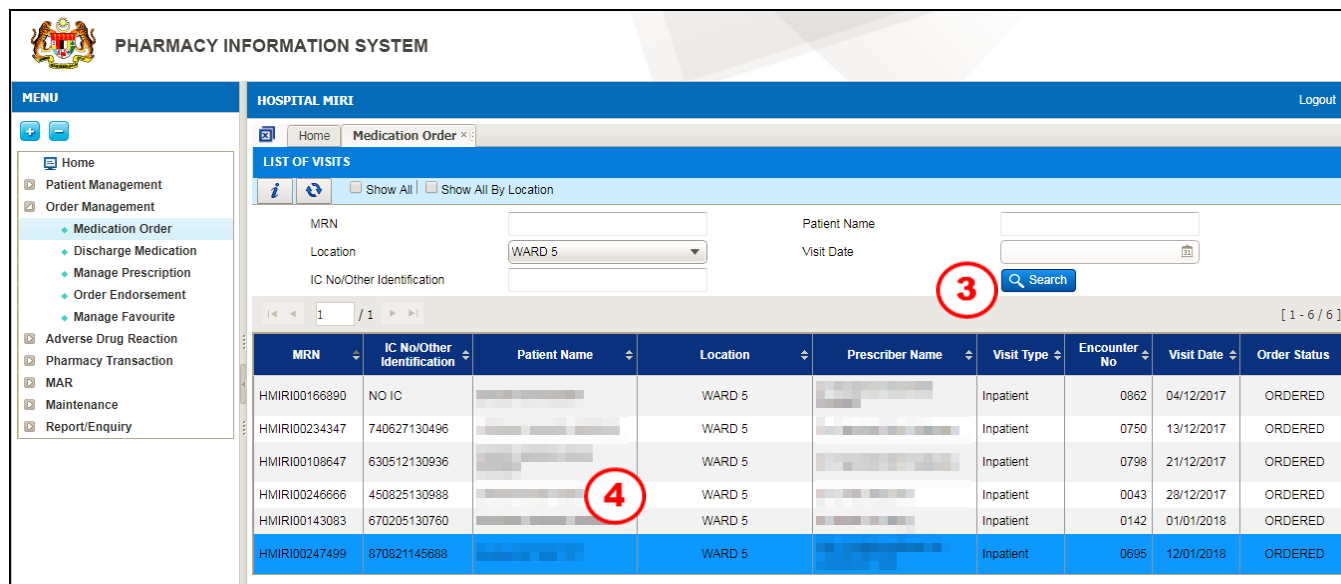
No	Field	Description	Remark
a	MRN	Patient Medical Record Number	Search option: • Type the MRN either in full or partially: <i>Example : HPSF00001234 or "1234"</i>
b	Patient Name	Patient Name	Allow to search by fully or partially entered patient name
c	Location	Patient Visit Location	Able to filter and search patient by visit location and prescriber's location
d	Visit Date	Visit Date	Able to filter and search by visit date
e	IC No/Other Identification	Patient Identification No	Allow to search by fully or partially entered patient ID no

Table 3.1-1

Note

Prescriber have the options to view patient by clicking on the checkbox:

- ☐ Show All - click on the checkbox to view all patients based on prescriber login.
- ☐ Show All By Location - click on the checkbox to view patients by location assigned based on prescriber login



PHARMACY INFORMATION SYSTEM

HOSPITAL MIRI Logout

Home Medication Order

LIST OF VISITS

MRN: Patient Name:

Location: Visit Date:

IC No/Other Identification:

[1 - 6 / 6]

MRN	IC No/Other Identification	Patient Name	Location	Prescriber Name	Visit Type	Encounter No	Visit Date	Order Status
HMIRI00166890	NO IC		WARD 5		Inpatient	0862	04/12/2017	ORDERED
HMIRI00234347	740627130496		WARD 5		Inpatient	0750	13/12/2017	ORDERED
HMIRI00108647	630512130936		WARD 5		Inpatient	0798	21/12/2017	ORDERED
HMIRI00246666	450825130988		WARD 5		Inpatient	0043	28/12/2017	ORDERED
HMIRI00143083	670205130760		WARD 5		Inpatient	0142	01/01/2018	ORDERED
HMIRI00247499	870821145688		WARD 5		Inpatient	0695	12/01/2018	ORDERED

Figure 3.1-2 Medication Order Listing Page

STEP 3

Click on the  button to search for patient

Note

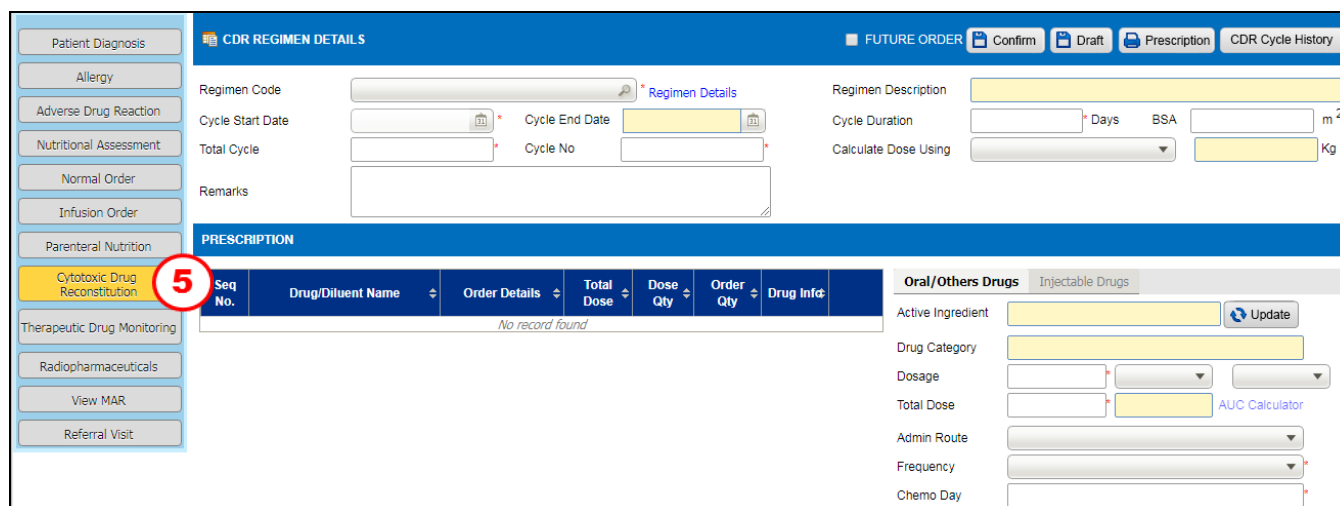
- Search results of patient record list will display:
- MRN
- IC No/Other Identification
- Patient Name
- Location
- Prescriber Name
- Visit Type
- Encounter No
- Visit Date
- Order Status
- Order Status = 'Ordered', confirmed prescription.
- Order Status = 'Draft', prescription is saved but have not been confirmed.

STEP 4

Double click on the selected patient record and Medication Order screen will display as shown in Figure 3.1-3

Note

Patient Diagnosis is mandatory for each patient visit.



CDR REGIMEN DETAILS

Regimen Code: * [Regimen Details](#)

Cycle Start Date: * Cycle End Date:

Total Cycle: Cycle No:

Remarks:

Regimen Description:

Cycle Duration: Days BSA: m²

Calculate Dose Using: Kg

PRESCRIPTION

Seq No.	Drug/Diluent Name	Order Details	Total Dose	Dose Qty	Order Qty	Drug Info
No record found						

Oral/Others Drugs **Injectable Drugs**

Active Ingredient: [Update](#)

Drug Category:

Dosage:

Total Dose: [AUC Calculator](#)

Admin Route:

Frequency:

Chemo Day:

Figure 3.1-3 Medication Order

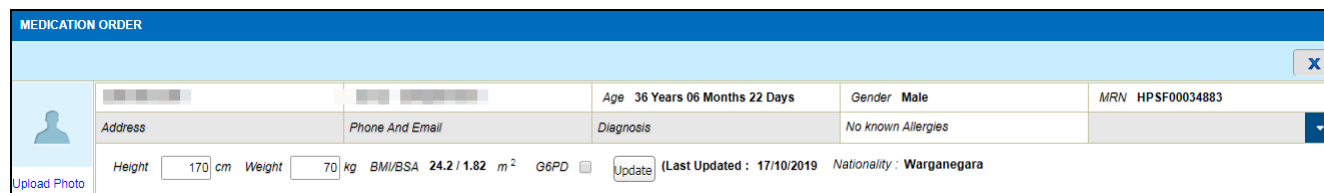
STEP 5

Click on the **Cytotoxic Drug Reconstitution** button to display CDR Order screen

Note

CDR Order screen consist of:

- **Patient's Banner**



MEDICATION ORDER

Age: 36 Years 06 Months 22 Days Gender: Male MRN: HPSF00034883

Address: Phone And Email: Diagnosis: No known Allergies

Height: 170 cm Weight: 70 kg BMI/BSA: 24.2 / 1.82 m² G6PD: ☐ [Update](#) (Last Updated : 17/10/2019 Nationality : Warganegara)

[Upload Photo](#)

Figure 3.1-4 Patient's Banner

- Patient's banner will be displayed at the specific screen with required patient information. User can update patient's height and weight. Below is the list of patient information:
- Patient Name
- Patient IC Number
- Patient Diagnosis
- Patient Age
- Patient Allergy
- Patient Gender
- Patient MRN
- Patient Address
- Patient Phone and Email
- Height and Weight
- G6PD
- Nationality

- **Visit Record**

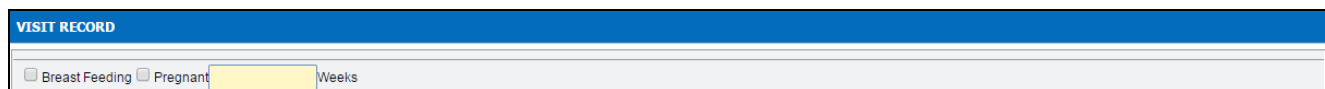


Figure 3.1-5 Visit Record

- Visit Record will display **Breast Feeding** and **Pregnant** ☐ checkboxes only if the patient is a female.

