



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

Full Based User Manual Cytotoxic Drug Reconstitution (CDR) Dispensing

Version	: 8th Edition
Document ID	: FB_U. MANUAL_CDR_DISPENSING



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



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Application reference: PhIS & CPS v1.8.1



Table of Contents

1.0	Introduction	1
1.1	Overview of PhIS.....	1
1.2	Purpose and Objectives	1
1.3	Organised Sections.....	1
2.0	Application Standard Features	2
2.1	PhIS Legend.....	2
2.2	Latest Enhancement and Updates	4
3.0	Cytotoxic Drug Reconstitution (CDR) Dispensing.....	5
	Overview	5
	User Group.....	5
	Functional Diagram.....	5
	Functional Description	6
3.1	Cytotoxic Drug Reconstitution (CDR) Verification	7
3.1.1	Verify CDR Order.....	7
3.1.2	Intervention CDR Order	12
3.1.3	Hold/Resume CDR Order.....	16
3.2	CDR Preparation	20
3.3	CDR Dispensing.....	33
3.4	Release/Discard Batch	38
4.0	Acronyms.....	41
5.0	Links to Clinical Modules.....	41

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 (CDR) Dispensing 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 (CDR) Verification Visit Management
- Verify CDR Order
- Intervention CDR Order
- Hold/Resume CDR Order

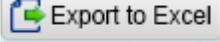
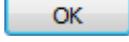
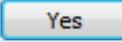
1.3 Organised Sections

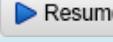
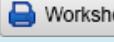
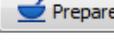
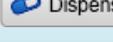
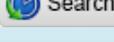
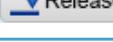
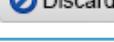
These are the sections within this document:

- Section 1 : Introduction
- Section 2 : Application Standard Features
- Section 3 : Cytotoxic Drug Reconstitution (CDR) Dispensing
- Section 4 : Acronyms
- Section 5 : Link 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		

Module Legend			
 Update	Update Record	 Verify	Verify Prescription
 History	View History	 Hold	Hold Order
 Resume	Resume Order	 Worksheet	Print Worksheet
 Label	Print Label	 Prepare	Prepare Drug
 Dispense	Dispense Drug	 Search History	View History
 Release	Release Batch	 Discard	Discard Batch

Note

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



2.2 Latest Enhancement and Updates

Latest Functions	Page
Label updated	27
Preparation by CSTD	25
Updated new landing screen	7, 20,30
Verification- able to print label	

3.0 Cytotoxic Drug Reconstitution (CDR) Dispensing

Overview

The Cytotoxic Drug Reconstitution (CDR) Dispensing module aims to implement safe, organised, and efficient drug-dispensing systems essential for controlling costs and assuring that the medical prescription is safely followed as requested within the relevant deadline. An appropriate dispensing system is important for the prevention or reduction of medication errors by helping to minimize dispensing error opportunities in a pharmacy. At present there are various types of dispensing systems for medical prescriptions within a hospital.

User Group

This module is intended for Specialist, Doctor, Medical Officer, Medical Assistant and Authorised Pharmacist (subject to user assign by the facility)

Functional Diagram

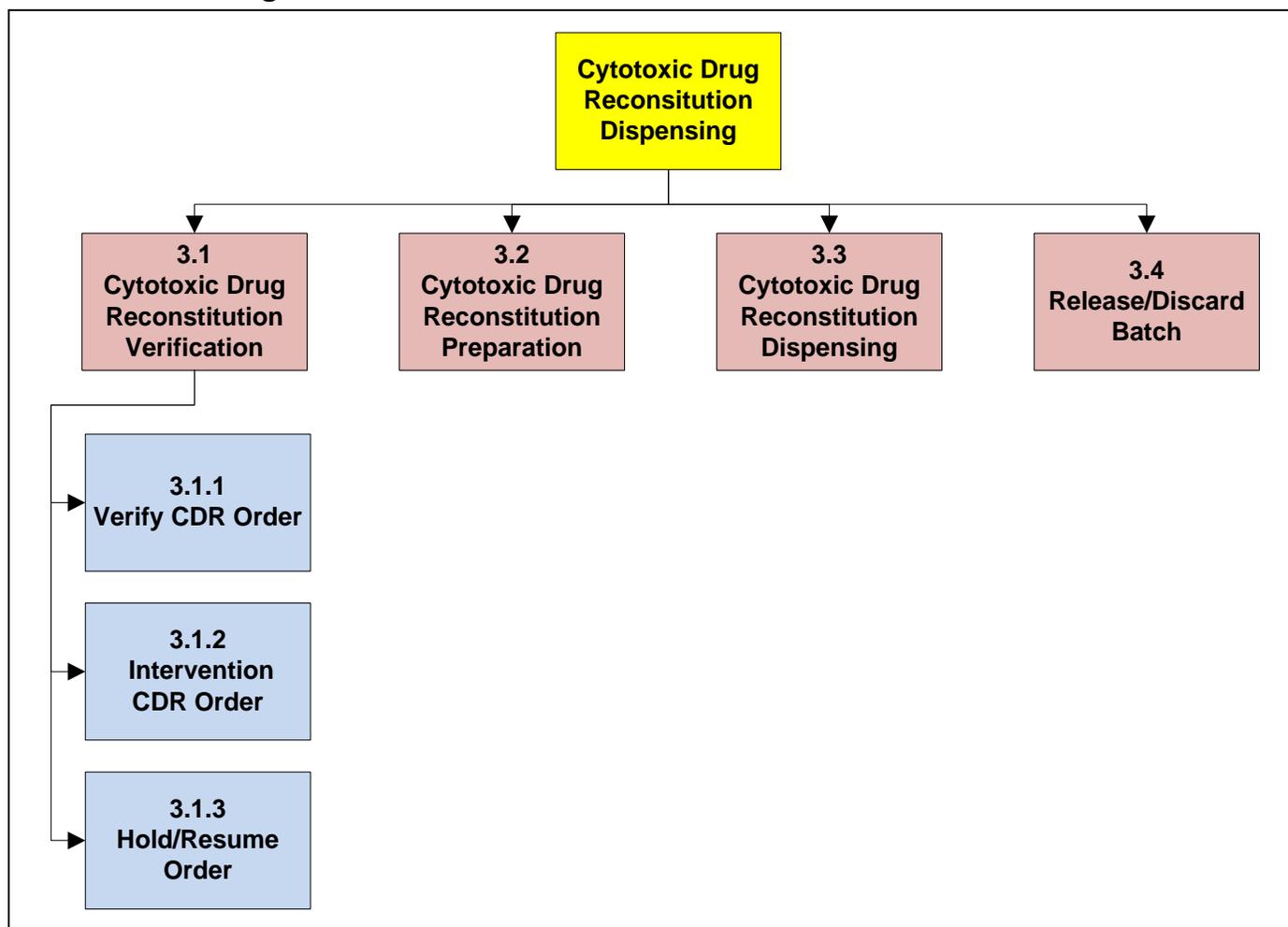


Table 3.0-1



Functional Description

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

- **Verification**

Verification is for pharmacist to verify the prescriptions received from order management. This process is mandatory for all prescriptions receive before the user can proceed with dispensing preparation.

- **Preparation**

The prescription and the drug preparation are made in the system that is integrated with the inventory system. Users access system data directly with no need to send files or manual drug labeling.

- **Dispensing**

The prescription and the dispensing report are made in the system that is integrated with the inventory system.

- **Release/Discard Batch**

The Release function: allows user to return the allocated quantity of the CDR preparation back into the drug inventory list.

The Discard function: allows user to dispose the CDR product that has been prepared.

3.1 Cytotoxic Drug Reconstitution (CDR) Verification

Verification is for pharmacist to verify the prescriptions received from order management. At this stage, user has the option to do intervention and to hold/resume order.

3.1.1 Verify CDR Order

Figure 3.1.1-1 CDR Verification Listing Page

Figure 3.1.1-2 Advance Search

STEP 1

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

STEP 2

Click on the 'Verification' 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:	Able to filter and search patient name by

		<ul style="list-style-type: none"> - All - Discharge Medications - New Orders - Outsourced Orders 	order status
d	Patient Name	Patient Name	Allow to search by fully 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
h	Type of Order	Type of Order	To select from dropdown box option: <ul style="list-style-type: none"> • Approved • Future
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 3.1.1-1

STEP 3

Click on Search button  to search for patient

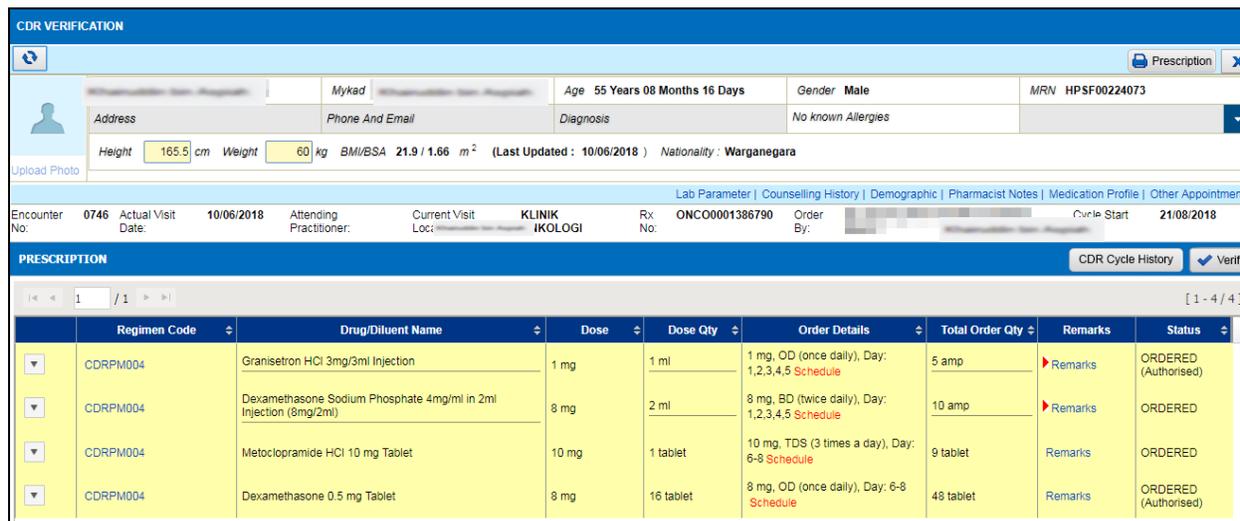
Note

Search result of patient record list will display:

- Patient MRN
- Patient Name
- Rx No
- Order Date
- Current Visit Location

STEP 4

Double click on the selected patient and the CDR Verification screen will be displayed as shown in Figure 3.1.1-3



CDR VERIFICATION

Prescription X

Mykad: [Redacted] Age: 55 Years 08 Months 16 Days Gender: Male MRN: HPSF00224073

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

Height: 165.5 cm Weight: 60 kg BMI/BSA: 21.9 / 1.66 m² (Last Updated: 10/06/2018) Nationality: Warganegara

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

Encounter No: 0746 Actual Visit Date: 10/06/2018 Attending Practitioner: [Redacted] Current Visit Loc: KLINIK IKOLOGI Rx No: ONCO0001386790 Order By: [Redacted] Cycle Start: 21/08/2018

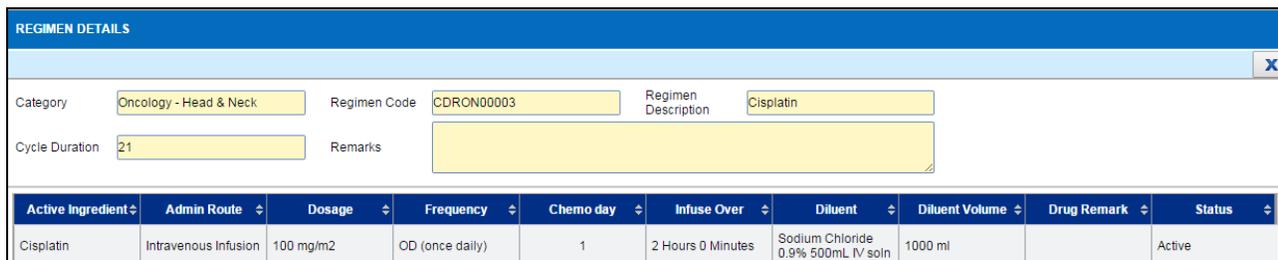
PRESCRIPTION CDR Cycle History Verify

Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
CDRPM004	Granisetron HCl 3mg/3ml Injection	1 mg	1 ml	1 mg, OD (once daily), Day: 1,2,3,4,5 Schedule	5 amp	Remarks	ORDERED (Authorised)
CDRPM004	Dexamethasone Sodium Phosphate 4mg/ml in 2ml Injection (8mg/2ml)	8 mg	2 ml	8 mg, BD (twice daily), Day: 1,2,3,4,5 Schedule	10 amp	Remarks	ORDERED
CDRPM004	Metoclopramide HCl 10 mg Tablet	10 mg	1 tablet	10 mg, TDS (3 times a day), Day: 6-8 Schedule	9 tablet	Remarks	ORDERED
CDRPM004	Dexamethasone 0.5 mg Tablet	8 mg	16 tablet	8 mg, OD (once daily), Day: 6-8 Schedule	48 tablet	Remarks	ORDERED (Authorised)

Figure 3.1.1-3 CDR Verification

Note

- User can print prescription in verification screen.
- Click on the **Regimen Code** hyperlink to view Regimen Details.



