



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

Pharmacy Based

**User Manual
Cytotoxic Drug Reconstitution (CDR)**

Version	: 12th Edition
Document ID	: PB_U. MANUAL_CDR



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 would benefit facility end user in the health care sector.

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

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

1.2 Purpose and Objectives

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

User will understand the following activities in details:

- Cytotoxic Drug Reconstitution Order
- Cytotoxic Drug Reconstitution Verification
- Cytotoxic Drug Reconstitution Preparation
- Cytotoxic Drug Reconstitution Dispensing

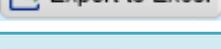
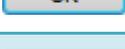
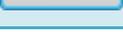
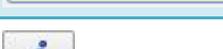
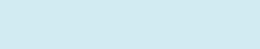
1.3 Organised Sections

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	<input type="checkbox"/>	Checkbox
	System Automatic Generate Record No.		Automatically Display/Retrieve Box
	Reset Login Screen		Show Help
	Display Home Tab		Search Record
	Cancel		Dropdown Box
	Search Icon	*	Mandatory Field
	Edit Record		Empty Text Box
	Cancel Button		



Cytotoxic Drug Reconstitution (CDR) 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 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

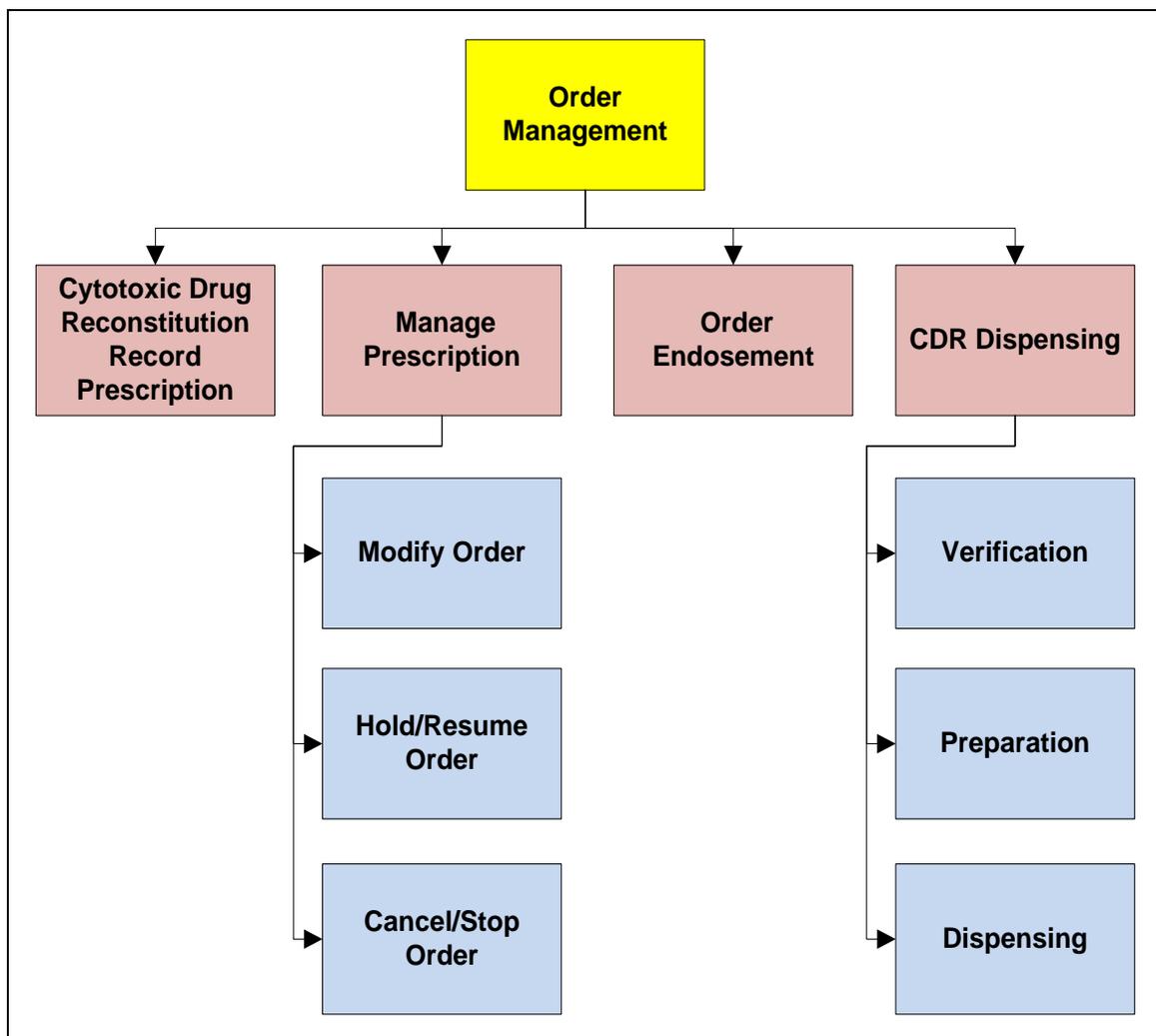


Figure 3.0



Functional Description

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

- **Cytotoxic Drug Reconstitution (CDR) Order**
To allow pharmacist to record prescripion
- **Manage Prescription**
To monitor patient's prescription by modifying order, hold/resume order, cancel/stop order.
- **Order Endorsement**
Order endorsement is to notify pharmacist on prescription changes made by others pharmacist.

3.1 Cytotoxic Drug Reconstitution Order

CDR Order allows Prescriber to place CDR order. Order will be send to Pharmacist for process of verification, preparation and dispensing.

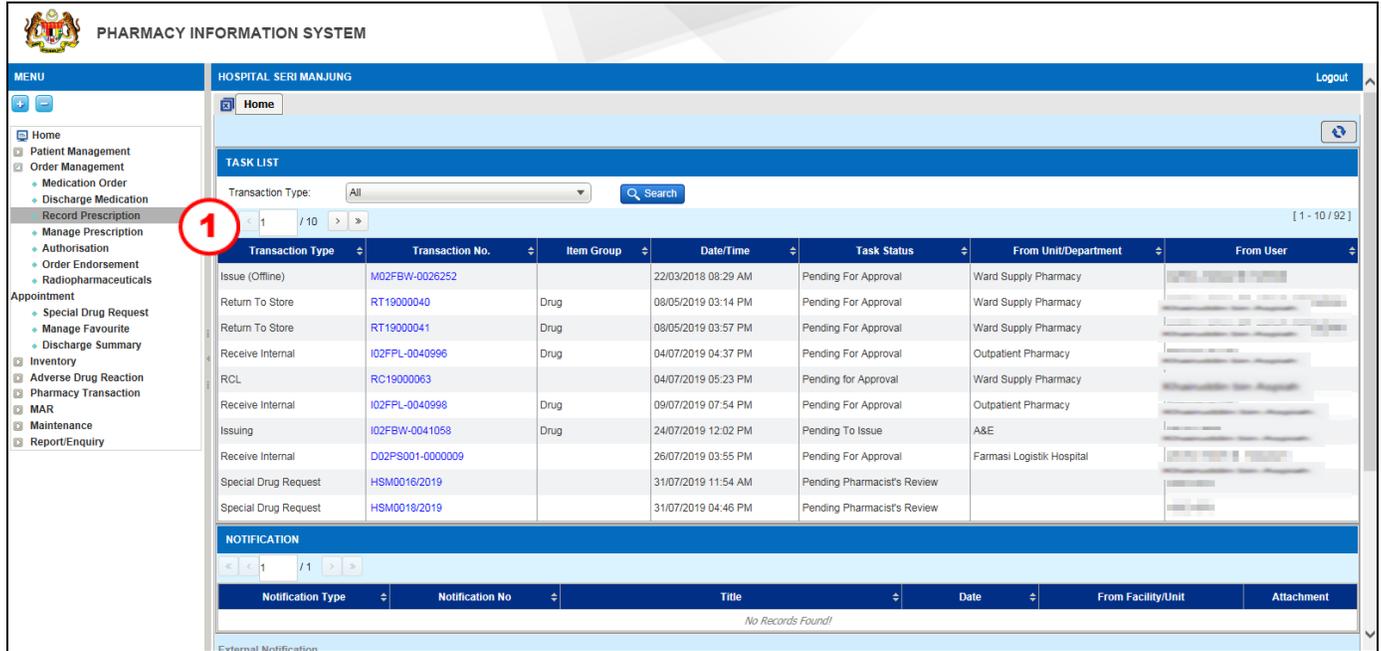


Figure 3.1-1 PhIS Home Page

This page is used to search for a registered patient

STEP 1

Click on 'Order Management' menu followed by 'Record Prescription' and screen will be displayed as per Figure 3.1-1

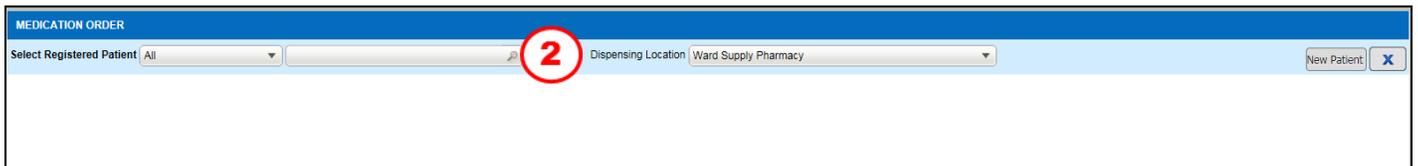


Figure 3.1-2 Medication Order

STEP 2

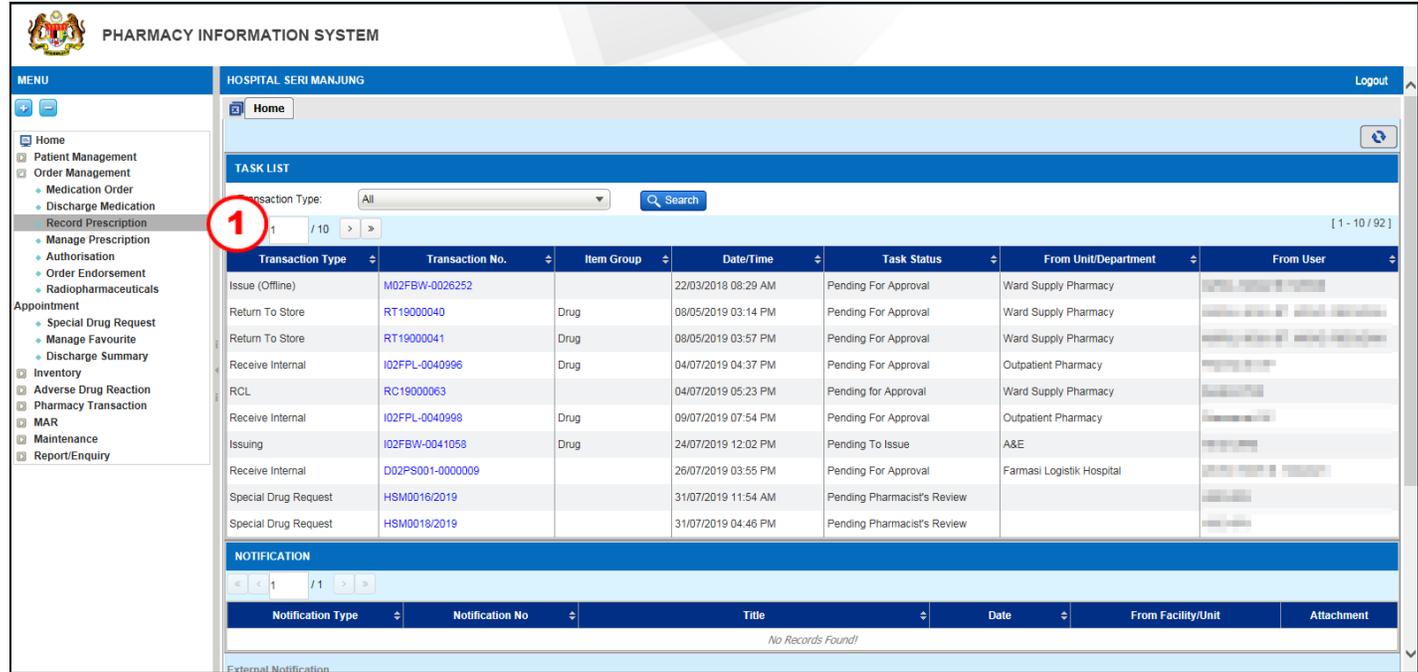
Click on the  button to search for a registered patient

Note

If the patient is not registered, click on the  button and the Patient Registration screen will be displayed

3.2 New Patient Registration

To register a new patient, please perform the steps below.



PHARMACY INFORMATION SYSTEM

HOSPITAL SERI MANJUNG

Logout

Home

TASK LIST

Transaction Type: All Search

1 / 10

Transaction Type	Transaction No.	Item Group	Date/Time	Task Status	From Unit/Department	From User
Issue (Offline)	M02FBW-0026252		22/03/2018 08:29 AM	Pending For Approval	Ward Supply Pharmacy	
Return To Store	RT19000040	Drug	08/05/2019 03:14 PM	Pending For Approval	Ward Supply Pharmacy	
Return To Store	RT19000041	Drug	08/05/2019 03:57 PM	Pending For Approval	Ward Supply Pharmacy	
Receive Internal	I02FPL-0040996	Drug	04/07/2019 04:37 PM	Pending For Approval	Outpatient Pharmacy	
RCL	RC19000063		04/07/2019 05:23 PM	Pending For Approval	Ward Supply Pharmacy	
Receive Internal	I02FPL-0040998	Drug	09/07/2019 07:54 PM	Pending For Approval	Outpatient Pharmacy	
Issuing	I02FBW-0041058	Drug	24/07/2019 12:02 PM	Pending To Issue	A&E	
Receive Internal	D02PS001-0000009		26/07/2019 03:55 PM	Pending For Approval	Farmasi Logistik Hospital	
Special Drug Request	HSM0018/2019		31/07/2019 11:54 AM	Pending Pharmacist's Review		
Special Drug Request	HSM0018/2019		31/07/2019 04:46 PM	Pending Pharmacist's Review		

NOTIFICATION

1 / 1

Notification Type	Notification No	Title	Date	From Facility/Unit	Attachment
No Records Found!					

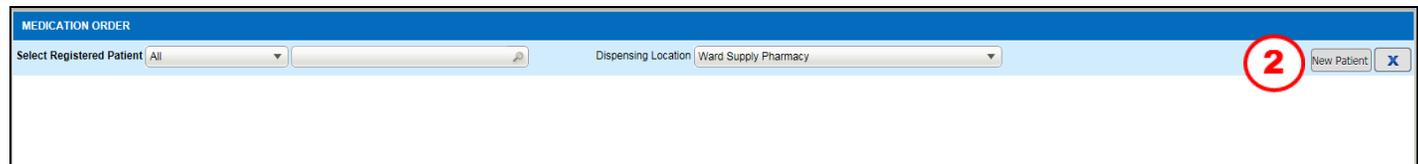
External Notification

Figure 3.2-1 PhIS Home Page

This page is used to register new patient

STEP 1

Click on 'Order Management' menu followed by 'Record Prescription' and Medication Order screen will be displayed as per Figure 3.2-2



MEDICATION ORDER

Select Registered Patient All

Dispensing Location Ward Supply Pharmacy

2 New Patient X

Figure 3.2-2 Medication Order

STEP 2

Click on the button to register for new patient

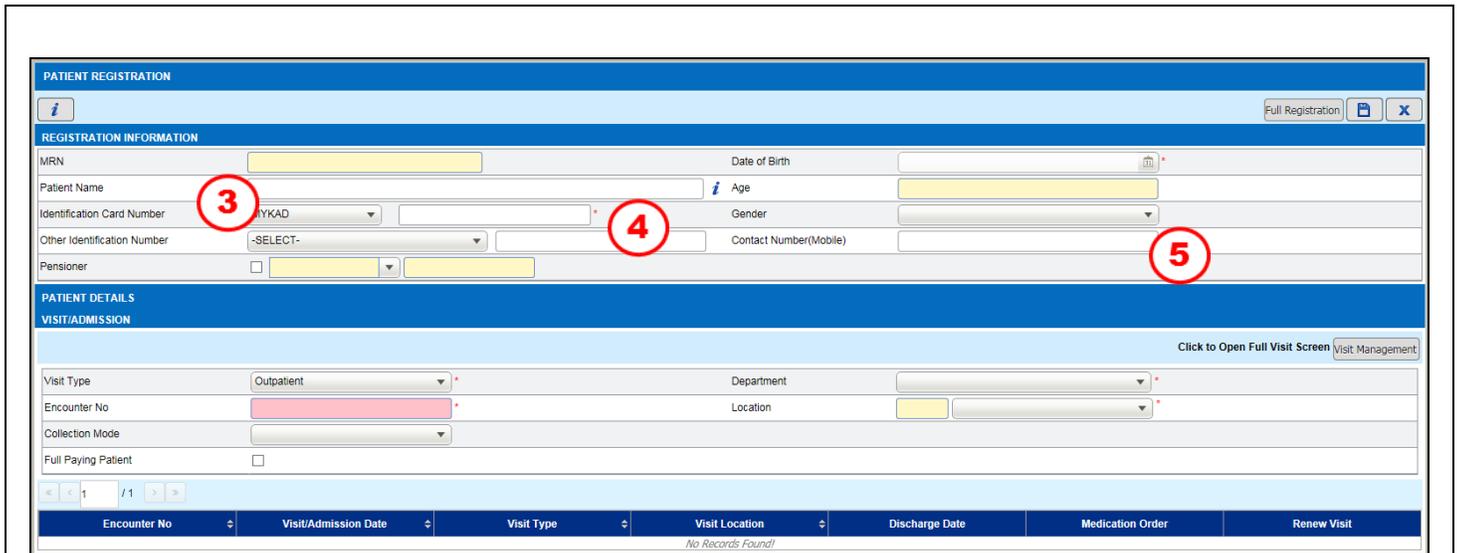


Figure 3.2-3 Registration Information

STEP 3

Enter **Patient Name**

STEP 4

Select from **Identification Card Number** drop down box:

- MYKAD
- MYKID

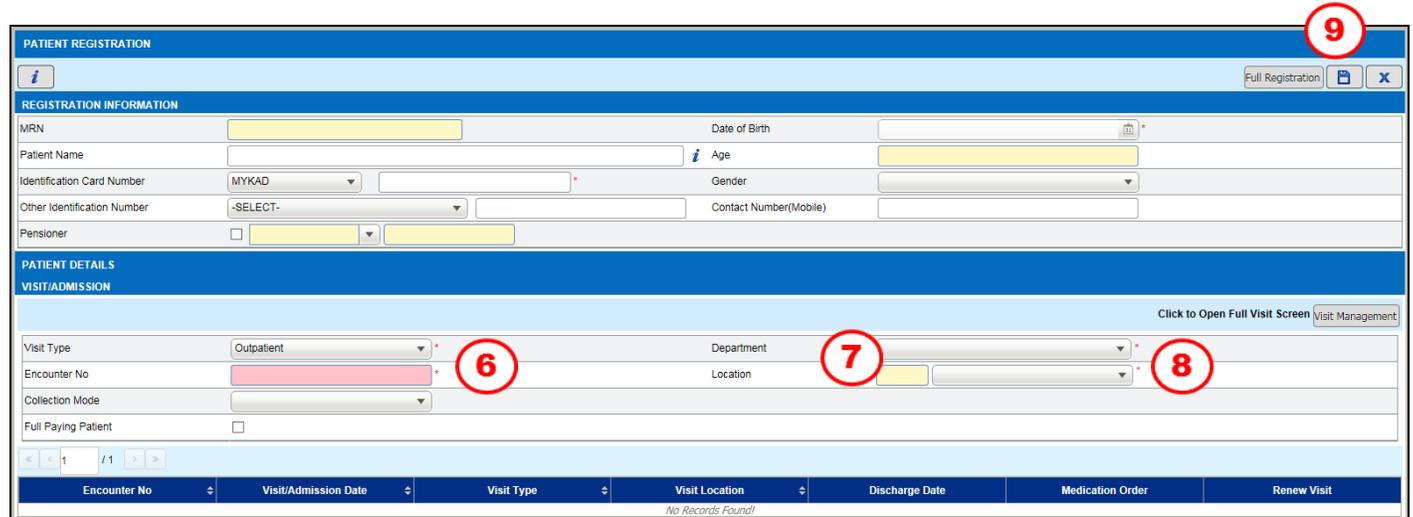
and enter the relevant number

Note

- After enter the **Identification Card Number** the below details will be displayed:
 - Date of Birth (dd/mm/yy)
 - Age (42Y 05M 21D)
 - Gender (Male/Female)
- If MYKAD/MYKID is unavailable, user is required to select the **Other Identification Number** dropdown box:
 - Birthday Certificate
 - Driving License
 - Father IC
 - MYKAS
 - MYPR
 - Military Card Number
 - Mother IC
 - Old IC
 - Passport
 - Pension Card
 - Police Card Number
 - UNHCR
 - Unknown Patient
 - Work Permitand enter the relevant number.

STEP 5

Enter **Contact Number (Mobile)**



The screenshot shows a web-based form for patient registration and visit/admission. The form is titled 'PATIENT REGISTRATION' and 'VISIT/ADMISSION'. The 'PATIENT REGISTRATION' section includes fields for MRN, Patient Name, Identification Card Number (MYKAD), Other Identification Number, Pensioner status, Date of Birth, Age, Gender, and Contact Number (Mobile). The 'VISIT/ADMISSION' section includes fields for Visit Type, Encounter No, Collection Mode, Full Paying Patient, Department, and Location. Red circles with numbers 6, 7, 8, and 9 highlight specific fields: 6 on Encounter No, 7 on Department, 8 on Location, and 9 on the top right of the registration section.

Figure 3.2-4 Visit/Admission

STEP 6

Select the **Visit Type** from dropdown box:

- Daycare
- Emergency
- Inpatient
- Outpatient
- Outsource
- PAC
- SPUB
- Walk-in

STEP 7

Select the **Department** from dropdown box:

Note

Department will tie to the selected visit type.

STEP 8

Select **Location** from dropdown box

Note

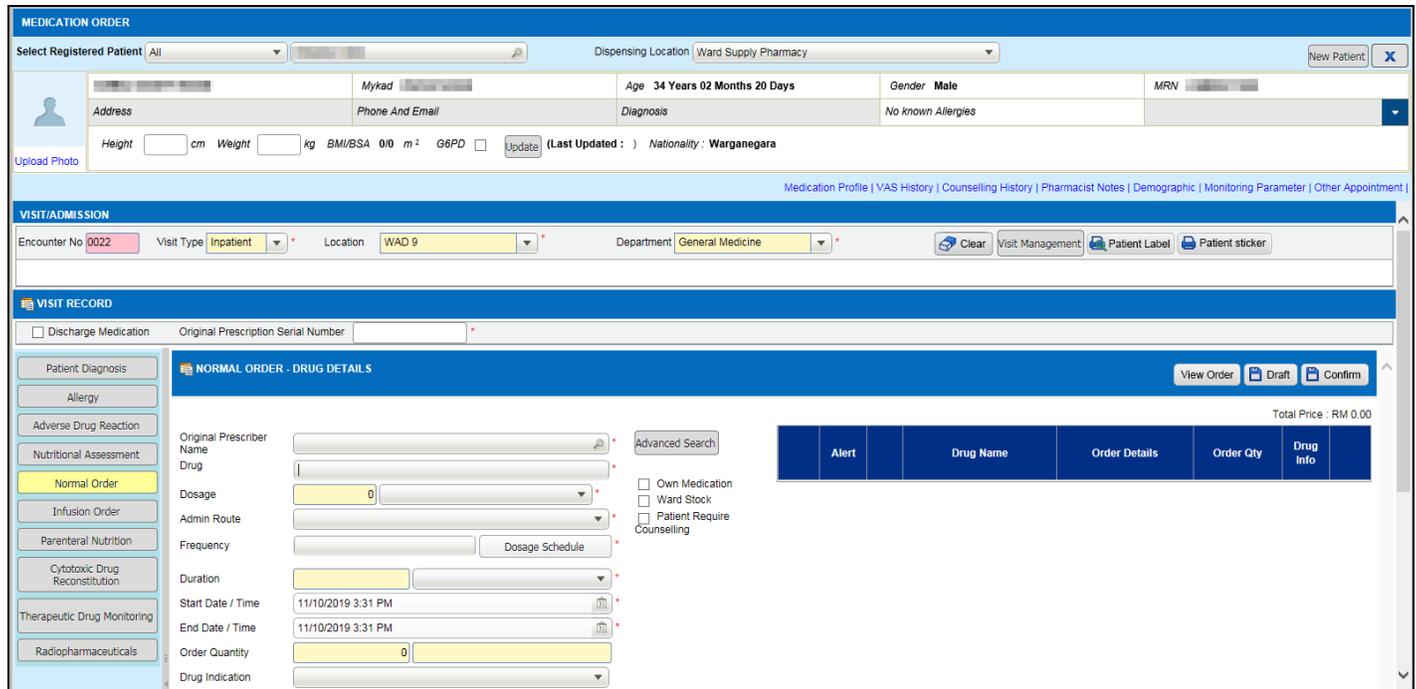
Location will tie to the selected Department.

STEP 9

Click on the  button to save the record and medication order screen will display as per Figure 3.2.5

Note

- After click the save button, system will automatically generate the **MRN** (Medical Record Number)
- Another option to register a new patient is to click on the **New Patient Registration** button located under Patient Quick Registration that will display the same screen as Figure 3.2-3.



The screenshot displays the 'MEDICATION ORDER' interface. At the top, there is a header bar with 'MEDICATION ORDER' and a 'New Patient' button. Below this, a patient selection dropdown is set to 'All'. The main patient information section includes fields for Mykad, Age (34 Years 02 Months 20 Days), Gender (Male), MRN, Address, Phone And Email, Diagnosis, and No known Allergies. Physical attributes like Height, Weight, BMI/BSA, and G6PD are also present. A 'VISIT/ADMISSION' section shows Encounter No 0022, Visit Type Inpatient, Location WAD 9, and Department General Medicine. The 'VISIT RECORD' section has a 'Discharge Medication' checkbox and a field for 'Original Prescription Serial Number'. The 'NORMAL ORDER - DRUG DETAILS' section is active, showing fields for Original Prescriber Name, Drug, Dosage (0), Admin Route, Frequency, Duration, Start Date / Time (11/10/2019 3:31 PM), End Date / Time (11/10/2019 3:31 PM), Order Quantity (0), and Drug Indication. A table with columns 'Alert', 'Drug Name', 'Order Details', 'Order Qty', and 'Drug Info' is visible, with a total price of RM 0.00. A sidebar on the left contains navigation options like Patient Diagnosis, Allergy, Adverse Drug Reaction, Nutritional Assessment, Normal Order (highlighted), Infusion Order, Parenteral Nutrition, Cytotoxic Drug Reconstitution, Therapeutic Drug Monitoring, and Radiopharmaceuticals.