- **CDR Regimen Details**

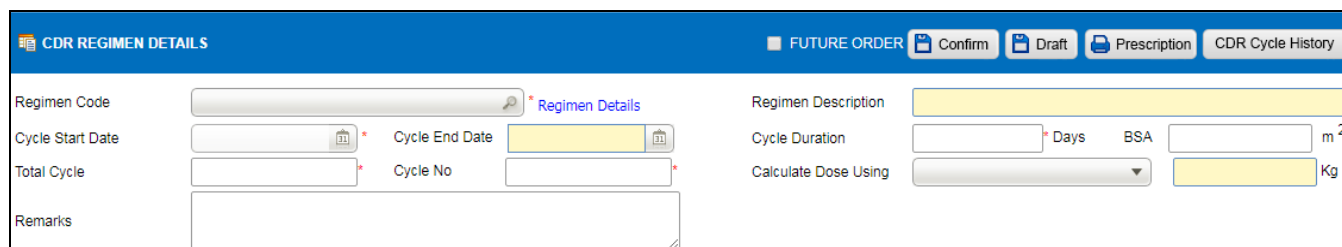


Figure 3.1-6 CDR Regimen Details

- CDR Regimen Details consists of:

- Regimen Code
- Regimen Details Hyperlink
- Regimen Description
- Cycle Start Date
- Cycle End date
- Cycle Duration
- BSA
- Total Cycle
- Cycle No
- Calculate Dose Using
- Remarks

- **Prescriptions**

Prescriptions consists of:

- Oral/Others Drugs
- Injectable Drugs
- Seq No.
- Drug/Diluent Name
- Other Details
- Total Dose
- Dose Qty (Quantity)
- Order Qty (Quantity)
- Drug Info

PRESCRIPTION						
Seq No.	Drug/Diluent Name	Order Details	Total Dose	Dose Qty	Order Qty	Drug Info
No record found						

Oral/Others Drugs

Injectable Drugs

Active Ingredient

Drug Category

Dosage

Total Dose

Admin Route

Frequency

Chemo Day

Drug Indication

Dispense Location

Drug Remarks

Update

AUC Calculator

Figure 3.1-7 Prescriptions

- **Regimen Drug Details**

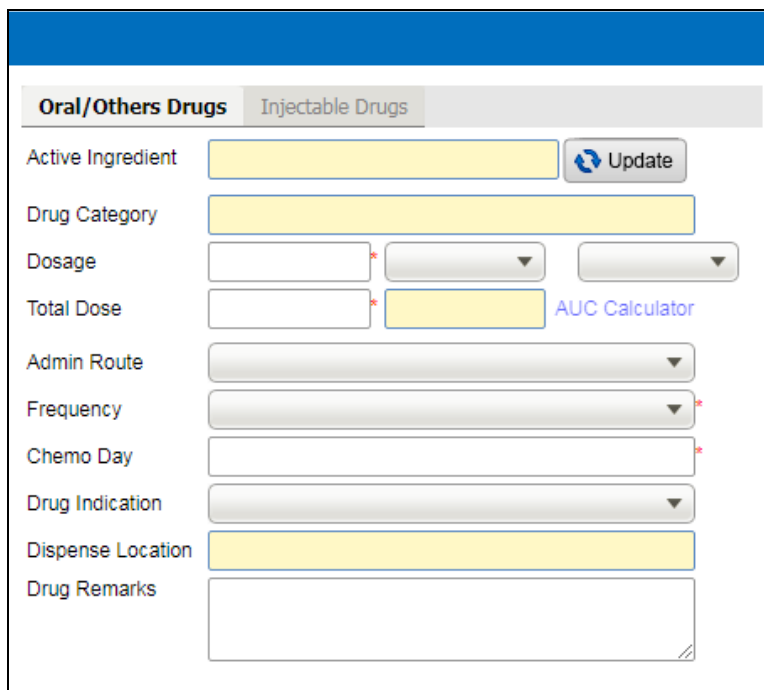


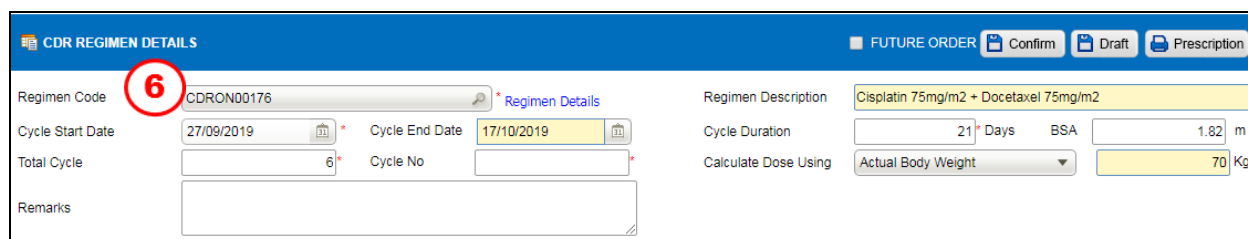
Figure 3.1-8 Regimen Drug Details: Oral/Others Drugs

- *Regimen Drug Details consists of two(2) tabs:*
- *Oral/Others Drugs:*
- *Active Ingredient*
- *Drug Category*
- *Dosage*
- *Total Dose*
- *AUC Calculator*
- *Admin Route*
- *Frequency*
- *Chemo Day*
- *Drug Indication*
- *Dispense Location*
- *Drug Remarks*

Oral/Other Drugs	Injectable Drugs	
Active Ingredient	<input type="text"/>	<input type="button" value="Update"/>
Dosage	<input type="text"/> *	<input type="button" value="▼"/> <input type="button" value="▼"/>
Total Dose	<input type="text"/> *	<input type="text"/> AUC Calculator
Admin Route	<input type="button" value="▼"/>	
Frequency	<input type="button" value="▼"/> *	
Chemo Day	<input type="text"/> *	
Drug Indication	<input type="button" value="▼"/>	
Infuse Over	<input type="text"/> (Hour) :	<input type="text"/> (Minute)
Diluent	<input type="button" value="▼"/>	
Diluent Volume	<input type="text"/>	<input type="text"/>
Total Volume	<input type="text"/>	<input type="text"/>
Infusion Rate	<input type="text"/>	<input type="button" value="▼"/>
Dispense Location	<input type="text"/>	
Remarks	<input type="text"/>	

Figure 3.1-9 Regimen Drug Details: Injectable Drugs

- *Injectable Drugs:*
- *Active Ingredient*
- *Dosage*
- *Total Dose*
- *AUC Calculator*
- *Admin Route*
- *Frequency*
- *Chemo Day*
- *Drug Indication*
- *Infuse Over*
- *Diluent*
- *Diluent Volume*
- *Total Volume*
- *Infusion Rate*
- *Dispense Location*
- *Remarks*



CDR REGIMEN DETAILS

6 Regimen Code: CDRON00176 [* Regimen Details](#)

Regimen Description: Cisplatin 75mg/m2 + Docetaxel 75mg/m2

Cycle Start Date: 27/09/2019 Cycle End Date: 17/10/2019

Cycle Duration: 21 Days BSA: 1.82 m²

Total Cycle: 6 Cycle No: Calculate Dose Using: Actual Body Weight 70 Kg

Remarks:

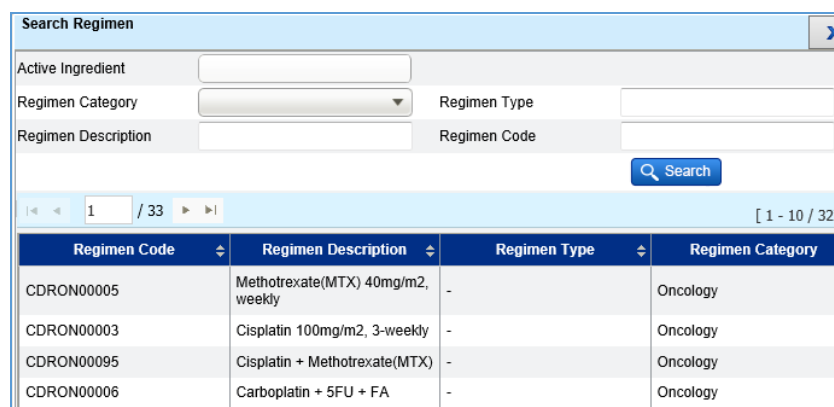
FUTURE ORDER Confirm Draft Prescription

Figure 3.1-10 CDR Regimen Details

STEP 6

Search and select **Regimen Code** from dropdown box to display CDR regimen details (refer to Figure 3.1-11: Search Regimen screen) based on:

- Active Ingredient
- Regimen Category
- Regimen Type
- Regimen Code
- Regimen Description



Search Regimen

Active Ingredient: Regimen Category: Regimen Type: Regimen Description: Regimen Code:

Search

1 / 33 [1 - 10 / 327]

Regimen Code	Regimen Description	Regimen Type	Regimen Category
CDRON00005	Methotrexate(MTX) 40mg/m2, weekly	-	Oncology
CDRON00003	Cisplatin 100mg/m2, 3-weekly	-	Oncology
CDRON00095	Cisplatin + Methotrexate(MTX)	-	Oncology
CDRON00006	Carboplatin + 5FU + FA	-	Oncology

Figure 3.1-11 CDR Search Regimen

Note

- **Total Cycle** is defaulted to the value of No of cycle setup in CDR Regimen Category and it is editable
- **Cycle No** field need to be entered by user.
- **Cycle Duration** is defaulted to the value setup in CDR Regimen Category and it is editable.
- **Cycle Start Date** is defaulted to the current system date and it is editable.
- **Cycle End Date** will be automatically displayed based on the **Cycle Start Date** and **Cycle Duration**.
- **BSA** is defaulted to the BSA value calculated in Patient banner and it is editable too.
- Total Dose will be auto calculated from BSA value if user selects Dosage by per m²
- Click on the **Regimen Details** hyperlink to view the Regimen Details as shown in Figure 3.1-12.

REGIMEN DETAILS									
Category	Oncology - Head & Neck	Regimen Code	CDRON00003	Regimen Description	Cisplatin				
Cycle Duration	21	Remarks							
Active Ingredient	Admin Route	Dosage	Frequency	Chemo day	Infuse Over	Diluent	Diluent Volume	Drug Remark	Status
Cisplatin	Intravenous Infusion	100 mg/m ²	OD (once daily)	1	2 Hours 0 Minutes	Sodium Chloride 0.9% 500mL IV soln	1000 ml		Active

Figure 3.1-12 Regimen Details

- Select **Calculate Dose Using** from dropdown box:
 - Actual Body Weight
 - Adjusted Body Weight
 - Ideal Body Weight
- Double click on the **Oral/Others Drugs** or **Injectable Drugs** information row.
- System will automatically calculate the weight (kg) according to Calculate Dosage Using selected. It will give effect on Total Dose if user selects Dosage by per kg.

Patient Information		Mykad		Age	Gender	MRN
Address		Phone And Email		Diagnosis	Known Allergies	
Height	170 cm	Weight	70 kg	BMI/BSA	24.2 / 1.82 m ²	G6PD
Upload Photo		Update		(Last Updated : 27/09/2019) Nationality : Warganegara		
Encounter No.	1179	Actual Admission Date	23/05/2017	Attending Practitioner	Visit Location	WAD 2 L (MED/SURG/ORTO)
Reference No.	AE K-3	Pensioner	<input type="checkbox"/>	-SELECT-		
Medication Profile VAS History Counselling History Pharmacist Notes Demographic Monitoring Parameter Other Appointment						
<div> <div> Patient Diagnosis Allergy Adverse Drug Reaction Nutritional Assessment Normal Order Infusion Order Parenteral Nutrition Cytotoxic Drug Reconstitution Therapeutic Drug Monitoring Radiopharmaceuticals View MAR Referral Visit </div> <div> <div>CDR REGIMEN DETAILS</div> <div> <div>Regimen Code</div> <div>CDRON00176</div> <div>Regimen Details</div> </div> <div> <div>Regimen Description</div> <div>Cisplatin 75mg/m² + Docetaxel 75mg/m²</div> </div> <div> <div>Cycle Start Date</div> <div>27/09/2019</div> <div>Cycle End Date</div> <div>17/10/2019</div> </div> <div> <div>Cycle Duration</div> <div>21 Days</div> <div>BSA</div> <div>1.82 m²</div> </div> <div> <div>Total Cycle</div> <div>6</div> <div>Cycle No</div> <div></div> </div> <div> <div>Calculate Dose Using</div> <div>Actual Body Weight</div> <div>70 Kg</div> </div> <div> <div>Remarks</div> <div></div> </div> </div> <div> <div>FUTURE ORDER</div> <div>Confirm</div> <div>Draft</div> <div>Prescription</div> </div> </div>						

PRESCRIPTION

Seq No.	Drug/Diluent Name	Order Details	Total Dose	Dose Qty	Order Qty	Drug Info
7	Cisplatin 50mg/50ml Injection	75 mg/m ² , OD (once daily), Day: 1 Schedule	136.5 mg	136.5 ml	3 vial	
	Sodium Chloride 0.9% 500mL IV soln			363.5 ml	1 bott	
	Docetaxel 80mg Injection	75 mg/m ² , OD (once daily), Day: 1 Schedule	136.5 mg	13.65 ml	2 vial	
	Sodium Chloride 0.9% 250mL IV soln			236.35 ml	1 bott	

Oral/Others Drugs

Injectable Drugs

Active Ingredient

Update

Drug Category

Dosage

Total Dose

AUC Calculator


Figure 3.1-13 Prescriptions

Note


When the Regimen Code is selected, the Drug/Diluent Name of the prescription will be automatically display as shown in Figure 3.1-13.