REGIMEN DETAILS

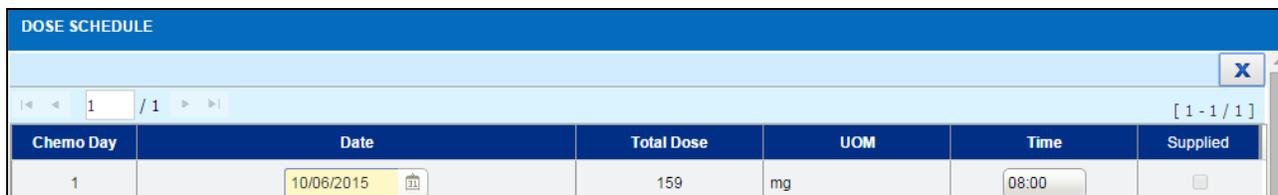
Category: Oncology - Head & Neck Regimen Code: CDRON00003 Regimen Description: Cisplatin

Cycle Duration: 21 Remarks: [Redacted]

Active Ingredient	Admin Route	Dosage	Frequency	Chemo day	Infuse Over	Diluent	Diluent Volume	Drug Remark	Status
Cisplatin	Intravenous Infusion	100 mg/m2	OD (once daily)	1	2 Hours 0 Minutes	Sodium Chloride 0.9% 500mL IV soln	1000 ml		Active

Figure 3.1.1-4 Regimen Details

- Click on the **Schedule** hyperlink to view Dose Schedule.



DOSE SCHEDULE

Chemo Day	Date	Total Dose	UOM	Time	Supplied
1	10/06/2015	159	mg	08:00	<input type="checkbox"/>

Figure 3.1.1-5 Dose Schedule

- Click on the **Remarks** hyperlink to enter Pharmacist Remark.

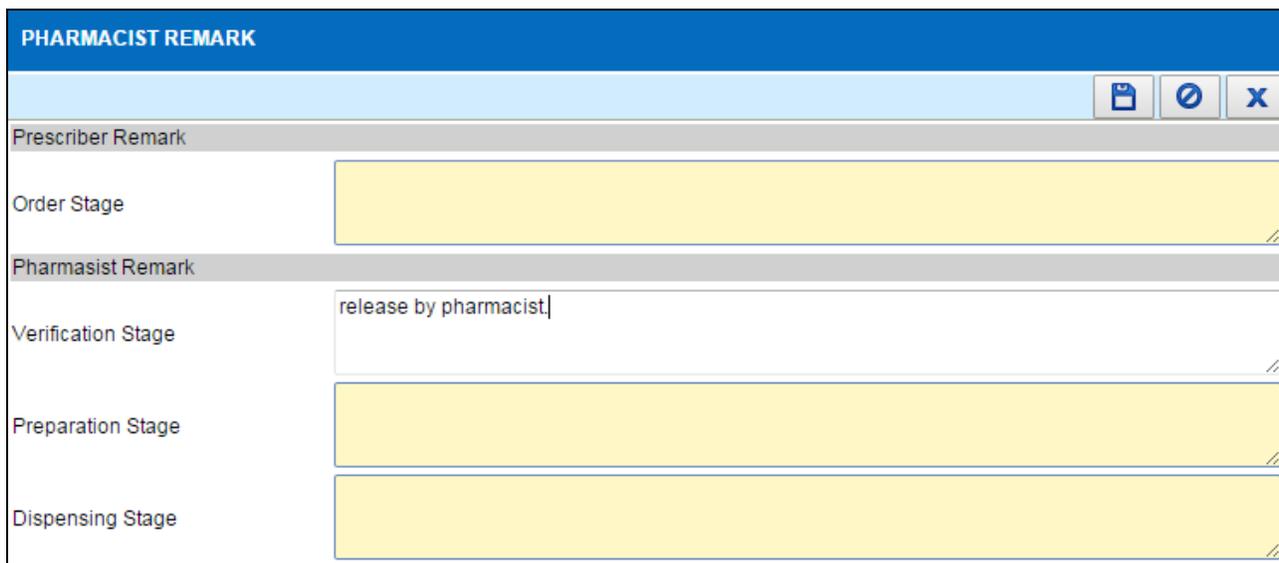


Figure 3.1.1-6 Pharmacist Remark

- Pharmacist Remark will be mandatory if the drug under the regimen code need to be authorized.
- Enter remark on the **Verification Stage** field and click on the  button to save the record.
- Click on the  button to view 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)
+	CDRON00001	Weekly Cisplatin	04/05/2016	10/05/2016	7 Days	6	6	174cm/66kg/1.79r		ORDERED	<input type="checkbox"/>	Available for Input	
+	CDRON00001	MTX	19/05/2016	25/05/2016	7 Days	6	6	174cm/66kg/1.79r		ORDERED	<input type="checkbox"/>	Available for Input	

Figure 3.1.1-7 CDR Cycle History

- Click on the  button to print CDR Cycle History Report.

REPORT

Export to Excel X

Ministry of Health, Malaysia
Hospital Full Based
Cytotoxic Drug Reconstitution : Cycle History

Patient Name : NUR AFIOAH Patient ID : 910413025074
 Age / Gender : 25 Y 4 M 11 / Female MRN : HPSF00097427

Regimen Code	Regimen Name	Drug Name	Dose	Freq	Route	Chemo day	Drug Remarks	Drug status	Cycle Date	Total Cycle	Cycle No	Remarks	Height/Weight /BSA	Order By	Approved By
CDRON0008	Weekly Cisplatin	Cisplatin	71.6 mg	OD (once daily)	INF	1	40-50 mg/m2	ORDERED	04/05/2016 - 10/05/2016 (7 Days)	6	6		174cm/66kg/1.79m2	System Administrator	
CDRON0005	MTX	Methotrexate	71.6 mg	OD (once daily)	IVSB	1		ORDERED	19/05/2016 - 25/05/2016 (7 Days)	6	6		174cm/66kg/1.79m2	System Administrator	

Printed Date : 24/08/2016
 Printed By : Lye Pow Sim
 Source : PhIS

Figure 3.1.1-8 CDR Cycle History Report

CDR VERIFICATION

Prescription X

Mykad: [Redacted] Age: 55 Years 08 Months 16 Days Gender: Male MRN: HPSF00224073
 Address: [Redacted] Phone And Email: [Redacted] Diagnosis: [Redacted] No known Allergies

Height: 165.5 cm Weight: 60 kg BMI/BSA: 21.9 / 1.66 m² (Last Updated : 10/06/2018) Nationality: Warganegara

Encounter No: 0746 Actual Visit Date: 10/06/2018 Attending Practitioner: [Redacted] Current Visit Local: KLINIK (KOLOGI) Rx No: ONCO0001386790 Order By: [Redacted] Cycle Start Date: 21/08/2018

PRESCRIPTION CDR Cycle History Verify

Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
CDRPM004	Granisetron HCl 3mg/3ml Injection	1 mg	1 ml	1 mg, OD (once daily), Day: 1,2,3,4,5 Schedule	5 amp	Remarks	ORDERED (Authorised)
CDRPM004	Dexamethasone Sodium Phosphate 4mg/ml in 2ml Injection (8mg/2ml)	8 mg	2 ml	8 mg, BD (twice daily), Day: 1,2,3,4,5 Schedule	10 amp	Remarks	ORDERED
CDRPM004	Metoclopramide HCl 10 mg Tablet	10 mg	1 tablet	10 mg, TDS (3 times a day), Day: 6-8 Schedule	9 tablet	Remarks	ORDERED
CDRPM004	Dexamethasone 0.5 mg Tablet	8 mg	16 tablet	8 mg, OD (once daily), Day: 6-8 Schedule	48 tablet	Remarks	ORDERED (Authorised)

Figure 3.1.1-9 CDR Verification

STEP 5

Click on the button to verify the order and alert message will be display as shown in 3.1.1-10

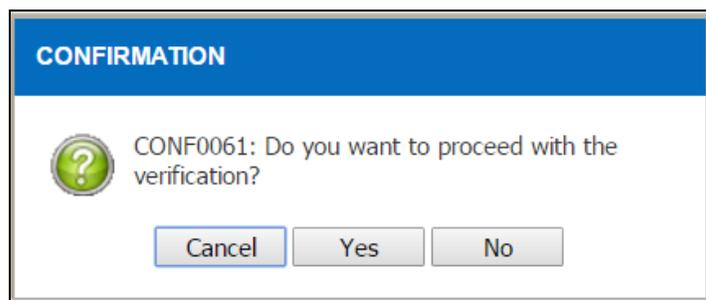
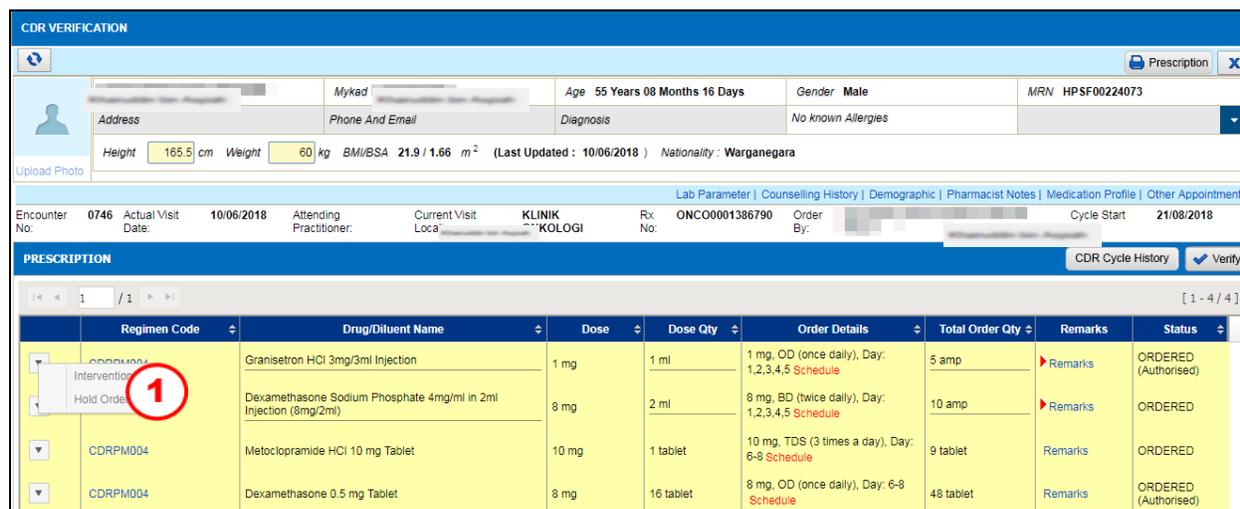


Figure 3.1.1-10 Alert Message

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.