Figure 3.2-5 Medication Order

4.0 Cytotoxic Drug Reconstitution (CDR) Order, Verify and Prepare

Perform these steps below to create new order, verify and prepare for CDR.

Cytotoxic Drug is a 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.

CDR Order:

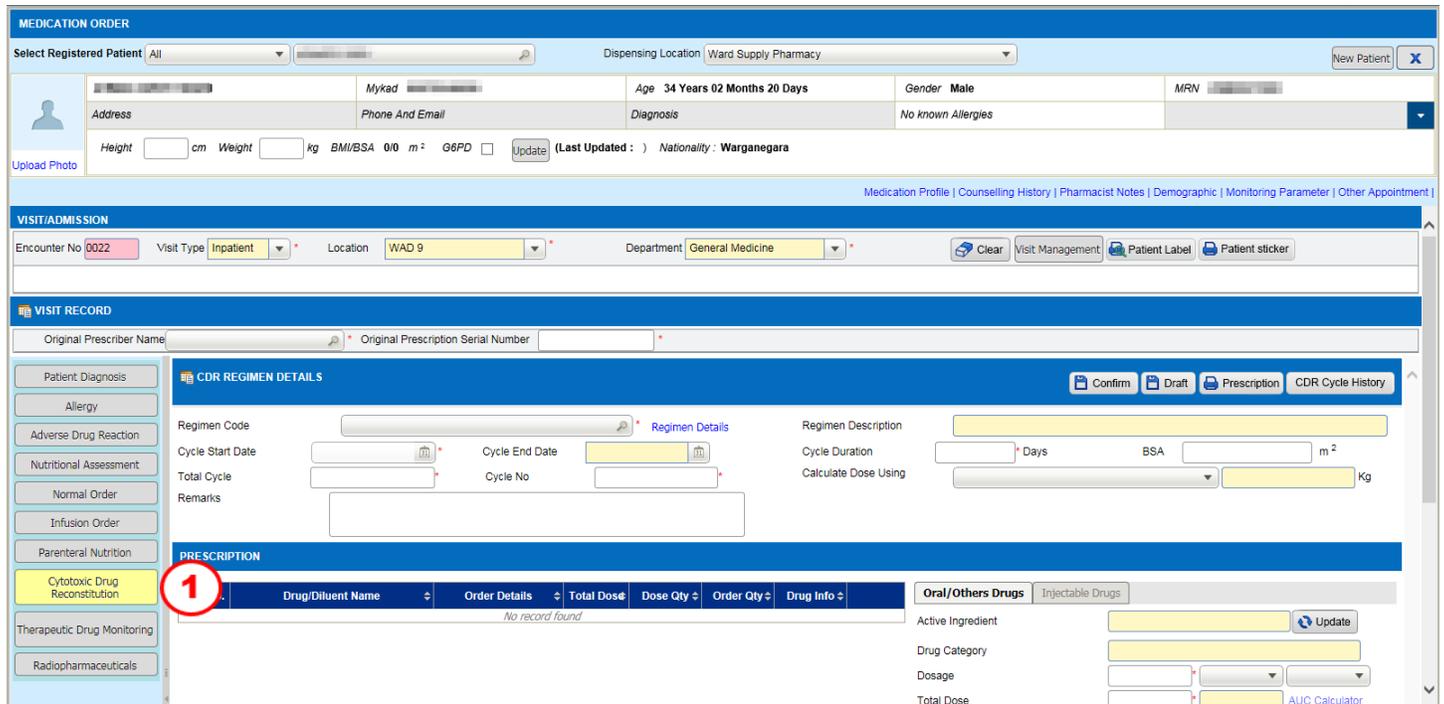
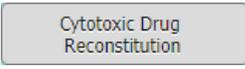


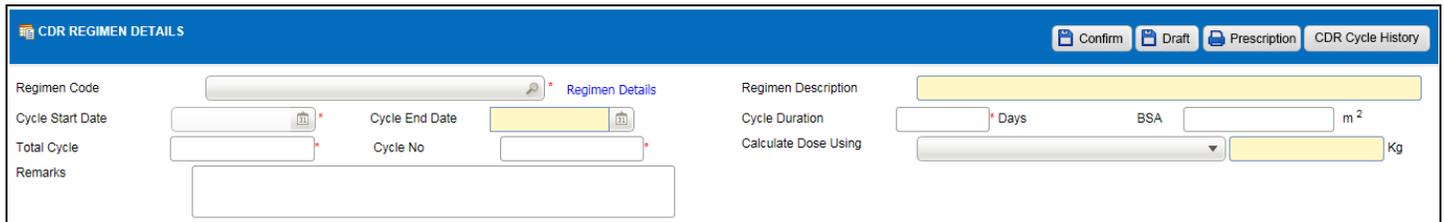
Figure 4.0-1 CDR Order

STEP 1

Click on the  to display CDR Order screen

Note

- CDR Order screen consists of:
 - Patient's Banner
 - Visit / Admission
 - Visit Record
 - CDR Regimen Details
 - Prescriptions



The screenshot shows a web form titled "CDR REGIMEN DETAILS". At the top right, there are buttons for "Confirm", "Draft", "Prescription", and "CDR Cycle History". The form fields are organized into two columns. The left column contains: "Regimen Code" (text input with a search icon and a "Regimen Details" hyperlink), "Cycle Start Date" (calendar icon), "Cycle End Date" (calendar icon), "Total Cycle" (text input), "Cycle No" (text input), and "Remarks" (text area). The right column contains: "Regimen Description" (text input), "Cycle Duration" (text input followed by "Days"), "BSA" (text input followed by "m²"), "Calculate Dose Using" (dropdown menu), and "Kg" (text input).

Figure 4.0-2 CDR Regimen Details

Patient's Banner

- Patient's Banner will be displayed patient's profile. User can update patient's height and weight.
- Click on the button and system will be automatically calculated the BMI/BSA in m².

Visit Admission

- Visit Admission will be displayed Encounter No., Visit Type, Location and Department; Breast Feeding and Pregnant check box.

Visit Record

- Visit Record will be displayed Original Prescriber Name and Original Prescription Serial Number fields.
- Enter details for both fields.

CDR Regimen Details

- CDR Regimen Details consists of:
 - Regimen Code
 - Regimen Description
 - Regimen Details Hyperlink
 - Cycle Start Date
 - Cycle End Date
 - Cycle Duration
 - BSA
 - Total Cycle
 - Cycle No
 - Calculate Dose Using
 - Remarks



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:

Drug Remarks:

Figure 4.0-3 Prescription – Oral/Others Drugs

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:

Dosage:

Total Dose:

Admin Route:

Frequency:

Chemo Day:

Drug Indication:

Infuse Over: (Hour) : (Minute)

Diluent:

Diluent Volume:

Total Volume:

Infusion Rate:

Remarks:

Figure 4.0-4 Prescription – Injectable Drugs

Prescriptions

- Prescriptions consists of:
 - Oral/Others Drugs
 - Injectable Drugs
 - Drug/Diluents' Name
 - Order Details
 - Total Dose
 - Dose Qty (Quantity)
 - Order Qty (Quantity)
 - Drug Info (Information)
 - Seq No

MEDICATION ORDER

Select Registered Patient: All [Patient Name] Dispensing Location: Ward Supply Pharmacy [New Patient X]

Mykad: [Mykad] Age: 34 Years 02 Months 20 Days Gender: Male MRN: [MRN]

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

Height: [Height] cm Weight: [Weight] kg BMI/BSA: 0/0 m² G6PD: [G6PD] (Last Updated:) Nationality: Warganegara

VISIT/ADMISSION

Encounter No: 0022 Visit Type: Inpatient Location: WAD 9 Department: General Medicine

VISIT RECORD (2)

Original Prescriber Name: [Original Prescriber Name] Original Prescription Serial Number: [Original Prescription Serial Number]

CDR REGIMEN DETAILS

Regimen Code: [Regimen Code] Regimen Description: [Regimen Description]

Cycle Start Date: [Cycle Start Date] Cycle End Date: [Cycle End Date] Cycle Duration: [Cycle Duration] Days BSA: [BSA] m²

Total Cycle: [Total Cycle] Cycle No: [Cycle No] Calculate Dose Using: [Calculate Dose Using] Kg

Remarks: [Remarks]

PRESCRIPTION

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

Active Ingredient: [Active Ingredient] Update

Drug Category: [Drug Category]

Dosage: [Dosage]

Total Dose: [Total Dose] AUC Calculator

Figure 4.0-5 Prescription – Medication Order

STEP 2

Click on the button to search **Original Prescriber Name** as per Figure 4.0-6

Search [X]

< < 1 / 68 > >

Prescriber Name	Department/Discipline
[Prescriber Name]	General Medicine
[Prescriber Name]	Obstetrics and Gynaecology
[Prescriber Name] (3)	General Medicine
[Prescriber Name]	General Surgery
[Prescriber Name]	General Medicine
[Prescriber Name]	General Surgery
[Prescriber Name]	General Paediatrics
[Prescriber Name]	Ambulatory Care

Figure 4.0-6 Prescriber

STEP 3

Double click on the prescriber name



MEDICATION ORDER

Select Registered Patient: All [dropdown] Dispensing Location: Ward Supply Pharmacy [dropdown] New Patient

Mykad: [text] Age: 34 Years 02 Months 20 Days Gender: Male MRN: [text]

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

Height: 176 cm Weight: 75 kg BMI/BSA: 24.2 / 1.91 m² G6PD: Update (Last Updated:) Nationality: Warganegara

VISIT/ADMISSION

Encounter No: 0022 Visit Type: [dropdown] WAD: 9 Department: General Medicine [dropdown] Clear Visit Management Patient Label Patient sticker

VISIT RECORD

Original Prescriber Name: [text] Original Prescription Serial Number: RX009876 4

Figure 4.0-7 Medication Order

STEP 4

Enter **Original Prescription Serial Number**

CDR REGIMEN DETAILS Confirm Draft Prescription CDR Cycle History

Regimen Code: CDRON00010 5 Regimen Details Regimen Description: Cisplatin 80mg/m² + 5FU 1g/m², 5days

Cycle Start Date: 11/10/2019 Cycle End Date: 31/10/2019 Cycle Duration: 21 Days BSA: 1.91 m²

Total Cycle: 6 Cycle No: [text] Calculate Dose Using: Actual Body Weight 75 Kg

Remarks: [text area]

Figure 4.0-8 Medication Order

STEP 5

Click on the **Regimen Code** button and Regimen Search window will display as shown in Figure 4.0-9

Search Regimen X

Active Ingredient: [text]

Regimen Category: [dropdown] Regimen Type: [text]

Regimen Description: [text] Regimen Code: [text]

Search

< < 1 / 29 > > [1 - 10 / 286]

Regimen Code	Regimen Description	Regimen Type	Regimen Category
CDRON00002	Cisplatin 75mg/m ² + 5FU 750mg/m ² , 5days	-	Oncology
CDRON00095	Cisplatin + Methotrexate(MTX)	-	Oncology
CDRON00008	Cisplatin 40mg/m ² Weekly	-	Oncology
CDRON00001	Carboplatin + 5FU 600mg/m ² , 4days	-	Oncology
CDRON00005	Methotrexate(MTX) 40mg/m ² , weekly	-	Oncology
CDRON00009	Carboplatin, weekly	-	Oncology
CDRON00010	Cisplatin 80mg/m ² + 5FU 1g/m ² , 5days	-	Oncology
CDRON00006	Carboplatin + 5FU + FA	-	Oncology
CDRON00003	Cisplatin 100mg/m ² , 3-weekly	-	Oncology
CDRON00007	EP (IV Etoposide 100mg/m ² + Cisplatin 75mg/m ²)	-	Oncology

Figure 4.0-9 Search Regimen

Note

- Double click on the selected **Regimen Code**
- **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.
- **Cycle Start Date and Cycle End Date** : System will be automatically calculated cycle end date based on cycle start date and cycle duration.
- User is allowed to select **Calculate Dose Using** from dropdown box:
 - Actual Body Weight
 - Adjusted Body Weight
 - Ideal Body Weight
- System will be automatically calculated the weight (kg) and BSA according to **Calculate Dosage Using** selected. It will give effect on **Total Dose** if user selects Dosage by per kg or by m2.
- Click on the [Regimen Details](#) hyperlink to display regimen details as per Figure 4.0-10.

REGIMEN DETAILS										
Category	Hematology - NHL (Non-Hodgkin's Lymphc)		Regimen Code	CDRHE00061		Regimen Description	CHOP + Rituximab + IT MTX			
Cycle Duration	21		Remarks							
Active Ingredient	Admin Route	Dosage	Frequency	Chemo day	Infuse Over	Diluent	Diluent Volume	Drug Remark	Status	
Cyclophosphamide	Intravenous Infusion	750 mg/m2	OD (once daily)	1	0 Hours 0 Minutes				Active	
Doxorubicin	Intravenous Bolus	50 mg/m2	OD (once daily)	1	0 Hours 0 Minutes				Active	
Methotrexate	Intravenous Slow Bolus	15 mg	OD (once daily)	1	0 Hours 0 Minutes				Active	
Prednisolone	Oral	60 mg/m2	OD (once daily)	1,2,3,4,5	0 Hours 0 Minutes				Active	
Rituximab	Intravenous Infusion	375 mg/m2	OD (once daily)	1	0 Hours 0 Minutes	Sodium Chloride 0.9% 500mL IV soln	500 ml	Dose = 375mg/m2 or 500mg, whichever is feasible	Active	
Vincristine	Intravenous Bolus	1.4 mg/m2	OD (once daily)	1	0 Hours 15 Minutes	Sodium Chloride 0.9% 100mL IV soln	100 ml	Run fast	Active	

Figure 4.0-10 Regimen Details

- System will be displayed prescriptions based on regimen code selected in CDR Regimen Details as shown in Figure 4.0-11

PRESCRIPTION							Oral/Others Drugs	Injectable Drugs
Seq No.	Drug/Diluent Name	Order Details	Total Dose	Dose Qty	Order Qty	Drug Info		
	Cyclophosphamide 1g/50ml Injection	750 mg/m ² , OD (once daily), Day: 1 Schedule	1365 mg	68.25 ml	2 vial	<i>i</i>		Active Ingredient
	Doxorubicin HCl 50mg/25ml Injection	50 mg/m ² , OD (once daily), Day: 1 Schedule	91 mg	45.5 ml	2 vial	<i>i</i>		Dosage
	Methotrexate 50mg/2ml Injection	15 mg, OD (once daily), Day: 1 Schedule	15 mg	0.6 ml	1 vial	<i>i</i>		Total Dose
	Rituximab 500mg/50ml Injection	375 mg/m ² , OD (once daily), Day: 1 Schedule	682.5 mg	68.25 ml	2 vial	<i>i</i>		Admin Route
	Sodium Chloride 0.9% 500mL IV soln			431.75 ml	1 bott			Frequency
	Vincristine Sulphate 1mg Injection	1.4 mg/m ² , OD (once daily), Day: 1 Schedule	2.55 mg	2.55 ml	3 vial	<i>i</i>		Chemo Day
	Sodium Chloride 0.9% 100mL IV soln			97.45 ml	1 bott			Drug Indication
	Prednisolone 5 mg Tablet	60 mg/m ² , OD (once daily), Day: 1,2,3 Schedule	109.2 mg	21.84 tablet	110 tablet	<i>i</i>		Infuse Over (Hour) : (Minute)
								Diluent
								Diluent Volume
								Total Volume
								Infusion Rate
								Remarks

Figure 4.0-11 CDR Prescription

- To delete not related drugs for that prescription, click on button. System will be deleted selected drug and that drug will not be flow for dispensing.
- 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.

STEP 6

Click on the Schedule hyperlink and Dose Schedule windows will be display as Figure 4.0-12

DOSE SCHEDULE					
Chemo Day	Date	Total Dose	Total Dose/Day	UOM	Schedule Time
1	12/10/2019	39.2	109.2	mg	08:00
		50			12:00
		20			20:00
2	13/10/2019	39.2	109.2	mg	08:00
		50			12:00
		20			20:00
3	14/10/2019	39.2	109.2	mg	08:00
		50			12:00
		20			20:00
4	15/10/2019	39.2	109.2	mg	08:00
		50			12:00
		20			20:00
5	16/10/2019	39.2	109.2	mg	08:00
		50			12:00
		20			20:00

Figure 4.0-12 Dose Schedule

Note

- User is allowed to modify **Schedule Time**
- User is allowed to do a **Split Dose** function and it is applicable only for CDR Normal Drug only and not applicable for Inject able/Infusion Drugs.

STEP 7

Enter **Total Dose**

Note

- User is allowed to enter **Total Dose** for the first Chemo Day only and the subsequent Chemo Day will follow the first day
- **Total Dose/Day** will automatically calculated based on the sum entered value in **Total Dose** for each of Admin Time

STEP 8



Click on the button to save the record

PRESCRIPTION							
Seq No.	Drug/Diluent Name	Order Details	Total Dose	Dose Qty	Order Qty	Drug Info	
	Cyclophosphamide 1g/50ml Injection	750 mg/m ² , OD (once daily), Day: 1 Schedule	1365 mg	68.25 ml	2 vial	<i>i</i>	
	Doxorubicin HCl 50mg/25ml Injection	50 mg/m ² , OD (once daily), Day: 1 Schedule	91 mg	45.5 ml	2 vial	<i>i</i>	
	Methotrexate 50mg/2ml Injection	15 mg, OD (once daily), Day: 1 Schedule	15 mg	0.6 ml	1 vial	<i>i</i>	
	Rituximab 500mg/50ml Injection	375 mg/m ² , OD (once daily), Day: 1 Schedule	682.5 mg	68.25 ml	2 vial	<i>i</i>	
	Sodium Chloride 0.9% 500mL IV soln	1.4 mg/m ² , OD (once daily), Day: 1 Schedule	2.55 mg	431.75 ml	1 bott	<i>i</i>	
	Vincristine Sulphate 1mg Injection	1.4 mg/m ² , OD (once daily), Day: 1 Schedule	2.55 mg	2.55 ml	3 vial	<i>i</i>	
	Sodium Chloride 0.9% 100mL IV soln	39.2 mg, 50 mg , 20 mg , TDS (3 times a day), Day: 1,2,3,4,5 Schedule	109.2 mg	97.45 ml	1 bott	<i>i</i>	
	Prednisolone 5 mg Tablet			21.84 tablet	328 tablet	<i>i</i>	

Oral/ Others Drugs Injectable Drugs

Active Ingredient: Prednisolone

Drug Category: B

Dosage: 60* mg /m²

Total Dose: 109.2* mg [AUC Calculator](#)

Admin Route: Oral

Frequency: TDS (3 times a day)

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

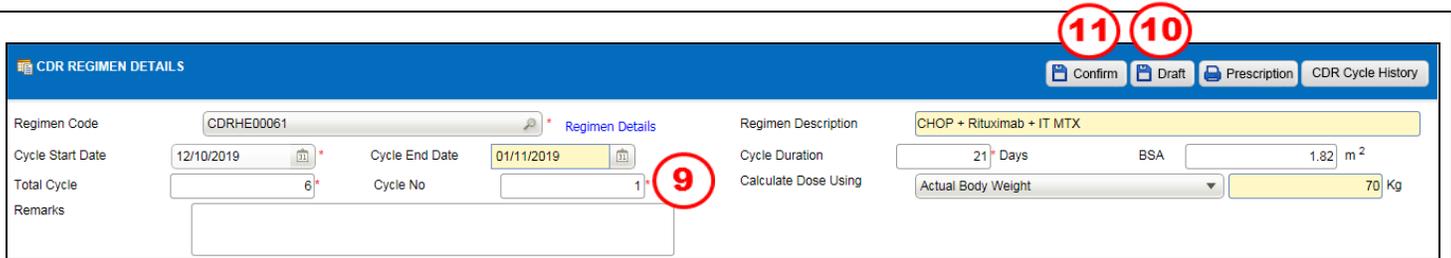
Drug Indication: 39.2 mg(08:00 AM), 50 mg(12:00 PM), 20 mg(08:00 PM)

Drug Remarks:

Figure 4.0-13 CDR Prescription

Note

- **Total Dose** will display a row highlighted with yellow color based on the split dose value and admin time of the first chemo day
- **Dose Qty** will be displayed based on the **Total Dose/Day**
- **Order Qty** will be automatically recalculate based on the **Total Dose/Day**



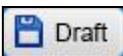
The screenshot shows the 'CDR REGIMEN DETAILS' form. At the top right, there are buttons for 'Confirm', 'Draft', 'Prescription', and 'CDR Cycle History'. The form fields include: Regimen Code (CDRHE00061), Regimen Description (CHOP + Rituximab + IT MTX), Cycle Start Date (12/10/2019), Cycle End Date (01/11/2019), Total Cycle (6), Cycle No (1), Cycle Duration (21 Days), BSA (1.82 m²), and Calculate Dose Using (Actual Body Weight, 70 Kg). Red circles with numbers 9, 10, and 11 are placed over the Cycle No field, the Draft button, and the Confirm button respectively.

Figure 4.0-14 CDR Regimen Details

STEP 9

Enter **Cycle No**

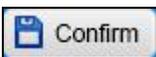
STEP 10

Click on the  button to save the record as "Draft"

Note

User still able to edit or modify order using this screen.

STEP 11

Click on the  button to confirm CDR order

Note

- Confirmation dialog will be display as Figure 4.0-15

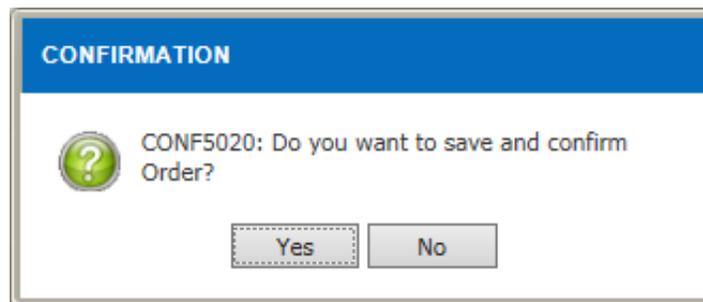


Figure 4.0-15 Confirmation Message

- Click on the  button to confirm order and CDR Verification screen will be displayed as per Figure 4.0-17

Note

Click on the  button to print CDR Prescription



**Ministry of Health, Malaysia
 Hospital Seri Manjung
 Cytotoxic Drug Reconstitution**

Patient Name : ██████████ Patient ID : ██████████
 Age : 34 Y 2 M 20 D MRN : HSM00211668
 Gender : Male Prescription # : W90000824598
 Height/Weight/BSA : 170 cm / 70 kg / 1.82 m² Order Date/Time : 12/10/2019 01:10 PM
 Allergy : Location : WAD 9

Diagnosis :
 Regimen Code : CDRHE00061
 Regimen Description : CHOP + Rituximab + IT MTX
 Cycle Start Date : 12/10/2019 Cycle Duration : 21 Days Total Cycle : 6 Current Cycle : 1

Route	Drug Name	Dosage	Total Dose	Diluent	Diluent Vol	Frequency	Chemo Day
INF	Cyclophosphamide	750 mg/m ²	1365 mg			OD (once daily)	1
IVB	Doxorubicin	50 mg/m ²	91 mg			OD (once daily)	1
IVSB	Methotrexate	15 mg	15 mg			OD (once daily)	1
INF	Rituximab	375 mg/m ²	682.5 mg	Sodium Chloride 0.9% 500mL IV soln	431.75 ml	OD (once daily)	1
IVB	Vincristine	1.4 mg/m ²	2.55 mg	Sodium Chloride 0.9% 100mL IV soln	97.45 ml	OD (once daily)	1
ORAL	Prednisolone	60 mg/m ²	39.2 mg, 50 mg, 20 mg			TDS (3 times a day)	1,2,3,4,5

Figure 4.0-16 CDR Prescription Order

CDR Verification :

CDR REGIMEN DETAILS
PROCEED TO DISPENSE

Regimen Code: Regimen Details

Regimen Description:

Cycle Start Date: Cycle End Date:

Cycle Duration: Days BSA: m²

Total Cycle: Cycle No:

Calculate Dose Using: Kg

Remarks:

PRESCRIPTION

	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status	
	Cyclophosphamide 1g/50ml Injection	1365 mg	68.25 ml	750 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	Remarks	ORDERED	Drug Info
	Doxorubicin HCl 50mg/25ml Injection	91 mg	45.5 ml	50 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	Remarks	ORDERED	Drug Info
	Methotrexate 50mg/2ml Injection	15 mg	0.6 ml	15 mg, OD (once daily), Day: 1 Schedule	1 vial	Remarks	ORDERED	Drug Info
	Rituximab 500mg/50ml Injection	682.5 mg	68.25 ml	375 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	Remarks	ORDERED	Drug Info
	Sodium Chloride 0.9% 500mL IV soln		431.75 ml		1 bott	Remarks	ORDERED	
	Vincristine Sulphate 1mg Injection	2.55 mg	2.55 ml	1.4 mg/m ² , OD (once daily), Day: 1 Schedule	3 vial	Remarks	ORDERED	Drug Info
	Sodium Chloride 0.9% 100mL IV soln		97.45 ml		1 bott	Remarks	ORDERED	
	Prednisolone 5 mg Tablet	39.2 mg, 50 mg, 20 mg	21.84 tablet	60 mg/m ² , TDS (3 times a day), Day: 1,2,3,4,5 Schedule	110 tablet	Remarks	ORDERED	Drug Info

Figure 4.0-17 CDR Verification

Note

- Click on the [Remarks](#) hyperlink to enter Pharmacist Remark as Figure 4.0-18. Enter remark on the Verification Stage field.

PHARMACIST REMARK X

Prescriber Remark:

Order Stage:

Pharmacist Remark:

Verification Stage:

Preparation Stage:

Dispensing Stage:

Figure 4.0-18 Pharmacist Remark

- Click on the [Drug Info](#) hyperlink to view Drug Information as Figure 4.0-19.