STEP 7

Double click on the row of the prescription to edit regimen drug details as per Figure 3.1-15

- Click on the  button to delete information if necessary.
- Click on the **Schedule** hyperlink, the Dose Schedule screen will be displayed ad user can key in total dose in split dose column as shown in Figure 3.1-14.
- Split dose only applicable on normal oral/others drug

- If select **Dosage** '/kg' from dropdown menu, **Total Dose** will have displayed based on Calculate Dose Using selected previously in CDR Regimen Detail (Refer to Step 6).

- Click on the  button to save updated Regimen Drug Details.

- Able to do split dose once total dose finalized and clicked  button as shown in Figure 3.1-15
- Upon saving the split dose, updated dose will appear in highlighted yellow as shown in Figure 3.1-16

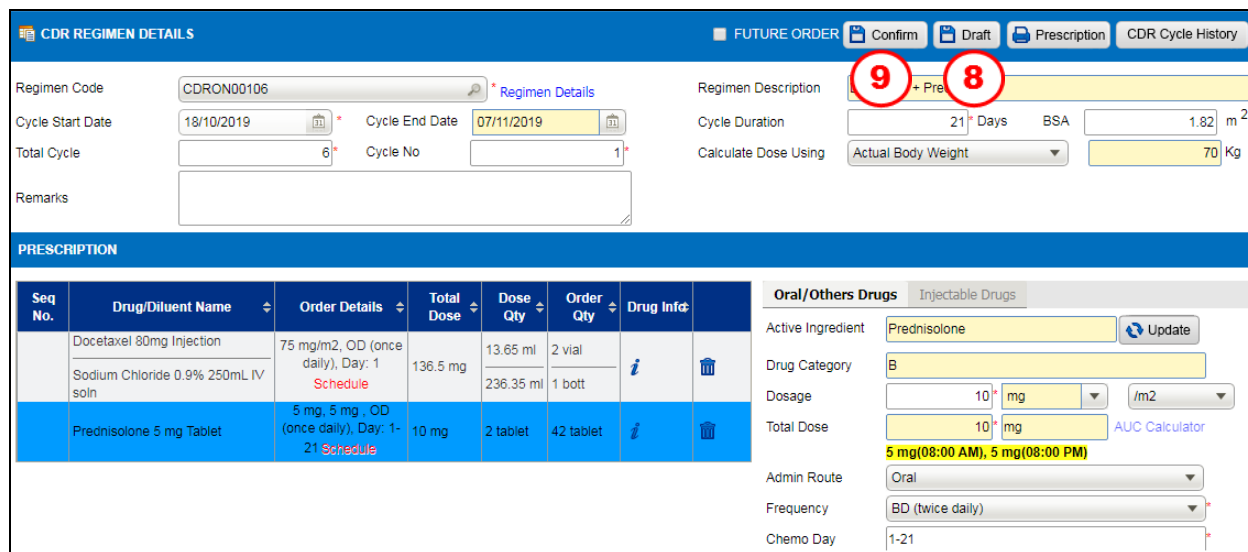


Figure 3.1-16 Medication Order

STEP 8

Click on the  button to save CDR order

Note

- Click on the  button to save order.

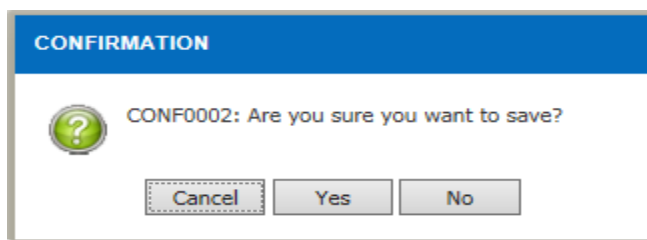


Figure 3.1-17 Confirm Record

- CDR order status will be set as "Draft".
- User is allowed to edit or modify order using this screen.

STEP 9

Click on the  button to confirm CDR order

Note

- Click on the  button to confirm order.

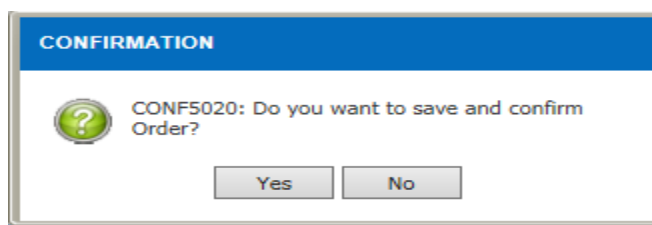




Figure 3.1-18 Confirm Record

- CDR order status will change to “Ordered” and user is not allowed to make changes.
- System will notify user if the CDR drug requires an authorisation before proceeding to CDR Admixture.
- The ☒ **FUTURE ORDER** check box is to allow user to create a future order and when patient arrive for chemo, the doctor/pharmacist will approve the order. If the future order is without approval, Pharmacist will not allow any transaction for it
- Click on the  **Delete** button to delete record before order is confirmed.
- Click on the  **Prescription** button to print CDR prescription.
- Split dose will appear in the CDR preparation under **Total Dose** column

Ministry of Health, Malaysia
Hospital Pakar Sultanah Fatimah, Muar
Cytotoxic Drug Reconstitution

Patient Name : Age : 36 Y 6 M 22 D Gender : Male Height/Weight/BSA : 170 cm / 70 kg / 1.82 m ² Allergy :	Patient ID : MRN : HPSF00034883 Prescription # : WRD8800001817803 Order Date/Time : 18/10/2019 10:25 AM Location : WAD 4 (SURG - L)
---	---

Diagnosis : chemo Regimen Code : CDRON00106 Regimen Description : Docetaxel + Prednisolone	Cycle Start Date : 18/10/2019 Cycle Duration : 21 Days Total Cycle : 6 Current Cycle : 1
---	--

Route	Drug Name	Dosage	Total Dose	Diluent	Diluent Vol	Frequency	Chemo Day
INF	Docetaxel	75 mg/m2	136.5 mg	Sodium Chloride 0.9% 250mL IV soln	236.35 ml	OD (once daily)	1
ORAL	Prednisolone	10 mg	5 mg, 5 mg			OD (once daily)	1-21

Prescribed By : Designation : Pegawai Perubatan Pakar Department : General Surgery	
--	--

Figure 3.1-19 CDR Prescription

CDR Cycle History

Note

- Click on the **CDR Cycle History** button to display CDR Cycle History screen. System will display cycle history as per Figure 3.1-20



CDR CYCLE HISTORY													
												Approve Future Order	Renew Rx
	Regimen Code	Regimen Name	Cycle Start Date	Cycle End Date	Cycle Duration	Total Cycle	Cycle No	Height/Weight/BSA	Remarks	Prescription Status	Selection	Ordered By	Approved By(Future Order)
	CDRON00176	Cisplatin 75mg/m2 + Docetaxel 75mg/m2	17/10/2019	06/11/2019	21 Days	6	1	170cm/70kg/1.82m²		ORDERED	<input type="checkbox"/>	System Administrator	
	CDRON00006	Carboplatin + 5FU + FA	19/10/2019	08/11/2019	21 Days	6	1	170cm/70kg/1.82m²		ORDERED (Future Order)	<input checked="" type="checkbox"/>	System Administrator	

Figure 3.1-20 CDR Cycle History


- Doctor/Pharmacist will approve a future order by clicking on the **Approve Future Order** button.
- If the future order is without approval, Pharmacist will not allow any transaction.
- For Carboplatin use AUC calculator instead of BSA. Example of AUC calculator click [Carboplatin AUC calculator](#)
- Pop up will appear to confirm Approve Future order as per Figure 3.1-21
- Click  button to print CDR Cycle History as shown in Figure 3.1-22



Figure 3.1-21 Confirmation Order

Ministry of Health, Malaysia
Hospital Pakar Sultanah Fatimah, Muar
Cytotoxic Drug Reconstitution : Cycle History

Patient Name : [REDACTED] Patient ID : [REDACTED]
Age / Gender : 36 Y 6 M 21 / Male MRN : HPSF00034883

Regimen Code	Regimen Name	Drug Name	Dose	Freq	Route	Chemo day	Drug Remarks	Drug status	Cycle Date	Total Cycle	Cycle No	Remarks	Height/Weight/BSA	Order By	Approved By
CDRON00176	Cisplatin 75mg/m ² + Docetaxel 75mg/m ²	Cisplatin	136.5 mg	OD (once daily)	INF	1		ORDERED	17/10/2019 - 06/11/2019 (21 Days)	6	1		170cm/70kg /1.82m ²	[REDACTED]	[REDACTED]
		Docetaxel	136.5 mg	OD (once daily)	INF	1		ORDERED							
CDRON00006	Carboplatin + 5FU + FA	Carboplatin	546 mg	OD (once daily)	INF	2		ORDERED	19/10/2019 - 08/11/2019 (21 Days)	6	1		170cm/70kg /1.82m ²	[REDACTED]	[REDACTED]
		Fluorouracil	910 mg	OD (once daily)	INF	1,2		ORDERED							
		Fluorouracil	910 mg	OD (once daily)	IVSB	1,2		ORDERED							
		Calcium Folate (Leucovorin calcium)	364 mg	BD (twice daily)	IVSB	1,2		ORDERED							

Printed Date : 17/10/2019

Printed By : [REDACTED]

Source : PhIS

Figure 3.1-22 CDR Cycle History

Carboplatin AUC Calculator

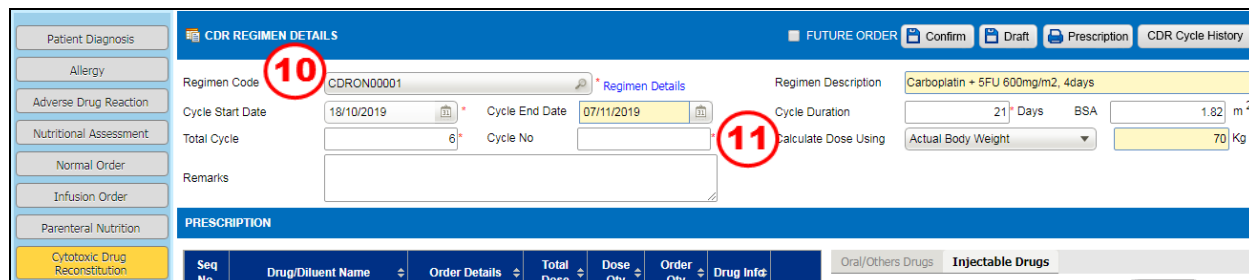


Figure 3.1-23 CDR Order

STEP 10

Search and select **Regimen Code**

STEP 11

Enter **Cycle No**

Note

System will display the Regimen details in the prescription section as Figure 3.1-24