3.1.2 Intervention CDR Order



CDR VERIFICATION

Prescription X

Mykad: [Redacted] Age: 55 Years 08 Months 16 Days Gender: Male MRN: HPSF00224073

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

Height: 165.5 cm Weight: 60 kg BMI/BSA: 21.9 / 1.66 m² (Last Updated: 10/06/2018) Nationality: Warganegara

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

Encounter No: 0746 Actual Visit Date: 10/06/2018 Attending Practitioner: [Redacted] Current Visit Loca: KLINIK KOLOGI Rx No: ONCO0001386790 Order By: [Redacted] Cycle Start: 21/08/2018

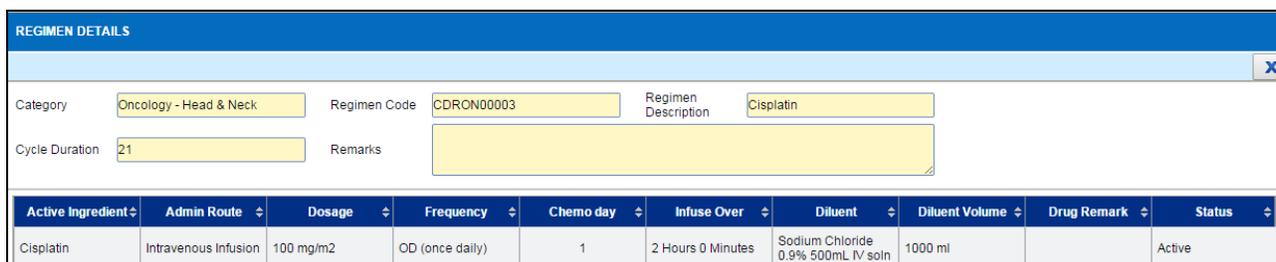
PRESCRIPTION CDR Cycle History Verify

Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
CDRPM004	Granisetron HCl 3mg/3ml Injection	1 mg	1 ml	1 mg, OD (once daily), Day: 1,2,3,4,5 Schedule	5 amp	Remarks	ORDERED (Authorised)
CDRPM004	Dexamethasone Sodium Phosphate 4mg/ml in 2ml Injection (8mg/2ml)	8 mg	2 ml	8 mg, BD (twice daily), Day: 1,2,3,4,5 Schedule	10 amp	Remarks	ORDERED
CDRPM004	Metoclopramide HCl 10 mg Tablet	10 mg	1 tablet	10 mg, TDS (3 times a day), Day: 6-8 Schedule	9 tablet	Remarks	ORDERED
CDRPM004	Dexamethasone 0.5 mg Tablet	8 mg	16 tablet	8 mg, OD (once daily), Day: 6-8 Schedule	48 tablet	Remarks	ORDERED (Authorised)

Figure 3.1.2-1 CDR Verification

Note

- To proceed with Intervention CDR Order, repeat **Step 1 to 4** from section [3.1.1 Verify CDR Order](#).



REGIMEN DETAILS

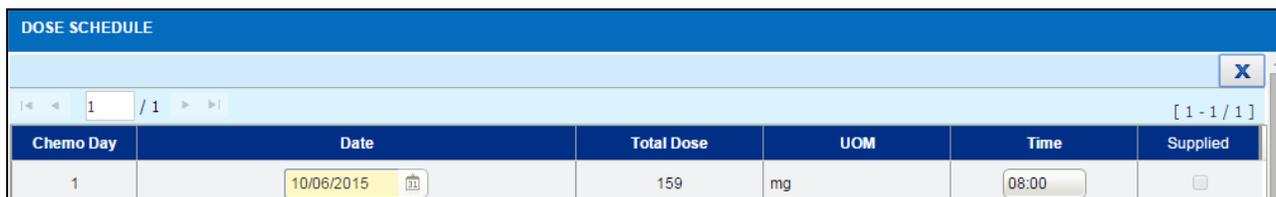
Category: Oncology - Head & Neck Regimen Code: CDRON00003 Regimen Description: Cisplatin

Cycle Duration: 21 Remarks: [Redacted]

Active Ingredient	Admin Route	Dosage	Frequency	Chemo day	Infuse Over	Diluent	Diluent Volume	Drug Remark	Status
Cisplatin	Intravenous Infusion	100 mg/m2	OD (once daily)	1	2 Hours 0 Minutes	Sodium Chloride 0.9% 500mL IV soln	1000 ml		Active

Figure 3.1.2-2 Regimen Details

- Click on the **Schedule** hyperlink to view Dose Schedule.



DOSE SCHEDULE

Chemo Day	Date	Total Dose	UOM	Time	Supplied
1	10/06/2015	159	mg	08:00	<input type="checkbox"/>

Figure 3.1.2-3 Dose Schedule

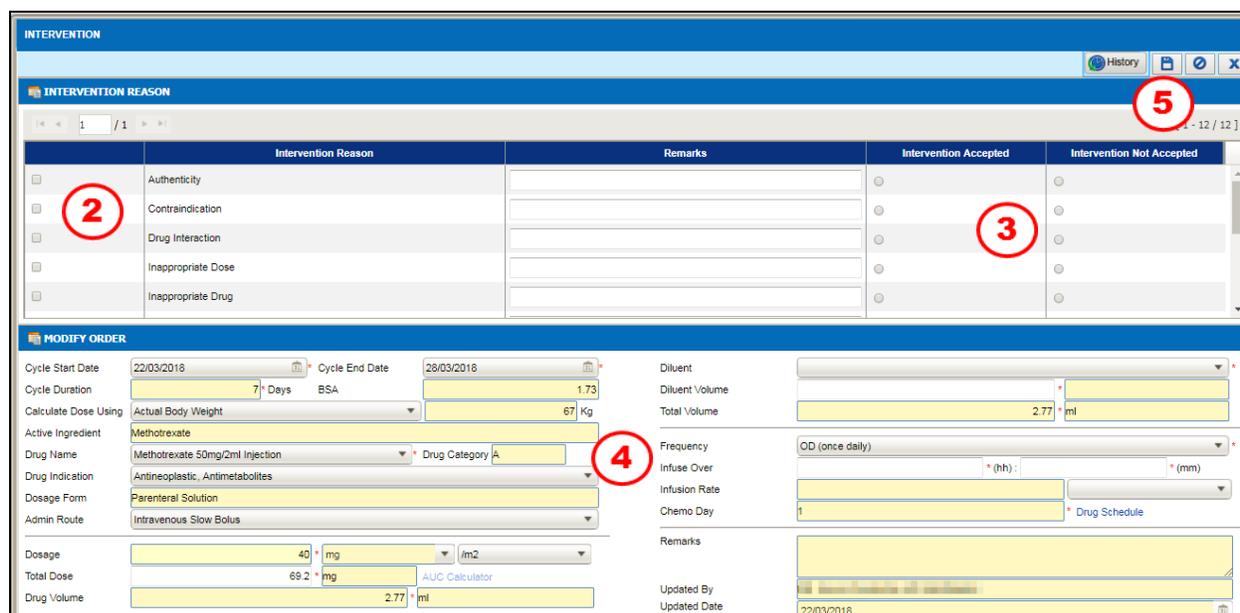


Figure 3.1.2-4 Intervention

STEP 1

Right click on the  button and select **Intervention** function and the Intervention screen will be displayed as shown in Figure 3.1.2-4

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

Note

Field that can be edited are as below:

- Cycle Start Date
- Cycle End Date
- Calculate Dose Using
- Drug Name
- Drug Indication
- Admin Route

- Diluent
- Diluent Volume
- Frequency
- Infuse Over

STEP 5

Click on the  button to save the record and alert message will be displayed as shown in Figure 3.1.2-5

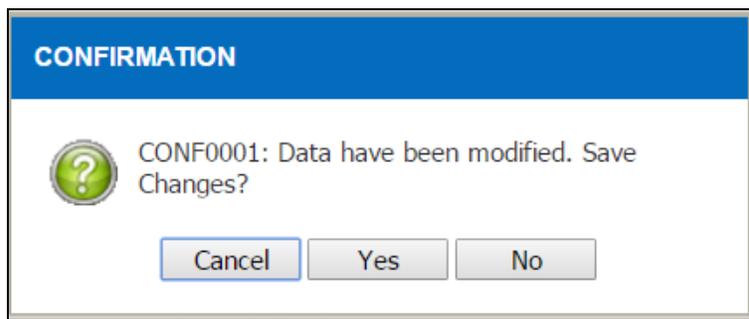
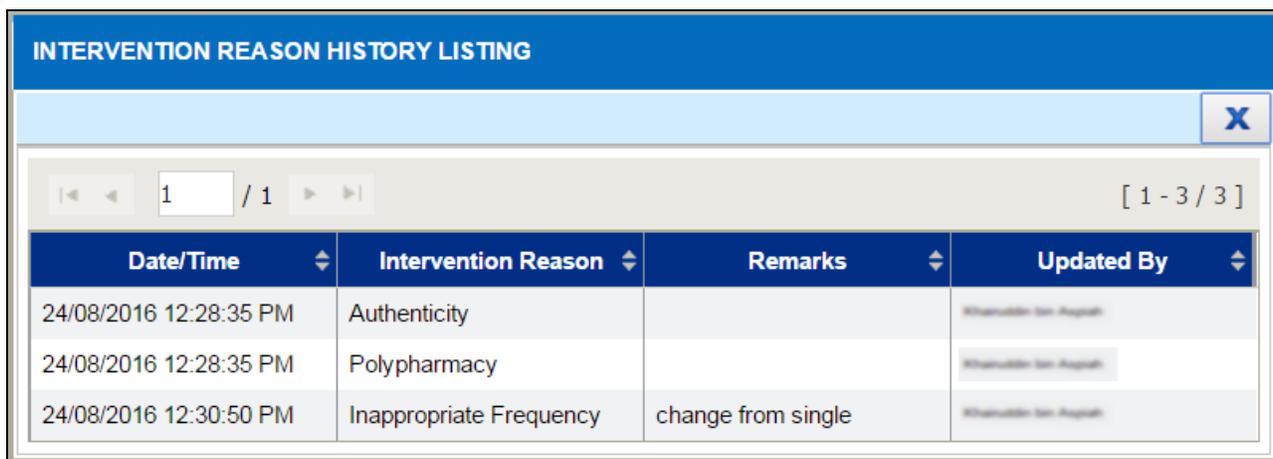


Figure 3.1.2-5 Alert Message

Note

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



Date/Time	Intervention Reason	Remarks	Updated By
24/08/2016 12:28:35 PM	Authenticity		Whanuddin bin Asyraf
24/08/2016 12:28:35 PM	Polypharmacy		Whanuddin bin Asyraf
24/08/2016 12:30:50 PM	Inappropriate Frequency	change from single	Whanuddin bin Asyraf

Figure 3.1.2-6 Pharmacist Remark

- After intervention is made, Order Details column will change to a hyperlink as shown in Figure 3.1.2-7, and user is allowed to click to view the original order details.
- Order details will be displayed as shown in Figure 3.1.2-8.