DRUG INFORMATION

X

Generic

methotrexate 50mg per 2mL Injection

Contents	Methotrexate
Dosage	<p><i>Intramuscular</i> Choriocarcinoma Adult: 15-30 mg daily for 5 days. Repeat after at least 1 wk for 3-5 courses. Alternatively, 0.25-1 mg/kg (max: 60 mg) every 48 hr for 4 doses followed by folinic acid rescue, repeat at intervals of 7 days for 4 or more courses.</p> <p><i>Intramuscular</i> Mycosis fungoides Adult: 50 mg wkly as a single dose or 2 divided doses.</p> <p><i>Intramuscular</i> Acute lymphoblastic leukaemia Adult: Maintenance: 15 mg/m² once or twice wkly, with other agents.</p> <p><i>Intramuscular</i> Crohn's disease Adult: 25 mg once wkly for 16 wk. Maintenance: 15 mg wkly.</p> <p><i>Intrathecal</i> Meningeal leukaemia Adult: 12 mg/m² (max 15 mg) once wkly for 2-3 wk, then once mthly. Alternatively, 200-500 mcg/kg every 2-5 day until CSF cell count is normalised. Child: <1 yr: 6 mg, 1 yr: 8 mg, 2 yr: 10 mg, >3 yr: 12 mg. Patients <3 yr should be treated in accordance with combination chemotherapy protocols. Admin is at wkly intervals and repeated until the CSF cell count is normal.</p> <p><i>Intravenous</i> Osteosarcoma Adult: Initial recommended dose: 12 g/m² as a 4-hr infusion, followed by folinic acid, as part of combined therapy. May increase dose to 15 g/m² in subsequent treatments if initial dosage is insufficient to achieve peak serum methotrexate levels of 454 mcg/mL at the end of the infusion. Methotrexate infusion is administered on postoperative wk 4, 5, 6, 7, 11, 12, 15, 16, 29, 30, 44 and 45; in combination with other chemotherapy agents. Folinic acid can be given orally, IM or IV inj starting 24 hr after the beginning of the methotrexate infusion. Give via parenteral routes if patient experiences GI toxicity (e.g. nausea, vomiting). Usual dosage of folinic acid: 15 mg every 6 hr for a</p>

Figure 4.0-19 Drug Information

12

CDR REGIMEN DETAILS

PROCEED TO DISPENSE
Prescription
Verify

Regimen Code: CDRHE00061 Regimen Details

Regimen Description: CHOP + Rituximab + IT MTX

Cycle Start Date: 12/10/2019 Cycle End Date: 01/11/2019

Cycle Duration: 21 Days BSA: 1.82 m²

Total Cycle: 6 Cycle No: 1

Calculate Dose Using: Actual Body Weight 70 Kg

Remarks:

PRESCRIPTION

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
Cyclophosphamide 1g/50ml Injection	1365 mg	68.25 ml	750 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	Remarks	ORDERED Drug Info
Doxorubicin HCl 50mg/25ml Injection	91 mg	45.5 ml	50 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	Remarks	ORDERED Drug Info
Methotrexate 50mg/2ml Injection	15 mg	0.6 ml	15 mg, OD (once daily), Day: 1 Schedule	1 vial	Remarks	ORDERED Drug Info
Rituximab 500mg/50ml Injection	682.5 mg	68.25 ml	375 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	Remarks	ORDERED Drug Info
Sodium Chloride 0.9% 500mL IV soln		431.75 ml		1 bott		
Vincristine Sulphate 1mg Injection	2.55 mg	2.55 ml	1.4 mg/m ² , OD (once daily), Day: 1 Schedule	3 vial	Remarks	ORDERED Drug Info
Sodium Chloride 0.9% 100mL IV soln		97.45 ml		1 bott		
Prednisolone 5 mg Tablet	39.2 mg, 50 mg, 20 mg	21.84 tablet	60 mg/m ² , TDS (3 times a day), Day: 1,2,3,4,5 Schedule	110 tablet	Remarks	ORDERED Drug Info

Figure 4.0-20 Verification

STEP 12

Click on the button to verify the order and Dose Schedule screen will display as shown in Figure 4.0-21

13

DOSE SCHEDULE Verify [Print] [Close]

Active Ingredient: To Prepare: Daily Day(s) Before All Today

1 / 1

Chemo Day	Date	Total Dose/Day	Schedule Time	Preparation Date	Prepare	Dispense	Hold/Resume Dose
1	24/09/2019	15.9 mg	08:00	24/09/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	08/10/2019	15.9 mg	08:00	08/10/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Active Ingredient: To Prepare: Daily Day(s) Before All Today

1 / 1

Chemo Day	Date	Total Dose/Day	Schedule Time	Preparation Date	Prepare	Dispense	Hold/Resume Dose
1	24/09/2019	596.25 mg	08:00	24/09/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	08/10/2019	596.25 mg	08:00	08/10/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Active Ingredient: To Prepare: Daily Day(s) Before All Today

1 / 1

Chemo Day	Date	Total Dose/Day	Schedule Time	Preparation Date	Prepare	Dispense	Hold/Resume Dose
1	24/09/2019	39.75 mg	08:00	24/09/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	08/10/2019	39.75 mg	08:00	08/10/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Active Ingredient: To Prepare: Daily Day(s) Before All Today

1 / 1

Figure 4.0-21 Dose Schedule

- Note**
 User is able to set 'Preparation Date' manually or based on selection option on 'To Prepare' field:
- I. **Daily** - 'Preparation Date' will auto generate based on the same date as Schedule Date
 - II. **Day(s) Before** - 'Preparation Date' will auto generate based on the backdated schedule date entered by user
 - III. **All today** - 'Preparation Date' will auto generate current date for all open dose schedule record

STEP 13

Click on the button to verify the Dose Schedule and Confirmation message will displayed as shown in Figure 4.0-22

CONFIRMATION

CONF0061: Do you want to proceed with the verification?

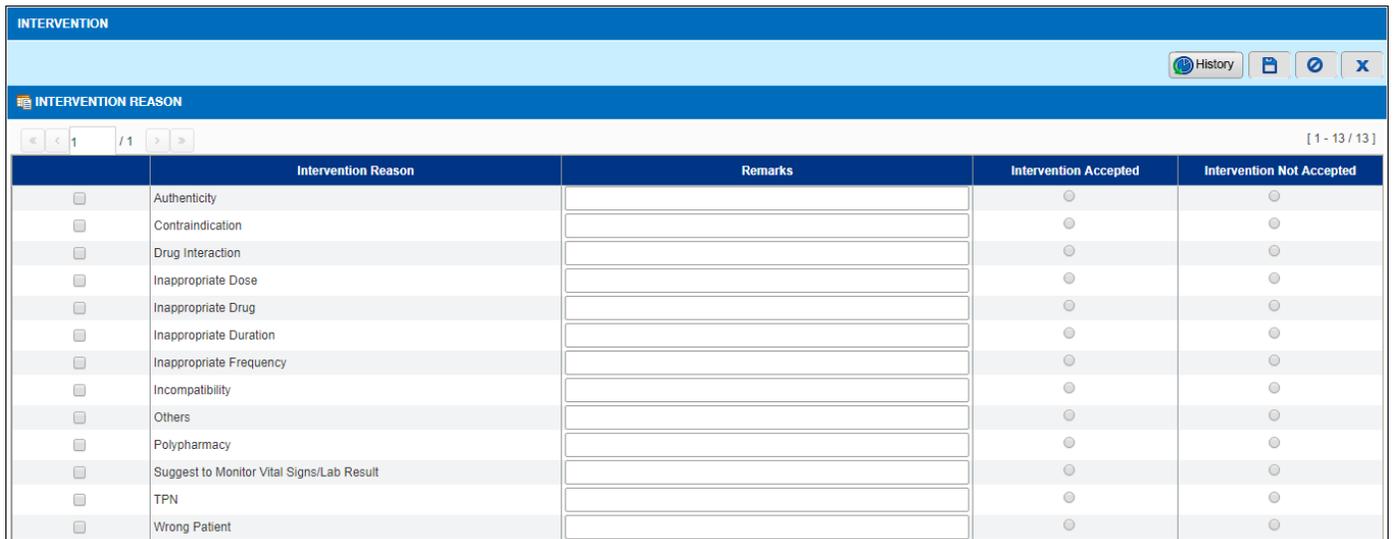
Figure 4.0-22 Confirmation Message

- Note**
- Click on the button to confirm the verification.
 - Click on the button to cancel the verification.
 - Verified order will flow to the preparation stage.

Note

Intervention:

- This function is for pharmacist to record intervention and modifies the prescription details.
- Right click on the  button and select Intervention function and Intervention screen will be displayed as per Figure 4.0-23.
- Select Intervention Reason checkbox.
- Enter Remarks.
- Select Intervention Status radio button. Pharmacist will select as Intervention Accepted after confirm status from prescriber.



INTERVENTION				
INTERVENTION REASON				
	Intervention Reason	Remarks	Intervention Accepted	Intervention Not Accepted
<input type="checkbox"/>	Authenticity		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Contraindication		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Drug Interaction		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Dose		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Drug		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Duration		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Frequency		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Incompatibility		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Others		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Polypharmacy		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Suggest to Monitor Vital Signs/Lab Result		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	TPN		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Wrong Patient		<input type="radio"/>	<input type="radio"/>

Figure 4.0-23 Intervention

Note

- Click on the  button to save the record and alert message will be displayed as per Figure 4.0-24.
- Click on the button to confirm saved.
- To view the intervention history, user is allowed to click on the  button to view as per Figure 4.0-25.

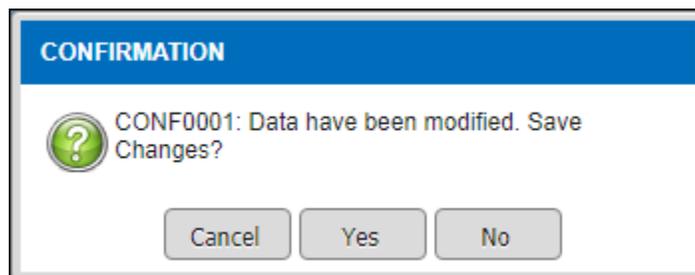


Figure 4.0-24 Confirmation Alert Message

INTERVENTION REASON HISTORY LISTING			
			X
<div style="display: flex; justify-content: space-between;"> << 1 / 1 >> [1 - 1 / 1] </div>			
Date/Time	Intervention Reason	Remarks	Updated By
25/07/2019 10:08:21 AM	Suggest to Monitor Vital Signs/Lab Result	Need Doctor Approval	

Figure 4.0-25 Intervention Reason History Listing

Hold CDR Order:

CDR PREPARATION													
<div style="display: flex; justify-content: space-between;"> Mykad Age 34 Years 02 Months 21 Days Gender Male MRN </div> <div style="display: flex; justify-content: space-between;"> Address Phone And Email Diagnosis No known Allergies </div> <div style="display: flex; justify-content: space-between;"> Height 170 cm Weight 70 kg BMI/BSA 24.2 / 1.82 m² (Last Updated : 12/10/2019) Nationality : Warganegara </div>													
<div style="display: flex; justify-content: space-between;"> Encounter No: 0022 Actual Admission Date: 11/10/2019 Current Visit Location WAD 9 Rx No: W90000824598 Order By: Cycle Start Date: 12/10/2019 Transcribed By: </div>													
PRESCRIPTION													
Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status	
Cyclophosphamide 1g/50ml Injection	1365 mg	68.25 ml	750 mg/m2, OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	0 vial	2 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED	
Doxorubicin HCl 50mg/25ml Injection	91 mg	45.5 ml	50 mg/m2, OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	0 vial	2 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED	
Methotrexate 50mg/2ml Injection	15 mg	0.6 ml	15 mg, OD (once daily), Day: 1 Schedule	1 vial	0 of 1 dose(s) supplied	0 vial	1 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED	
Rituximab 500mg/50ml Injection	682.5 mg	68.25 ml	375 mg/m2, OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	0 vial	2 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED	
Sodium Chloride 0.9% 500mL IV soln		431.75 ml		1 bott	0 of 1 dose(s) supplied	0 bott	1 bott	<input type="checkbox"/>	<input type="checkbox"/>	0 bott		VERIFIED	
Vincristine Sulphate 1mg Injection	2.55 mg	2.55 ml	1.4 mg/m2, OD (once daily), Day: 1 Schedule	3 vial	0 of 1 dose(s) supplied	0 vial	3 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED	
Sodium Chloride 0.9% 100mL IV soln		97.45 ml		1 bott	0 of 1 dose(s) supplied	0 bott	1 bott	<input type="checkbox"/>	<input type="checkbox"/>	0 bott		VERIFIED	
Prednisolone 5 mg Tablet	39.2 mg, 50 mg, 20 mg	21.84 tablet	60 mg/m2, TDS (3 times a day), Day: 1,2,3,4,5 Schedule	110 tablet	0 of 15 dose(s) supplied	22 tablet	110 tablet	<input type="checkbox"/>	<input type="checkbox"/>	0 tablet	Remarks	VERIFIED	

Figure 4.0-26 Hold Order

Note

- This function is for pharmacist to hold/resume the CDR order.
- Right click on the  button and select **Hold Order** function and alert message will be displayed as per Figure 4.0-27.
- Click on the button and system will hold all the drugs in the prescription.
- Click on the button and system will only hold the selected drug.
- Hold Order – Pharmacist Remarks will be displayed after clicking on the or button as per Figure 4.0-28.

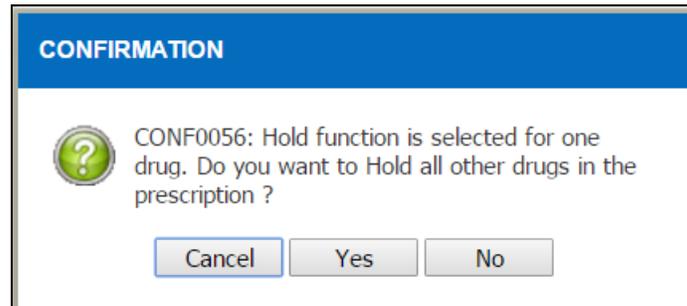


Figure 4.0-27 Confirmation Alert Message

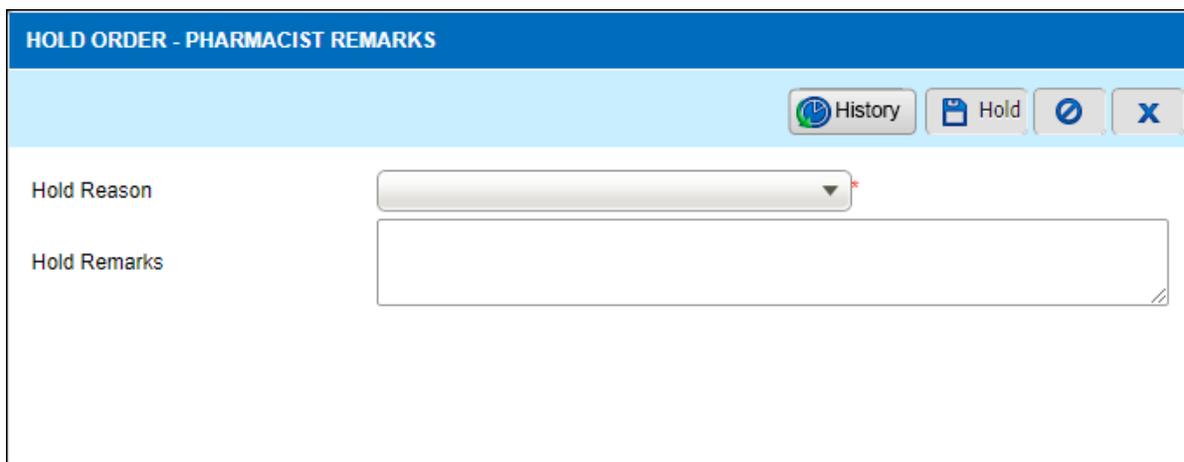


Figure 4.0-28 Hold Order-Pharmacist Remarks

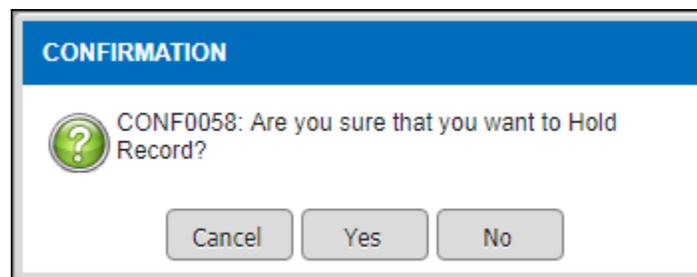
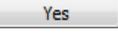


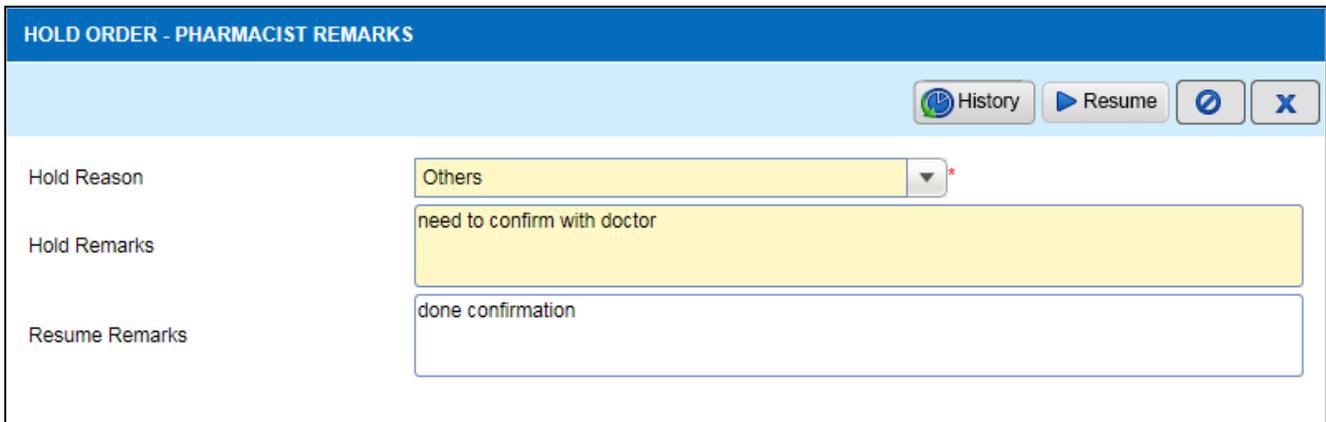
Figure 4.0-29 Confirmation Alert Message

Note

- Select **Hold Reason** from dropdown box
 - Authenticity
 - Contraindication
 - Drug Interaction
 - Inappropriate Dose
 - Inappropriate Drug
 - Inappropriate Duration
 - Inappropriate Frequency
 - Incompatibility
 - Others
 - Patient Refused
 - Polypharmacy
 - Suggest to Monitor Vital Signs/Lab Result

- *Wrong Patient*

- *Enter Hold Remarks is required*
- Click on the  button to hold the order and alert message will display as per Figure 4.0-29
- Click on the  button to confirm the Hold Record.
- **Status** will change to *Verified Hold*.



HOLD ORDER - PHARMACIST REMARKS

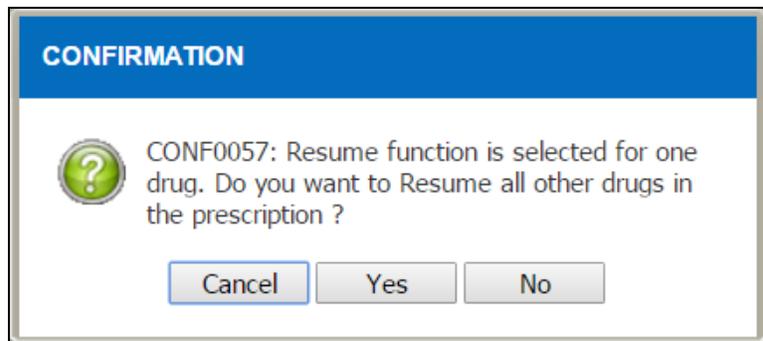
History Resume

Hold Reason: Others

Hold Remarks: need to confirm with doctor

Resume Remarks: done confirmation

Figure 4.0-30 Hold Order-Pharmacist Remarks

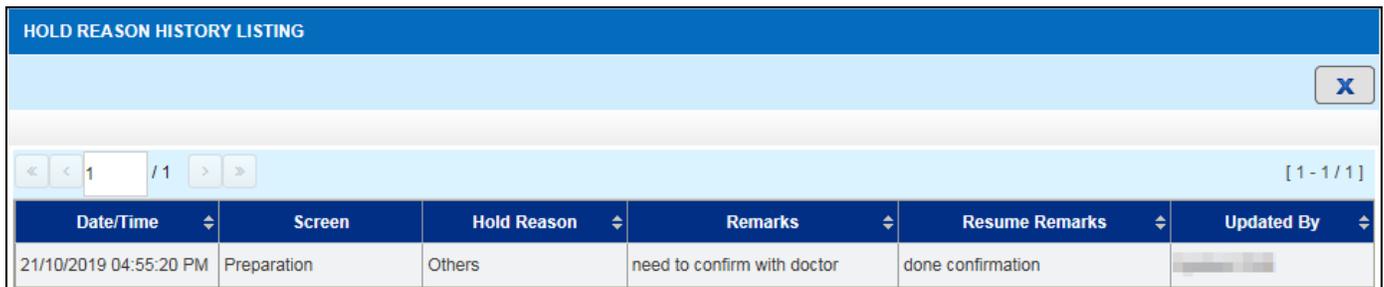


CONFIRMATION

CONF0057: Resume function is selected for one drug. Do you want to Resume all other drugs in the prescription ?

Cancel Yes No

Figure 4.0-31 Confirmation Alert Message



HOLD REASON HISTORY LISTING

1 / 1 [1 - 1 / 1]

Date/Time	Screen	Hold Reason	Remarks	Resume Remarks	Updated By
21/10/2019 04:55:20 PM	Preparation	Others	need to confirm with doctor	done confirmation	

Figure 4.0-32 Hold Reason History Listing

Note

- Enter Resume Remarks if required.
- Click on the button to resume the hold order and alert message will be displayed as Figure 4.0-31.
- Click on the button to confirm the Resume Record.
- **Status** will change to Verified.
- To view the hold reason history, user is allowed to click on the button to view as per Figure 4.0-32.

CDR Preparation:

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status
Bleomycin 15mg Injection	13.9 mg	4.63 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)
Sodium Chloride 0.9% 100mL IV soIn	52.12 mg	100 ml		2 bott	0 of 2 dose(s) supplied	1 bott	2 bott	<input type="checkbox"/>	<input type="checkbox"/>	0 bott	Remarks	VERIFIED (PA)
Dacarbazine 100mg/10ml Injection	52.12 mg	52.12 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	12 vial	0 of 2 dose(s) supplied	6 vial	12 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (PA)
Sodium Chloride 0.9% 500mL IV soIn	247.88 ml	247.88 ml		2 bott	0 of 2 dose(s) supplied	2 bott	2 bott	<input type="checkbox"/>	<input type="checkbox"/>	0 bott	Remarks	VERIFIED (PA)
Doxorubicin HCl 50mg/25ml Injection	34.75 mg	17.38 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	2 vial	2 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)
Vinblastine Sulphate 10mg Injection	8.34 mg	8.34 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)

Figure 4.0-33 CDR Preparation

Note

- **Prepare Qty** will be auto allocate after verify the order in Verification Stage
- button is where system will allocate batch based on the new 'Preparation Date' if user edit the 'Preparation Date' in 'Schedule' hyperlink.
- button is where system will auto select all balance dose schedule which is not supplied.

STEP 14

Click on the **Prepare Qty** hyperlink and Item Batch Details window will be displayed to allocate quantity as Figure 4.0-34

Chemo Day	Date	Total Dose/Day	UOM	Schedule Time	Preparation Date	Supplied	Dose	Hold/Resume Dose
1	25/09/2019	585 mg	mg	08:00	25/09/2019	<input checked="" type="checkbox"/>	15	<input type="checkbox"/>
15	09/10/2019	585 mg	mg	08:00	09/10/2019	<input type="checkbox"/>		<input type="checkbox"/>

Figure 4.0-34 Item Batch Details

STEP 15

Click on the selected **Supplied** checkbox to select the dose to prepare

STEP 16

Click on the button to save the record

After saved, Prepare Qty will display base on total allocated quantity in Item Batch Details Screen will display as shown in Figure 4.0-35.

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status
Bleomycin 15mg Injection	15.6 mg	5.2 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	4 vial	0 of 2 dose(s) supplied	2 vial	4 vial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)
Sodium Chloride 0.9% 100mL IV soln		100 ml		2 bott		1 bott	2 bott	<input type="checkbox"/>	<input type="checkbox"/>	0 bott	Remarks	VERIFIED (PA)
Dacarbazine 100mg/10ml Injection	585 mg	58.5 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	12 vial	0 of 2 dose(s) supplied	6 vial	12 vial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)
Sodium Chloride 0.9% 500mL IV soln		241.5 ml		2 bott		1 bott	2 bott	<input type="checkbox"/>	<input type="checkbox"/>	0 bott	Remarks	VERIFIED (Authorised)
Doxorubicin HCl 50mg/25ml Injection	39 mg	19.5 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)
Vinblastine Sulphate 10mg Injection	9.36 mg	9.36 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)

Figure 4.0-35 CDR Preparation

STEP 17

Click on the selected **Prepared Admixture** checkbox to proceed with preparation

Note

- Prepare Admixture Screen will save automatically upon clicking the checkbox
- If user needs to edit/change the input in Preparation details, click on Details hyperlink and system will display as Figure 4.0-36.

PREPARATION DETAILS

Print
Refresh
Close

Preparation Using CSTD

Split Preparation Split to preparations

Storage Below 0 °C "Refrigerate (2 - 8 °C)"
 Protect from Light "Room Temperature (< 25 °C)"

Reconstitution Fluid

Preparation Instruction

Figure 4.0-36 CDR Preparation Details

- Note**
- User can click on the **Using CSTD** checkbox to specify preparation using CSTD method.
 - User can click on the **Split Preparation** checkbox to proceed with split preparation
 - if user do 'Split Preparation' (Figure 4.0-36) option selected on 'Prepare Admixture' details, it is mandatory for user to save/print label first before proceed with print worksheets.