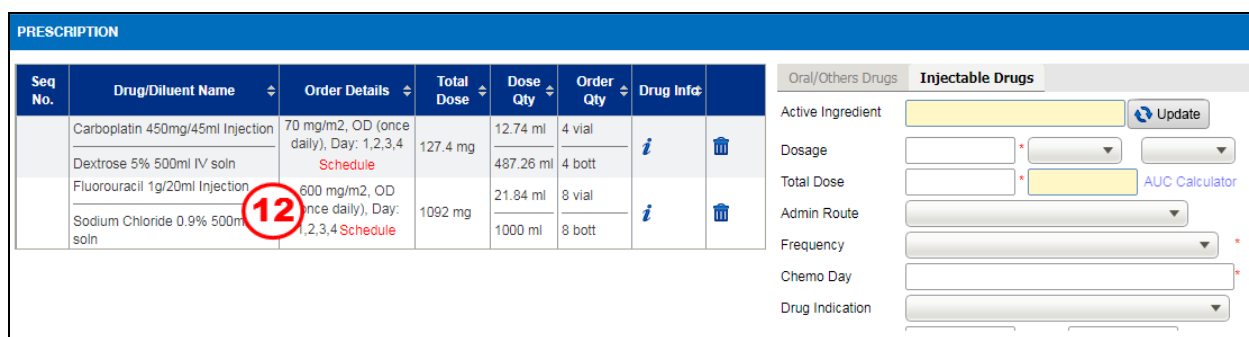


Figure 3.1-24 CDR Regimen Prescription

STEP 12

Double click on the row of the prescription to view the drug details as Figure 3.1-25

PRESCRIPTION						
Seq No.	Drug/Diluent Name	Order Details	Total Dose	Dose Qty	Order Qty	Drug Info
	Carboplatin 450mg/45ml Injection	70 mg/m2, OD (once daily), Day: 1,2,3,4	127.4 mg	12.74 ml	4 vial	
	Dextrose 5% 500ml IV soln	Schedule		487.26 ml	4 bott	
	Fluorouracil 1g/20ml Injection	600 mg/m2, OD (once daily), Day: 1,2,3,4	1092 mg	21.84 ml	8 vial	
	Sodium Chloride 0.9% 500mL IV soln	Schedule		1000 ml	8 bott	

Oral/Others Drugs **Injectable Drugs**

Active Ingredient: Carboplatin Update

Dosage: 70 mg /m2

Total Dose: 127.4 mg AUC Calculator

Admin Route: Intravenous Infusion 13

Frequency: OD (once daily)

Chemo Day: 1,2,3,4

Drug Indication:

Infuse Over: 1 (Hour) : 0 (Minute)

Diluent: Dextrose 5% 500ml IV soln

Diluent Volume: 487.26 ml

Total Volume: 500 ml

Infusion Rate: 8.33 ml/Min

Dispense Location: FARMASI REKONSTITUSI UBAT SITOTOKSIK

Remarks:

Figure 3.1-25 CDR Regimen Drug Details

STEP 13

Click on the **AUC Calculator** hyperlink and AUC Calculator window will be display as Figure 3.1-26

AUC CALCULATOR X

☒ Estimated 14 ☐ 24 hours based

Serum Creatinine: 125 micromol/L Gender Factor: 1.23

{ [(140 - 36 Years) X 70 Kg] / 125 micromol/L } X 1.23

(CrCl 71.64 ml/min + 25) X AUC No. 15 1.5

Total Dose = 144.96 mg

References : Calvert Formula

Figure 3.1-26 Estimated AUC Calculator

STEP 14

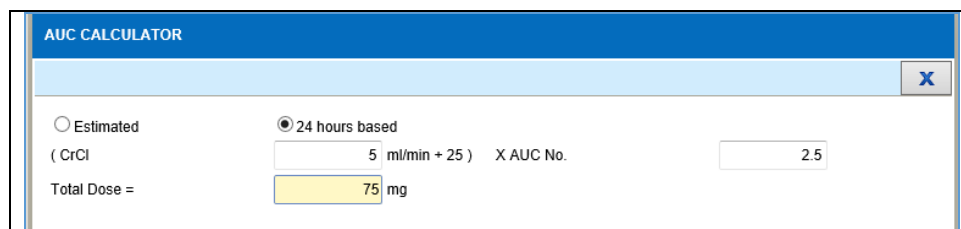
Options of 'Estimated' or '24 hour based'. Default to 'Estimated'. When 'Estimated' selected and patient gender = Male, 'Gender Factor'= 1.23. When patient gender = Female, gender factor = 1.04

STEP 15

Key in **AUC No** value manually. User is allowed to enter any numeric value of maximum 1 decimal only.

Note

- System will automatically update the new **Total Dose** based on the input in STEP 14 and STEP 15.
- Once '24 hour based' selected, to display screen as Figure 3.1-27.



AUC CALCULATOR

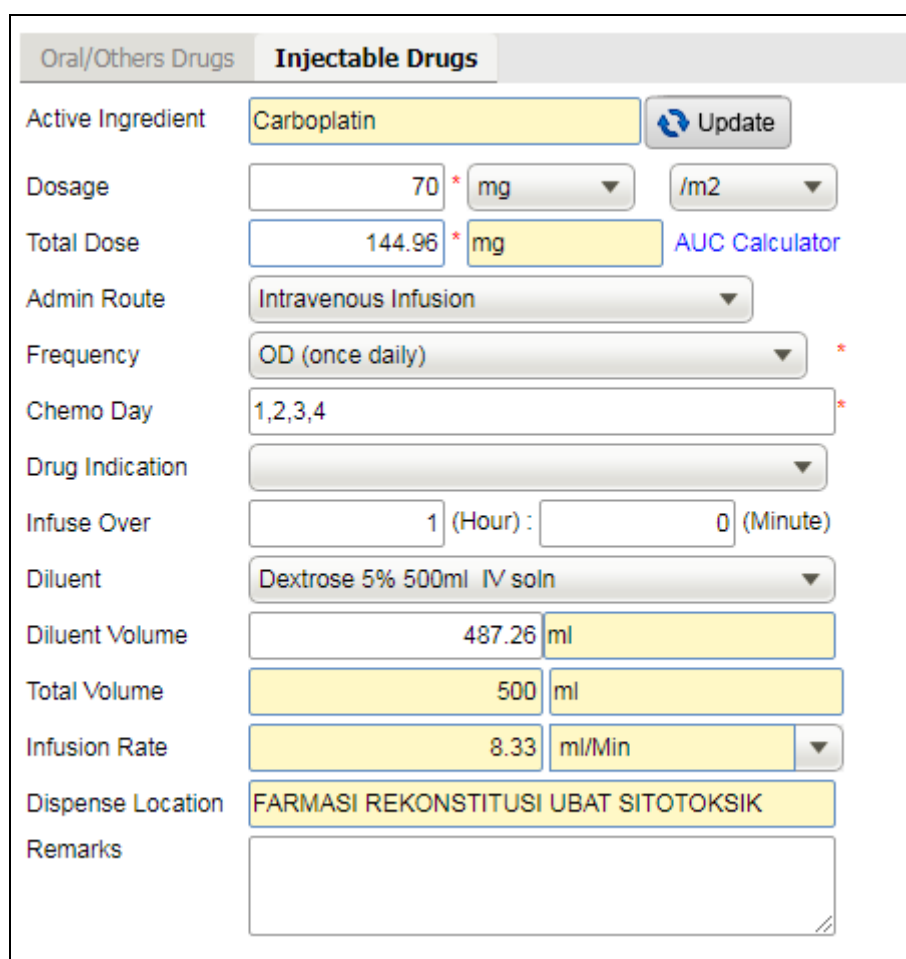
☐ Estimated ☒ 24 hours based

(CrCl ml/min + 25) X AUC No.

Total Dose = mg

Figure 3.1-27 24 hours based AUC Calculator

- User need to enter CrCl value manually instead of calculated by system.
- The updated **Total Dose** will be update on the Order Screen as Figure 3.1-28.



Oral/Others Drugs **Injectable Drugs**

Active Ingredient

Dosage * mg

Total Dose * mg [AUC Calculator](#)

Admin Route

Frequency *

Chemo Day *

Drug Indication

Infuse Over (Hour) : (Minute)

Diluent

Diluent Volume ml

Total Volume ml

Infusion Rate ml/Min

Dispense Location

Remarks

Figure 3.1-28 Updated AUC Calculator

3.2 Manage Prescription

Prescriber is allowed to manage the order made after they confirm the order.

3.2.1 Modify Order

Prescriber is allowed to modify the prescription if the **Order Status** is ORDERED.

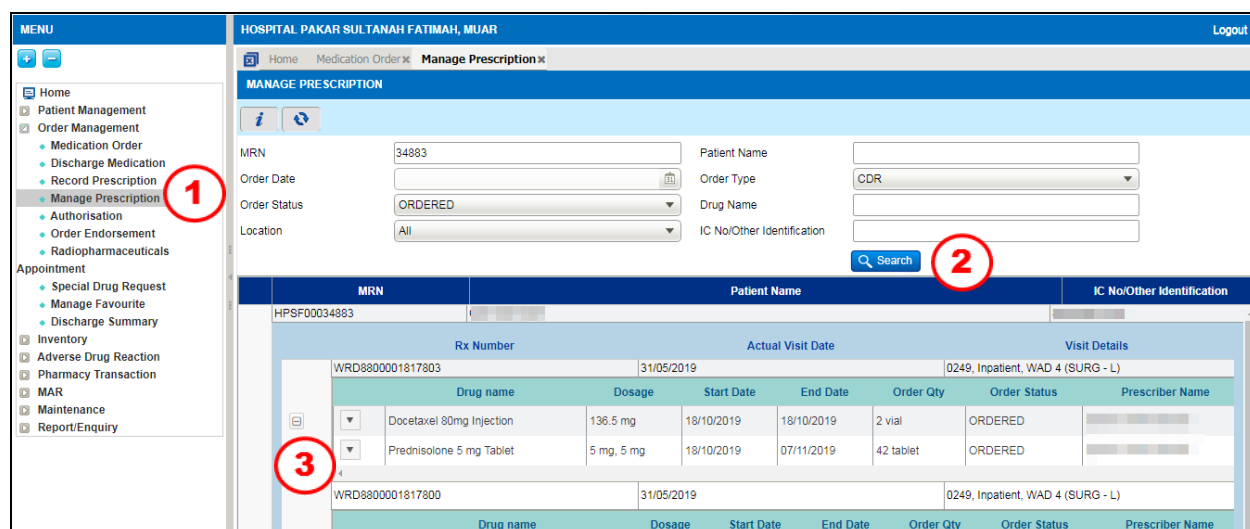


Figure 3.2.1-1 Manage Prescription Listing Page

STEP 1

Click on the 'Order Management' menu followed by 'Manage Prescription' sub menu

Note

Search patient record based :-

No	Field	Description	Remark
a	MRN	Patient Medical Record Number	Search option: • Scan the MRN using barcode scanner. • Type the MRN either in fully or partially. <i>Example: HPSF00001234 or "1234"</i>
b	Order Date	Order date	Allow to search by ordered date
c	Order Status	According to Order in which stage	Able to filter by order status
d	Location	Patient visit location	Able to filter and search patient name by visit location
e	Patient Name	Patient Name	Allow to search by patient name –in fully or partially
f	IC No/Other Identification	Patient IC No/Other Identification	Allow to search by patient IC No/Other Identification
g	Order Type	Search patient by: - Normal - CDR - IV - PN - Radiopharmaceuticals	Allow to search by order type
h	Drug Name	Drug Name	Allow to search by fully or partially entered drug name

Table 3.2.1-1

STEP 2

Click on the  button to search for patient

Note

- List of Patients will display as in Figure 3.2.1-1
- Search results of patient record list will display:
 - MRN
 - Patient Name
 - Order Date
 - Order Type
 - Order Status
 - Drug Name
 - Location
 - IC No/Other Identification