CDR VERIFICATION

Mykad: Mykad, Age: 38 Years 01 Months 01 Days, Gender: Female, MRN: HPSF00084282

Address: Address, Phone And Email: Phone And Email, Diagnosis: **Known Allergies**

Height: 158 cm, Weight: 58 kg, BMI/BSA: 22.4 / 1.59 m² (Last Updated: 10/06/2015)

Encounter No: 0009, Admission Date: 20/05/2015, Attending Practitioner: , Current Visit Location: WAD 11, Rx No: 110000142250, Order By: , Cycle Start Date: 10/06/2015

PRESCRIPTION

Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
CDRON00003	Cisplatin 50mg Inj Sodium Chloride 0.9% 500mL IV soln	159 mg	159 ml 900 ml	100 mg/m2, OD (once daily), Day: 1 Schedule	4 vial 2 bott	Remarks	ORDERED

Figure 3.1.2-7 Prescription After Intervention

ORIGINAL RX

Category: Oncology - Head & Neck, Regimen Code: CDRON00003, Regimen Description: Cisplatin

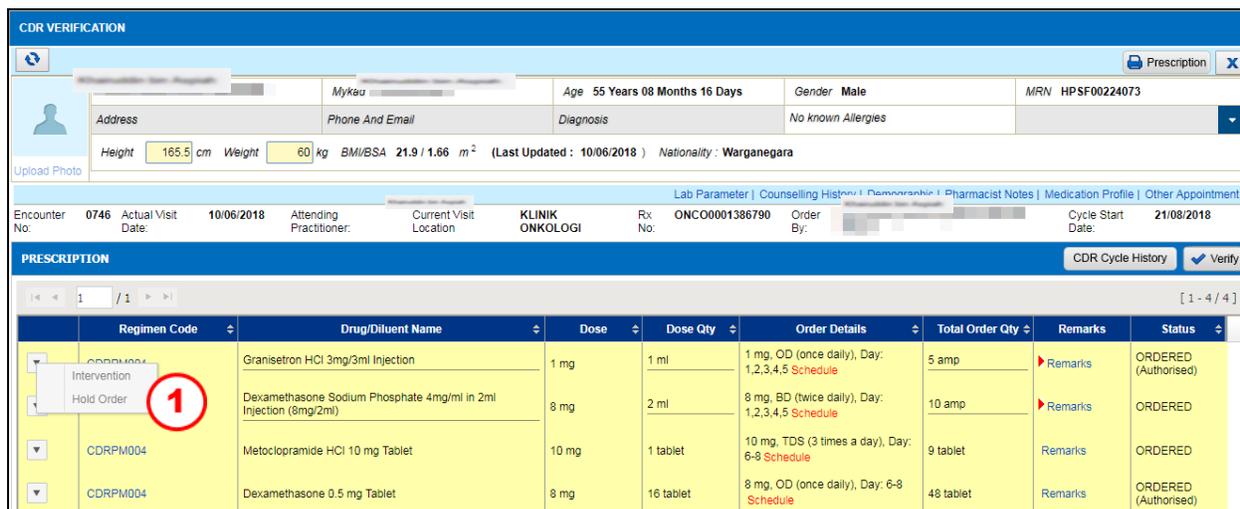
Cycle Duration: 21, Cycle No: 8, Cycle Start Date: 10/06/2015, Cycle End Date: 30/06/2015

Remarks:

Default Drug Name	Admin Route	Dosage	Total Dose	Infuse Over	Frequency	Chemo days	Diluent	Diluent Volume	Infusion Rate	Drug Remark	Intervention Reason	Intervention Remarks
Cisplatin 50mg Inj	Intravenous Infusion	100 mg/m2	159 mg	2 Hours 0 Minutes	OD (once daily)	Day: 1	Sodium Chloride 0.9% 500mL IV soln	1000 ml	250 ml/Hour		Others	wrong diluent volume

Figure 3.1.2-8 Original Rx

3.1.3 Hold/Resume CDR Order



CDR VERIFICATION

MyKau: [Redacted] Age: 55 Years 08 Months 16 Days Gender: Male MRN: HPSF00224073

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

Height: 165.5 cm Weight: 60 kg BMI/BSA: 21.9 / 1.66 m² (Last Updated: 10/06/2018) Nationality: Warganegara

Encounter No: 0746 Actual Visit Date: 10/06/2018 Attending Practitioner: [Redacted] Current Visit Location: KLINIK ONKOLOGI Rx No: ONCO0001386790 Order By: [Redacted] Cycle Start Date: 21/08/2018

PRESCRIPTION

Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
CDRPM004	Granisetron HCl 3mg/3ml Injection	1 mg	1 ml	1 mg, OD (once daily), Day: 1,2,3,4,5 Schedule	5 amp	Remarks	ORDERED (Authorised)
CDRPM004	Dexamethasone Sodium Phosphate 4mg/ml in 2ml Injection (8mg/2ml)	8 mg	2 ml	8 mg, BD (twice daily), Day: 1,2,3,4,5 Schedule	10 amp	Remarks	ORDERED
CDRPM004	Metoclopramide HCl 10 mg Tablet	10 mg	1 tablet	10 mg, TDS (3 times a day), Day: 6-8 Schedule	9 tablet	Remarks	ORDERED
CDRPM004	Dexamethasone 0.5 mg Tablet	8 mg	16 tablet	8 mg, OD (once daily), Day: 6-8 Schedule	48 tablet	Remarks	ORDERED (Authorised)

Figure 3.1.3-1 CDR Verification Screen

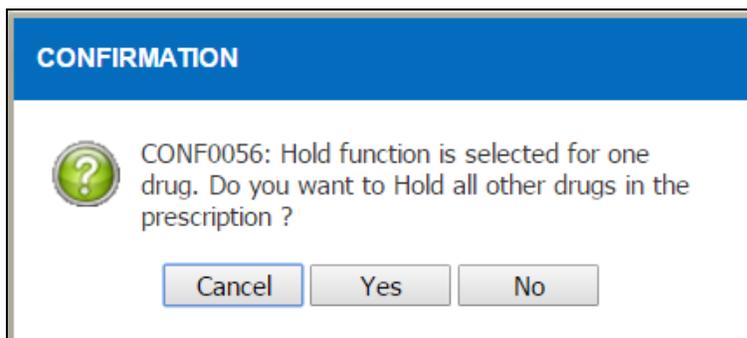
Note

To proceed with Hold/Resume CDR Order, repeat **Step 1 to 4** from section [3.1.1 Verify CDR Order](#).

Hold Order

STEP 1

Right click on the  button and select **Hold Order** function and an alert message will be displayed as shown in Figure 3.1.3-2



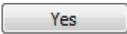
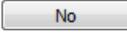
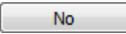
CONFIRMATION

CONF0056: Hold function is selected for one drug. Do you want to Hold all other drugs in the prescription ?

Cancel Yes No

Figure 3.1.3-2 Alert Message

Note

- 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 window will be displayed after  or  button is clicked as shown in Figure 3.1.3-3.

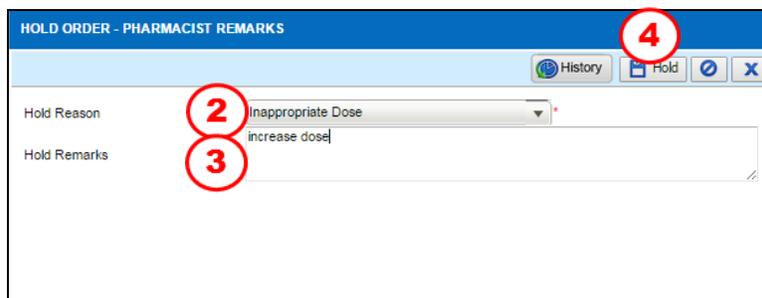


Figure 3.1.3-3 Hold Order – Pharmacist Remarks

STEP 2

Select **Hold Reason** from dropdown box:

- 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

Enter **Hold Remarks** (if required)

STEP 4

Click on the  button to hold the order and an alert message will be displayed as shown in Figure 3.1.3-4

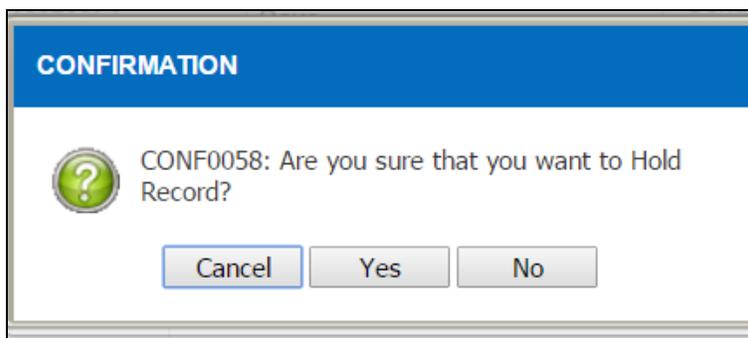
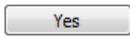
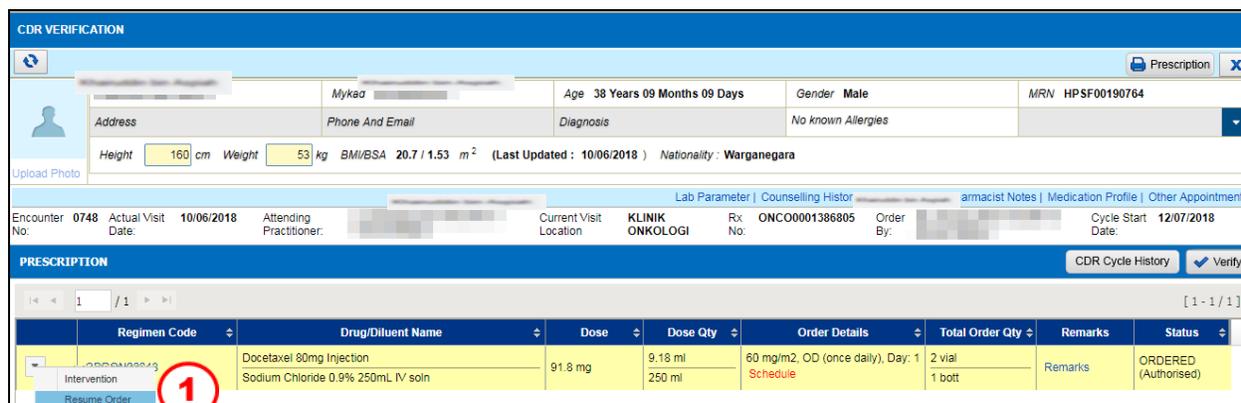


Figure 3.1.3-4 Alert Message

Note

- Click on the  button to confirm the hold record.
- **Status** will change to "Ordered Hold".



Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
	Docetaxel 80mg Injection	91.8 mg	9.18 ml	60 mg/m2, OD (once daily), Day: 1	2 vial	Remarks	ORDERED (Authorised)
	Sodium Chloride 0.9% 250mL IV soln		250 ml	Schedule	1 bott		

Figure 3.1.3-5 CDR Verification Screen

Resume Order

STEP 1

Right click on the  button and select **Resume Order** function and alert message will be displayed as shown in Figure 3.1.3-6

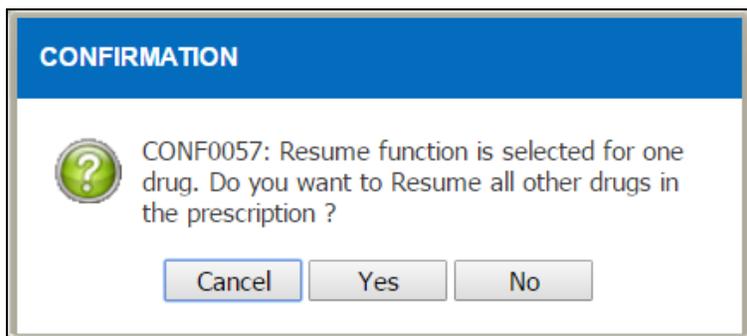
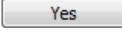
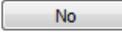
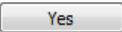
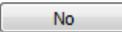


Figure 3.1.3-6 Alert Message

Note

- Click on the  button and system will resume all the drugs in the prescription.
- Click on the  button and system will only resume the selected drug.
- Hold Order – Pharmacist Remarks window will be displayed after  or  button is clicked as Figure 3.1.3-7.