CDR PREPARATION

Prescription
Close

Mykad: [redacted] Age: 78 Years 11 Months 16 Days Gender: Male MRN: [redacted]

Phone And Email: [redacted] Diagnosis: [redacted] Known Allergies

Height: 160 cm Weight: 55 kg BMI/BSA: 21.5 / 1.56 m² (Last Updated: 25/09/2019) Nationality: Warganegara

Medication Profile | Counselling History | Pharmacist Notes | Demograph | 18 Parameter | Other Appointment

Encounter No: 0003 Actual Admission Date: 25/09/2019 Attending Practitioner: [redacted] Current Visit Location: WAD 8 (MED - L) Rx No: WRD8840001817755 Order By: [redacted] Cycle Start Date: 25/09/2019

PRESCRIPTION

Full Supply
Allocate
Outsource
CDR Cycle History
Worksheet
Label
Prepare

[1 - 4 / 4]

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status
Bleomycin 15mg Injection	15.6 mg	5.2 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	4 vial	0 of 2 dose(s) supplied	2 vial	4 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED (Authorised)
Sodium Chloride 0.9% 100mL IV soln		100 ml		2 bott		1 bott	2 bott	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 bott		VERIFIED (PA)
Dacarbazine 100mg/10ml Injection	585 mg	58.5 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	12 vial	0 of 2 dose(s) supplied	6 vial	12 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED (PA)
Sodium Chloride 0.9% 500mL IV soln		241.5 ml		2 bott		1 bott	2 bott	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 bott		VERIFIED (PA)
Doxorubicin HCl 50mg/25ml Injection	39 mg	19.5 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED (Authorised)
Vinblastine Sulphate 10mg Injection	9.36 mg	9.36 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED (Authorised)

Figure 4.0-37 CDR Preparation

STEP 18

Click on the **Worksheet** button to view and print as shown in Figure 4.0-38



PhIS & CPS Project

User Manual – Order Management - Cytotoxic Drug Reconstitution (CDR)



CDR WORKSHEET												
MINISTRY OF HEALTH												
Hospital Pakar Sultanah Fatimah, Muar												
Preparation Date : 25/09/2019				Worksheet ID: 19-09-0001								
Name : ██████████			Rx. No. : WRD8840001817755			Regimen : ABVD (without bleomycin test dose)						
MRN : ██████████			Ordered By : ██████████			Cycle No. : 1						
ID No : ██████████			Current Visit Location : WAD 8 (MED - L)									
No	ROA	Preparation Name	Drug/Diluent Name	Material Used						Storage	Instruction	
				Total Dose	Drug / Diluent Vol	No of Dose	No of Pack	Allocated Qty	Batch No			Expiry Date
1	IVB	Bleomycin (PARTIAL) Recons. Fluid: NS 5ml Chemo Day: 1,15	Bleomycin 15mg Injection	7.8 mg	2.6 ml	1 dose(s) to supply	2	2 vial	BTH7786954	25/11/2020	"Refrigerate (2 - 8 °C)"	
			Sodium Chloride 0.9% 100mL IV soln		50 ml			1 bottle				
	IVB	Bleomycin (PARTIAL) Recons. Fluid: NS 5ml Chemo Day: 1,15	Bleomycin 15mg Injection	7.8 mg	2.6 ml						"Refrigerate (2 - 8 °C)"	
			Sodium Chloride 0.9% 100mL IV soln		50 ml							
2	INF	Dacarbazine (PARTIAL) Recons. Fluid: WFI 10ml Chemo Day: 1,15	Dacarbazine 100mg/10ml Injection	585 mg	58.5 ml	1 dose(s) to supply	1	6 vial	6574-0098-1	10/06/2020	"Refrigerate (2 - 8 °C)", Protect from Light	
			Sodium Chloride 0.9% 500mL IV soln		241.5 ml			1 bottle				

Figure 4.0-38 CDR Worksheet

CDR PREPARATION

19

Prescription X

	Mykad ██████████	Age 78 Years 11 Months 16 Days	Gender Male	MRN ██████████
Address ██████████	Phone And Email ██████████	Diagnosis ██████████	Known Allergies	
Height 160 cm	Weight 55 kg	BMI/BSA 21.5 / 1.56 m ²	(Last Updated : 25/09/2019) Nationality : Warganegara	

Encounter No: 0003 Actual Admission Date: 25/09/2019 Attending Practitioner: ██████████ Current Visit Location WAD 8 (MED - L) Rx No: WRD8840001817755 Order By: ██████████ Cycle Start Date: 25/09/2019

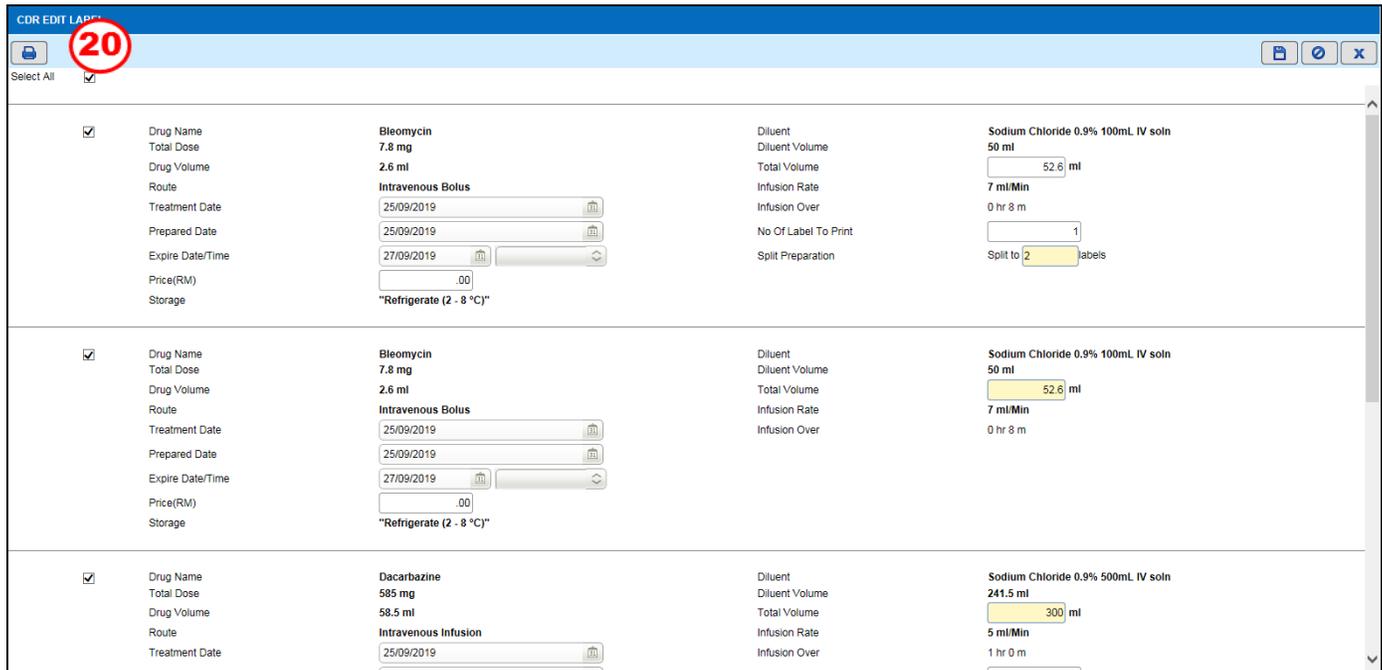
PRESCRIPTION Full Supply Allocate Outsource CDR Cycle History Worksheet Label Prepare

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status
Bleomycin 15mg Injection	15.6 mg	5.2 ml	10 mg/m ² , OD (once daily), Day: 1,15 Schedule	4 vial	0 of 2 dose(s) supplied	2 vial	4 vial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)
Sodium Chloride 0.9% 100mL IV soln	100 ml	100 ml		2 bott		1 bott	2 bott	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 bott	Remarks	VERIFIED (PA)
Dacarbazine 100mg/10ml Injection	585 mg	58.5 ml	375 mg/m ² , OD (once daily), Day: 1,15 Schedule	12 vial	0 of 2 dose(s) supplied	6 vial	12 vial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)
Sodium Chloride 0.9% 500mL IV soln	585 mg	241.5 ml		2 bott		1 bott	2 bott	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 bott	Remarks	VERIFIED (Authorised)
Doxorubicin HCl 50mg/25ml Injection	39 mg	19.5 ml	25 mg/m ² , OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)
Vinblastine Sulphate 10mg Injection	9.36 mg	9.36 ml	6 mg/m ² , OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED (Authorised)

Figure 4.0-39 CDR Preparation

STEP 19

Click on the button and CDR Edit Label screen will be displayed as shown in Figure 4.0-40



The screenshot shows the 'CDR EDIT LABEL' window with a 'Print' button (a printer icon) circled in red with the number '20'. Below the button is a 'Select All' checkbox which is checked. The main area contains three rows of drug reconstitution details:

Drug Name	Total Dose	Drug Volume	Route	Treatment Date	Prepared Date	Expire Date/Time	Price(RM)	Storage	Diluent	Diluent Volume	Total Volume	Infusion Rate	Infusion Over	No Of Label To Print	Split Preparation
Bleomycin	7.8 mg	2.6 ml	Intravenous Bolus	25/09/2019	25/09/2019	27/09/2019	.00	*Refrigerate (2 - 8 °C)*	Sodium Chloride 0.9% 100mL IV soln	50 ml	52.6 ml	7 ml/Min	0 hr 8 m	1	Split to 2 labels
Bleomycin	7.8 mg	2.6 ml	Intravenous Bolus	25/09/2019	25/09/2019	27/09/2019	.00	*Refrigerate (2 - 8 °C)*	Sodium Chloride 0.9% 100mL IV soln	50 ml	52.6 ml	7 ml/Min	0 hr 8 m		
Dacarbazine	585 mg	58.5 ml	Intravenous Infusion	25/09/2019					Sodium Chloride 0.9% 500mL IV soln	241.5 ml	300 ml	5 ml/Min	1 hr 0 m		

Figure 4.0-40 CDR Edit Label

- Note**
- For Split Preparation option selected in the preparation details (Figure 4.0-36), Total Volume will display a value after re-calculate based on value selected in Split Preparation dropdown list.
 - in CDR Edit Label (Figure 4.0-40), user is allowed to modify **Total volume** where **Total Dose**, **Drug Volume**, **Diluent volume** and **Infusion Over** will be automatically calculate but only applicable if set Split Preparation

STEP 20

Click on the  button to print drug label

- Note**
- Select all checkbox to print all drug labels in the selected prescription.



	HOSPITAL PAKAR SULTANAH FATIMAH, MUAR	1 of 2		HOSPITAL PAKAR SULTANAH FATIMAH, MUAR	2 of 2
CYTOTOXIC DRUG - Handle with care			CYTOTOXIC DRUG - Handle with care		
AXXXXX XXXXXX HPSF00268213 WAD 8 (MED - L) 401011085319			AXXXXX XXXXXX HPSF00268213 WAD 8 (MED - L) 401011085319		
Drug name BLEOMYCIN ROA : IVB			Drug name BLEOMYCIN ROA : IVB		
Dose : 7.8 MG Vol : 2.6 ML			Dose : 7.8 MG Vol : 2.6 ML		
IV Fluid : Sodium Chloride 0.9% 100mL IV soln			IV Fluid : Sodium Chloride 0.9% 100mL IV soln		
Inf. Rate : 7 ml/Min Inf. Over : 0 hr 8 m Vol : 50 ml			Inf. Rate : 7 ml/Min Inf. Over : 0 hr 8 m Vol : 50 ml		
Treatment Date : 25/09/2019 Total Vol : 52.6 ml			Treatment Date : 25/09/2019 Total Vol : 52.6 ml		
Prepared Date : 25/09/2019 Exp Date : 27/09/2019			Prepared Date : 25/09/2019 Exp Date : 27/09/2019		
Price : RM.00 Exp Time :			Price : RM.00 Exp Time :		
Storage : "Refrigerate (2 - 8 °C)"			Storage : "Refrigerate (2 - 8 °C)"		

Figure 4.0-41 Spilt Preparation Drug Label

	HOSPITAL PAKAR SULTANAH FATIMAH, MUAR			HOSPITAL PAKAR SULTANAH FATIMAH, MUAR	
CYTOTOXIC DRUG - Handle with care			CYTOTOXIC DRUG - Handle with care		
AXXXX XXXXX HPSF00268213 WAD 8 (MED - L) 401011085319			AXXXX XXXXX HPSF00268213 WAD 8 (MED - L) 401011085319		
Drug name DACARBAZINE ROA : INF			Drug Name DOXORUBICIN		
Dose : 585 MG Vol : 58.5 ML			Dose : 39 MG Vol : 19.5 ML		
IV Fluid : Sodium Chloride 0.9% 500mL IV soln			ROA : IVB		
Inf. Rate : 5 ml/Min Inf. Over : 1 hr 0 m Vol : 241.5 ml			Treatment Date : 25/09/2019		
Treatment Date : 25/09/2019 Total Vol : 300 ml			Prepared Date : 25/09/2019 Exp Date : 28/09/2019		
Prepared Date : 25/09/2019 Exp Date : 27/09/2019			Price : RM64.12 Exp Time :		
Price : RM.00 Exp Time :			Storage : "Refrigerate (2 - 8 °C)"		
Storage : "Refrigerate (2 - 8 °C)", Protect from Light					

Figure 4.0-42 CDR Drug Label

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status
Bleomycin 15mg Injection	15.6 mg	5.2 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	4 vial	0 of 2 dose(s) supplied	2 vial	4 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED (Authorised)
Sodium Chloride 0.9% 100mL IV soln		100 ml		2 bott		1 bott	2 bott	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 bott	Remarks	VERIFIED (PA)
Dacarbazine 100mg/10ml Injection	585 mg	58.5 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	12 vial	0 of 2 dose(s) supplied	6 vial	12 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED (Authorised)
Sodium Chloride 0.9% 500mL IV soln		241.5 ml		2 bott		1 bott	2 bott	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 bott	Remarks	VERIFIED (Authorised)
Doxorubicin HCl 50mg/25ml Injection	39 mg	19.5 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	- vial	2 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED (Authorised)
Vinblastine Sulphate 10mg Injection	9.36 mg	9.36 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED (Authorised)

Figure 4.0-43 CDR Preparation

STEP 21

Click on the  button to proceed with preparation and alert message will be displayed as Figure 4.0-44

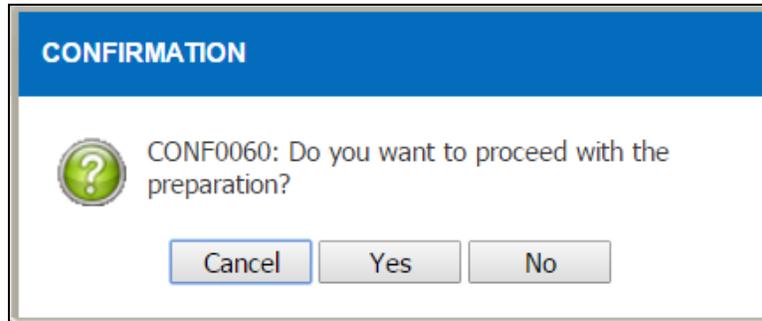


Figure 4.0-44 Confirmation Alert Message

Note

- Click on the  button to proceed
- Click on the  button to cancel preparation.



4.1 Intervention CDR Order

CDR PREPARATION

Prescription X

AXXX XXX XXXXX XXXXX Mykad [redacted] Age 53 Years 08 Months 16 Days Gender Male MRW [redacted]
 Address [redacted] Phone And Email [redacted] Diagnosis [redacted] No known Allergies
 Height 170 cm Weight 70 kg BMI/BSA 24.2 / 1.82 m² (Last Updated : 22/10/2019) Nationality : Warganegara

Encounter No: 0963 Actual Admission Date: 13/03/2019 Attending Practitioner: [redacted] Current Visit Location WAD 4 Rx No: W40000824780 Order By: [redacted] Cycle Start Date: 22/10/2019

PRESCRIPTION Full Supply Allocate Outsource CDR Cycle History Worksheet Label Prepare

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status
1. Cyclophosphamide 1g/50ml Injection	1365 mg	68.25 ml	750 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED (PA)
2. Doxorubicin HCl 50mg/25ml Injection	91 mg	45.5 ml	50 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
3. Vincristine Sulfate 1mg/5ml Injection	2.55 mg	2.55 ml	1.4 mg/m ² , OD (once daily), Day: 1 Schedule	3 vial	0 of 1 dose(s) supplied	3 vial	3 vial	<input type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
Intervention 10mL IV soln				1 bott			1 bott			0 bott		
Hold Order 5 mg Tablet	36.4 mg	7.28 tablet	20 mg/m ² , TDS (3 times a day), Day: 1-5 Schedule	110 tablet	0 of 15 dose(s) supplied	22 tablet	110 tablet			0 tablet	Remarks	VERIFIED (PA)

Figure 4.1-1 CDR Preparation

STEP 1

Right click on the button and select **Intervention** function and the Intervention screen will be displayed as shown in Figure 4.1-2

INTERVENTION History X

INTERVENTION REASON [1 - 12 / 12]

Intervention Reason	Remarks	Intervention Accepted	Intervention Not Accepted
<input type="checkbox"/> Authenticity		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Contraindication		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Drug Interaction		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Inappropriate Dose		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Inappropriate Drug		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Inappropriate Duration		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Inappropriate Frequency		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Incompatibility		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Others		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Polypharmacy		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Suggest to Monitor Vital Signs/Lab Result		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Wrong Patient		<input type="radio"/>	<input type="radio"/>

MODIFY ORDER

Cycle Start Date: 24/09/2019 Cycle End Date: 21/10/2019 Diluent: Sodium Chloride 0.9% 100mL IV soln
 Cycle Duration: 28 Days BSA: 1.59 m² Diluent Volume: 100 ml
 Calculate Dose Using: Actual Body Weight 55 Kg Total Volume: 105.3 ml
 Active Ingredient: Bleomycin Frequency: OD (once daily)
 Drug Name: Bleomycin HCl 15mg Injection Drug Category: A Infuse Over: 0 (h) : 15 (m)
 Drug Indication: Antineoplastic, Cytotoxic Antibiotics Infusion Rate: 7 ml/Min
 Dosage Form: Powder for IV Soln Chemo Day: 1,15 Drug Schedule
 Admin Route: Intravenous Bolus
 Dosage: 10 mg /m² Remarks: Over 15 minutes
 Total Dose: 15.9 mg AUC Calculator
 Drug Volume: 5.3 ml Updated By: DR KOH KENG HEE
 Updated Date: 24/09/2019

Figure 4.1-2 Intervention

STEP 2

Select **Intervention Reason** from *Intervention Reason* column:

- Authenticity
- Contraindication
- Drug Interaction
- Inappropriate Dose
- Inappropriate Drug
- Inappropriate Duration
- Inappropriate Frequency
- Incompatibility
- Others
- Polypharmacy
- Suggest to Monitor Vital Signs/Lab Result
- Wrong Patient

STEP 3

Select **Intervention Status** radio button

Note

Pharmacist will select **Accepted** after confirming status with prescriber.

STEP 4

Modify order details

STEP 5

Click on the  button to save the record and alert message will be displayed as shown in Figure 4.1-3

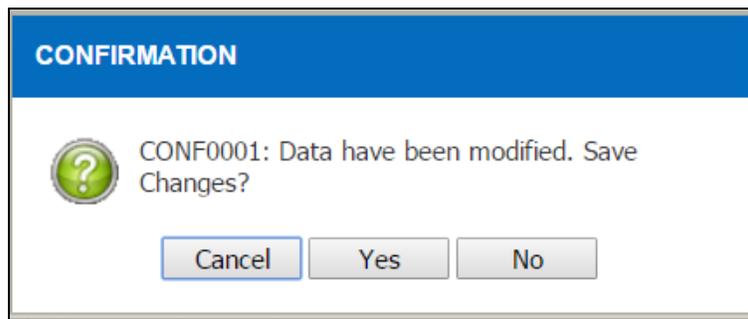


Figure 4.1-3 Alert Message

Note

- Click on the button to confirm saving.
- To view the intervention history, user is allowed to click on the  button.



INTERVENTION REASON HISTORY LISTING

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

Date/Time	Intervention Reason	Remarks	Updated By
24/09/2019 02:54:20 PM	Others		

Figure 4.1-4 Pharmacist Remark



- After intervention is made, Order Details column will change to a hyperlink as shown in Figure 4.1-5, and user is allowed to click to view the original order details.
- Order details will be displayed as shown in Figure 4.1-6.

CDR PREPARATION													
PRESCRIPTION													
Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status	
1. Cyclophosphamide 1g/50ml Injection	1365 mg	68.25 ml	750 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED (PA)	
2. Doxorubicin HCl 50mg/25ml Injection	91 mg	45.5 ml	50 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED	
3. Vincristine Sulphate 1mg Injection	2.53 mg	2.53 ml	1.4 mg/m ² , OD (once daily), Day: 1 Schedule	3 vial	0 of 1 dose(s) supplied	0 vial	3 vial	<input type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED	
Sodium Chloride 0.9% 100mL IV soln	97.45 ml	1 bott	20 mg/m ² , TDS (3 times a day), Day: 1-5 Schedule	1 bott	0 of 15 dose(s) supplied	0 bott	1 bott	<input type="checkbox"/> Details	<input type="checkbox"/> Details	0 bott	Remarks	VERIFIED (PA)	
Prednisolone 5 mg Tablet	36.4 mg	7.28 tablet		110 tablet	0 of 15 dose(s) supplied	22 tablet	110 tablet			0 tablet	Remarks	VERIFIED (PA)	

Figure 4.1-5 Prescription After Intervention

Default Drug Name	Admin Route	Dosage	Total Dose	Infuse Over	Frequency	Chemo days	Diluent	Diluent Volume	Infusion Rate	Drug Remark	Intervention Reason	Intervention Remarks
Vincristine Sulphate 1mg Injection	Intravenous Bolus	1.4 mg/m ²	2.55 mg	0 Hours 15 Minutes	OD (once daily)	Day: 1	Sodium Chloride 0.9% 100mL IV soln	100 ml	400 ml/Hour	Maximum dose: 2MG Run fast	Others	change drug

Figure 4.1-6 Original Rx

Note

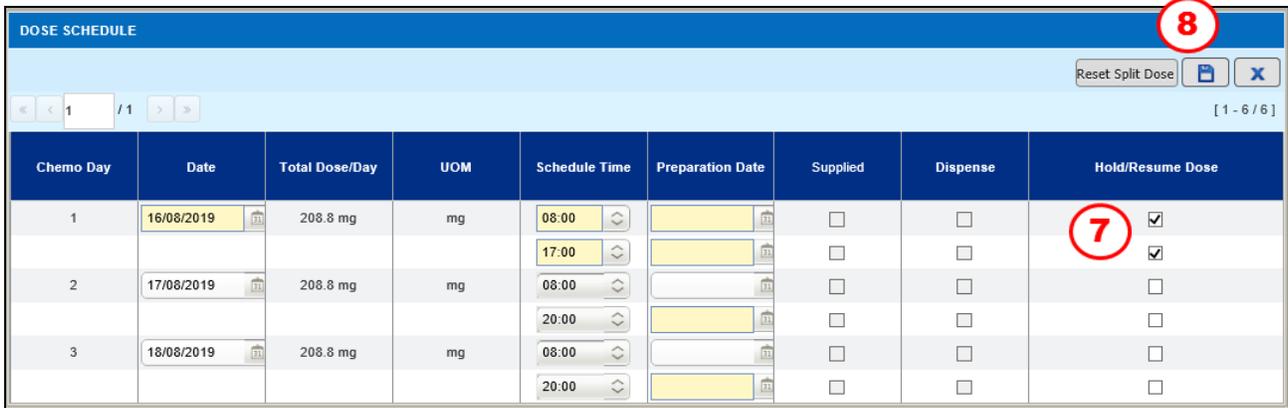
In intervention screen, user also is allowed to do a Hold function for selected dose as shown in Figure 4.1-7

INTERVENTION													
INTERVENTION REASON													
MODIFY ORDER													
Cycle Start Date	16/08/2019	Cycle End Date	05/09/2019	Diluent	Sodium Chloride 0.9% 500mL IV soln								
Cycle Duration	21 Days	BSA	1.74 m ²	Diluent Volume	89.56 ml								
Calculate Dose Using	Actual Body Weight	Weight	68 Kg	Total Volume	100 ml								
Active Ingredient	Etoposide												
Drug Name	Etoposide 100mg/5ml Injection												
Drug Indication	Antineoplastic, Podophyllotoxin Derivatives												
Dosage Form	Parenteral Solution												
Admin Route	Intravenous Infusion												
Dosage	120 mg	/m ²		Frequency	BD (twice daily)								
Total Dose	208.8 mg		AUC Calculator	Infuse Over	2 (hh) : 0 (mm)								
Drug Volume	10.44 ml			Infusion Rate	0.83 ml/Min								
				Chemo Day	1,2,3 6								
				Remarks									
				Updated By	DR. LAANG SHIAN TUCK								
				Updated Date	16/08/2019								

Figure 4.1-7 Intervention

STEP 6

Click on the **Drug Schedule** hyperlink and dose schedule window will be display as Figure 4.1-8



Chemo Day	Date	Total Dose/Day	UOM	Schedule Time	Preparation Date	Supplied	Dispense	Hold/Resume Dose
1	16/08/2019	208.8 mg	mg	08:00		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
				17:00		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	17/08/2019	208.8 mg	mg	08:00		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				20:00		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	18/08/2019	208.8 mg	mg	08:00		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
				20:00		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 4.1-8 Dose Schedule

STEP 7

Click on the **Hold/Resume Dose** checkbox

Note

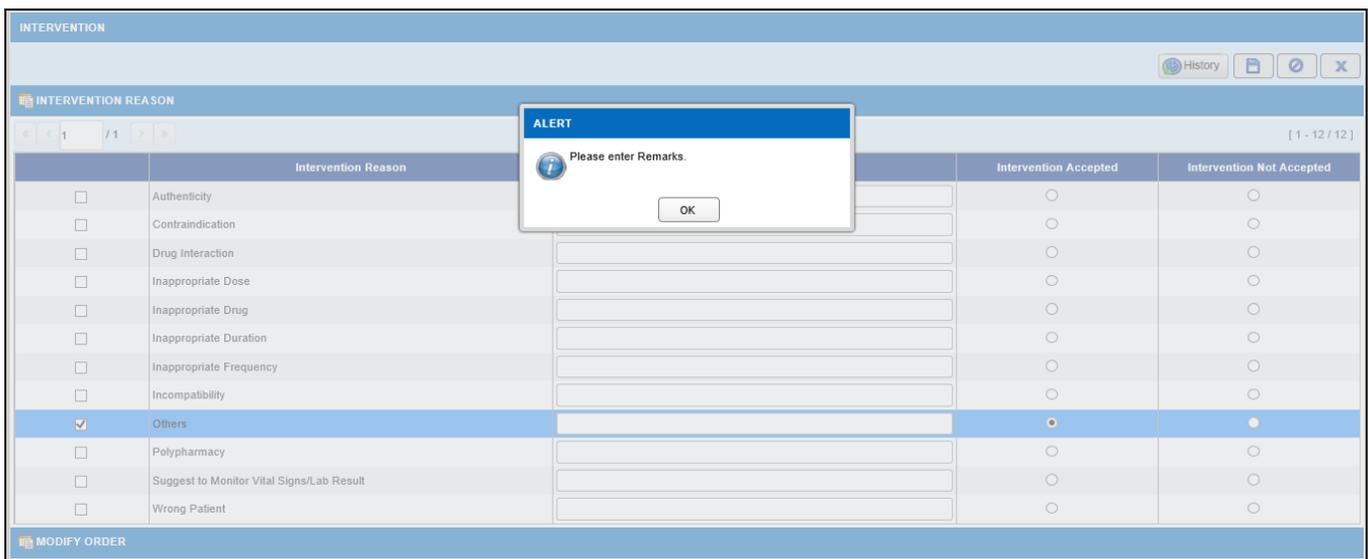
User is allowed to Hold only for Dose that does not yet check on the 'Supplied' or 'Dispense' checkbox

STEP 8

Click on the  button to save the record

Note

User is allowed to hold drug by dose only through Intervention screen. once user selected Hold dose and save the records, it is mandatory for user to enter **Intervention Reason - Remarks** before can proceed to save intervention records (Figure 4.1-9)



Intervention Reason	Intervention Accepted	Intervention Not Accepted
<input type="checkbox"/> Authenticity	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Contraindication	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Drug Interaction	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Inappropriate Dose	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Inappropriate Drug	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Inappropriate Duration	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Inappropriate Frequency	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Incompatibility	<input type="radio"/>	<input type="radio"/>
<input checked="" type="checkbox"/> Others	<input checked="" type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Polypharmacy	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Suggest to Monitor Vital Signs/Lab Result	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/> Wrong Patient	<input type="radio"/>	<input type="radio"/>

Figure 4.1-9 Intervention

Note

For partially supply, user is allowed to modify Total Dose/Day as shown in Figure 4.1-10 and it is applicable only for Infusion/Injectable Drug.