STEP 3

Click on  button to view list of all prescription












MRN		Patient Name					IC No/Other Identification	
HPSF00034883								
Rx Number		Actual Visit Date			Visit Details			
WRD8800001817803		31/05/2019			0249, Inpatient, WAD 4 (SURG - L)			
Drug name		Dosage	Start Date	End Date	Order Qty	Order Status	Prescriber Name	
 5	Docetaxel 80mg Injection	136.5 mg	18/10/2019	18/10/2019	2 vial	ORDERED	System Administrator	
	Prednisolone 5 mg Tablet	5 mg, 5 mg	18/10/2019	07/11/2019	42 tablet	ORDERED	System Administrator	
 Modify								
WF Hold 00		31/05/2019			0249, Inpatient, WAD 4 (SURG - L)			
 4		Cancel						
Drug name		Dosage	Start Date	End Date	Order Qty	Order Status	Prescriber Name	
	Carboplatin 450mg/45ml Injection	127.4 mg	18/10/2019	21/10/2019	4 vial	ORDERED	System Administrator	
	Fluorouracil 1g/20ml Injection	1092 mg	18/10/2019	21/10/2019	8 vial	ORDERED	System Administrator	
								
		WRD8800001817798			31/05/2019		0249, Inpatient, WAD 4 (SURG - L)	
		WRD8800001817794			31/05/2019		0249, Inpatient, WAD 4 (SURG - L)	

Figure 3.2.1-2 Manage Order – Modify

STEP 4

Click on  button to view selected patient's prescription

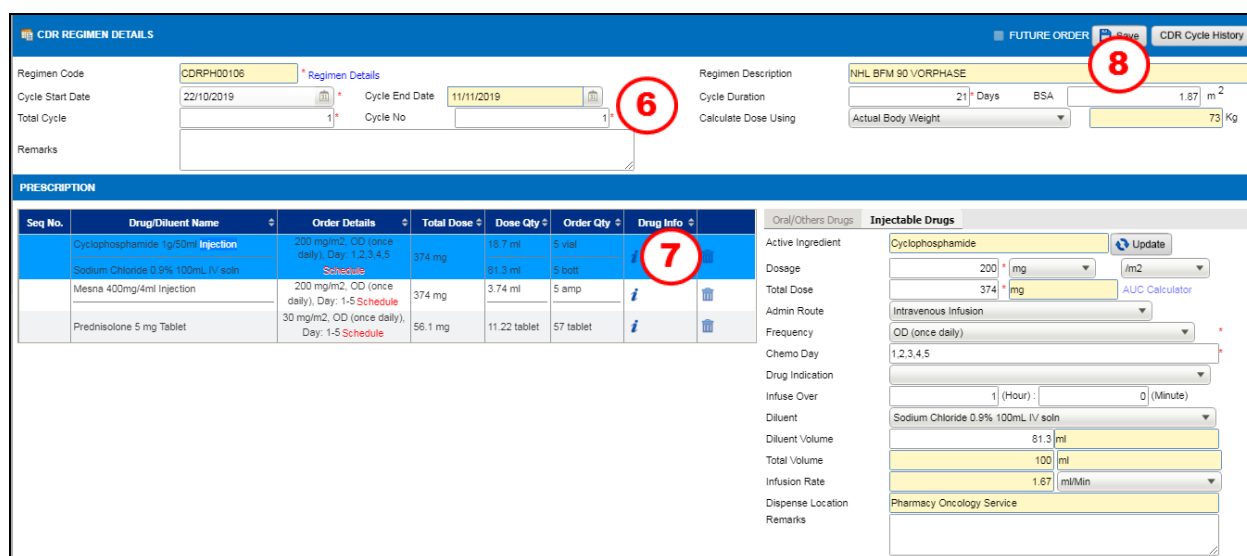
STEP 5

Right click on the  button and select **Modify** function

Note

Modify CDR Order screen will be displayed as shown in Figure 3.2.1-3 and consist of two (2) sections which are:

- CDR Regimen Details section
- Prescription section : Regimen Drug Details



CDR REGIMEN DETAILS

Regimen Code: CDRPH00106 * Regimen Details

Cycle Start Date: 22/10/2019 Cycle End Date: 11/11/2019

Total Cycle: 1 Cycle No: 1




Remarks:

Regimen Description: NHL BFM 90 VORPHASE

Cycle Duration: 21 Days BSA: 1.87 m²

Calculate Dose Using: Actual Body Weight 73 Kg

PRESCRIPTION

Seq No.	Drug/Diluent Name	Order Details	Total Dose	Dose Qty	Order Qty	Drug Info
1	Cyclophosphamide 1g/50ml Injection	200 mg/m ² OD (once daily), Day: 1,2,3,4,5	374 mg	16.7 ml	5 vial	
2	Sodium Chloride 0.9% 100mL IV soln	Schedule	81.3 ml	5 bott		
3	Mesna 400mg/4ml Injection	200 mg/m ² OD (once daily), Day: 1-5 Schedule	374 mg	3.74 ml	5 amp	
4	Prednisolone 5 mg Tablet	30 mg/m ² OD (once daily), Day: 1-5 Schedule	56.1 mg	11.22 tablet	57 tablet	

Injectable Drugs

Active Ingredient: Cyclophosphamide

Dosage: 200 mg

Total Dose: 374 mg

Admin Route: Intravenous Infusion

Frequency: OD (once daily)

Chemo Day: 1,2,3,4,5

Drug Indication:

Infuse Over: 1 (Hour) 0 (Minute)

Diluent: Sodium Chloride 0.9% 100mL IV soln

Diluent Volume: 81.3 ml

Total Volume: 100 ml

Infusion Rate: 1.67 ml/Min

Dispense Location: Pharmacy Oncology Service

Remarks:

Figure 3.2.1-3 Modify CDR Order

STEP 6

Information under CDR Regimen Details section which user can modify:

- Cycle Start Date
- Total Cycle
- Cycle No
- Cycle Duration
- BSA
- Calculate Dose Using
- Remarks
- Infusion Rate UOM

STEP 7

Information under Prescription section: Regimen Drug Details which user can modify:

- Dosage
- Total Dose
- Frequency
- Chemo Day
- Admin Route
- Drug Indication
- Infuse Over
- Diluent
- Diluent volume
- Remarks

STEP 8

Click on the  button to save the modified record

3.2.2 Hold/Resume Order

Prescriber is allowed to hold medication order from being administered or dispense to the patient and may resume the hold order to continue the medication order.

Note

Repeat **Step 1** to **Step 3** section 3.2.1 Modify Order to proceed with Hold/Resume order.

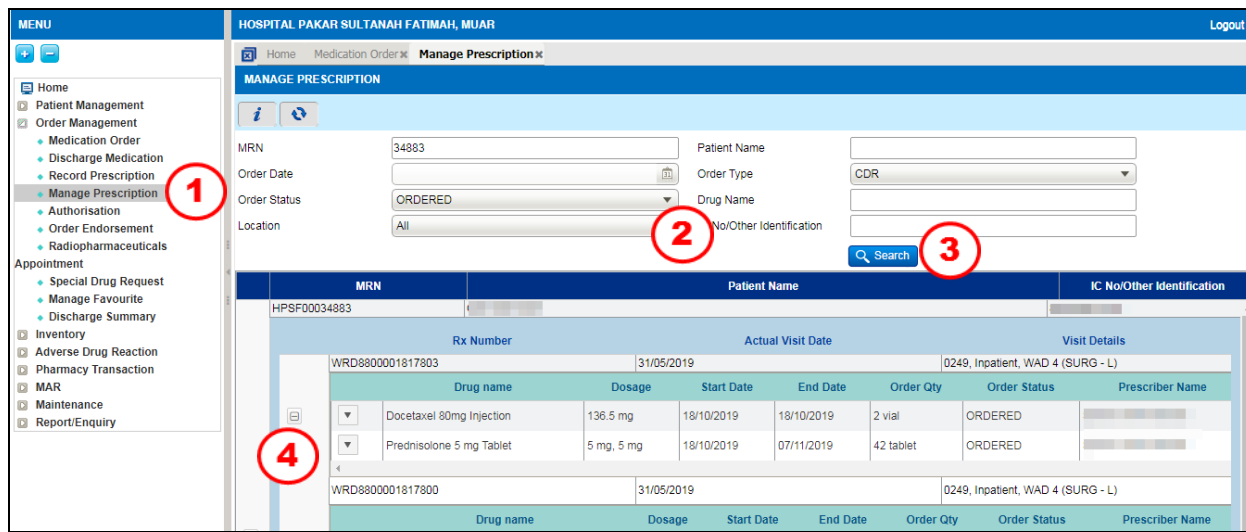


Figure 3.2.2-1 Manage Order – Hold

Hold/Resume order function in manage order module is for prescriber to hold or resume an order from dispensing

STEP 1

Click on 'Order Management' module and click on 'Manage Prescription' submodule

STEP 2

Search patient's record either by:

- MRN
- Patient Name
- IC no/other identification
- Order Date
- Order Type
- Order Status
- Drug Name
- Location


Note

User need to select order type as 'CDR' to search CDR order record.

STEP 3

Click on the  to search patient's record

STEP 4

Click on the  button to display order detail


MRN		Patient Name				IC No/Other Identification	
HPSF00034883							
Rx Number		Actual Visit Date			Visit Details		
WRD8800001817803		31/05/2019			0249, Inpatient, WAD 4 (SURG - L)		
Drug name		Dosage	Start Date	End Date	Order Qty	Order Status	Prescriber Name
Docetaxel 80mg Injection		136.5 mg	18/10/2019	18/10/2019	2 vial	ORDERED	System Administrator
Prednisolone 5 mg Tablet		5 mg, 5 mg	18/10/2019	07/11/2019	42 tablet	ORDERED	System Administrator
WF		31/05/2019			0249, Inpatient, WAD 4 (SURG - L)		
Drug name		Dosage	Start Date	End Date	Order Qty	Order Status	Prescriber Name
Carboplatin 450mg/45ml Injection		127.4 mg	18/10/2019	21/10/2019	4 vial	ORDERED	System Administrator
Fluorouracil 1a/20ml Injection		1092 mg	18/10/2019	21/10/2019	8 vial	ORDERED	System Administrator
WRD8800001817798		31/05/2019			0249, Inpatient, WAD 4 (SURG - L)		
WRD8800001817794		31/05/2019			0249, Inpatient, WAD 4 (SURG - L)		


Figure 3.2.2-2 Manage Prescription Screen

STEP 5

Right click on the  content menu and select Hold function to hold the order

CONFIRMATION



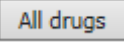
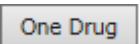

CONF2002: Hold function is selected for one drug. Do you want to Hold all other drugs in the prescription ?

All drugs

One Drug

Figure 3.2.2-3 Alert Message


Note

- Alert Message will be displayed after selecting **Hold** as figure 3.2.2-3
- Click on the  button to hold all other drugs in the prescription.
- Click on  the button to hold only the selected drugs in the prescription.
- Order Status will change to 'Ordered Hold' as shown in Figure 3.2.2-4.