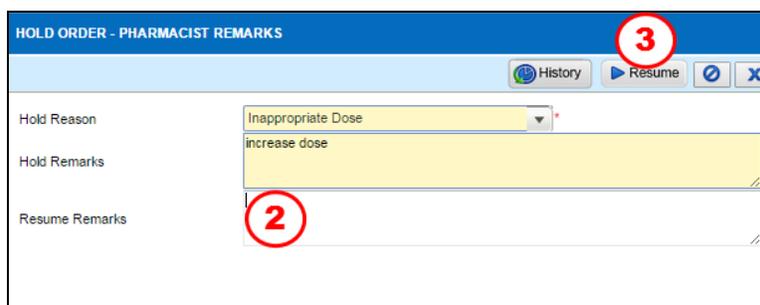


Figure 3.1.3-7 Resume Hold Order

STEP 2

Enter **Resume Remarks** (if required)

STEP 3

Click on the  button to resume the hold order and an alert message will be displayed as shown in Figure 3.1.3-8

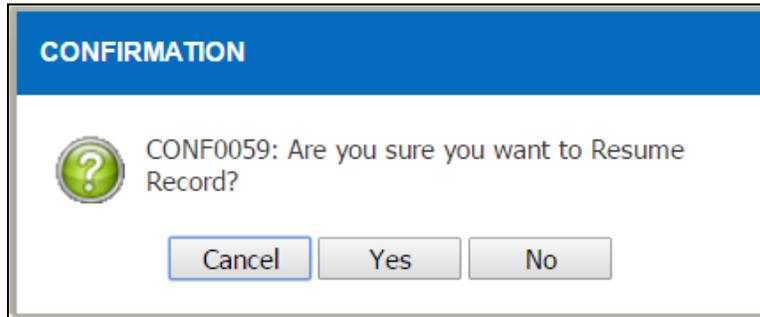
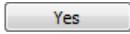
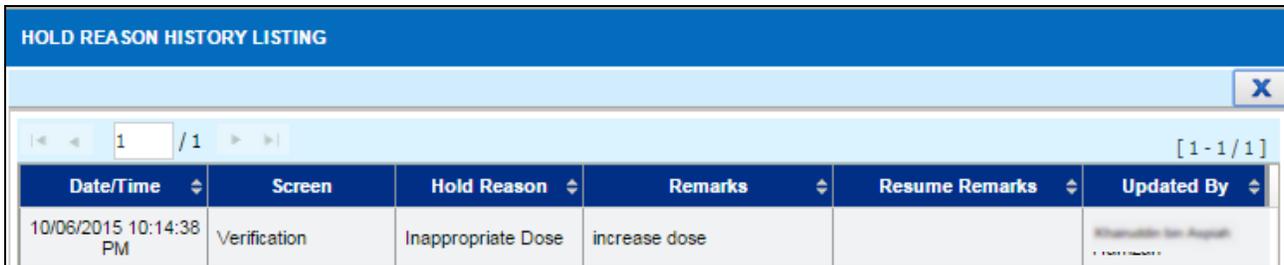


Figure 3.1.3-8 Alert Message

Note

- Click on the  button to confirm the Resume Record.
- **Status** will change to "Ordered".
- To view the Hold Reason History Listing as shown in Figure 3.1.3-9, user is allowed to click on the  button.

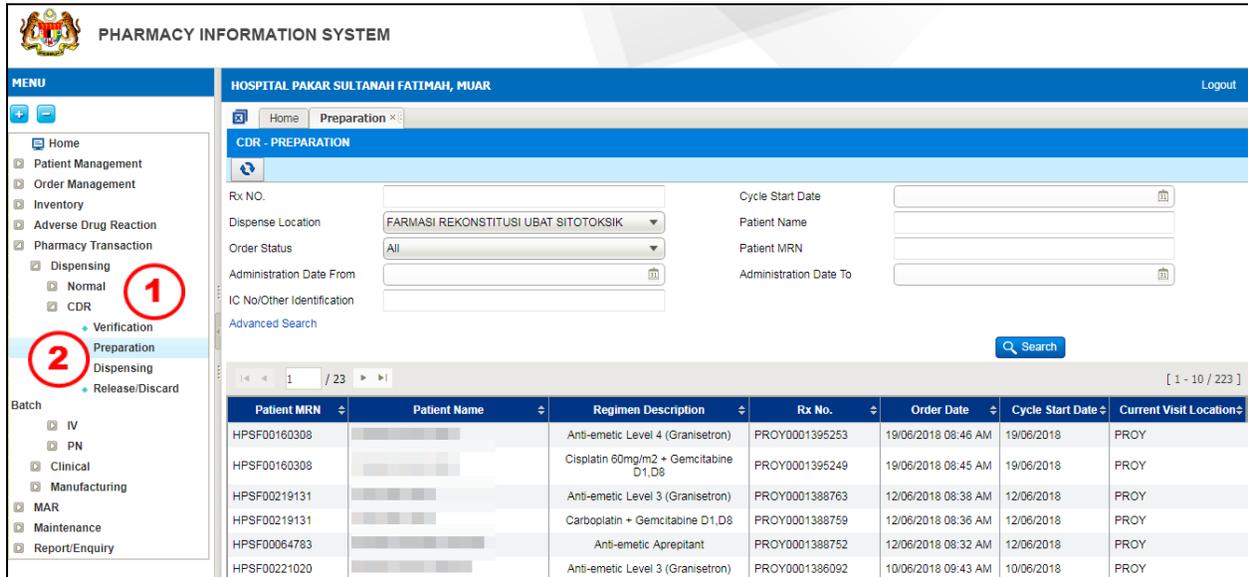


The image shows a table titled "HOLD REASON HISTORY LISTING" with a blue header and a close button (X) in the top right corner. Below the header is a pagination bar showing "1 / 1" and "[1 - 1 / 1]". The table has six columns: Date/Time, Screen, Hold Reason, Remarks, Resume Remarks, and Updated By. The first row contains the following data:

Date/Time	Screen	Hold Reason	Remarks	Resume Remarks	Updated By
10/06/2015 10:14:38 PM	Verification	Inappropriate Dose	increase dose		Waharudin bin Roslan

Figure 3.1.3-9 Alert Message

3.2 CDR Preparation



Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
HPSF00160308		Anti-emetic Level 4 (Granisetron)	PROY0001395253	19/06/2018 08:46 AM	19/06/2018	PROY
HPSF00160308		Cisplatin 60mg/m2 + Gemcitabine D1,D8	PROY0001395249	19/06/2018 08:45 AM	19/06/2018	PROY
HPSF00219131		Anti-emetic Level 3 (Granisetron)	PROY0001388763	12/06/2018 08:38 AM	12/06/2018	PROY
HPSF00219131		Carboplatin + Gemcitabine D1,D8	PROY0001388759	12/06/2018 08:36 AM	12/06/2018	PROY
HPSF000064783		Anti-emetic Aprepitant	PROY0001388752	12/06/2018 08:32 AM	12/06/2018	PROY
HPSF00221020		Anti-emetic Level 3 (Granisetron)	PROY0001386092	10/06/2018 09:43 AM	10/06/2018	PROY

Figure 3.2-1 CDR Preparation Listing Page

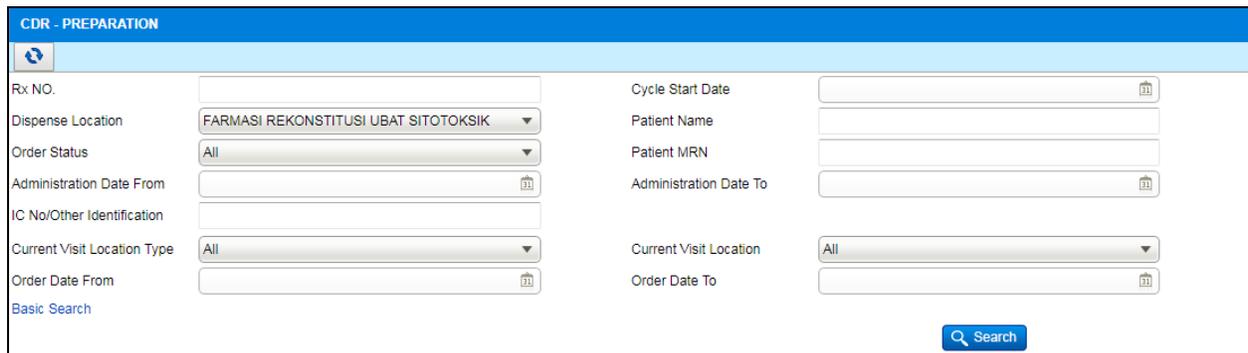


Figure 3.2-2 Advance Search

STEP 1

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

STEP 2

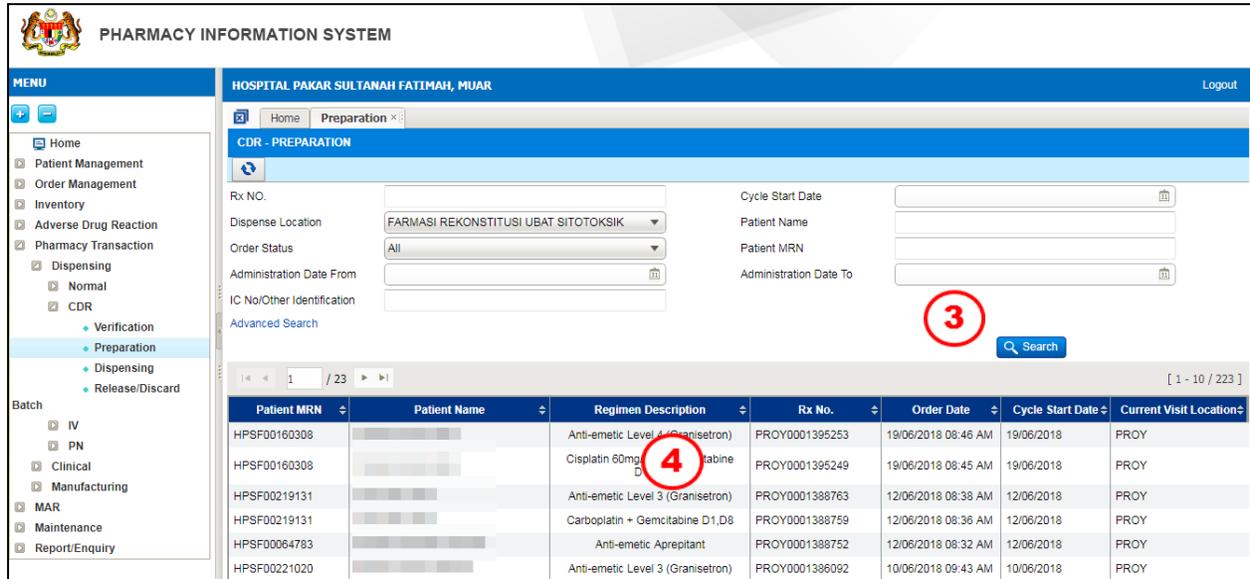
Click on 'Preparation' function

Note

Search patient record based :-

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 - Verified - Verified Hold - Partial Supply Orders	Able to filter and search patient name by order status
D	Patient Name	Patient Name	Allow to search by full name or partially entered patient name
E	Patient MRN	Patient Medical Record Number	Search option: • Type the MRN either in full or partially: <i>Example: HPSF00001234 or "1234"</i>
F	Administration Date From	Administration confirmed date	Allow to search by start date of verification order
G	Administration Date To	Administration confirmed date	Allow to search by selected duration of verification order
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	Current Visit Location Type	Search by: - All - Clinic - Day Care - ER - Nursing Unit - Pharmacy
B	Current Visit Location	Current visit Location	Able to filter and search patient name by visit location
C	Order Date From	Order confirmed date from	Allow to search by start date of order created
d	Order Date To	Order confirmed date to	Allow to search by selected duration of order created

Table 3.2-1



PHARMACY INFORMATION SYSTEM

HOSPITAL PAKAR SULTANAH FATIMAH, MUAR

Home Preparation

CDR - PREPARATION

Rx NO. Cycle Start Date

Dispense Location: FARMASI REKONSTITUSI UBAT SITOTOKSIK Patient Name

Order Status: All Patient MRN

Administration Date From Administration Date To

IC No/Other Identification

Advanced Search

Search

[1 - 10 / 223]

Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
HPSF00160308		Anti-emetic Level 1 (Granisetron)	PROY0001395253	19/06/2018 08:46 AM	19/06/2018	PROY
HPSF00160308		Cisplatin 60mg + Gemcitabine	PROY0001395249	19/06/2018 08:45 AM	19/06/2018	PROY
HPSF00219131		Anti-emetic Level 3 (Granisetron)	PROY0001388763	12/06/2018 08:38 AM	12/06/2018	PROY
HPSF00219131		Carboplatin + Gemcitabine D1,D8	PROY0001388759	12/06/2018 08:36 AM	12/06/2018	PROY
HPSF00064783		Anti-emetic Aprepitant	PROY0001388752	12/06/2018 08:32 AM	12/06/2018	PROY
HPSF00221020		Anti-emetic Level 3 (Granisetron)	PROY0001386092	10/06/2018 09:43 AM	10/06/2018	PROY

Figure 3.2-3 CDR Preparation Listing Page

STEP 3

Click on Search button  to search for patient

Note

Search results of patient record list will display:

- Patient MRN
- Patient Name
- Rx No
- Order Date/Time
- Current Visit Location

STEP 4

Double click on record and CDR Preparation screen will be displayed as shown in Figure 3.2-4

CDR PREPARATION

Mykad: [Redacted] Age: 57 Years 05 Months 19 Days Gender: Male MRN: HSM0000001

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

Height: 160 cm Weight: 67 kg BMI/BSA: 26.2 / 1.73 m² (Last Updated: 22/03/2018) Nationality: Warganegara

Encounter No: 0001 Admission Date: 22/03/2018 Attending Practitioner: [Redacted] Current Visit Location: WAD 3 Rx No: W3000566133 Order By: [Redacted] Cycle Start Date: 22/03/2018

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
Methotrexate 50mg/2ml Injection	69.2 mg	2.77 ml	40 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	0 vial	2 vial	Details	Details	0 vial	Remarks	VERIFIED

Figure 3.2-4 CDR Preparation

Note

Click on the **Schedule** hyperlink to view Dose Schedule screen.