INTERVENTION

INTERVENTION REASON
 MODIFY ORDER

Cycle Start Date: 18/08/2019, Cycle End Date: 07/09/2019
 Cycle Duration: 21 Days, BSA: 1.82 m²
 Calculate Dose Using: Actual Body Weight, 70 Kg
 Active Ingredient: Etoposide
 Drug Name: Etoposide 100mg/5ml Injection, Drug Category: A+
 Drug Indication: Antineoplastic, Podophylotoxin Derivatives
 Dosage Form: Parenteral Solution
 Admin Route: Intravenous Infusion
 Diluent: Sodium Chloride 0.9% 500mL IV soln
 Diluent Volume: 490.9 ml
 Total Volume: 500 ml
 Frequency: BD (twice daily)
 Infuse Over: 1 (hh) : 0 (mm)
 Infusion Rate: 8.33 ml/Min
 Chemo Day: 1,2,3,4 (Drug Schedule **9**)
 Dosage: 100 mg /m2
 Total Dose: 182 mg (AUC Calculator)
 Drug Volume: 9.1 ml
 Updated By: DR. LAANG SHIAN TUCK
 Updated Date: 19/08/2019

Figure 4.1-10 Intervention

STEP 9

Click on the **Drug Schedule** hyperlink and dose schedule window will be display as Figure 4.1-11

DOSE SCHEDULE

Reset Split Dose [1 - 8 / 8]

Chemo Day	Date	Total Dose/Day	Modified Total Dose/Day	Modified Drug Volume	Schedule Time	Preparation Date	Supplied	Dispense	Hold/Resume Dose
1	18/08/2019	182 mg	mg		08:00 20:00	18/08/2019	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2	19/08/2019	182 10	160 mg	8 ml	08:00 20:00	19/08/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	20/08/2019	182 mg	mg		08:00 20:00	20/08/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	21/08/2019	182 mg	mg		08:00 20:00	21/08/2019	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 4.1-11 Dose Schedule

STEP 10

Enter **Modified Total Dose/Day**

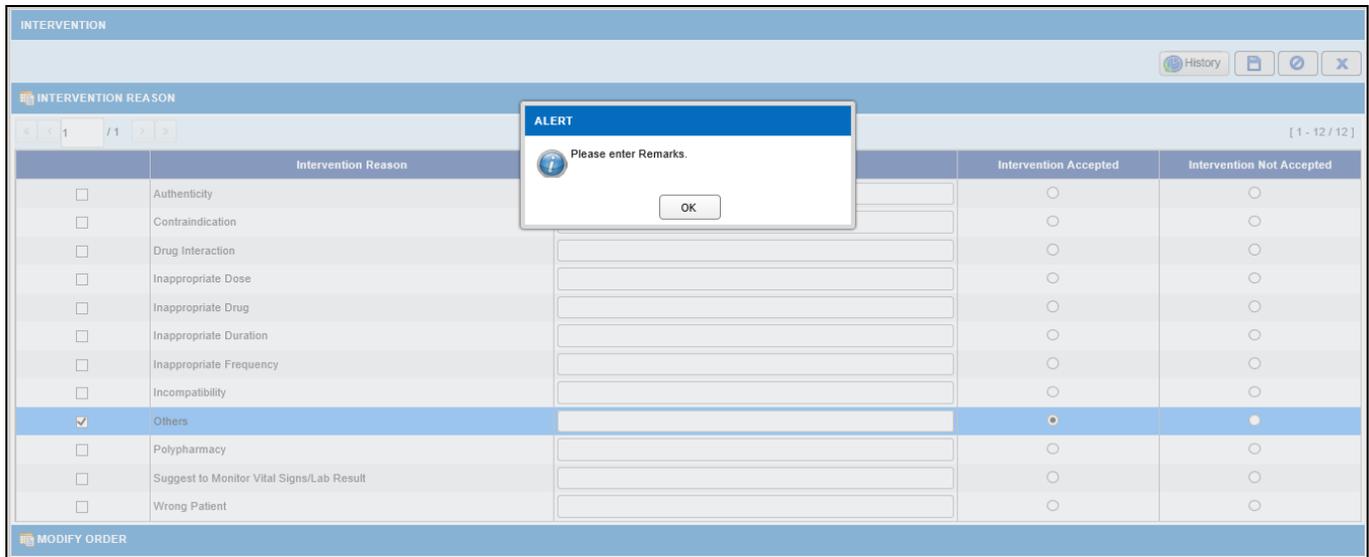
Note

- Once users entered value for 'Modified Total Dose/Day', 'Modified Drug Volume' value will be auto calculated and display.
- If 1 chemo day/schedule date have multiple schedule time, only on first schedule time dose able to enter/edit 'Modified Total Dose/Day' value and the sequences of schedule time dose will follow the first schedule time dose.

STEP 11

Click on the  button to save the record

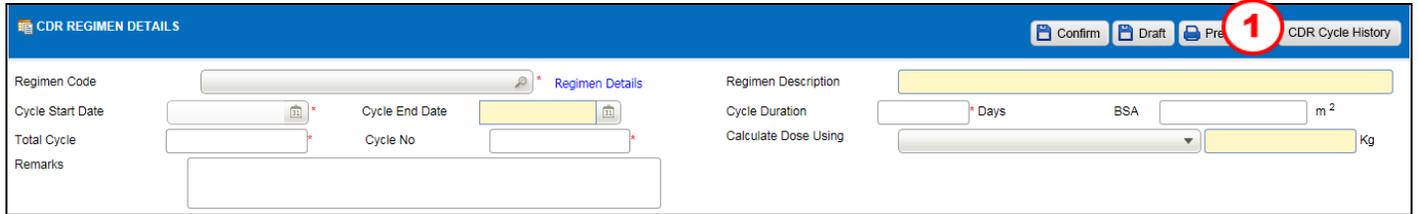
Note
After save the Dose Schedule with Modified Total Dose/Day value, 'Intervention Reason – Remarks' is mandatory for user to specify before can proceed to save intervention record as shown in Figure 4.1-12



	Intervention Reason		Intervention Accepted	Intervention Not Accepted
<input type="checkbox"/>	Authenticity		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Contraindication		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Drug Interaction		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Dose		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Drug		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Duration		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Frequency		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Incompatibility		<input type="radio"/>	<input type="radio"/>
<input checked="" type="checkbox"/>	Others		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Polypharmacy		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Suggest to Monitor Vital Signs/Lab Result		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Wrong Patient		<input type="radio"/>	<input type="radio"/>

Figure 4.1-12 Intervention

4.2 Renew Rx



CDR REGIMEN DETAILS

Regimen Code: [Text Field] * [Regimen Details](#)

Cycle Start Date: [Text Field] * Cycle End Date: [Text Field]

Total Cycle: [Text Field] * Cycle No: [Text Field] *

Remarks: [Text Area]

Regimen Description: [Text Field]

Cycle Duration: [Text Field] * Days BSA: [Text Field] m²

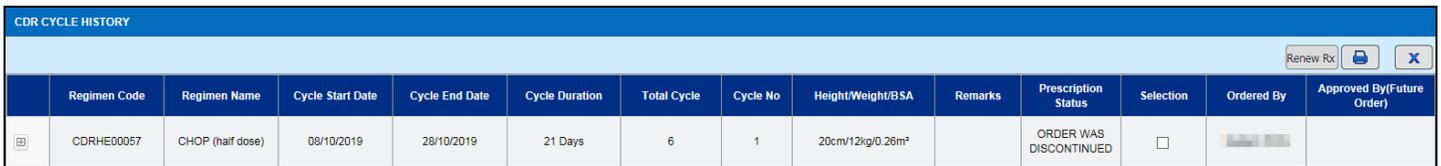
Calculate Dose Using: [Dropdown Menu] [Text Field] Kg

Buttons: Confirm, Draft, Pre, **1** CDR Cycle History

Figure 4.2-1 CDR Order

STEP 1

Click on the  button and CDR Cycle History screen will be display as Figure 4.2-2



CDR CYCLE HISTORY

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)
CDRHE00057	CHOP (half dose)	08/10/2019	28/10/2019	21 Days	6	1	20cm/12kg/0.26m ²		ORDER WAS DISCONTINUED	<input type="checkbox"/>		

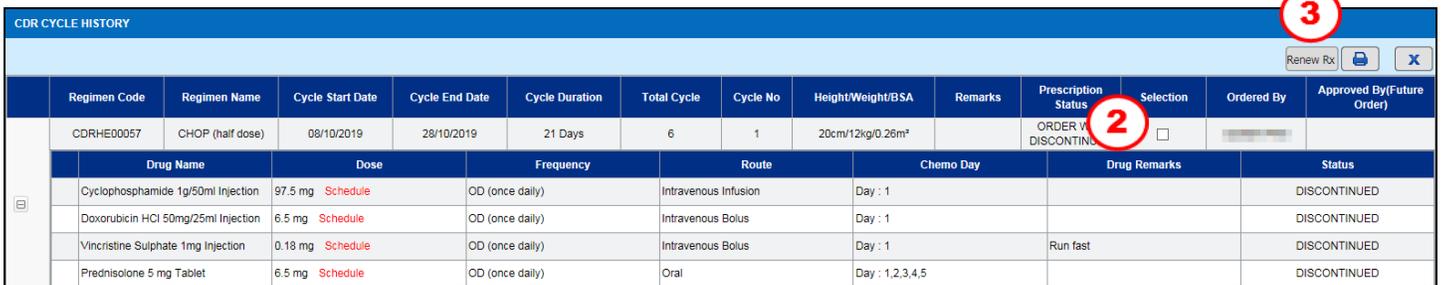
Buttons: Renew Rx, Print, X

Figure 4.2-2 CDR Cycle History

Note

- This screen will show all the CDR Regimen history for the patient

- Click on the  button to view all Drug under the regimen as shown in Figure 4.2-3



CDR CYCLE HISTORY

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)
CDRHE00057	CHOP (half dose)	08/10/2019	28/10/2019	21 Days	6	1	20cm/12kg/0.26m ²		ORDER WAS DISCONTINUED	<input type="checkbox"/>		
	Drug Name	Dose	Frequency	Route	Chemo Day	Drug Remarks	Status					
	Cyclophosphamide 1g/50ml Injection	97.5 mg	Schedule	OD (once daily)	Intravenous Infusion	Day : 1	DISCONTINUED					
	Doxorubicin HCl 50mg/25ml Injection	6.5 mg	Schedule	OD (once daily)	Intravenous Bolus	Day : 1	DISCONTINUED					
	Vincristine Sulphate 1mg Injection	0.18 mg	Schedule	OD (once daily)	Intravenous Bolus	Day : 1	DISCONTINUED	Run fast				
	Prednisolone 5 mg Tablet	6.5 mg	Schedule	OD (once daily)	Oral	Day : 1,2,3,4,5	DISCONTINUED					

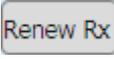
Buttons: Renew Rx, Print, X

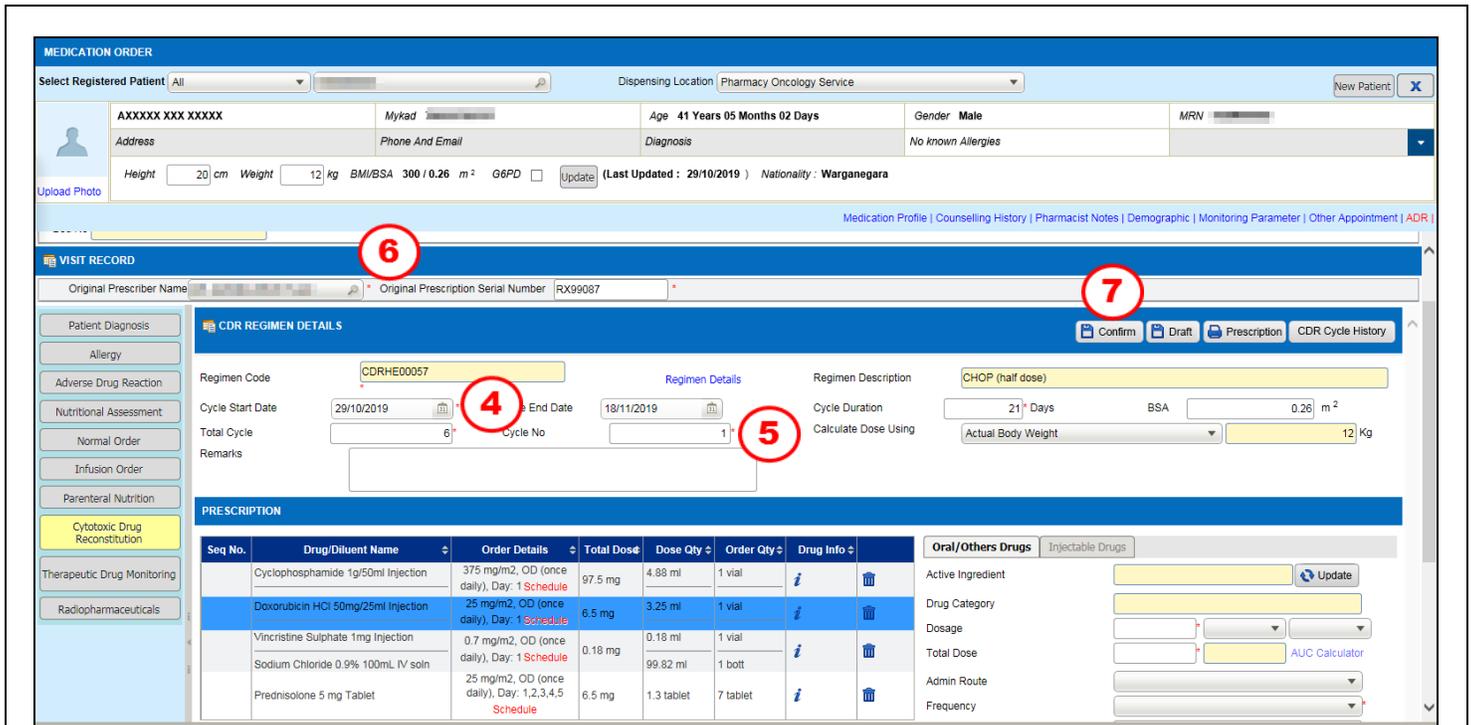
Figure 4.2-3 CDR Cycle History

STEP 2

Click on the  checkbox

STEP 3

Click on the  button to renew the detail will be updated as shown in Figure 4.2-4



The screenshot shows the 'MEDICATION ORDER' interface. At the top, there are fields for 'Select Registered Patient' and 'Dispensing Location'. Below this is a patient information section with fields for 'Mykad', 'Age', 'Gender', and 'MRN'. A 'VITIS RECORD' section contains 'Original Prescriber Name' and 'Original Prescription Serial Number'. The 'CDR REGIMEN DETAILS' section includes 'Regimen Code', 'Regimen Description', 'Cycle Start Date', 'End Date', 'Cycle Duration', 'BSA', and 'Actual Body Weight'. A 'PRESCRIPTION' table lists drugs like Cyclophosphamide, Doxorubicin HCl, Vincristine Sulphate, Sodium Chloride, and Prednisolone. On the right, there are dropdown menus for 'Active Ingredient', 'Drug Category', 'Doseage', 'Total Dose', 'Admin Route', and 'Frequency'. A 'Confirm' button is located in the top right of the regimen details section.

Figure 4.2-4 Medication Order

STEP 4

Select **Cycle Start Date**

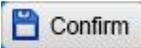
STEP 5

Enter **Cycle No**

STEP 6

Select **Original Prescriber Name**

STEP 7

Click on  the button to confirm the CDR Order

4.3 Sending Outsource

CDR PREPARATION

XXXXXXXX XXXXX XXXXX Mykad [redacted] Age 36 Years 11 Months 03 Days Gender Female MRN [redacted]
 Address Phone And Email Diagnosis No known Allergies
 Height 166 cm Weight 66 kg BMI/BSA 24 / 1.74 m² (Last Updated : 10/10/2019) Nationality : Warganegara

Encounter No: 0008 Actual Admission Date: 10/10/2019 Current Visit Location Farmasi Pesakit Dalam Rx No: FPD0000741001 Order By: [redacted] Cycle S 10/2019 Transcribed By: [redacted]

PRESCRIPTION Full Supply Allocate **Outsource** CDR Cycle History Worksheet Label Prepare

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Pre Ad	Outsource	Prev Disp Qty	Remarks	Status
1. Cyclophosphamide 1g/50ml Injection	1305 mg	65.25 ml	750 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	0 vial	2 vial	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0 vial	Remarks	VERIFIED
2. Doxorubicin HCl 50mg/25ml Injection	87 mg	43.5 ml	50 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	VERIFIED
3. Vincristine Sulphate 1mg Injection	2.44 mg	2.44 ml	1.4 mg/m ² , OD (once daily), Day: 1 Schedule	3 vial	0 of 1 dose(s) supplied	0 vial	3 vial	<input type="checkbox"/>	<input checked="" type="checkbox"/>	0 vial	Remarks	VERIFIED
Sodium Chloride 0.9% 100mL IV soln		100 ml		1 bott	0 of 1 dose(s) supplied	0 bott	1 bott	<input type="checkbox"/>	<input type="checkbox"/>	0 bott		
Prednisolone 5 mg Tablet	34.8 mg	6.96 tablet	20 mg/m ² , TDS (3 times a day), Day: 1-5 Schedule	105 tablet	0 of 15 dose(s) supplied	21 tablet	105 tablet	<input type="checkbox"/>	<input type="checkbox"/>	0 tablet	Remarks	VERIFIED

Figure 4.3-1 CDR Preparation

STEP 1

Select and click on the **Outsource** checkbox

Note

If **Prepare Qty** have been allocate, user need to de-allocate the drug first before can proceed for outsource

STEP 2

Click on the button and Outsource Details window will be display as Figure 4.3-2

OUTSOURCE DETAILS Cancel Outsource Send Outsource Request

XXXXXXXX XXXXX XXXXX Mykad [redacted] Age 36 Years 11 Months 03 Days Gender Female MRN [redacted]
 Address Phone And Email Diagnosis No known Allergies
 Height 166 cm Weight 66 kg BMI/BSA 24 / 1.74 m² Update (Last Updated : 10/10/2019) Nationality : Warganegara

PHARMACY ORDER

Outsource No [redacted] Sending Status [redacted]
 Referred From HOSPITAL KUALA LUMPUR Referred To Hospital Seri Manjung
 Contact Person / Office [redacted] Contact Person / Office [redacted]
 Contact no / Ext No [redacted] Contact no / Ext No [redacted]
 Request Date/Time 21/10/2019 12:20 PM

Remarks [redacted]

Rx No	Rx Date	Drug Name	Dose	Order Detail	Order Qty	Prev Disp Qty	Bal Qty	Remarks
FPD0000741001	10/10/2019 4:21 PM	Cyclophosphamide 1g/50ml Injection	1305 mg	750 mg/m ² , OD (once daily), Day: 1, Intravenous Slow Bolus, Cycle Start Date: 10/10/2019	2 vial	0 vial	2 vial	Remarks
FPD0000741001	10/10/2019 4:21 PM	Vincristine Sulphate 1mg Injection	2.44 mg	1.4 mg/m ² , OD (once daily), Day: 1, Intravenous Bolus, Cycle Start Date: 10/10/2019	3 vial	0 vial	3 vial	Remarks

Figure 4.3-2 Outsource Details

STEP 3

Select **Referred To** from button

STEP 4

Enter **Contact Person / Office** and **Contact No / Ext No**

Rx No	Rx Date	Drug Name	Dose	Order Detail	Order Qty	Prev Disp Qty	Bal Qty	Remarks
FPD0000741001	10/10/2019 4:21 PM	Cyclophosphamide 1g/50ml Injection	1305 mg	750 mg/m2, OD (once daily), Day: 1, Intravenous Slow Bolus, Cycle Start Date:10/10/2019	2 vial	0 vial	2 vial	Remarks
FPD0000741001	10/10/2019 4:21 PM	Vincristine Sulphate 1mg Injection	2.44 mg	1.4 mg/m2, OD (once daily), Day: 1, Intravenous Bolus, Cycle Start Date:10/10/2019	3 vial	0 vial	3 vial	Remarks

Figure 4.3-3 Outsource Details

STEP 5

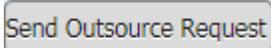
Click on the  button and Confirmation Message will be display as Figure 4.3-4

Figure 4.3-4 Confirmation Message

Note

- Click on the  button to send the request and Information Message will be display as Figure 4.3-5

Figure 4.3-5 Information Message

- Click on the  button and screen will be updated as shown in Figure 4.3-6

CDR PREPARATION																																																																																																
<div style="text-align: right;">Prescription X</div> <table border="1" style="width: 100%;"> <tr> <td>YXXXXXX XXXXX XXXXX</td> <td>Mykad</td> <td>Age 36 Years 11 Months 03 Days</td> <td>Gender Female</td> <td>MRN</td> </tr> <tr> <td colspan="2">Address</td> <td>Phone And Email</td> <td>Diagnosis</td> <td>No known Allergies</td> </tr> <tr> <td>Height 166 cm</td> <td>Weight 66 kg</td> <td>BMI/BSA 24 / 1.74 m²</td> <td colspan="2">(Last Updated : 10/10/2019) Nationality : Warganegara</td> </tr> </table>													YXXXXXX XXXXX XXXXX	Mykad	Age 36 Years 11 Months 03 Days	Gender Female	MRN	Address		Phone And Email	Diagnosis	No known Allergies	Height 166 cm	Weight 66 kg	BMI/BSA 24 / 1.74 m ²	(Last Updated : 10/10/2019) Nationality : Warganegara																																																																						
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<div style="text-align: right;"> Full Supply Allocate Outsource Cancel Outsource CDR Cycle History Worksheet Label Prepare </div>																																																																																																
<div style="text-align: right;">[1 - 4 / 4]</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Drug/Diluent Name</th> <th>Dose</th> <th>Dose Qty</th> <th>Order Details</th> <th>Total Order Qty</th> <th>No. of Dose</th> <th>Prepare Qty</th> <th>Bal Qty</th> <th>Prepare Admixture</th> <th>Outsource</th> <th>Prev Disp Qty</th> <th>Remarks</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Cyclophosphamide 1g/50ml Injection</td> <td>1305 mg</td> <td>65.25 ml</td> <td>750 mg/m², OD (once daily), Day: 1 Schedule</td> <td>2 vial</td> <td>0 of 1 dose(s) supplied</td> <td>0 vial</td> <td>2 vial</td> <td><input type="checkbox"/> Details</td> <td><input checked="" type="checkbox"/> Details</td> <td>0 vial</td> <td>Remarks</td> <td>OUTSOURCED</td> </tr> <tr> <td>2.</td> <td>Doxorubicin HCl 50mg/25ml Injection</td> <td>87 mg</td> <td>43.5 ml</td> <td>50 mg/m², OD (once daily), Day: 1 Schedule</td> <td>2 vial</td> <td>0 of 1 dose(s) supplied</td> <td>2 vial</td> <td>2 vial</td> <td><input type="checkbox"/> Details</td> <td><input type="checkbox"/> Details</td> <td>0 vial</td> <td>Remarks</td> <td>VERIFIED</td> </tr> <tr> <td>3.</td> <td>Vincristine Sulphate 1mg Injection</td> <td>2.44 mg</td> <td>2.44 ml</td> <td>1.4 mg/m², OD (once daily), Day: 1 Schedule</td> <td>3 vial</td> <td>0 of 1 dose(s) supplied</td> <td>0 vial</td> <td>3 vial</td> <td><input type="checkbox"/> Details</td> <td><input checked="" type="checkbox"/> Details</td> <td>0 vial</td> <td>Remarks</td> <td>OUTSOURCED</td> </tr> <tr> <td></td> <td>Sodium Chloride 0.9% 100mL IV soln</td> <td></td> <td>100 ml</td> <td></td> <td>1 bott</td> <td></td> <td>0 bott</td> <td>1 bott</td> <td></td> <td></td> <td>0 bott</td> <td></td> <td></td> </tr> <tr> <td></td> <td>Prednisolone 5 mg Tablet</td> <td>34.8 mg</td> <td>6.96 tablet</td> <td>20 mg/m², TDS (3 times a day), Day: 1-5 Schedule</td> <td>105 tablet</td> <td>0 of 15 dose(s) supplied</td> <td>21 tablet</td> <td>105 tablet</td> <td></td> <td></td> <td>0 tablet</td> <td>Remarks</td> <td>VERIFIED</td> </tr> </tbody> </table>														Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status	1.	Cyclophosphamide 1g/50ml Injection	1305 mg	65.25 ml	750 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	0 vial	2 vial	<input type="checkbox"/> Details	<input checked="" type="checkbox"/> Details	0 vial	Remarks	OUTSOURCED	2.	Doxorubicin HCl 50mg/25ml Injection	87 mg	43.5 ml	50 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED	3.	Vincristine Sulphate 1mg Injection	2.44 mg	2.44 ml	1.4 mg/m ² , OD (once daily), Day: 1 Schedule	3 vial	0 of 1 dose(s) supplied	0 vial	3 vial	<input type="checkbox"/> Details	<input checked="" type="checkbox"/> Details	0 vial	Remarks	OUTSOURCED		Sodium Chloride 0.9% 100mL IV soln		100 ml		1 bott		0 bott	1 bott			0 bott				Prednisolone 5 mg Tablet	34.8 mg	6.96 tablet	20 mg/m ² , TDS (3 times a day), Day: 1-5 Schedule	105 tablet	0 of 15 dose(s) supplied	21 tablet	105 tablet			0 tablet	Remarks	VERIFIED
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Figure 4.3-6 CDR Preparation