MRN	Patient Name	IC No/Other Identification
HPSF00034883		
Rx Number	Actual Visit Date	Visit Details
WRD8800001817803	31/05/2019	0249, Inpatient, WAD 4 (SURG - L)
Drug name	Dosage	Start Date
Docetaxel 80mg Injection	136.5 mg	18/10/2019
Prednisolone 5 mg Tablet	5 mg, 5 mg	18/10/2019
Order Qty	Order Status	Prescriber Name
2 vial	ORDERED	System Administrator
42 tablet	ORDERED HOLD	System Administrator
Resume		
WRD8800001817800	31/05/2019	0249, Inpatient, WAD 4 (SURG - L)
Drug name	Dosage	Start Date
Carboplatin 450mg/45ml Injection	127.4 mg	18/10/2019
Fluorouracil 1g/20ml Injection	1092 mg	18/10/2019
Order Qty	Order Status	Prescriber Name
4 vial	ORDERED	System Administrator
8 vial	ORDERED	System Administrator
WRD8800001817798	31/05/2019	0249, Inpatient, WAD 4 (SURG - L)
WRD8800001817794	31/05/2019	0249, Inpatient, WAD 4 (SURG - L)

Figure 3.2.2-4 Manage Order – Hold

Resume CDR Order

- Right click on the  button and select **Resume** as shown in Figure 3.2.2-4
- Alert Message will be displayed after selecting **Resume**

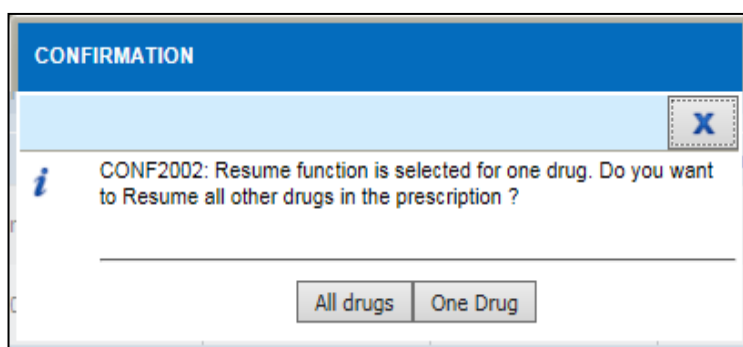
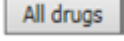
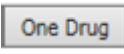


Figure 3.2.2-5 Alert Message

Note

- Click on the  button to resume all other drugs in the prescription.
- Click on the  button to resume only the selected drugs in the prescription.
- Order Status will change to 'Ordered'.

3.2.3 Cancel/Stop Order

Prescriber is allowed to cancel or stop prescribed medication order from being administered or dispensed.


MRN		Patient Name				IC No/Other Identification	
HPSF00034883							
Rx Number		Actual Visit Date			Visit Details		
WRD8800001817803		31/05/2019			0249, Inpatient, WAD 4 (SURG - L)		
Drug name		Dosage	Start Date	End Date	Order Qty	Order Status	Prescriber Name
<div><div></div><div></div></div>	Docetaxel 80mg Injection	136.5 mg	18/10/2019	18/10/2019	2 vial	ORDERED	System Administrator
<div><div></div><div></div></div>	Prednisolone 5 mg Tablet	5 mg, 5 mg	18/10/2019	07/11/2019	42 tablet	ORDERED	System Administrator
WF Hold 00		31/05/2019			0249, Inpatient, WAD 4 (SURG - L)		
Drug name		Dosage	Start Date	End Date	Order Qty	Order Status	Prescriber Name
<div><div></div><div></div></div>	Carboplatin 450mg/45ml Injection	127.4 mg	18/10/2019	21/10/2019	4 vial	ORDERED	System Administrator
<div><div></div><div></div></div>	Fluorouracil 1g/20ml Injection	1092 mg	18/10/2019	21/10/2019	8 vial	ORDERED	System Administrator
WRD8800001817798		31/05/2019			0249, Inpatient, WAD 4 (SURG - L)		
WRD8800001817794		31/05/2019			0249, Inpatient, WAD 4 (SURG - L)		

Figure 3.2.3-1 Manage Order – Cancel

Note

Repeat **Step 1** to **Step 3** section 3.2.1 Modify Order to proceed with Cancel/Stop order.

Cancel CDR Order

- Right click on the  button and select **Cancel** as shown in Figure 3.2.3-1
- Alert Message will be displayed after selecting **Cancel**

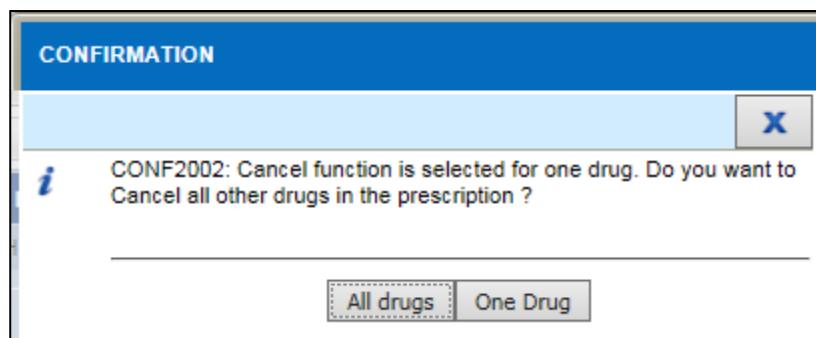
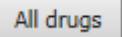
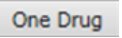

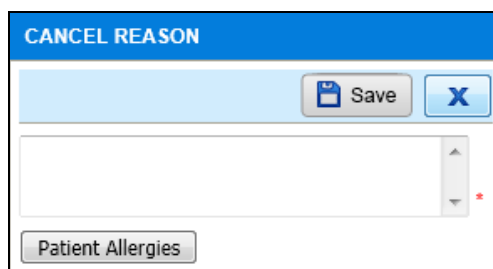


Figure 3.2.3-2 Alert Message

Note

- Click on the  button to cancel all other drugs in the prescription.
- Click on the  button to cancel only the selected drugs in the prescription.
- After is clicked, user is required to fill **Cancel Reason** as shown in figure 3.2.3-3.
- Click on the  button to save the CDR Drug cancellation.
- If prescriber found that prescription is required to be cancelled due to patient allergies, prescriber is allowed to click

on the **Patient Allergies** button to record the allergies.




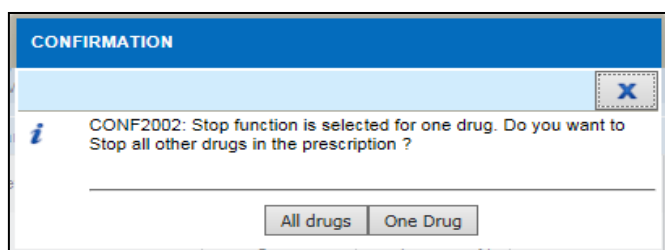
A dialog box titled "CANCEL REASON" with a blue header. It contains a text input field, a "Save" button with a floppy disk icon, and a close button with an "X" icon. Below the input field is a "Patient Allergies" button. A red asterisk is visible on the right side of the input field.

Figure 3.2.3-3 Cancel Reason

Stop CDR Order

Note

- Only orders with Status "Partially Dispense" can be used to stopped.
 - Right click on the  button and select **Stop**
 - Alert Message will be displayed after selecting **Stop**



A dialog box titled "CONFIRMATION" with a blue header. It contains an information icon (i) and a message: "CONF2002: Stop function is selected for one drug. Do you want to Stop all other drugs in the prescription ?". At the bottom, there are two buttons: "All drugs" and "One Drug". A close button with an "X" icon is in the top right corner.

Figure 3.2.3-4 Alert Message

Click **All drugs** to stop all drug at current perscription or **One Drug** to stop only selected drug

3.2.4 Renew Rx

Prescriber is allowed to renew medication order

Note

Repeat **Step 1** to **Step 5** section 3.1 CDR Order to proceed with renew Rx

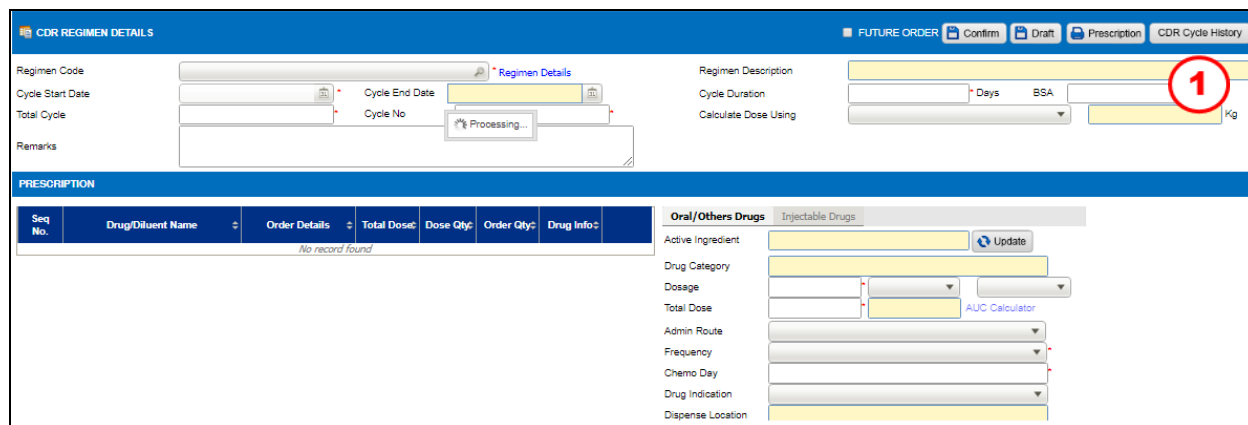


Figure 3.2.4-1 CDR Regimen

STEP 1

Click at the **CDR Cycle History** button

Note

System will appear screen as shown in Figure 3.2.4-2

CDR CYCLE HISTORY													
<div> Approve Future Order Renew Rx </div>													
	Regimen Code	Regimen Name	Cycle Start Date	Cycle End Date	Cycle Duration	Total Cycle	Cycle No	Height/Weight/BSA	Remarks	Prescription Status	Selection	Ordered By	Approved By (Future Order)
<input type="checkbox"/>	CDRON00071	FOLFOLX (85/200/400/600)	04/09/2019	17/09/2019	14 Days	12	1	173cm/73kg/1.87m ²	-	ORDER WAS DISCONTINUED	<input type="checkbox"/>		
<input type="checkbox"/>	CDRPH00108	NHL BFM 90 VORPHASE	22/10/2019	11/11/2019	21 Days	1	1	173cm/73kg/1.87m ²		ORDERED	<input type="checkbox"/>		

Figure 3.2.4-2 CDR Cycle History

STEP 2

Click at the ☒ selection and click **Renew Rx** to Renew Rx


CDR CYCLE HISTORY													
<div>Approve Future Order Renew Rx</div>													
	Regimen Code	Regimen Name	Cycle Start Date	Cycle End Date	Cycle Duration	Total Cycle	Cycle No	Height/Weight/BSA	Remarks	Prescription Status	Selection	Ordered By	Approved By (Future Order)
	CDRON00071	FOLFOLX (85/200/400/600)	04/09/2019	17/09/2019	14 Days	12	1	173cm/73kg/1.87m²	-	ORDER WAS DISCONTINUED	<input checked="" type="checkbox"/>	System PhIS	<div>2</div>
		Drug Name	Dose	Frequency				Route	Chemo Day		Drug Remarks		Status
		Fluorouracil 1g/20ml Injection	748 mg Schedule	OD (once daily)				Intravenous Slow Bolus	Day : 1,2				DISCONTINUED
		Fluorouracil 1g/20ml Injection	1122 mg Schedule	OD (once daily)				Intravenous Infusion	Day : 1,2				DISCONTINUED
		Leucovorin Calcium 50mg/5ml Injection (Folinic acid)	374 mg Schedule	OD (once daily)				Intravenous Infusion	Day : 1,2				DISCONTINUED
		Oxaliplatin 50mg/10ml Injection	158.95 mg Schedule	OD (once daily)				Intravenous Infusion	Day : 1				DISCONTINUED
	CDRPH00108	NHL BFM 90 VORPHASE	22/10/2019	11/11/2019	21 Days	1	1	173cm/73kg/1.87m²		ORDERED	<input type="checkbox"/>	System PhIS	