DOSE SCHEDULE

Chemo Day	Date	Total Dose	UOM	Time	Supplied
1	22/03/2018	69.2 mg	mg	08:00	<input type="checkbox"/>

Figure 3.2-5 Dose Schedule

STEP 5

Click on the **Prepare Qty** hyperlink and the Item Batch Details window will be displayed for user to allocate quantity

ITEM BATCH DETAILS

Drug Code: L01BA01520P3001XX Default SKU: vial

Drug Name: Methotrexate 50mg/2ml Injection Dispense UOM: vial

Supply: Day 1 Date From: 22/03/2018 To: 22/03/2018

Chemo Day	Date	Total Dose	UOM	Time	Supplied
1	22/03/2018	69.2 mg	mg	08:00	<input checked="" type="checkbox"/>

Batch No.	Expiry Date	Available Qty	UOM Qty	Allocate Qty
886HR004	31/08/2018	16	2 vial	2

Total Location Quantity: 16 Total Allocated Quantity: 2

Figure 3.2-6 Item Batch Details

STEP 6

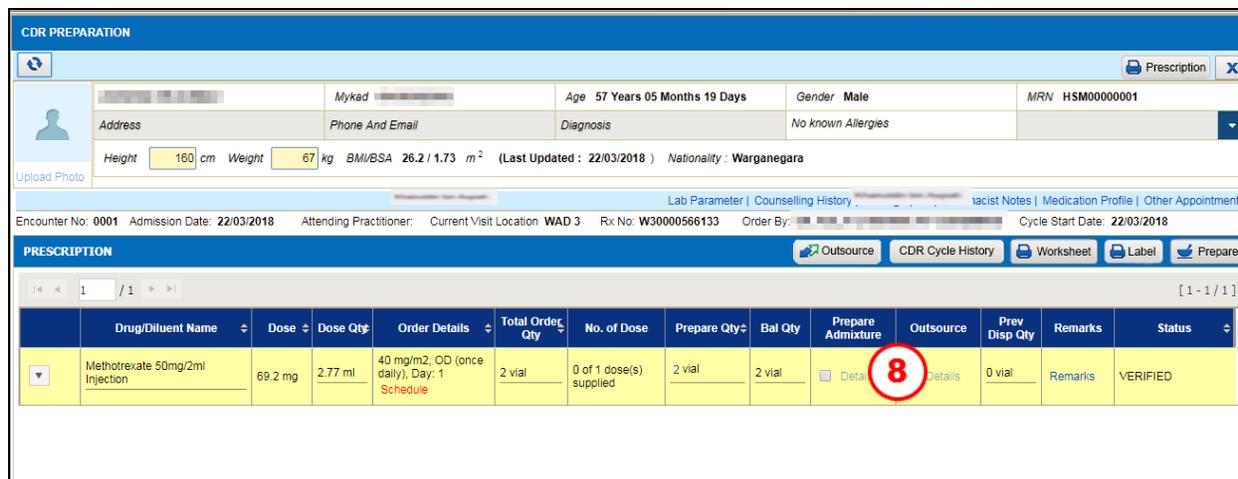
Click on the selected **Supplied** checkbox to select the dose to prepare

STEP 7

Click on the button to save the record

Note

After saving, the Item Batch Screen will be displayed.



CDR PREPARATION

Mykad: [REDACTED] Age: 57 Years 05 Months 19 Days Gender: Male M/RN: HSM00000001

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

Height: 160 cm Weight: 67 kg BMI/BSA: 26.2 / 1.73 m² (Last Updated: 22/03/2018) Nationality: Warganegara

Encounter No: 0001 Admission Date: 22/03/2018 Attending Practitioner: [REDACTED] Current Visit Location: WAD 3 Rx No: W30000566133 Order By: [REDACTED] Cycle Start Date: 22/03/2018

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
Methotrexate 50mg/2ml Injection	69.2 mg	2.77 ml	40 mg/m2, OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input checked="" type="checkbox"/> Details		0 vial	Remarks	VERIFIED

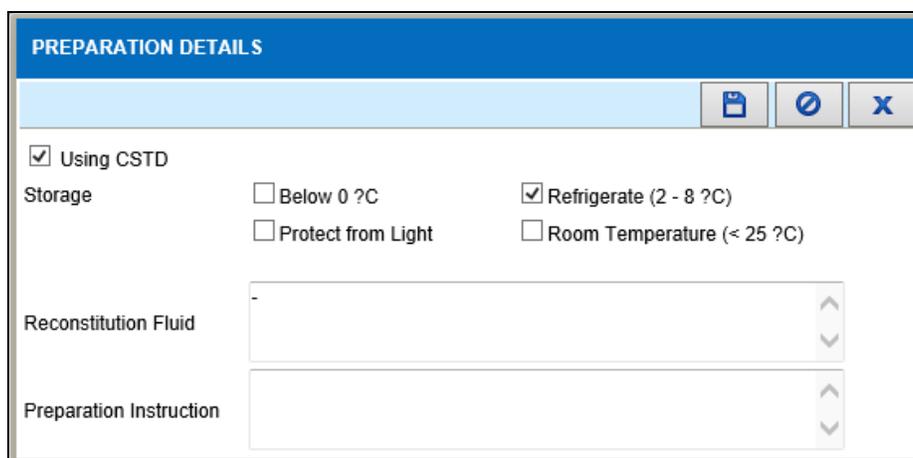
Figure 3.2-7 CDR Preparation

STEP 8

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

Note

- Prepare Admixture Screen will saved automatically upon clicking the checkbox.
- Users are not required to click save and no pop up screen.
- User still can edit or add information.
- User can click on the **Using CSTD** checkbox to to specify preparation using CSTD method.
- This data capture is for PF 6.4 BI Tools new report purposes.



PREPARATION DETAILS

Using CSTD

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

Reconstitution Fluid: [REDACTED]

Preparation Instruction: [REDACTED]

Figure 3.2-8 Preparation Details

CDR PREPARATION

Prescription

Mykad: [Redacted] Age: 57 Years 05 Months 19 Days Gender: Male MRN: HSM00000001

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

Height: 160 cm Weight: 67 kg BMI/BSA: 26.2 / 1.73 m² (Last Updated: 22/03/2018) Nationality: Warganegara

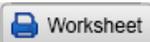
Encounter No: 0001 Admission Date: 22/03/2018 Attending Practitioner: [Redacted] Current Visit Location: WAD 3 Rx No: W30000566133 Order By: [Redacted] Cycle Start Date: 22/03/2018

PRESCRIPTION [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
Methotrexate 50mg/2ml Injection	69.2 mg	2.77 ml	40 mg/m2, OD (once daily), Day: 1 <i>Schedule</i>	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED

Figure 3.2-9 Generate Worksheet

STEP 9

Click on the  button to view and print record as shown in Figure 3.2-10

CDR WORKSHEET

MINISTRY OF HEALTH
Hospital

Date of preparation : 22/03/2018 Worksheet ID: 18-03-0006

Name: [Redacted] Rx. No. W30000566133
MRN: [Redacted] Order By: [Redacted]
ID NO: [Redacted] Current Visit Location: WAD 3

No	ROA	Preparation Name	Drug/Diluent Name	Material Used					Storage	Instruction	
				Total Dose	Drug / Diluent Vol	No of Dose	Allocated Qty	Batch No			Expiry Date
1	IVSB	Methotrexate Pacons. Fluid-	Methotrexate 50mg/2ml Injection	69.2 mg	2.77 ml	1 dose(s) to supply	2 vial	88819004	31/08/2018	Refrigerate (2 - 8 C), Protect from Light	

Worksheet generated by: [Redacted] Worksheet & label checked by: [Redacted] Prepared by: [Redacted] Final Product Checked by: [Redacted]

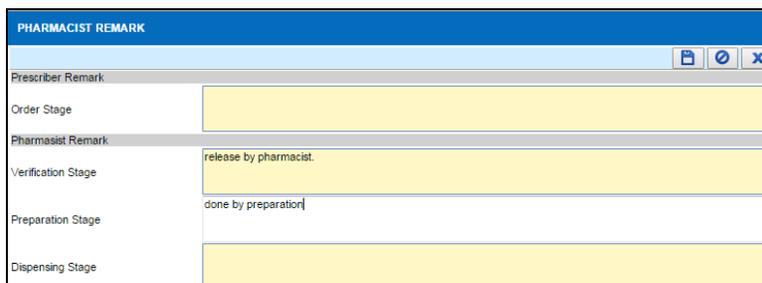
Date: 22/03/2018 Date: Date: Date:

Figure 3.2-10 CDR Worksheet

Note

- Click on the **Details** hyperlink and the Preparation Details window will display Prepare Admixture Details as shown in Figure 3.2-9.

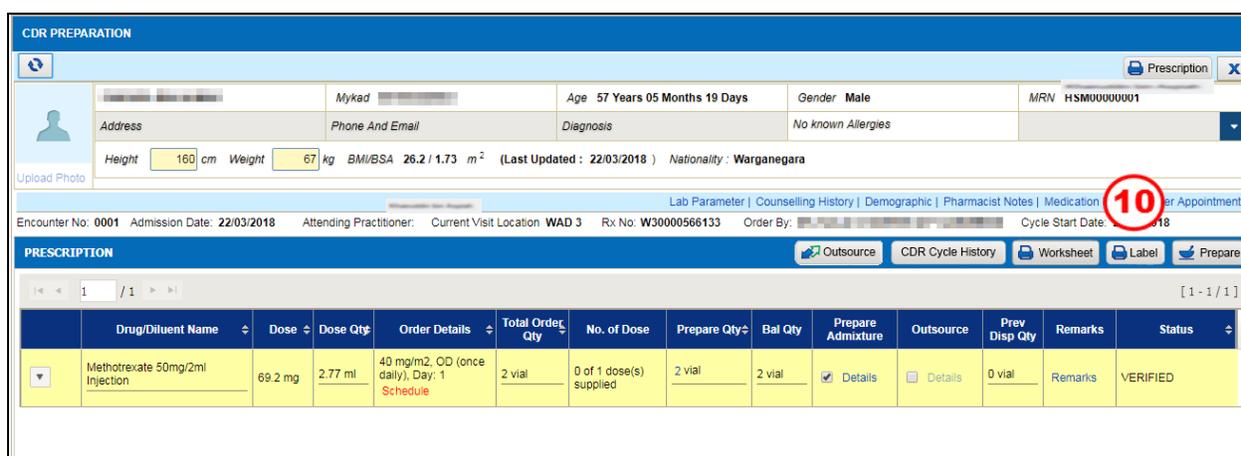
- Click on the **Remarks** hyperlink and Pharmacist Remarks will be displayed as shown in Figure 3.2-11.



The screenshot shows a window titled "PHARMACIST REMARK" with a blue header and standard window controls. It contains several text input fields for recording remarks at different stages: Prescriber Remark, Order Stage, Pharmacist Remark, Verification Stage (containing "release by pharmacist."), Preparation Stage (containing "done by preparation"), and Dispensing Stage.

Figure 3.2-11 Pharmacist Remark

- Enter remarks on the **Preparation Stage** field.