Note

- Status of the drug will change to **OUTSOURCED**
- User is allowed to cancel the Outsource by click on the button and Outsource Details window will be display as Figure 4.3-7

OUTSOURCE DETAILS																																				
<div style="text-align: right;"> Cancel Outsource Send Outsource Request </div>																																				
<table border="1" style="width: 100%;"> <tr> <td>YXXXXXX XXXXX XXXXX</td> <td>Mykad</td> <td>Age 36 Years 11 Months 03 Days</td> <td>Gender Female</td> <td>MRN</td> </tr> <tr> <td colspan="2">Address</td> <td>Phone And Email</td> <td>Diagnosis</td> <td>No known Allergies</td> </tr> <tr> <td>Height 166 cm</td> <td>Weight 66 kg</td> <td>BMI/BSA 24 / 1.74 m²</td> <td colspan="2">(Last Updated : 10/10/2019) Nationality : Warganegara</td> </tr> </table>										YXXXXXX XXXXX XXXXX	Mykad	Age 36 Years 11 Months 03 Days	Gender Female	MRN	Address		Phone And Email	Diagnosis	No known Allergies	Height 166 cm	Weight 66 kg	BMI/BSA 24 / 1.74 m ²	(Last Updated : 10/10/2019) Nationality : Warganegara													
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<div style="text-align: right;"> X </div>																																				
<div style="text-align: right;"> Upload Photo </div>																																				
<div style="text-align: right;"> PHARMACY ORDER </div>																																				
Outsource No	CDR-11-14010002211019-001			Sending Status	Successful																															
Referred From	HOSPITAL KUALA LUMPUR			Referred To	Hospital Seri Manjung																															
Contact Person / Office				Contact Person / Office																																
Contact no / Ext No	012			Contact no / Ext No	036675443231																															
Request Date/Time	21/10/2019 12:20 PM																																			
Remarks																																				
<div style="text-align: right;">[1 / 1]</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Rx No</th> <th>Rx Date</th> <th>Drug Name</th> <th>Dose</th> <th>Order Detail</th> <th>Order Qty</th> <th>Prev Disp Qty</th> <th>Bal Qty</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>FPD0000741001</td> <td>10/10/2019 4:21 PM</td> <td>Cyclophosphamide 1g/50ml Injection</td> <td>1305 mg</td> <td>750 mg/m², OD (once daily), Day: 1, Intravenous Slow Bolus, Cycle Start Date: 10/10/2019</td> <td>2 vial</td> <td>0 vial</td> <td>2 vial</td> <td>Remarks</td> </tr> <tr> <td>FPD0000741001</td> <td>10/10/2019 4:21 PM</td> <td>Vincristine Sulphate 1mg Injection</td> <td>2.44 mg</td> <td>1.4 mg/m², OD (once daily), Day: 1, Intravenous Bolus, Cycle Start Date: 10/10/2019</td> <td>3 vial</td> <td>0 vial</td> <td>3 vial</td> <td>Remarks</td> </tr> </tbody> </table>										Rx No	Rx Date	Drug Name	Dose	Order Detail	Order Qty	Prev Disp Qty	Bal Qty	Remarks	FPD0000741001	10/10/2019 4:21 PM	Cyclophosphamide 1g/50ml Injection	1305 mg	750 mg/m ² , OD (once daily), Day: 1, Intravenous Slow Bolus, Cycle Start Date: 10/10/2019	2 vial	0 vial	2 vial	Remarks	FPD0000741001	10/10/2019 4:21 PM	Vincristine Sulphate 1mg Injection	2.44 mg	1.4 mg/m ² , OD (once daily), Day: 1, Intravenous Bolus, Cycle Start Date: 10/10/2019	3 vial	0 vial	3 vial	Remarks
Rx No	Rx Date	Drug Name	Dose	Order Detail	Order Qty	Prev Disp Qty	Bal Qty	Remarks																												
FPD0000741001	10/10/2019 4:21 PM	Cyclophosphamide 1g/50ml Injection	1305 mg	750 mg/m ² , OD (once daily), Day: 1, Intravenous Slow Bolus, Cycle Start Date: 10/10/2019	2 vial	0 vial	2 vial	Remarks																												
FPD0000741001	10/10/2019 4:21 PM	Vincristine Sulphate 1mg Injection	2.44 mg	1.4 mg/m ² , OD (once daily), Day: 1, Intravenous Bolus, Cycle Start Date: 10/10/2019	3 vial	0 vial	3 vial	Remarks																												

Figure 4.3-7 Outsource Details

- Click on the button to cancel the Outsource record and Confirmation Message will be displayed as Figure 4.3-8
- If there is more than one (1) Outsource Drug, to cancel only one (1) drug user need to click on the **Details** Hyperlink of the selected Drug and Outsource Details screen will be display as Figure 4.3-7 and click on the button

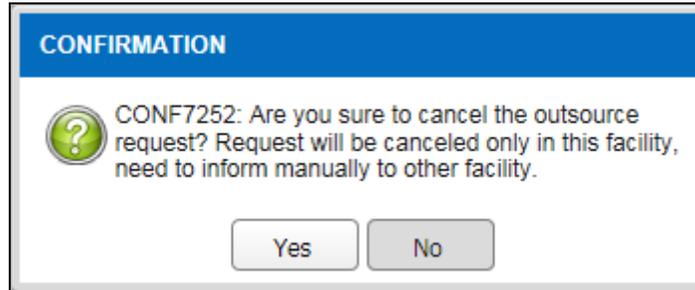


Figure 4.3-8 Confirmation Message

Note

- Click on the button to cancel the request and Information Message will be display as Figure 4.3-9
- For cancel outsource, user need to inform the other facility manually

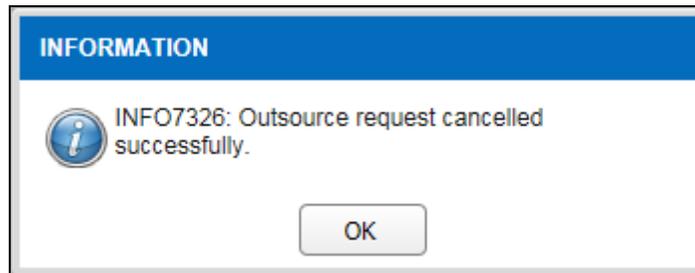


Figure 4.3-9 Information Message

- Click on the button and status of the drug will change to **VERIFIED**

CDR PREPARATION

YXXXXXX XXXXX XXXXX Mykad: Age 36 Years 11 Months 03 Days Gender Female MRN: No known Allergies

Height 166 cm Weight 66 kg BMI/BSA 24 / 1.74 m² (Last Updated : 10/10/2019) Nationality : Warganegara

Encounter No: 0008 Actual Admission Date: 10/10/2019 Current Visit Location Farmasi Pesakit Dalam Rx No: FPD0000741001 Order By: Cycle Start Date: 10/10/2019 Transcribed By:

PRESCRIPTION

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status
1. Cyclophosphamide 1g/50ml Injection	1305 mg	65.25 ml	750 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	0 vial	2 vial	<input type="checkbox"/> Details	<input checked="" type="checkbox"/> Details	0 vial	Remarks	OUTSOURCED
2. Doxorubicin HCl 50mg/25ml Injection	87 mg	43.5 ml	50 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
3. Vincristine Sulphate 1mg Injection	2.44 mg	2.44 ml	1.4 mg/m ² , OD (once daily), Day: 1 Schedule	3 vial	0 of 1 dose(s) supplied	0 vial	3 vial	<input type="checkbox"/> Details	<input checked="" type="checkbox"/> Details	0 vial	Remarks	OUTSOURCED
Sodium Chloride 0.9% 100mL IV soln		100 ml		1 bott		0 bott	1 bott			0 bott		
Prednisolone 5 mg Tablet	34.8 mg	6.96 tablet	20 mg/m ² , TDS (3 times a day), Day: 1-5 Schedule	105 tablet	0 of 15 dose(s) supplied	21 tablet	105 tablet			0 tablet	Remarks	VERIFIED

Figure 4.3-10 CDR Preparation

STEP 6

Click on the button to proceed with preparation



4.4 Receive Outsource

Notification Type	Notification No	Title	Date	From Facility/Unit	Attachment
Slow Moving Item	NO19000048		15/10/2019 03:10 PM	Hospital Seri Manjung	
Slow Moving Item	NO19000046		14/10/2019 11:32 AM	Hospital Seri Manjung	
Slow Moving Item	NO19000045		14/10/2019 10:38 AM	Hospital Seri Manjung	
Slow Moving Item	NO19000042		11/10/2019 11:19 AM	Hospital Seri Manjung	
Slow Moving Item	NO19000041		11/10/2019 10:59 AM	Hospital Seri Manjung	
Slow Moving Item	NO19000040		11/10/2019 10:39 AM	Hospital Seri Manjung	
Slow Moving Item	NO19000039		11/10/2019 10:35 AM	Hospital Seri Manjung	
Slow Moving Item	NO19000038		03/10/2019 03:37 PM	Hospital Seri Manjung	
Product Recall	NO19005132	Directive - Tetanus Toxoid Injection (10 doses)	11/06/2019 03:10 PM	BPFKMM	
Product Recall	NO19005131	Directive - Tetanus Toxoid Injection (10 doses)	11/06/2019 03:10 PM	BPFKMM	

External Notification	
Online Indent Request Received:	0
Online External CDR Request Received:	17
Online External PN Request Received:	3
External Radio Order Request Received:	9
External TDM Request Received:	8
Online Contract Request Received:	127
Online SPUB R1 Request Received:	16
Online Issue SPUB Request Received:	0
Online Issue Manufacturing Received:	0
Online Issue Request Received:	20
Online External CDR Result Received:	2
Online External PN Result Received:	0
External Radio Order Result Received:	0
External TDM Result Received:	1
Online Return Inter Facility Received:	0

Figure 4.4-1 External Notification

STEP 1

Click on the **Online External CDR Request Received** 17 button and Outsource Listing window will be display as Figure 4.4-2

Outsource No	Patient Name	Gender	From(Hospital/Clinic)	Request Date/Time	Register
CDR-11-14010002110919-002	NXXXXXXXXXXXXX XIX XXXXXXXXXXXX	Female	Hospital Kuala Lumpur	11/09/2019 2:36 PM	Register
CDR-11-14010002260819-001	HXXX XXXX XXX	Female	Hospital Kuala Lumpur	26/08/2019 10:06 AM	Register
CDR-11-14010002260819-003	HXXX XXXX XXX	Female	Hospital Kuala Lumpur	26/08/2019 10:47 AM	Register
CDR-11-14010002280819-001	NXXXXXXXX XIX XXXXXXXXXXXX	Female	Hospital Kuala Lumpur	28/08/2019 4:30 PM	Registered
CDR-11-14010002040919-002	AXXXX XXXXX XXXXX	Female	Hospital Kuala Lumpur	04/09/2019 5:05 PM	Registered
CDR-11-14010002050919-001	TXX XXXX XXX @ XXXX XXXX XXX	Female	Hospital Kuala Lumpur	05/09/2019 12:18 PM	Register
CDR-11-14010002050919-002	TXX XXXX XXX @ XXXX XXXX XXX	Female	Hospital Kuala Lumpur	05/09/2019 12:27 PM	Register
CDR-11-14010002050919-003	TXX XXXX XXX @ XXXX XXXX XXX	Female	Hospital Kuala Lumpur	05/09/2019 12:43 PM	Register
CDR-11-14010002050919-004	TXX XXXX XXX @ XXXX XXXX XXX	Female	Hospital Kuala Lumpur	05/09/2019 2:39 PM	Register
CDR-11-14010002050919-005	TXX XXXX XXX @ XXXX XXXX XXX	Female	Hospital Kuala Lumpur	05/09/2019 2:51 PM	Register

Figure 4.4-2 Outsource Listing

Note

Click on the Outsource No hyperlink to view Outsource Details as Figure 4.4-3



PhIS & CPS Project

User Manual – Order Management - Cytotoxic Drug Reconstitution (CDR)



OUTSOURCE DETAILS

	HXXX XXXX XXXX	Mykad: [REDACTED]	Age: 55 Years 06 Months 02 Days	Gender: Female	MRN: [REDACTED]
	Address: [REDACTED]	Phone And Email: [REDACTED]	Diagnosis: [REDACTED]	No known Allergies	
Upload Photo	Height: [REDACTED] cm	Weight: [REDACTED] kg	BMI/BSA: 0/0 m ²	G6PD: [REDACTED]	Nationality: Warganegara

PHARMACY ORDER

Outsource No: CDR-11-14010002260819-001	Sending Status: [REDACTED]
Referred From: Hospital Kuala Lumpur	Referred To: Hospital Seri Manjung
Contact Person / Office: [REDACTED]	Contact Person / Office: [REDACTED]
Contact no / Ext No: 012	Contact no / Ext No: 2342
Request Date/Time: 26/08/2019 10:06 AM	
Remarks: [REDACTED]	

Rx No	Rx Date	Drug Name	Dose	Order Detail	Order Qty	Prev Disp Qty	Bal Qty	Remarks
FPD000740868	26/08/2019 12:00 AM	Cyclophosphamide 1g/50ml Injection	1305 mg	750 mg/m2, OD (once daily), Day: 1 Intravenous Slow Bolus Cycle Start Date: 26/08/2019	2 vial	0 vial	2 vial	Remarks

Figure 4.4-3 Outsource Details

Note

User is allowed to cancel the transaction by click on the button

OUTSOURCE LISTING

Outsource No	Patient Name	Gender	From(Hospital/Clinic)	Request Date/Time	Register
CDR-11-14010002110919-002	NXXXXXXXXXXXXX XIX XXXXXXXXXXXXX	Female	Hospital Kuala Lumpur	11/09/2019 2:36 PM	Register
CDR-11-14010002260819-001	HXXX XXXX XXX	Female	Hospital Kuala Lumpur	26/08/2019 10:06 AM	Register
CDR-11-14010002260819-003	HXXX XXXX XXX	Female	Hospital Kuala Lumpur	26/08/2019 10:47 AM	Register
CDR-11-14010002280819-001	NXXXXX XIX XXXXXXXXXXXXX	Female	Hospital Kuala Lumpur	28/08/2019 4:30 PM	Registered
CDR-11-14010002040919-002	AXXXX XXXXX XXXXX	Female	Hospital Kuala Lumpur	04/09/2019 5:05 PM	Registered
CDR-11-14010002050919-001	TX XX XX @ XX XX XX XX	Female	Hospital Kuala Lumpur	05/09/2019 12:18 PM	Register
CDR-11-14010002050919-002	TX XX XX @ XX XX XX XX	Female	Hospital Kuala Lumpur	05/09/2019 12:27 PM	Register
CDR-11-14010002050919-003	TX XX XX @ XX XX XX XX	Female	Hospital Kuala Lumpur	05/09/2019 12:43 PM	Register
CDR-11-14010002050919-004	TX XX XX @ XX XX XX XX	Female	Hospital Kuala Lumpur	05/09/2019 2:39 PM	Register
CDR-11-14010002050919-005	TX XX XX @ XX XX XX XX	Female	Hospital Kuala Lumpur	05/09/2019 2:51 PM	Register

Figure 4.4-4 Outsource Listing

STEP 2

Click on the Register hyperlink to register outsource patient and Ward Management window will be display as Figure 4.4-5

WARD MANAGEMENT

YXXXXXX XXXXX XXXXX Mykad: [redacted] Age: 36 Years 11 Months 03 Days Gender: Female MRN: [redacted]

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

Height: 166 cm Weight: 66 kg BMI/BSA: 24 / 1.74 m² (Last Updated:) Nationality: [redacted]

Visit Type: Outsource Admitting Doctor: [redacted] Referral Encounter: Main Encounter [redacted]

Encounter No: [redacted] Visit Created Date/Time: 21/10/2019 02:58:02 PM Actual Visit Date/Time: 21/10/2019 02:58:02 PM

Department/Discipline: General Medicine Location: CDR Pharmacy Oncology Service

Room No: [redacted] Facility RN Number: [redacted]

Specialist: [redacted] Attending Doctor: [redacted]

Collection Mode: [redacted] Referred By: [redacted]

Payment Category/Class Type: No Class eGL Verification: [redacted] Police Custody: [redacted]

Visit Case: New Case Follow-Up

TRANSFER DETAILS LIST

+ New Patient Transfer

Transfer From	Bed No. From	Transfer To	Bed No. To	Transfer Date
No Records Found!				

DISCHARGE

Discharge: Deceased/Death: End Visit:

Discharge Date: [redacted] Doctor: [redacted]

Discharge Type: [redacted] Decease Date Time: [redacted]

Discharge By: [redacted]

Figure 4.4-5 Ward Management

STEP 3

Select **Department/discipline** and **Location** from dropdown menu

STEP 4

Click on the  button to save the registered outsource patient

Note

After save, user need to proceed with record prescription process as follow

MEDICATION ORDER

Select Registered Patient: All [redacted] Dispensing Location: Pharmacy Oncology Service

New Patient X

Figure 4.4-6 Medication Order

STEP 5

Search for the outsource registered patient and screen will be shown as Figure 4.4-7



MEDICATION ORDER

Select Registered Patient: All [Patient ID] X Dispensing Location: Pharmacy Oncology Service [New Patient] X

Patient Details: PXXXX XXXX XXXX, Mykad: [ID], Age: 73 Years 09 Months 26 Days, Gender: Male, MRN: [ID]
 Address, Phone And Email, Diagnosis, No known Allergies
 Height: 173 cm, Weight: 73 kg, BMI/BSA: 24.4 / 1.87 m², G6PD: [] Update (Last Updated: 29/10/2019) Nationality: Warganegara

VISIT/ADMISSION

Encounter No: [0006] Visit Type: Inpatient Location: [] Department: [] Clear Save Visit Management Patient Label Patient sticker
 Full Paying Patient Bed No: []

Encounter No	Visit/Admission Date	Visit Type	Renew Visit	Visit Location	Department	Discharge Date
0006	29/10/2019	Outsource	Renew Visit	Pharmacy Oncology Service	General Medicine	
0013	11/10/2019	Outpatient	Renew Visit	Outpatient Clinic	General Medicine	
0039	01/10/2019	Emergency	Renew Visit	A&E	Emergency Trauma Care	03/10/2019

PARTIAL SUPPLY

Order Date	Order Location	Visit Type	Department	Prescription No.	Original Prescription No.	Next Collection Date	Next Collection Mode	Dispense Location
No Records Found!								

Figure 4.4-7 Medication Order

STEP 6

Double click on the outsource Visit Type

MEDICATION ORDER

Select Registered Patient: All [Patient ID] X Dispensing Location: Pharmacy Oncology Service [New Patient] X

Patient Details: PXXXX XXXX XXXX, Mykad: [ID], Age: 73 Years 09 Months 26 Days, Gender: Male, MRN: [ID]
 Address, Phone And Email, Diagnosis, No known Allergies
 Height: 173 cm, Weight: 73 kg, BMI/BSA: 24.4 / 1.87 m², G6PD: [] Update (Last Updated: 29/10/2019) Nationality: Warganegara

VISIT/ADMISSION

Encounter No: 0006 Visit Type: Outsource Location: Pharmacy Oncology Service Department: General Medicine Clear Visit Management Patient Label Patient sticker

VISIT RECORD

Original Prescriber Name, Original Prescription Serial No, Outsource Patient MRN: []

CDR REGIMEN DETAILS

Regimen Code, Cycle Start Date, Cycle End Date, Regimen Description, Cycle Duration, Calculate Dose Using, BSA, Kg

PRESCRIPTION

Drug/Diluent Name, Order Details, Total Dose, Dose Qty, Order Qty, Drug Info, Oral/Others Drugs, Injectable Drugs, Active Ingredient, Drug Category, Dosage, Total Dose, AUC Calculator

Figure 4.4-8 Medication Order

STEP 7

Click on the tab

STEP 8

Click on the button and Outsource Listing screen will be display as Figure 4.4-9

Outsource No	Patient Name	Gender	From(Hospital/Clinic)	Request Date/Time	Register
CDR-11-14010002100919-001	PXXXX XXXX XXXX	Male	Hospital Kuala Lumpur	10/09/2019 10:13 AM	Registered

Figure 4.4-9 Outsource Listing

STEP 9

Double click on the list and the CDR Order will be updated as shown in Figure 4.4-10

MEDICATION ORDER

Select Registered Patient: All | Dispensing Location: Pharmacy Oncology Service

Patient: PXXXX XXXX XXXX | Mykad: | Age: 73 Years 09 Months 26 Days | Gender: Male | MRN: |

Address: | Phone And Email: | Diagnosis: No known Allergies

Height: 173 cm | Weight: 73 kg | BMI/BSA: 24.4 / 1.87 m² | G6PD: | Update (Last Updated: 29/10/2019) | Nationality: Warganegara

VISIT/ADMISSION

Encounter No: 0006 | Visit Type: Outsource | Location: Pharmacy Oncology Service | Department: General Medicine

VISIT RECORD

Original Prescriber Name: | Original Prescription Serial No: | Outsource Patient MRN: **10** |

CDR REGIMEN DETAILS

Regimen Code: CDRON0071 | Regimen Description: FOLFOX (85/200/400/600)

Cycle Start Date: 10/09/2019 | Cycle End Date: 23/09/2019

Total Cycle: 12 | Cycle No: 1

Calculate Dose Using: Actual Body Weight | 73 Kg

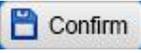
PRESCRIPTION

Seq No.	Drug/Diluent Name	Order Details	Total Dose	Dose Qty	Order Qty	Drug Info
1	Fluorouracil 1g/20ml Injection	600 mg/m ² , OD (once daily), Day: 1,2 Schedule	1122 mg	22.44 ml	4 vial	
2	Dextrose 5% 500ml IV soln			955.12 ml	4 bott	
3	Fluorouracil 1g/20ml Injection	400 mg/m ² , OD (once daily), Day: 1,2 Schedule	748 mg	14.96 ml	2 vial	

Oral/Others Drugs: | Injectable Drugs: | Active Ingredient: | Drug Category: | Dosage: | Total Dose: | AUC Calculator

Figure 4.4-10 Medication Order

STEP 10

Click on the  button to confirm the order



MEDICATION ORDER

Select Registered Patient: All [Patient ID] Dispensing Location: Pharmacy Oncology Service [New Patient]

PXXXX XXXX XXXX Mykad [Mykad] Age 73 Years 09 Months 26 Days Gender Male MRN [MRN]
 Address [Address] Phone And Email [Phone And Email] Diagnosis [Diagnosis] No known Allergies
 Height 173 cm Weight 73 kg BMI/BSA 24.4 / 1.87 m² G6PD [G6PD] Update (Last Updated : 29/10/2019) Nationality : Warganegara

Medication Profile | Counselling History | Pharmacist Notes | Demographic | Monitoring Parameter | Other Appointment

VISIT/ADMISSION

Encounter No 0006 Visit Type Outsource Location Pharmacy Oncology Service Department General Medicine [Clear] [Visit Management] [Patient Label] [Patient sticker]

VISIT RECORD

Original Prescriber Name [Original Prescriber Name] Original Prescription Serial No [Original Prescription Serial No] Outsource Patient MRN [HKL001997]

CDR REGIMEN DETAILS [Outsource Form] [Online Outsource] [PROCEED TO DISPENSE] [Prescription] [Verify]

Regimen Code CDRON0071 Regimen Description FOLFOX (85/200/400/600)
 Cycle Start Date 10/09/2019 Cycle End Date 23/09/2019 Cycle Duration 14 Days BSA [BSA] m²
 Total Cycle 12 Cycle No 1 Calculate Dose Using Actual Body Weight 73 Kg
 Remarks [Remarks]

PRESCRIPTION

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
Fluorouracil 1g/20ml Injection	748 mg	14.96 ml	400 mg/m ² , OD (once daily), Day: 1,2 Schedule	2 vial	Remarks	ORDERED Drug Info
Fluorouracil 1g/20ml Injection	1122 mg	22.44 ml	600 mg/m ² , OD (once daily), Day: 1,2 Schedule	4 vial	Remarks	ORDERED Drug Info
Dextrose 5% 500ml IV soin		955.12 ml		4 bott		

Figure 4.4-11 Medication Order

Note

- Click on the button to view outsource details as shown in Figure 4.4-12

OUTSOURCE DETAILS [Send Outsource Request]

NXXXXXXXXXXXX X/X XXXXXXXXXXXX Mykad [Mykad] Age 81 Years 11 Months 28 Days Gender Female MRN [MRN]
 Address [Address] Phone And Email [Phone And Email] Diagnosis [Diagnosis] No known Allergies
 Height 170 cm Weight 70 kg BMI/BSA 24.2 / 1.82 m² Update (Last Updated : 01/11/2019) Nationality : Warganegara

PHARMACY ORDER

Outsource No CDR-11-14010002110919-002 Sending Status [Sending Status]
 Referred From Hospital Kuala Lumpur Referred To Hospital Seri Manjung
 Contact Person / Office [Contact Person / Office] Contact Person / Office [Contact Person / Office]
 Contact no / Ext No 012 Contact no / Ext No 0123456789
 Request Date/Time 11/09/2019 2:36 PM
 Remarks [Remarks]

Rx No	Rx Date	Drug Name	Dose	Order Detail	Order Qty	Prev Disp Qty	Bal Qty	Remarks
FPD0000740905	11/09/2019 12:00 AM	Fluorouracil 1g/20ml Injection	728 mg	400 mg/m ² , OD (once daily), Day: 1,2 Intravenous Slow Bolus Cycle Start Date : 11/09/2019	2 vial	0 vial	2 vial	Remarks
FPD0000740905	11/09/2019 12:00 AM	Fluorouracil 1g/20ml Injection	1092 mg	600 mg/m ² , OD (once daily), Day: 1,2 Intravenous Infusion Cycle Start Date : 11/09/2019	4 vial	0 vial	4 vial	Remarks

Figure 4.4-12 Outsource Details

- User can proceed with dispensing process (Verification, Prepare and Dispense)
- To proceed with CDR Dispensing process, please refer
 - Section [4.0 Cytotoxic Drug Reconstitution \(CDR\) Order, Verify and Prepare](#)
 - Section [7.0 CDR Dispensing](#)
- Once user dispense outsource order, system will shown Information Message as Figure 4.4-13

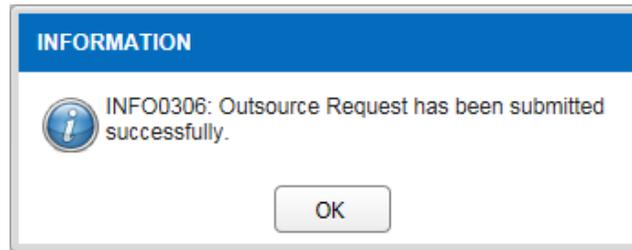
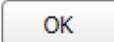


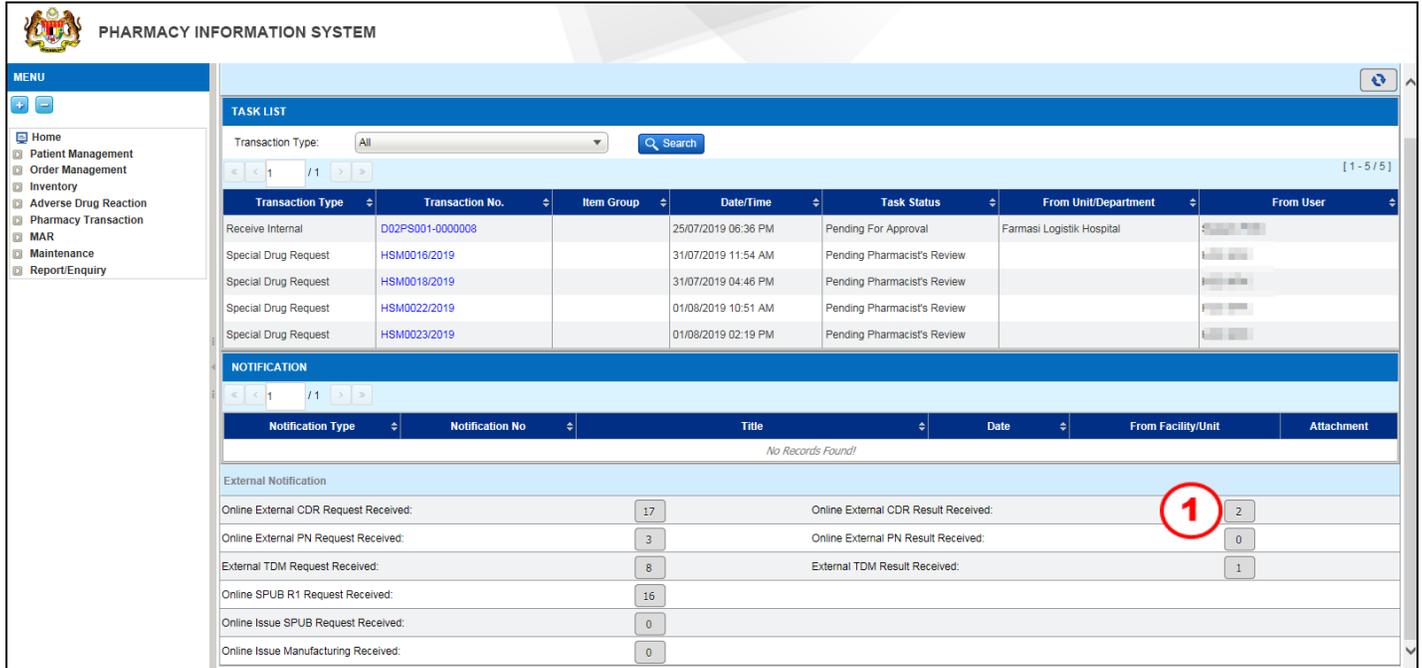
Figure 4.4-13 Information Message

- Click on the  button and system will send CDR Result back to sending Facility.