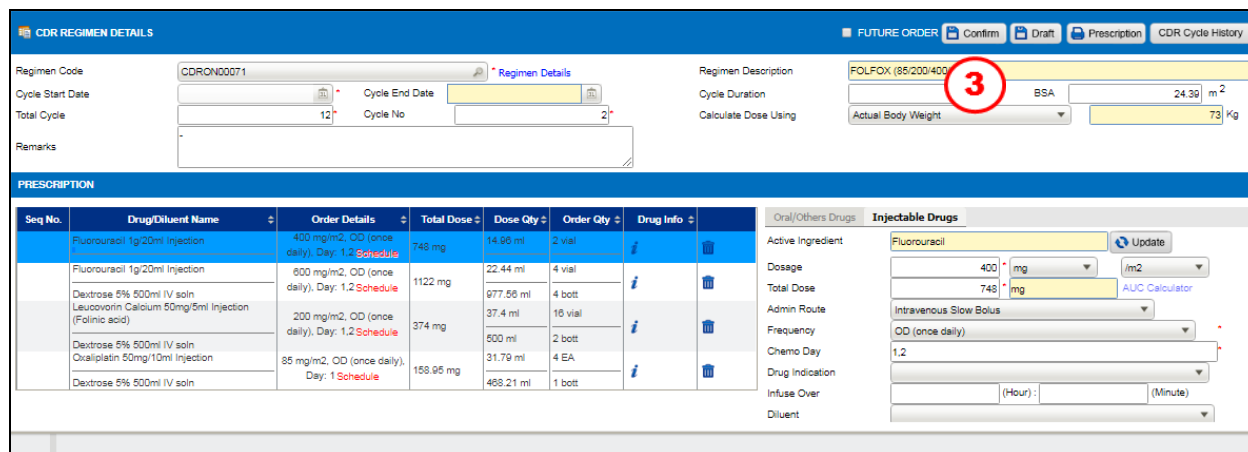
Figure 3.2.4-3 CDR Cycle History

Note

Fill in the CDR Regimen details and prescription details

STEP 3

Click  button to confirm renew Rx order



Seq No.	Drug/Diluent Name	Order Details	Total Dose	Dose Qty	Order Qty	Drug Info
1	Fluorouracil 1g/20ml Injection	400 mg/m ² , OD (once daily), Day: 1,2 Schedule	748 mg	14.95 ml	2 vial	
2	Fluorouracil 1g/20ml Injection	600 mg/m ² , OD (once daily), Day: 1,2 Schedule	1122 mg	22.44 ml	4 vial	
3	Dextrose 5% 500ml IV soln			977.55 ml	4 bott	
4	Leucovorin Calcium 50mg/5ml Injection (Folinic acid)	200 mg/m ² , OD (once daily), Day: 1,2 Schedule	374 mg	37.4 ml	16 vial	
5	Dextrose 5% 500ml IV soln			500 ml	2 bott	
6	Oxaliplatin 50mg/10ml Injection	85 mg/m ² , OD (once daily), Day: 1 Schedule	158.95 mg	31.79 ml	4 EA	
7	Dextrose 5% 500ml IV soln			468.21 ml	1 bott	

Figure 3.2.4-4 CDR Regimen

Note

System will pop up alert to confirm order as shown in Figure 3.2.4-5

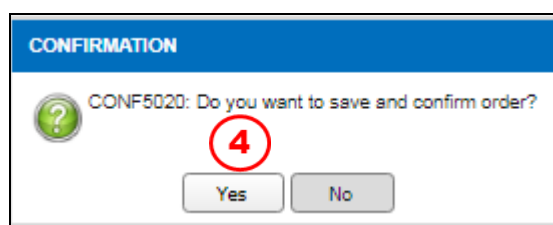
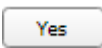


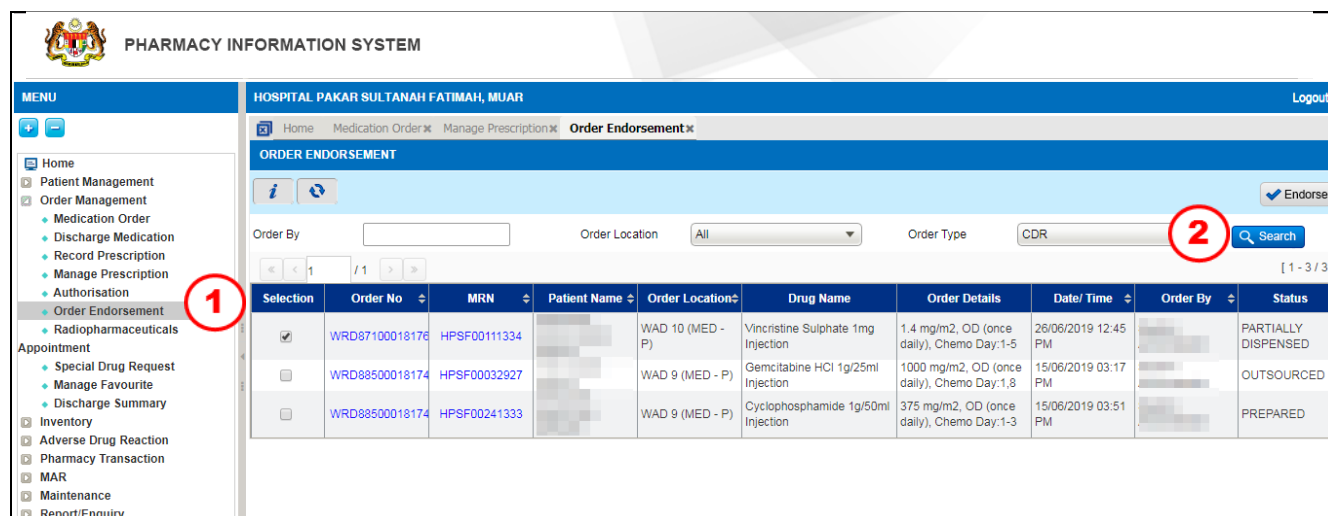
Figure 3.2.4-5 Alert Message

STEP 4

Click  button to save and confirm order

3.3 Order Endorsement

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



PHARMACY INFORMATION SYSTEM

HOSPITAL PAKAR SULTANAH FATIMAH, MUAR

Logout

Home Medication Order Manage Prescription **Order Endorsement**

ORDER ENDORSEMENT

Order By: [] Order Location: All Order Type: CDR [1 - 3 / 3]

[1] [2]

Selection	Order No	MRN	Patient Name	Order Location	Drug Name	Order Details	Date/ Time	Order By	Status
<input checked="" type="checkbox"/>	WRD87100018176	HPSF00111334	[]	WAD 10 (MED - P)	Vincristine Sulphate 1mg Injection	1.4 mg/m2, OD (once daily), Chemo Day:1-5	26/06/2019 12:45 PM	[]	PARTIALLY DISPENSED
<input type="checkbox"/>	WRD88500018174	HPSF00032927	[]	WAD 9 (MED - P)	Gemcitabine HCl 1g/25ml Injection	1000 mg/m2, OD (once daily), Chemo Day:1,8	15/06/2019 03:17 PM	[]	OUTSOURCED
<input type="checkbox"/>	WRD88500018174	HPSF00241333	[]	WAD 9 (MED - P)	Cyclophosphamide 1g/50ml Injection	375 mg/m2, OD (once daily), Chemo Day:1-3	15/06/2019 03:51 PM	[]	PREPARED

Figure 3.3-1 Order Endorsement

STEP 1

Click on the 'Order Management' menu followed by 'Order Endorsement' sub menu

Note

Search patient records by below criteria: -

No	Field	Description	Remark
a	Order By	Prescriber Name	Allow to search by fully or partially entered prescriber name
b	Order Location	Patient visit location	Able to filter and search patient name by visit location
c	Order type	Search By: <ul style="list-style-type: none"> - Normal - CDR - IV - PN - Radiopharmaceuticals 	Allow to search by order type

Table 3.3-1

STEP 2

Click on the  button to search for patient

Note

- Search result of patient record list will display:
 - Order Number
 - MRN
 - Patient Name
 - Order Location
 - Drug Name
 - Order Details
 - Date/Time
 - Order By
 - Status

Note

- Click on the **Order No** hyperlink to view Order Details as shown in Figure 3.3-2.
- Click on the **MRN** hyperlink to view patient Medication Profile as shown in Figure 3.3-3.

ORDER DETAILS											
X											
REGIMEN DETAILS											
Ordered Cycle Start Date:	Modified Cycle Start Date:	Ordered Cycle End Date:	Modified Cycle End Date:								
26/06/2019	-	16/07/2019	-								
DRUG DETAILS											
Drug Name	Ordered Dose	Ordered Frequency	Ordered Infuse Over	Ordered Chemo Day	Ordered Route	Ordered Start Date	End Date	Status	Remarks	Ordered By	
Vincristine Sulphate 1mg Injection	2.23 mg	OD (once daily)	0 Hours 15 Minutes	Day: 1-5	Intravenous Bolus	26/06/2019	30/06/2019	PARTIALLY DISPENSED	Maximum dose: 2MG Run fast		
Drug Name	Modified Dose	Modified Frequency	Modified Infuse Over	Modified Chemo Day	Modified Route	Modified Start Date	End Date	Status	Remarks	Modified By	
Vincristine Sulphate 1mg Injection	-	-	-	-	-	-	30/06/2019	PARTIALLY DISPENSED	Maximum dose: 2MG Run fast		
DOSE SCHEDULE											
Chemo Day	Ordered Date	Modified Date									
1	26/06/2019	-									
2	27/06/2019	-									
3	28/06/2019	-									
4	29/06/2019	-									
5	30/06/2019	-									

Figure 3.3-2 Order Details


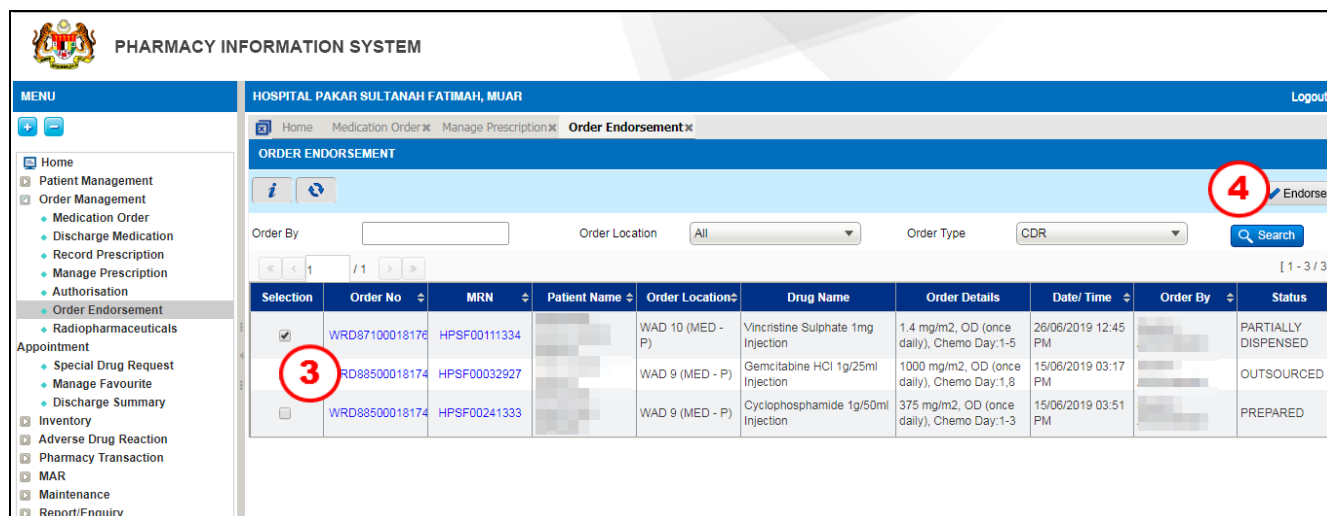
Administration Dispensing X											
	Mykad	Age 59 Years 08 Months 20 Days	Gender Female	MRN HPSF00241333							
Address	Phone And Email	Diagnosis	No known Allergies								
Height 165 cm	Weight 56 kg	BMI/BSA 20.6 / 1.6 m ²	(Last Updated : 15/06/2019)	Nationality : Warganegara							
Drug Name	Vincristine Sulphate 1mg Injection	Visit Type	All								
Prescription Date From		Prescription Date To									
Prescription Status	All	Location	All								
Prescription Number											
Search											
NORMAL MEDICATION											
CDR DRUG LIST											
CDR Cycle History											
Current Medication											
Rx No.	Regimen Code	Dosage Form	Drug Name	Dose	Route	Frequency	Status	Order By	Prescribed Qty	Visit Type	
Previous Medication											
<input type="checkbox"/>	WRD8850001817472	CDRHE00057	Powder for IV Soln	Cyclophosphamide 1g/50ml Injection	600 mg	Intravenous Infusion	OD (once daily)	PREPARED	System Administrator	3	Inpatient
<input type="checkbox"/>	WRD8850001817472	CDRHE00057	Parenteral Solution	Doxorubicin HCl 50mg/25ml Injection	40 mg	Intravenous Bolus	OD (once daily)	PREPARED	System Administrator	3	Inpatient