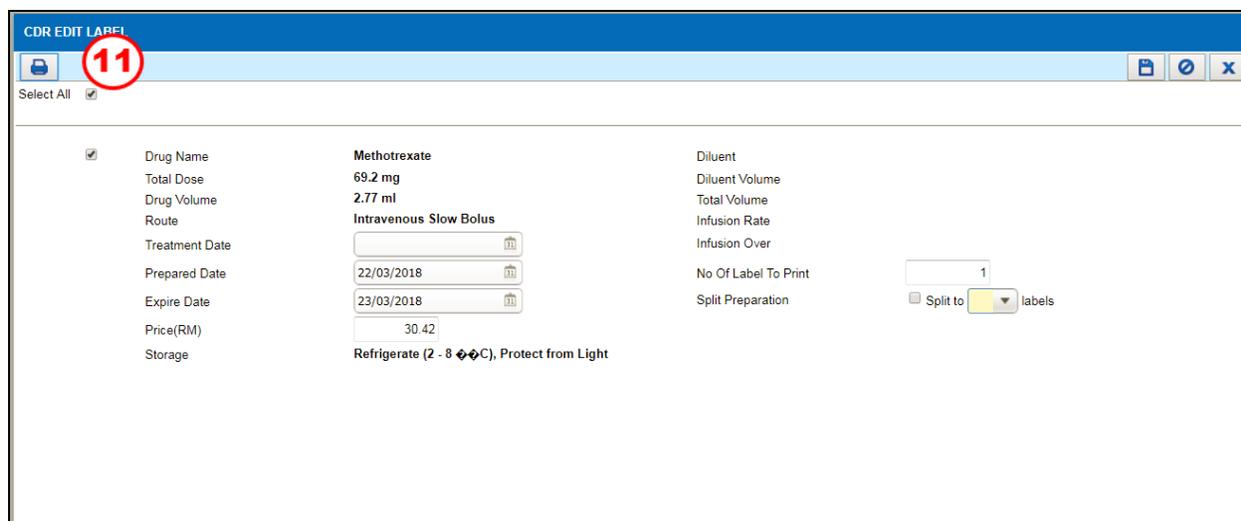
The screenshot shows the "CDR PREPARATION" window. At the top, there are tabs for "Prescription" and "X". Below is a patient information section with fields for Mykad, Age (57 Years 05 Months 19 Days), Gender (Male), M/R/N (HSM00000001), Address, Phone And Email, Diagnosis, and No known Allergies. Patient vitals include Height (160 cm), Weight (67 kg), BMI/BSA (26.2 / 1.73 m²), and Nationality (Warganegara). A red circle with the number "10" highlights the "Cycle Start Date" field. Below this is a "PRESCRIPTION" section with buttons for "Outsource", "CDR Cycle History", "Worksheet", "Label", and "Prepare". A table lists the prescription details:

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
Methotrexate 50mg/2ml Injection	69.2 mg	2.77 ml	40 mg/m2, OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED

Figure 3.2-12 Edit Label

STEP 10

Click on the  button and CDR Edit Label screen will be displayed as shown in Figure 3.2-13



The screenshot shows the "CDR EDIT LABEL" window with a blue header and window controls. A red circle with the number "11" highlights the "Label" button in the header. The main area displays drug details for Methotrexate:

- Drug Name: Methotrexate
- Total Dose: 69.2 mg
- Drug Volume: 2.77 ml
- Route: Intravenous Slow Bolus
- Treatment Date: [Field]
- Prepared Date: 22/03/2018
- Expire Date: 23/03/2018
- Price(RM): 30.42
- Storage: Refrigerate (2 - 8 °C), Protect from Light
- Diluent: [Field]
- Diluent Volume: [Field]
- Total Volume: [Field]
- Infusion Rate: [Field]
- Infusion Over: [Field]
- No Of Label To Print: 1
- Split Preparation: Split to [Field] labels

Figure 3.2-13 CDR Edit Label

STEP 11

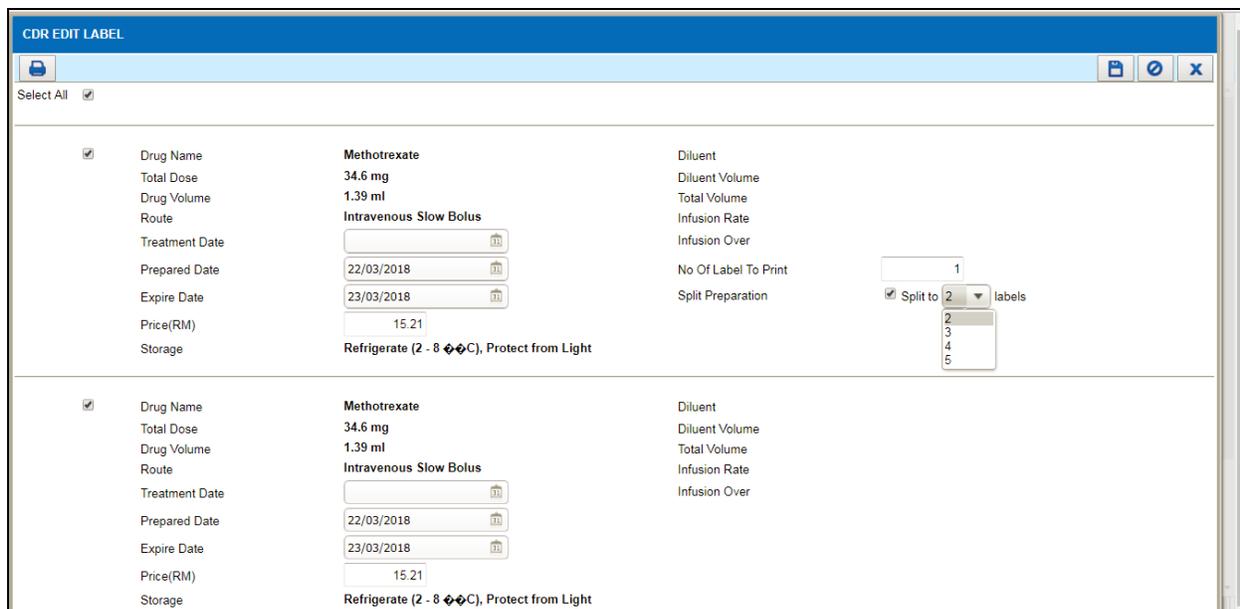
Click on the  button to print drug label as shown in Figure 3.2-14

	HOSPITAL SERI MANJUNG	
	CYTOTOXIC DRUG - Handle with care	
		
HSM00000001	WAD 3	
Drug Name Methotrexate		
Dose : 69.2 mg	Vol : 2.77 ml	
ROA : IVSB		
Treatment Date :		
Prepared Date 22/03/2018	Exp Date : 23/03/2018	
Price : RM30.42	Exp Time :	
Storage : Refrigerate (2 - 8 C), Protect from Light		

Figure 3.2-14 CDR Drug Label

Note

- Select all checkbox to print all drug labels in the selected prescription.
- Select Split Preparation: Split to 2, 3, 4 or 5 labels as shown in Figure 3.2-15.
- Click on the  button to print drug label as shown in Figure 3.2-15.



The screenshot shows the 'CDR EDIT LABEL' window with a 'Select All' checkbox checked. It displays two identical drug label configurations. Each configuration includes:

- Drug Name: Methotrexate
- Total Dose: 34.6 mg
- Drug Volume: 1.39 ml
- Route: Intravenous Slow Bolus
- Treatment Date: [Date Picker]
- Prepared Date: 22/03/2018
- Expire Date: 23/03/2018
- Price(RM): 15.21
- Storage: Refrigerate (2 - 8 C), Protect from Light
- Diluent: [Field]
- Diluent Volume: [Field]
- Total Volume: [Field]
- Infusion Rate: [Field]
- Infusion Over: [Field]
- No Of Label To Print: 1
- Split Preparation: Split to 2 labels (dropdown menu shows 2, 3, 4, 5)

Figure 3.2-15 CDR Edit Label

	HOSPITAL SERI MANJUNG	
	CYTOTOXIC DRUG - Handle with care	
		
HSM00000001 WAD 3		
Drug Name Methotrexate		
Dose :	34.6 mg	Vol : 1.39 ml
ROA : IVSB		
Treatment Date :		
Prepared Date	22/03/2018	Exp Date : 23/03/2018
Price :	RM15.21	Exp Time :
Storage :	Refrigerate (2 - 8 C), Protect from Light	

	HOSPITAL SERI MANJUNG	
	CYTOTOXIC DRUG - Handle with care	
		
HSM00000001 WAD 3		
Drug Name Methotrexate		
Dose :	34.6 mg	Vol : 1.39 ml
ROA : IVSB		
Treatment Date :		
Prepared Date	22/03/2018	Exp Date : 23/03/2018
Price :	RM15.21	Exp Time :
Storage :	Refrigerate (2 - 8 C), Protect from Light	

Figure 3.2-16 CDR Drug Label

HOSPITAL KULIM		
TESTING		
HKLM00067194	Ward 3 -Medical (Male)	650213355698
39 mg	Oral	
Daily		
Take after meal		
Take medicine as directed by pharmacist		
Do not stop this medicine abruptly.		
Prednisolone 5mg Tab		
Corticosteroid (Systemic) Plain		
Cycle Start Date: 11/11/2016	39 tablet	RM5.85
Chemo Day: 1,2,3,4,5		
Controlled Medicine	11/11/2016	

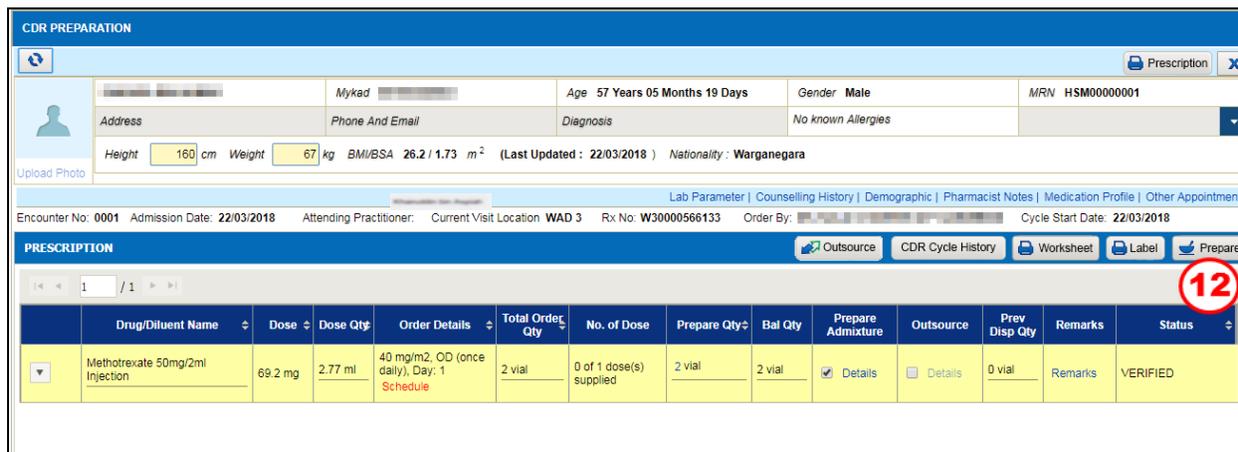
Figure 3.2-17 CDR Normal Drug Label Sample

	HOSPITAL KULIM	
	CYTOTOXIC DRUG - Handle with care	
TESTING		
HKLM00067194	Ward 3 -Medical	650213355698
Drug name	Vincristine	ROA : IVB
Dose :	1.09 mg	Vol :1.09 ml
IV Fluid :	Sodium Chloride 0.9% 100mL IV soln	
Inf. Rate :	400 ml/Hour	Inf. Over : 0 hr 15 m Vol : 100 ml
Treatment Date	11/11/2016	Total Vol 101.09 ml
Prepared Date :	11/11/2016	Exp Date 12/11/2016
Price :	RM69.50	Exp Time :
Storage : Refrigerate (2 - 8 C)		

Figure 3.2-18 CDR Infusion Drug Label Sample

	HOSPITAL KULIM	
	CYTOTOXIC DRUG - Handle with care	
TESTING		
HKLM00067194	Ward 3 -Medical	650213355698
Drug Name	Cyclophosphamide	
Dose :	585 mg	Vol : 29.25 ml
ROA : INF		
Treatment Date :		
Prepared Date	11/11/2016	Exp Date : 12/11/2016
Price :	RM42.50	Exp Time :
Storage : Refrigerate (2 - 8 C)		