4.5 Outsource Result Received

Note

After receiving facility dispense outsource drug, sending facility will receive external notification for the outsource result



PHARMACY INFORMATION SYSTEM

MENU

- Home
- Patient Management
- Order Management
- Inventory
- Adverse Drug Reaction
- Pharmacy Transaction
- MAR
- Maintenance
- Report/Enquiry

TASK LIST

Transaction Type: All Search

Transaction Type	Transaction No.	Item Group	Date/Time	Task Status	From Unit/Department	From User
Receive Internal	D02PS001-0000008		25/07/2019 06:36 PM	Pending For Approval	Farmasi Logistik Hospital	
Special Drug Request	HSM0016/2019		31/07/2019 11:54 AM	Pending Pharmacist's Review		
Special Drug Request	HSM0018/2019		31/07/2019 04:46 PM	Pending Pharmacist's Review		
Special Drug Request	HSM0022/2019		01/08/2019 10:51 AM	Pending Pharmacist's Review		
Special Drug Request	HSM0023/2019		01/08/2019 02:19 PM	Pending Pharmacist's Review		

NOTIFICATION

No Records Found!

External Notification

Notification Type	Notification No	Title	Date	From Facility/Unit	Attachment
Online External CDR Request Received:	17	Online External CDR Result Received:			1 2
Online External PN Request Received:	3	Online External PN Result Received:			0
External TDM Request Received:	8	External TDM Result Received:			1
Online SPUB R1 Request Received:	16				
Online Issue SPUB Request Received:	0				
Online Issue Manufacturing Received:	0				

Figure 4.4-1 Online External CDR Result Received

STEP 1

Click on the **Online External CDR Result Received** **2** button

Note

System will display Outsource Listing screen as shown in Figure 4.4-2



OUTSOURCE LISTING

Outsource No	Patient Name	Gender	From(Hospital/Clinic)	Request Date/Time	Register
CDR-11-14010002110919-003	AXXXX XXXXXX	Male	Hospital Seri Manjung	11/09/2019 5:10 PM	Receive 2
CDR-11-14010002100919-007	DXXXX XXXXXX XXX XXXXXXX	Male	Hospital Seri Manjung	10/09/2019 6:12 PM	Receive

Figure 4.4-2 Outsource Listing

STEP 2

Click on the **Receive** hyperlink and Outsource Details will display as Figure 4.4-3



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



OUTSOURCE DETAILS

Upload Photo

XXXXX XXXXXX	Mykad: ██████████	Age: 79 Years 05 Months 04 Days	Gender: Male
Address: ██████████	Phone And Email: ██████████	Diagnosis: ██████████	No known Allergies
Height: <input type="text" value="170"/> cm Weight: <input type="text" value="70"/> kg BMI/BSA: 24.2 / 1.82 m ² <input type="button" value="Update"/> (Last Updated: 11/09/2019) Nationality: Warganegara			

PHARMACY ORDER

Outsource No: <input type="text" value="CDR-11-14010002110919-003"/>	Sending Status: <input type="text" value=""/>
Referred From: <input type="text" value="Hospital Seri Manjung"/>	Referred To: <input type="text" value="Hospital Kuala Lumpur"/>
Contact Person / Office: <input type="text" value=""/>	Contact Person / Office: <input type="text" value=""/>
Contact no / Ext No: <input type="text" value="012"/>	Contact no / Ext No: <input type="text" value="0123456789"/>
Request Date/Time: <input type="text" value="11/09/2019 5:10 PM"/>	
Remarks: <input style="width: 100%;" type="text"/>	

RECEIVE DETAILS

Received By: <input type="text" value=""/>	Date/Time: <input type="text" value="23/10/2019 5:17 PM"/>
Remarks: <input style="width: 100%;" type="text"/>	<div style="border: 2px solid red; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> 3 </div> <input type="button" value="+ Add"/>

No.	Received By	Received Date	Remarks
No Records Found!			

Figure 4.4-3 Outsource Details

STEP 3

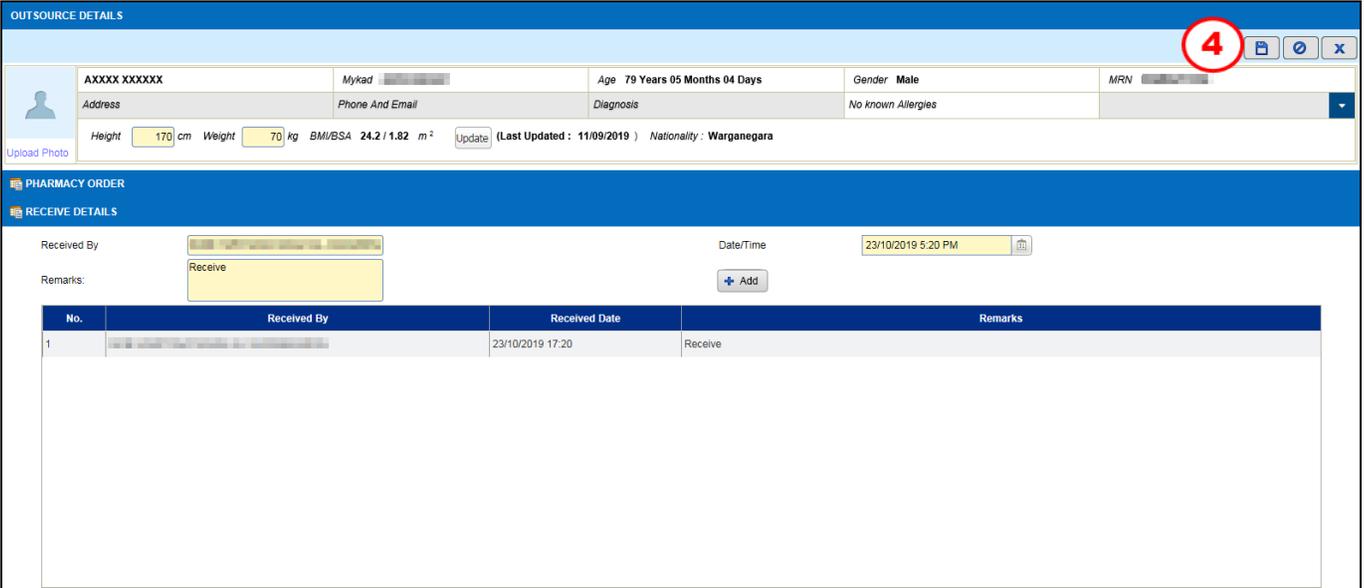
Enter **Remarks** (if required) and click on the button

Note

Information will be updated as shown in Figure 4.4-4

PB_U. MANUAL_CDR-12th E

Page 55



OUTSOURCE DETAILS

AXXXX XXXXXX Mykad [REDACTED] Age 79 Years 05 Months 04 Days Gender Male MRN [REDACTED]

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

Height 170 cm Weight 70 kg BMI/BSA 24.2 / 1.82 m² Update (Last Updated : 11/09/2019) Nationality : Warganegara

PHARMACY ORDER

RECEIVE DETAILS

Received By [REDACTED] Date/Time 23/10/2019 5:20 PM

Remarks: Receive + Add

No.	Received By	Received Date	Remarks
1	[REDACTED]	23/10/2019 17:20	Receive

Figure 4.4-4 Outsource Details

STEP 4

Click on the  button to save the record

5.0 Manage Prescription

This function is for pharmacist to modify CDR record prescription

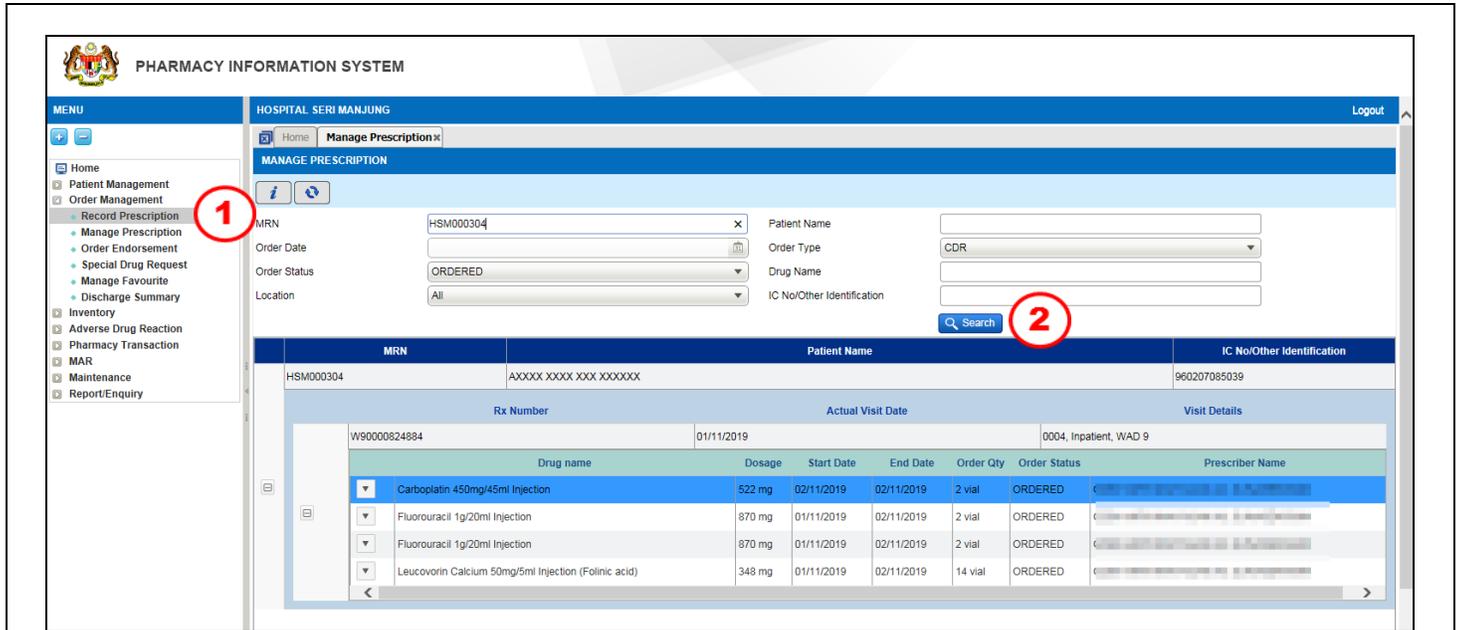


Figure 5.0-1 Manage Prescription

STEP 1

Click on 'Order Management' menu and followed by 'Manage Prescription' sub-menu

Note

On this listing page, various Search criteria is provided as below:

No	Field	Description	Remark
a	MRN	Patient Medical Record Number	Search option: <ul style="list-style-type: none"> • Scan the MRN using barcode scanner. • Type the MRN either full or partial
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
f	Order Type	<ul style="list-style-type: none"> - Normal - CDR - IV - PN - Radiopharmaceuticals 	Allow to search by order type
g	Drug Name	Drug Name	Allow to search by full or partial
h	IC No/Other Identification	IC No	Allow to search by IC Number
i	Original Prescription Serial No	Original Prescription Serial No	Allow to search Original Prescription Serial No

Table 5.0-1

Note

Search CDR patient by select **Order Type** as **CDR**

STEP 2

Click on the button to search for CDR Patient

Modify Order

MRN	Patient Name	IC No/Other Identification				
XXXXX XXXX XXX XXXXXX						
Rx Number	Actual Visit Date	Visit Details				
W90000824884	01/11/2019	0004, Inpatient, WAD 9				
Drug name	Dosage	Start Date	End Date	Order Qty	Order Status	Prescriber Name
Carbonate 5ml Injection	522 mg	02/11/2019	02/11/2019	2 vial	ORDERED	
Hold cil 1g/20ml Injection	870 mg	01/11/2019	02/11/2019	2 vial	ORDERED	
Cancel cil 1g/20ml Injection	870 mg	01/11/2019	02/11/2019	2 vial	ORDERED	
Leucovorin Calcium 50mg/5ml Injection (Folinic acid)	348 mg	01/11/2019	02/11/2019	14 vial	ORDERED	

Figure 5.0-2 Manage Prescription

STEP 3

Click on button to view selected patient's prescription

STEP 4

Right click on the button and select **Modify** and Modify CDR Order screen will display as Figure 5.0-3

MODIFY CDR ORDER

XXXXX XXXX XXX XXXXXX Mykad XXXXXX Age 23 Years 08 Months 23 Days Gender Male MRN XXXXXX
 Address XXXXXX Phone And Email XXXXXX Diagnosis XXXXXX No known Allergies

Height 65 cm Weight 167 kg BMI/BSA 395.3 / 1.74 m² (Last Updated : 01/11/2019) Nationality : Warganegara

CDR REGIMEN DETAILS Save CDR Cycle History

Regimen Code: CDRON0006 *Regimen Details Regimen Description: Carboplatin + 5FU + FA
 Cycle Start Date: 01/11/2019 Cycle End Date: 21/11/2019 Cycle Duration: 21 Days BSA: 1.74 m²
 Total Cycle: 6 Cycle No: 1 Calculate Dose Using: Actual Body Weight 167 Kg

PRESCRIPTION

Seq No.	Drug/Diluent Name	Order Details	Total Dose	Dose Qty	Order Qty	Drug Info
1	Carboplatin 450mg/45ml Injection	300 mg/m ² , OD (once daily), Day: 2 Schedule	522 mg	52.2 ml	2 vial	
2	Dextrose 5% 500ml IV soln		447.8 ml	1 bott	2 vial	
3	Fluorouracil 1g/20ml Injection	500 mg/m ² , OD (once daily), Day: 1,2 Schedule	870 mg	17.4 ml	2 vial	
4	Sodium Chloride 0.9% 500mL IV soln		982.6 ml	4 bott	2 vial	
5	Fluorouracil 1g/20ml Injection	500 mg/m ² , OD (once daily), Day: 1,2 Schedule	870 mg	17.4 ml	2 vial	

Oral/Others Drugs Injectable Drugs

Active Ingredient: Update

Drug Category:

Dosage:

Total Dose: AUC Calculator

Admin Route:

Frequency:

Chemo Day:

Drug Indication:

Dispense Location:

Drug Remarks:

Figure 5.0-3 Modify CDR Order

STEP 5

Modify related information

STEP 6

Click on the  button to save the modification and Confirmation Message will display as Figure 5.0-4

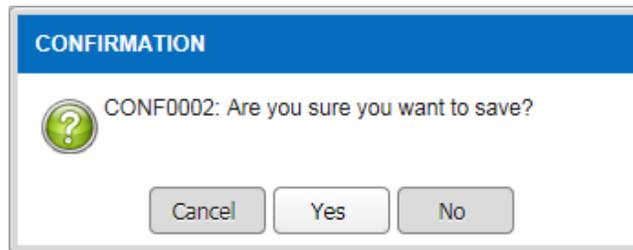
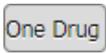


Figure 5.0-4 Confirmation Message

Note

- Click on the  button to save
- Click on the  button to close Modify CDR Order screen

Hold Order

MRN	Patient Name	IC No/Other Identification				
	AXXXX XXXX XXX XXXXXX					
Rx Number	Actual Visit Date	Visit Details				
W90000824884	01/11/2019	0004, Inpatient, WAD 9				
Drug name	Dosage	Start Date	End Date	Order Qty	Order Status	Prescriber Name
Carboplatin 450mg/45ml Injection	522 mg	02/11/2019	02/11/2019	2 vial	ORDERED	
Etoposide 1g/20ml Injection	870 mg	01/11/2019	02/11/2019	2 vial	ORDERED	
Hold 20ml Injection	870 mg	01/11/2019	02/11/2019	2 vial	ORDERED	
Cancel Calcium 50mg/5ml Injection (Folinic acid)	348 mg	01/11/2019	02/11/2019	14 vial	ORDERED	

Figure 5.0-5 Manage Prescription

STEP 7

Click on  button to view selected patient's prescription

STEP 8

Right click on the  button and select **Hold** and Confirmation Message will display as Figure 5.0-6

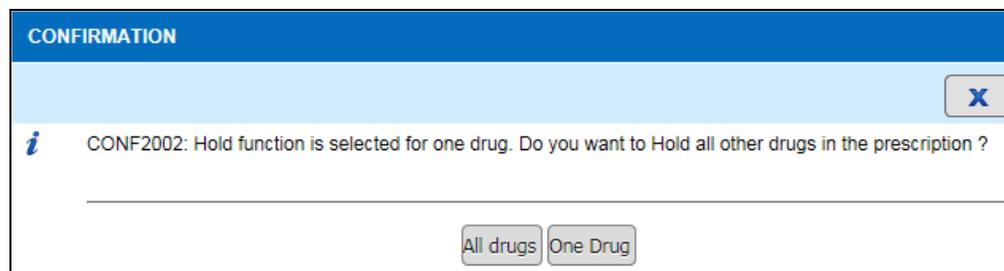
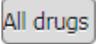


Figure 5.0-6 Confirmation Message

Note

- Click on the  button to hold the selected Drug only
- Click on the  button to hold all drug under the patient prescription

Resume Order

MRN	Patient Name		IC No/Other Identification			
W90000824884	AXXXX XXXX XXX XXXXXX		0004, Inpatient, WAD 9			
Rx Number	Actual Visit Date	Visit Details				
W90000824884	01/11/2019	0004, Inpatient, WAD 9				
Drug name	Dosage	Start Date	End Date	Order Qty	Order Status	Prescriber Name
 Carboplatin 450mg/45ml Injection	522 mg	02/11/2019	02/11/2019	2 vial	ORDERED	GOBI HARIYANAYAGAM A/L GUNASEKARAN
 Fluorouracil 1g Injection Resume 	870 mg	01/11/2019	02/11/2019	2 vial	ORDERED HOLD	GOBI HARIYANAYAGAM A/L GUNASEKARAN
 Fluorouracil 1g Injection	870 mg	01/11/2019	02/11/2019	2 vial	ORDERED	GOBI HARIYANAYAGAM A/L GUNASEKARAN
 Leucovorin Calcium 50mg/5ml Injection (Folic acid)	348 mg	01/11/2019	02/11/2019	14 vial	ORDERED	GOBI HARIYANAYAGAM A/L GUNASEKARAN

Figure 5.0-7 Manage Prescription

STEP 9

Click on  button to view selected patient's prescription

STEP 10

Right click on the  button with a status of hold and select **Resume** and Confirmation Message will display as Figure 5.0-8

CONFIRMATION

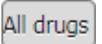


 CONF2002: Resume function is selected for one drug. Do you want to Resume all other drugs in the prescription ?

Figure 5.0-8 Confirmation Message

Note

- Click on the  button to resume the selected Drug only
- Click on the  button to resume all drug with status hold under the patient prescription

Cancel Order

MRN	Patient Name	IC No/Other Identification				
W90000824884	XXXXX.XXXX.XXX.XXXXXX					
Rx Number	Actual Visit Date	Visit Details				
W90000824884	01/11/2019	0004, Inpatient, WAD 9				
Drug name	Dosage	Start Date	End Date	Order Qty	Order Status	Prescriber Name
Carboplatin 450mg/45ml Injection	522 mg	02/11/2019	02/11/2019	2 vial	ORDERED	
Fluorouracil 1g/20ml Injection	870 mg	01/11/2019	02/11/2019	2 vial	ORDERED	
Fluorouracil 1g/20ml Injection	870 mg	01/11/2019	02/11/2019	2 vial	ORDERED	
In Calcium 50mg/5ml Injection (Folnic acid)	348 mg	01/11/2019	02/11/2019	14 vial	ORDERED	
Modify Hold Cancel						

Figure 5.0-9 Manage Prescription

STEP 11

Click on  button to view selected patient's prescription

STEP 12

Right click on the  button and select **Cancel** and Confirmation Message will display as Figure 5.0-10

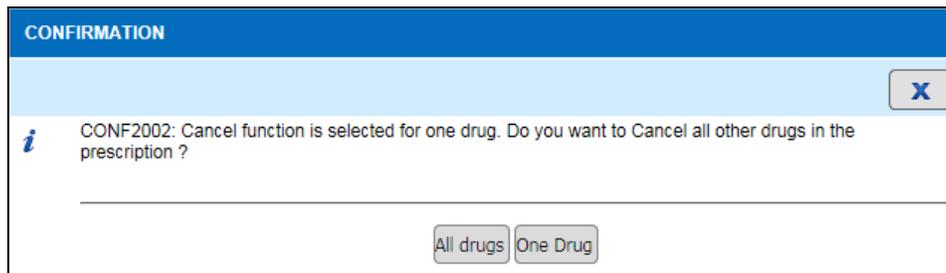


Figure 5.0-10 Confirmation Message

Note

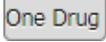
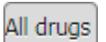
- Click on the  button to cancel the selected Drug only
- Click on the  button to cancel all drug under the patient prescription
- Cancel Reason screen will display as Figure 5.0-11



Figure 5.0-11 Cancel Reason

STEP 13

Enter **Cancel Reason** remarks

STEP 14

Click on the  Save button to save the record and the drug status will change to Cancelled

6.0 Order Endorsement

This function is for pharmacist to endorse CDR order modify by other pharmacist

PHARMACY INFORMATION SYSTEM

HOSPITAL SERI MANJUNG

Home Order Endorsement

ORDER ENDORSEMENT

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

Search

Selection	Order No	MRN	Patient Name	Order Location	Drug Name	Order Details	Date/ Time	Order By	Status
<input type="checkbox"/>	ICU0000313649		XXXXXXXX XXXX XXXX	ICU	Cyclophosphamide 1g/50ml Injection	500 mg, Single Dose, Chemo Day:1	13/03/2017 11:18 AM		FULLY DISPENSED
<input type="checkbox"/>	W30000208366		TXXX XXXX XXX	WAD 8	Cyclophosphamide 1g/50ml Injection	500 mg, OD (once daily), Chemo Day:1	07/10/2016 03:07 PM		FULLY DISPENSED
<input type="checkbox"/>	W30000291409		LXX XXXX XXXX	WAD 3	Cyclophosphamide 1g/50ml Injection	500 mg, Single Dose, Chemo Day:1	10/02/2017 03:37 AM		FULLY DISPENSED
<input type="checkbox"/>	W30000304268		XXXXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	WAD 3	Cyclophosphamide 1g/50ml Injection	500 mg, Single Dose, Chemo Day:1	28/02/2017 10:25 AM		FULLY DISPENSED
<input type="checkbox"/>	W30000371305		XXXXXXXX XXX XXXX XXXX	WAD 3	Cyclophosphamide 1g/50ml Injection	500 mg, OD (once daily), Chemo Day:1	05/06/2017 09:33 AM		FULLY DISPENSED
<input type="checkbox"/>	W30000372006		XXXXXXXX XXX XXXX XXXX	WAD 3	Cyclophosphamide 1g/50ml Injection	500 mg, Single Dose, Chemo Day:1	06/06/2017 08:38 AM		FULLY DISPENSED
<input type="checkbox"/>	W30000438139		XXXXXXXX XXXX XXXX XXXX XXXX XXXX	WAD 3	Cyclophosphamide 1g/50ml Injection	500 mg, Single Dose, Chemo Day:1	15/09/2017 09:33 AM		FULLY DISPENSED
<input type="checkbox"/>	W30000626332		XXXXXXXX XX XXXX XXXX	WAD 3	Cyclophosphamide 1g/50ml Injection	500 mg, OD (once daily), Chemo Day:1	14/06/2018 02:55 PM		FULLY DISPENSED
<input type="checkbox"/>	W30000745106		SXXXX XXX XXXX	WAD 3	Cyclophosphamide 1g/50ml Injection	1000 mg, Single Dose, Chemo Day:1	01/12/2018 03:48 PM		FULLY DISPENSED
<input type="checkbox"/>	W3A0000632274		XXXXXXXX XXX XXXX XXXX	WAD 3A	Etoposide 100mg/5ml Injection	100 mg/m2, OD (once daily), Chemo Day:1,2,3	26/06/2018 10:42 AM		FULLY DISPENSED