Figure 3.3-3 Medication Profile



PHARMACY INFORMATION SYSTEM

HOSPITAL PAKAR SULTANAH FATIMAH, MUAR

Logout

Home Medication Order Manage Prescription **Order Endorsement**

ORDER ENDORSEMENT

Order By: [] Order Location: All Order Type: CDR [Search]

[1-3/3]

Selection	Order No	MRN	Patient Name	Order Location	Drug Name	Order Details	Date/ Time	Order By	Status
<input checked="" type="checkbox"/>	WRD87100018176	HPSF00111334	[]	WAD 10 (MED - P)	Vincristine Sulphate 1mg Injection	1.4 mg/m2, OD (once daily), Chemo Day:1-5	26/06/2019 12:45 PM	[]	PARTIALLY DISPENSED
<input checked="" type="checkbox"/>	RD88500018174	HPSF00032927	[]	WAD 9 (MED - P)	Gemcitabine HCl 1g/25ml Injection	1000 mg/m2, OD (once daily), Chemo Day:1,8	15/06/2019 03:17 PM	[]	OUTSOURCED
<input type="checkbox"/>	WRD88500018174	HPSF00241333	[]	WAD 9 (MED - P)	Cyclophosphamide 1g/50ml Injection	375 mg/m2, OD (once daily), Chemo Day:1-3	15/06/2019 03:51 PM	[]	PREPARED

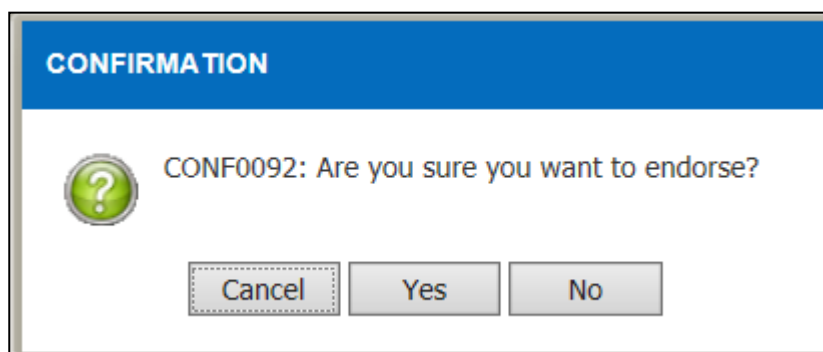
Figure 3.3-4 Order Endorsement

STEP 3

Click on the selected ☒ Patient Name checkbox

STEP 4

Click on the **Endorse** button to endorse the drug and alert message will be displayed as in Figure 3.3-5



CONFIRMATION

CONF0092: Are you sure you want to endorse?

Cancel Yes No

Figure 3.3-5 Alert Message

Note

Click on the **Yes** button to confirm the endorsement.

Click on the **No** button to cancel the endorsement.

3.4 Authorisation

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

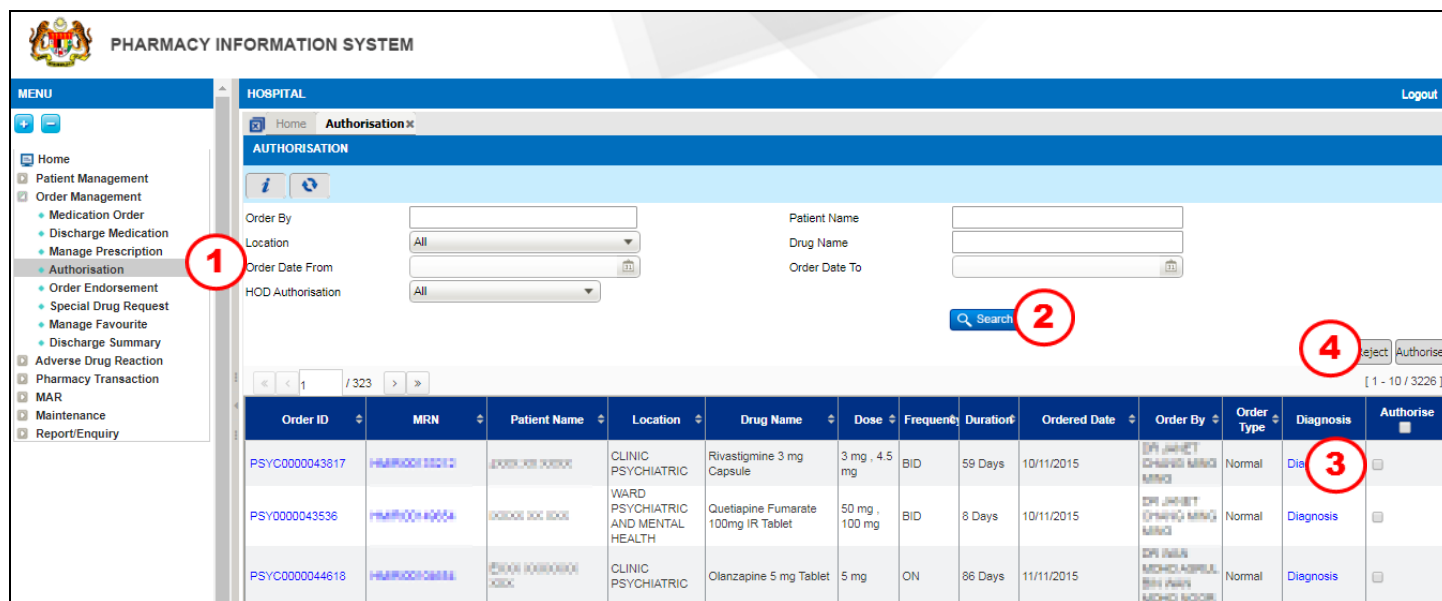


Figure 3.4-1 Authorisation

STEP 1

Click on the 'Order Management' menu and followed by 'Authorisation' sub menu

Note

Search patients record by below criteria:-

No	Field	Description	Remark
a	Order By	Prescriber Name	Allow to search by fully or partially entered prescriber name
b	Patient Name	Patient Name	Allow to search by fully or partially entered prescriber name
c	Location	Patient Visit Location	Able to filter and search patient by visit location and prescriber's location
d	Drug Name	Drug Name	Allow to search by fully or partially entered drug name
e	Order Date From	Order confirmed date	Allow to search by start date of order created
f	Order Date To	Order confirmed date	Allow to search by selected duration of order created

Table 3.4-1

STEP 2

Click on  button to search for patient

Note


- Search results of patient record list will display:
 - Order ID
 - MRN
 - Patient Name
 - Location
 - Drug Name
 - Dose

- Frequency
- Duration
- Ordered Date/Time
- Order By
- Order Type
- Authorise

Note

- Click on the **Order ID** hyperlink to view Order Details as shown in Figure 3.4-2.
- Click on the **MRN** hyperlink to view patient Medication Profile as shown in Figure 3.4-3.

ORDER DETAILS



Upload Photo

Age	83 Years 07 Months	Gender	Female	MRN	HPSF00083960
Address	Phone And Email	Diagnosis	Nationality : Warganegara	No known Allergies	
Height	cm	Weight	kg	BMI/BSA	0/0 m ²


(Last Updated :) Nationality : Warganegara

Rx No.: WRD8810001817437	Order Type: Normal	Order By:
Order Date: 31/05/2019	Order Location: WAD 5	

Drug Name	Dose	Frequency	Duration	Route	Order Qty	Start Date / Time	End Date / Time	Status	Drug Remark	Action By (Doctor)
Metronidazole 500mg/100ml Injection	500 mg	STAT	1 Days	Intravenous	1 bottle	31/05/2019	01/06/2019	Ordered		

Figure 3.4-2 Order Details

Administration Dispensing
X



Upload Photo

Mykad	Age	59 Years 08 Months 20 Days	Gender	Female	MRN	HPSF00241333
Address	Phone And Email	Diagnosis	No known Allergies			
Height	165 cm	Weight	56 kg	BMI/BSA	20.6 / 1.6 m ²	(Last Updated : 15/06/2019) Nationality : Warganegara

Drug Name	Vincristine Sulphate 1mg Injection	Visit Type	All
Prescription Date From		Prescription Date To	
Prescription Status	All	Location	All
Prescription Number			

Search

+ NORMAL MEDICATION

+ CDR DRUG LIST

CDR Cycle History
X


Current Medication											
	Rx No.	Regimen Code	Dosage Form	Drug Name	Dose	Route	Frequency	Status	Order By	Prescribed Qty	Visit Type
Previous Medication											
<input type="checkbox"/>	WRD8850001817472	CDRHE00057	Powder for IV Soln	Cyclophosphamide 1g/50ml Injection	600 mg	Intravenous Infusion	OD (once daily)	PREPARED	System Administrator	3	Inpatient
<input type="checkbox"/>	WRD8850001817472	CDRHE00057	Parenteral Solution	Doxorubicin HCl 50mg/25ml Injection	40 mg	Intravenous Bolus	OD (once daily)	PREPARED	System Administrator	3	Inpatient

Figure3.4-3 Medication Profile

STEP 3

Click on the selected ☒ **Patient Name** checkbox

STEP4

Click on  button to authorise the drug and an alert message will be displayed as shown in Figure 3.4-4

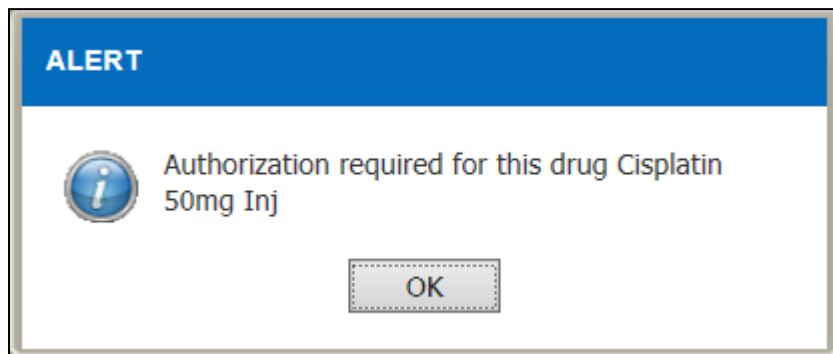
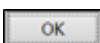
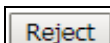


Figure 3.4-4 Alert Message

Note

- Click on the  button to confirm the authorisation.
- Click on  button to reject the authorisation.

4.0 Acronyms

Abbreviation	Definition
PhIS	Pharmacy Information System
CPS	Clinical Pharmacy System
MOH	Ministry Of Health
HQ	Headquarters
CDR	Cytotoxic Drug Reconstitution

5.0 Links to Clinical Modules

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