Figure 6.0-1 Order Endorsement

STEP 1

Click on 'Order Management' menu and followed by 'Order Endorsement' sub-menu

Note

User may search patient by searching criteria as follow:

- Order By
- Order Location
- Order Type

STEP 2

Select **Order Type** as **CDR**

STEP 3

Click on the button to search patient

STEP 4

Click on the checkbox to select patient

Note

User is allowed to select multiple patient

STEP 5

Click on the button and Confirmation Message will display as Figure 6.0-2

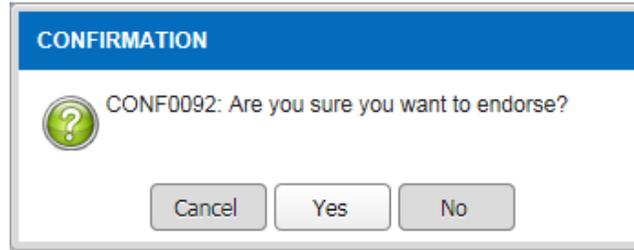
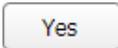


Figure 6.0-3 Confirmation Message

Note

- Click on the  button and Information Message will display as Figure 6.0-4

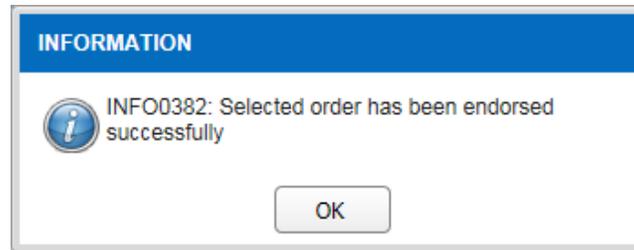
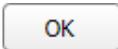


Figure 6.0-4 Information Message

- Click on the  button to confirm endorsement
- Click on the Order No hyperlink to view Order Details as shown in Figure 6.0-5

ORDER DETAILS										
X										
REGIMEN DETAILS										
Ordered Cycle Start Date	Modified Cycle Start Date	Ordered Cycle End Date	Modified Cycle End Date							
13/03/2017	-	13/03/2017	-							
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
Cyclophosphamide 1g/50ml Injection	500 mg	OD (once daily)	2 Hours 0 Minutes	Day: 1	Intravenous Infusion	13/03/2017	13/03/2017	FULLY DISPENSED		
Drug Name	Modified Dose	Modified Frequency	Modified Infuse Over	Modified Chemo Day	Modified Route	Modified Start Date	End Date	Status	Remarks	Modified By
Cyclophosphamide 1g/50ml Injection	300 mg	Single Dose	4 Hours 0 Minutes	-	-	-	13/03/2017	FULLY DISPENSED		
DOSE SCHEDULE										
Chemo Day	Ordered Date	Modified Date								
1	13/03/2017	-								

Figure 6.0-5 Order Details

- Drug Details with red colour is the modification made by other pharmacist

7.0 CDR Dispensing

This function is for pharmacist and assistant pharmacist to dispense the CDR preparation

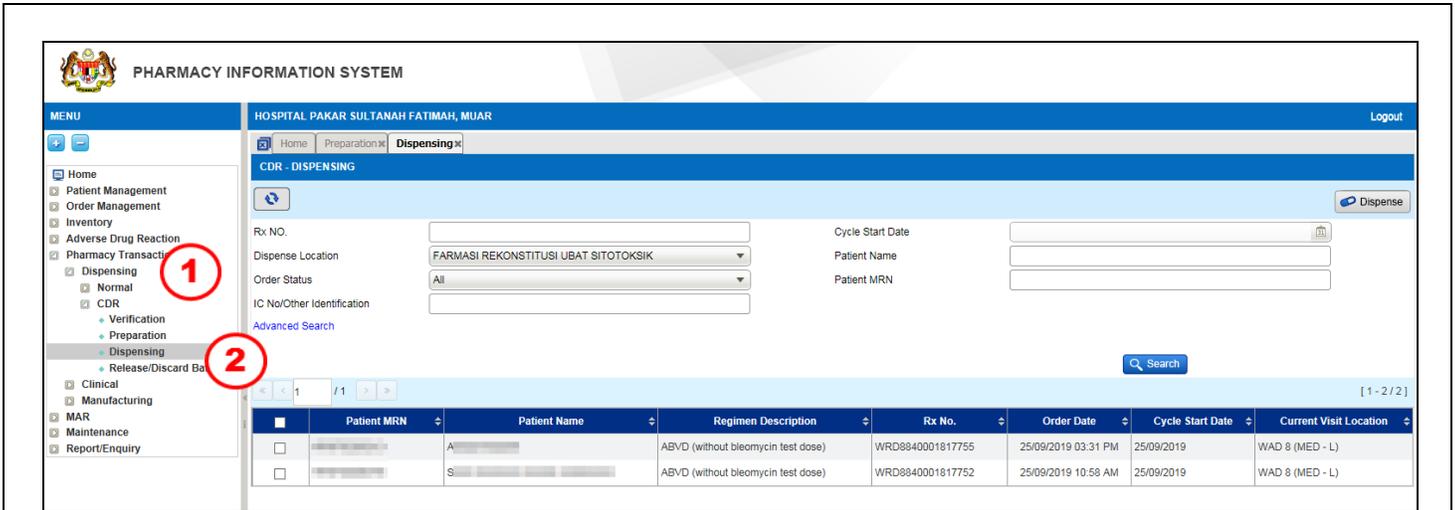


Figure 7.0-1 CDR Dispensing Listing Page

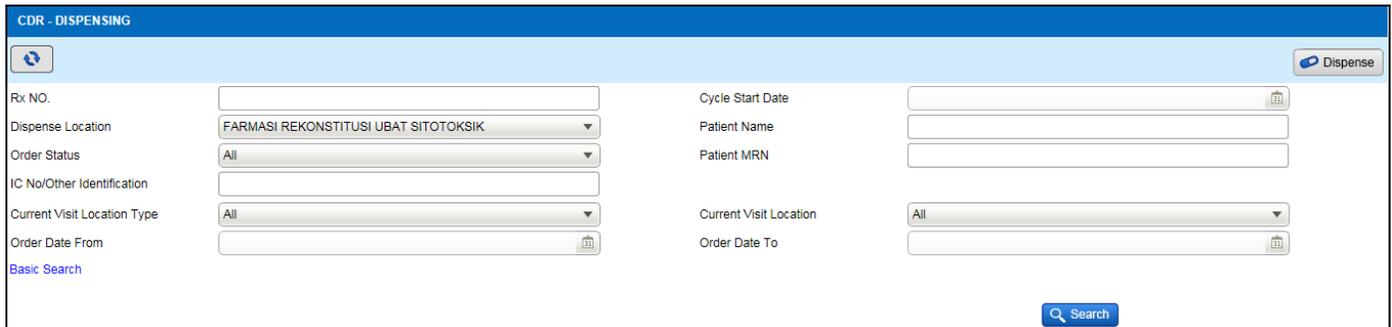


Figure 7.0-2 Advance Search

STEP 1

Click on 'Pharmacy Transaction' menu followed by 'Dispensing' sub menu and select 'CDR'

STEP 2

Click on 'Dispensing' function

Note

Search patient records by below criteria:-

Basic Search			
No	Field	Description	Remark
a	Rx NO	Prescription number	Able to filter and search patient name by prescription number
b	Dispense Location	Dispensing location. (It will list down all active location)	Able to filter and search patient name by dispensing location
c	Order Status	Search by: - All - Prepared - Prepared hold	Able to filter and search patient name by order status
d	Patient Name	Patient Name	Allow to search by full or partially

			entered patient name
e	Patient MRN	Patient Medical Record Number	Search option: <ul style="list-style-type: none"> Type the MRN either in full or partially: <i>Example: HPSF00001234 or "1234"</i>
f	Cycle start date	Cycle start date	Select from the date dropdown box
g	IC Number/Other Identification	Patients Identification number	Able to filter using patients identification number
Advance Search			
a	Current Visit Location Type	Search by: <ul style="list-style-type: none"> All Clinic Day Care ER Nursing Unit Pharmacy 	Able to filter and search patient name by order location type
b	Current Visit Location	Current visit Location	Able to filter and search patient name by visit location
c	Order Date From	Order confirmed date	Allow to search by start date of order created
d	Order Date To	Order confirmed date	Allow to search by selected duration of order created

Table 7.0-1

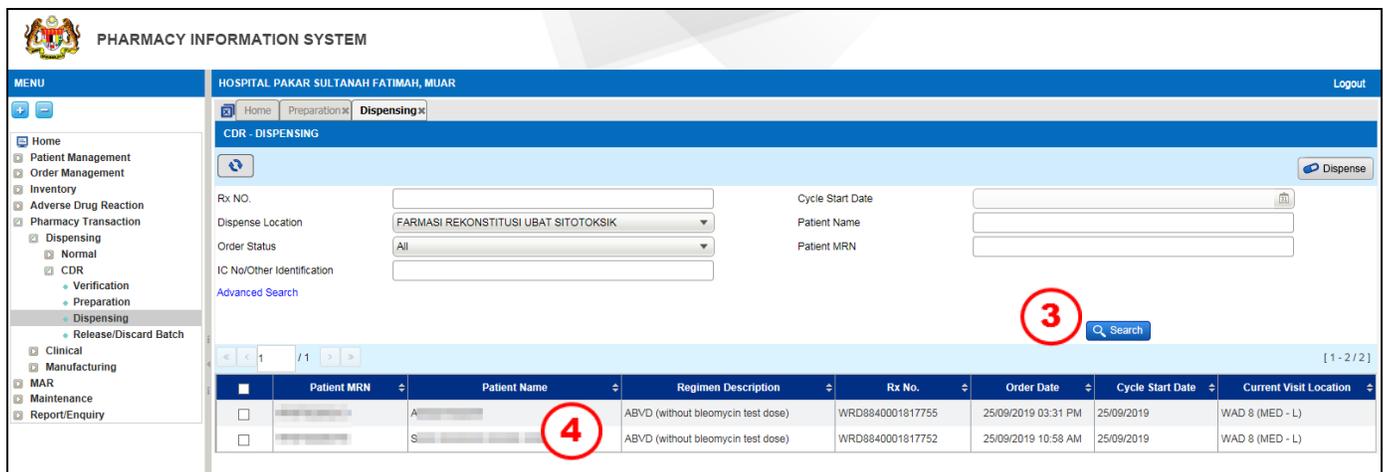


Figure 7.0-3 CDR Dispensing Listing Page

STEP 3

Click on Search button  to search for patient

Note

- Search result of patient record list will display:
 - Patient MRN
 - Patient Name
 - Regimen details
 - Rx No
 - Order Date
 - Cycle start date
 - Current Visit Location

- User have the option to dispense the medication by:
 - Dispense individual order
 - Dispense multiple patient order

Dispense Individual Order:

To dispense an individual order, perform the steps below:

STEP 4

Double click on the selected patient and CDR Dispensing screen will be displayed as shown in Figure 7.0-4

CDR DISPENSING

Mykad: [REDACTED] Age: 78 Years 11 Months 16 Days Gender: Male MRN: [REDACTED]
 Address: [REDACTED] Phone And Email: [REDACTED] Diagnosis: [REDACTED] Known Allergies: [REDACTED]
 Height: 160 cm Weight: 55 kg BMI/BSA: 21.5 / 1.56 m² (Last Updated: 25/09/2019) Nationality: Warganegara

Encounter No: 0003 Actual Admission Date: 25/09/2019 Attending Practitioner: [REDACTED] Current Visit Location: WAD 8 (MED - L) Rx No: WRD8840001817755 Order By: [REDACTED] Cycle Start Date: 25/09/2019

COLLECTION DETAILS

Dispensed To: [REDACTED] Dispensed Date and Time: 27/09/2019 12:21:59
 Dispensed At: Pharmacy Counter Collected By: [REDACTED] Remarks: [REDACTED] **5**

PRESCRIPTION

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose(s) supplied	Prepare Qty	Bal Qty	Prepare Admixture	Outsource	Prev Disp Qty	Remarks	Status	Completed
Bleomycin 15mg Injection	15.6 mg	5.2 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	4 vial	0 of 2 dose(s) supplied	2 vial	4 vial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	PREPARED (Authorised)	<input type="checkbox"/>
Sodium Chloride 0.9% 100mL IV soln		100 ml		2 bott		1 bott	2 bott	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 bott	Remarks	PREPARED (PA)	<input type="checkbox"/>
Dacarbazine 100mg/10ml Injection	585 mg	58.5 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	12 vial	0 of 2 dose(s) supplied	6 vial	12 vial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	PREPARED (Authorised)	<input type="checkbox"/>
Sodium Chloride 0.9% 500mL IV soln		241.5 ml		2 bott		1 bott	2 bott	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 bott	Remarks	PREPARED (Authorised)	<input type="checkbox"/>
Doxorubicin HCl 50mg/25ml Injection	39 mg	19.5 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	PREPARED (Authorised)	<input type="checkbox"/>
Vinblastine Sulphate 10mg Injection	9.36 mg	9.36 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	0 of 2 dose(s) supplied	1 vial	2 vial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0 vial	Remarks	PREPARED (Authorised)	<input type="checkbox"/>

Figure 7.0-4 CDR Dispensing

Note

User is allowed to click on the Completed checkbox in the Prescription section to complete the drug

STEP 5

Click on the button to dispense the medication and Confirmation Message window will be displayed as shown in Figure 7.0-5

CONFIRMATION

CONF0064: Do you want to dispense now?

Figure 7.0-5 Confirmation Message

Note

- Click on the button to confirm the dispensing.

- Click on the button to cancel the dispensing.

Dispense Multiple Patient Order:

To dispense a multiple patient order, perform the steps below:

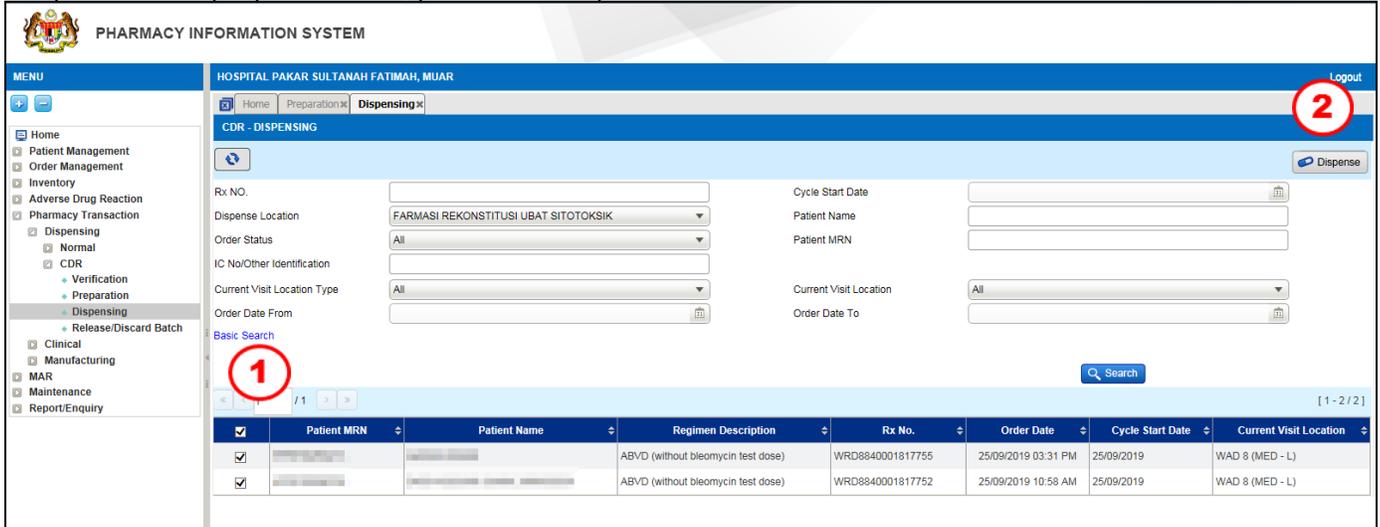


Figure 7.0-6 CDR Dispensing Listing Page

STEP 1

Click on the selected Patient MRN checkbox from the patient list

STEP 2

Click on the button to dispense the medication and Collection Details windows will displayed as Figure 7.0-7

Note

Allocated stocks are based on dispensing location instead of login location selected by user.

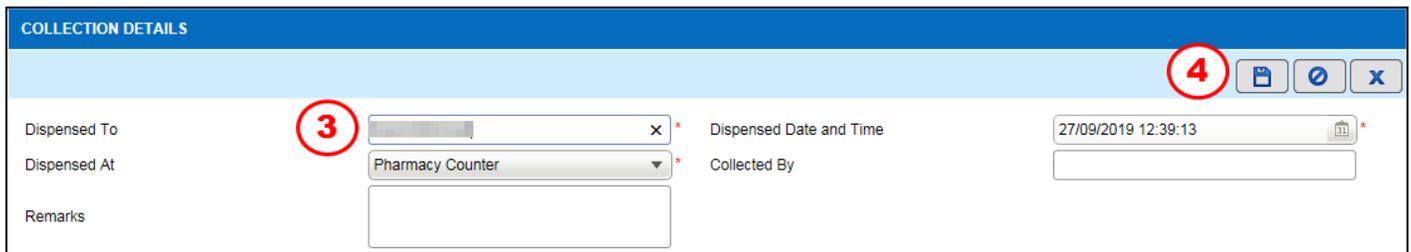


Figure 7.0-7 Collection Details

STEP 3

Enter **Dispersed To**

STEP 4

Click on the button to save the record and Confirmation Message screen will be displayed as Figure 7.0-8

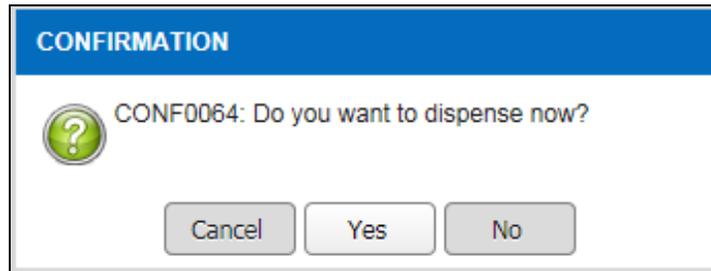


Figure 7.0-8 Confirmation Message

Note

- Click on the button to confirm the dispensing.
- Click on the button to cancel the dispensing.

8.0 Release/Discard Batch

Figure 8.0-1 Release/Discard Batch Listing Page

STEP 1

Click on 'Pharmacy Transaction' menu followed by 'Dispensing' sub menu and select 'CDR'

STEP 2

Click on 'Release/Discard Batch' function

Note

Search patient records by below criteria:-

No	Field	Description	Remark
A	MRN	Patient Medical Record Number	Search option: <ul style="list-style-type: none"> Type the MRN either in full or partially: <i>Example: HPSF00001234 or "1234"</i>
B	Patient Name	Patient Name	Allow to search by full or partial patient name
C	Drug Name	Drug Name	Allow to search by full or partial drug name
D	Dispense Location	Dispensing location. (It will list down all active locations)	Able to filter and search patient name by dispensing location
E	IC Number/Other Identification	Patients Identification number	Able to filter using patients identification number

Table 8.0-1

STEP 3

Click on the Search button to search for patient

Note

- Search results of patient record list will display:
 - MRN
 - Patient Name
 - Drug Name
 - Medication Order No
 - Preparation Date
 - IC number
 - Prepared Qty
 - Status
 - Reason for Release/Discard
 - Remarks
- Click on the **Medication Order No** hyperlink to view Order Details for the selected patient.

ORDER DETAILS

Mykad: [REDACTED] Age: 21 Years 05 Months 27 Days Gender: Male MRN: [REDACTED]

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

Height: 49.9 cm Weight: 168 kg BMI/BSA: 674.7 / 1.53 m² (Last Updated: 28/02/2019) Nationality: Warganegara

Rx No: RT4AB0000734239 Order Type: CDR Order By: Dr MO Radioterapi & Onkologi

Order Date: 28/02/2019 03:36 PM Order Location: Wad Onkologi 4AB

Category: Oncology -- Regimen Code: CDROND0172 Regimen Description: FOLFOX - Bevacizumab

Cycle Duration: 14 Cycle No: 4 Cycle Start Date: 28/02/2019 Cycle End Date: 13/03/2019

Active Ingredient	Default Drug Name	Admin Route	Dosage	Total Dose	Infuse Over	Frequency	Chemo day	Diluent	Diluent Volume	Total Volume	Infusion Rate	Drug Remark
Calcium Folate (Leucovorin calcium)	Leucovorin Calcium 50mg/5ml Injection (Folic acid)	Intravenous Bolus	200 mg/m ²	305 mg	2 Hours 0 Minutes	OD (once daily)	Day: 1			30.5 ml	125 ml/Hour	

Figure 8.0-2 Order Details

- Click on the **MRN** hyperlink to view Medication Profile for the selected patient.

MEDICATION PROFILE

WXXX XXX XXX Mykad: [REDACTED] Age: 21 Years 05 Months 27 Days Gender: Male MRN: [REDACTED]

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

Height: 49.9 cm Weight: 168 kg BMI/BSA: 674.7 / 1.53 m² (Last Updated: 28/02/2019) Nationality: Warganegara

Drug Name: [REDACTED] Visit Type: [REDACTED]

Prescription Date From: [REDACTED] Prescription Date To: [REDACTED]

Prescription Status: All Location: All

Prescription Number: [REDACTED] Original Prescription Serial No: [REDACTED]

NORMAL MEDICATION

Current Medication

Rx No.	Original Prescription Serial Number	Discharge Medication	Drug Name	Dose	Route	Frequency	Duration	Start Date	End Date	Status	Order
RT4AB0000734416	fr1248609	Yes	Ranitidine 150 mg Tablet	150 mg	Oral	BD (twice daily)	3 Days	28/02/2019 04:12:49 PM	03/03/2019 04:12:49 PM	FULLY DISPENSED	[REDACTED]
RT4AB0000734416	fr1248609	Yes	Metoclopramide HCl 10 mg Tablet	10 mg	Oral	TDS PRN	3 Days	28/02/2019 04:12:49 PM	03/03/2019 04:12:49 PM	FULLY DISPENSED	[REDACTED]
RT4AB0000734416	fr1248609	Yes	Dexamethasone 4mg tablet	4 mg	Oral	BD (twice daily)	3 Days	28/02/2019 04:12:49 PM	03/03/2019 04:12:49 PM	FULLY DISPENSED	[REDACTED]

Figure 8.0-3 Medication Profile

- Click on the Search History button to view release/discard history.

PHARMACY INFORMATION SYSTEM

HOSPITAL SERI MANJUNG

RELEASE/DISCARD BATCH

MRN: Patient Name:
 Drug Name: Dispense Location: Pharmacy Oncology Service
 Preparation Date From: Preparation Date To:
 IC No/Other Identification:

History Record(s) [1 - 10 / 45]

MRN	Patient Name	IC No/Other Identification	Medication Order No	Drug Name	Release/Discard Qty	Preparation Date	Status	Reason for Release/Discard	Remarks
XXXX XX XXXX			W60000392914	Leucovorin Calcium 50mg/5ml Injection (Folic acid)	12 vial	11/07/2017		Wrong Allocation	
				Sodium Chloride 0.9% 500mL IV soln	2 bott				
XXXXXXXX XXX XXXXXXXX			W30000648412	Etoposide 100mg/5ml Injection	6 vial	18/07/2018		Intervention	weight change
				Sodium Chloride 0.9% 500mL IV soln	3 bott				
XXXXXXXX XXX XXXXXXXX			W30000648412	Cisplatin 50mg/50ml Injection	3 vial	18/07/2018		Intervention	weight change
				Sodium Chloride 0.9% 500mL IV soln	2 bott				
XXXXXXXX XXXX XXX XXXXX			W90000694449	Cyclophosphamide 1g/50ml Injection	1 vial	22/09/2018		Intervention	

Figure 8.0-4 Release/Discard Batch History

PHARMACY INFORMATION SYSTEM

HOSPITAL KUALA LUMPUR

RELEASE/DISCARD BATCH

MRN: Patient Name:
 Drug Name: Dispense Location: Farmasi Bekalan Wad Radioterapi & Onkologi
 Preparation Date From: Preparation Date To:
 IC No/Other Identification:

New Record(s) [1 - 10 / 19]

Select	MRN	Patient Name	IC No/Other Identification	Medication Order No	Drug Name	Release/Discard Qty	Preparation Date	Status	Reason for Release/Discard	Remarks
<input checked="" type="checkbox"/>	HKL224039	WXXX XXX XXX	980424146961	RT4AB0000734239	Leucovorin Calcium 50mg/5ml Injection (Folic acid)	7 vial	28/02/2019	PREPARED		
<input type="checkbox"/>				RT3AB0000732144	Fluorouracil 1g/20ml Injection	2 vial	27/02/2019	PREPARED		
<input type="checkbox"/>				RT2CD0000732236	Etoposide 100mg/5ml Injection	8 vial	27/02/2019	PREPARED		
<input type="checkbox"/>					Sodium Chloride 0.9% 500mL IV soln	4 bott				
<input type="checkbox"/>				RT3CD0000732245	Trastuzumab 440mg Injection	2 vial	27/02/2019	PREPARED		
<input type="checkbox"/>					Sodium Chloride 0.9% 250mL IV soln	1 bott				
<input type="checkbox"/>					Fluorouracil 1g/20ml Injection	4 vial	28/02/2019	PREPARED		

Figure 8.0-5 Release/Discard Batch Listing Page

STEP 4

Click on the selected drug checkbox

STEP 5

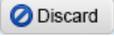
Select **Reason for Discard** from dropdown box



- Change of Regimen
- Faulty Product
- Intervention
- Patient Refused
- Uncollected
- Wrong Allocation

STEP 6

Click on the  Release button to proceed release

Click on the  Discard button to proceed discard

Note

When user click on the release function, the stock allocated for the regimen will be release back to inventory and if user click on discard function, system will discard the stock allocated for the regimen from inventory.



9.0 Acronyms

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

10.0 Links to Clinical Modules

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