Figure 3.2-18 CDR Bolus Drug Label Sample



CDR PREPARATION

Prescription X

Mykad: [REDACTED] Age: 57 Years 05 Months 19 Days Gender: Male MRN: HSM00000001

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

Height: 160 cm Weight: 67 kg BMI/BSA: 26.2 / 1.73 m² (Last Updated: 22/03/2018) Nationality: Warganegara

Encounter No: 0001 Admission Date: 22/03/2018 Attending Practitioner: [REDACTED] Current Visit Location: WAD 3 Rx No: W30000566133 Order By: [REDACTED] Cycle Start Date: 22/03/2018

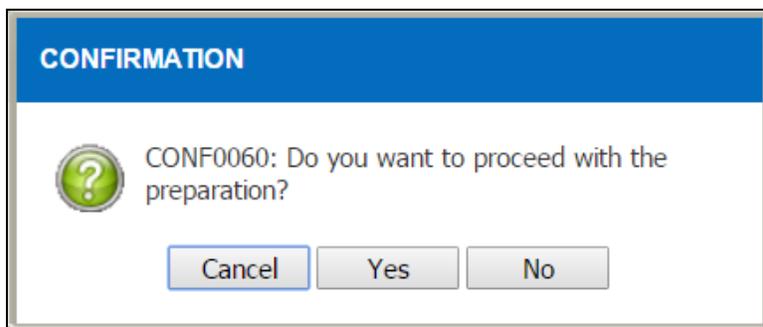
PRESCRIPTION Outsource CDR Cycle History Worksheet Label Prepare

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
Methotrexate 50mg/2ml Injection	69.2 mg	2.77 ml	40 mg/m2, OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED

Figure 3.2-19 CDR Preparation

STEP 12

Click on the  button to proceed with preparation and an alert message will be displayed as shown in Figure 3.2-20



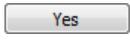
CONFIRMATION

CONF0060: Do you want to proceed with the preparation?

Cancel Yes No

Figure 3.2-20 Alert Message

Note

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

3.3 CDR Dispensing

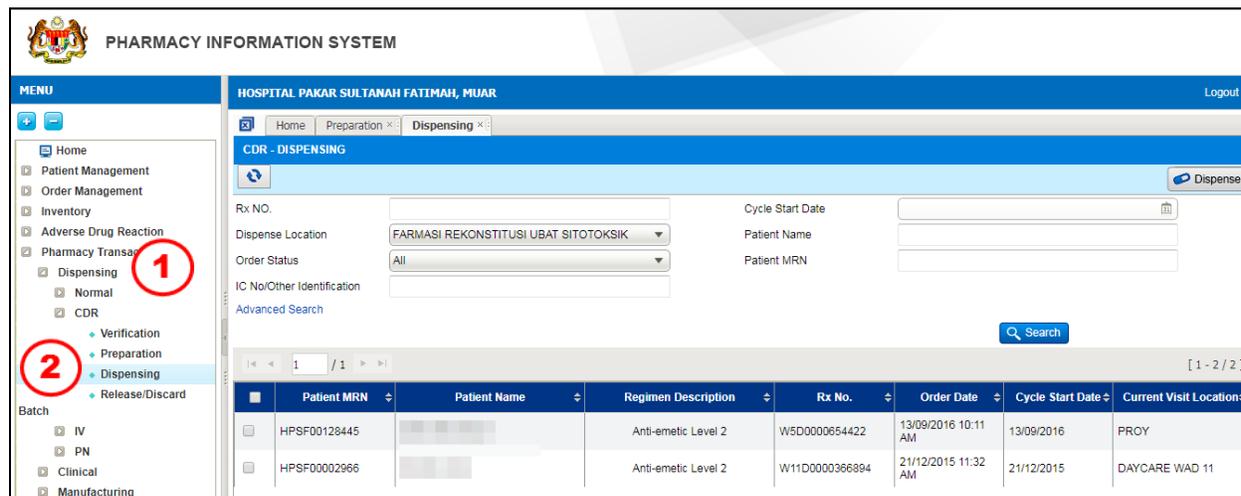


Figure 3.3-1 CDR Dispensing Listing Page

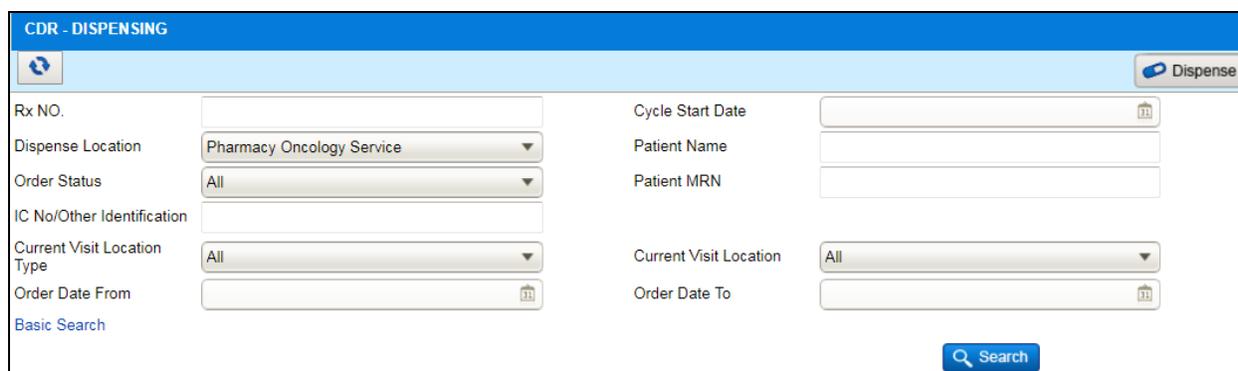


Figure 3.3-2 Advance Search

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 3.3-1

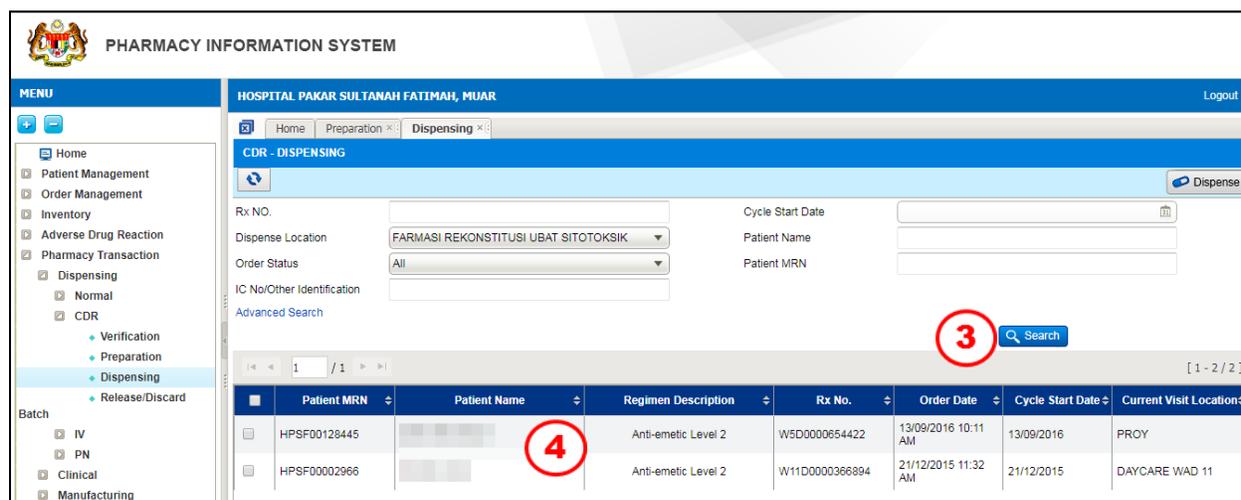


Figure 3.3-3 CDR Dispensing Listing Page

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:

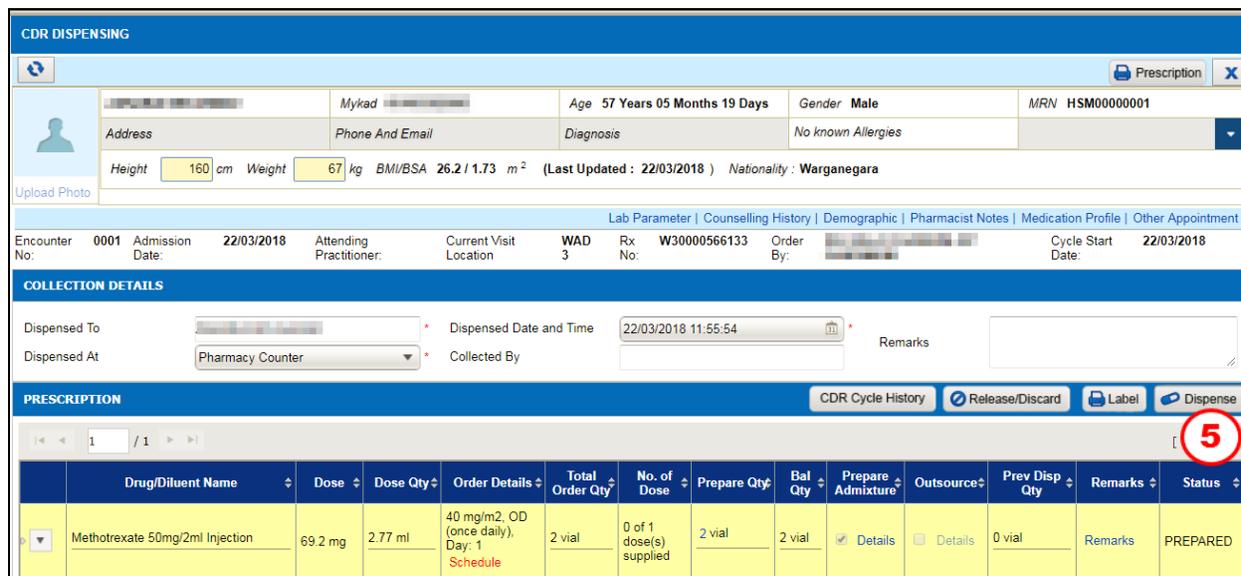
- Dispense individual order
- Dispense multiple patient order

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 3.3-4



CDR DISPENSING

Mykad: [Redacted] Age: 57 Years 05 Months 19 Days Gender: Male MRN: HSM0000001

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

Height: 160 cm Weight: 67 kg BMI/BSA: 26.2 / 1.73 m² (Last Updated: 22/03/2018) Nationality: Warganegara

Encounter No: 0001 Admission Date: 22/03/2018 Attending Practitioner: [Redacted] Current Visit Location: WAD 3 Rx No: W30000566133 Order By: [Redacted] Cycle Start Date: 22/03/2018

COLLECTION DETAILS

Dispensed To: [Redacted] Dispensed Date and Time: 22/03/2018 11:55:54

Dispensed At: Pharmacy Counter Collected By: [Redacted] Remarks: [Redacted]

PRESCRIPTION

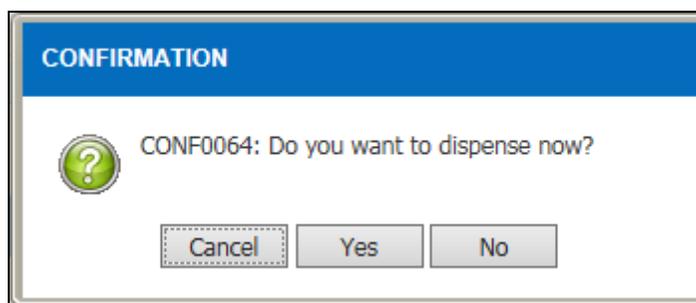
CDR Cycle History Release/Discard Label **Dispense** (5)

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
Methotrexate 50mg/2ml Injection	69.2 mg	2.77 ml	40 mg/m2, OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose(s) supplied	2 vial	2 vial	<input checked="" type="checkbox"/> Details	<input type="checkbox"/> Details	0 vial	Remarks	PREPARED

Figure 3.3-4 CDR Dispensing

STEP 5

Click on the  button to dispense the medication and **Collection Details** window will be displayed as shown in Figure 3.3-5



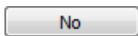
CONFIRMATION

CONF0064: Do you want to dispense now?

Cancel Yes No

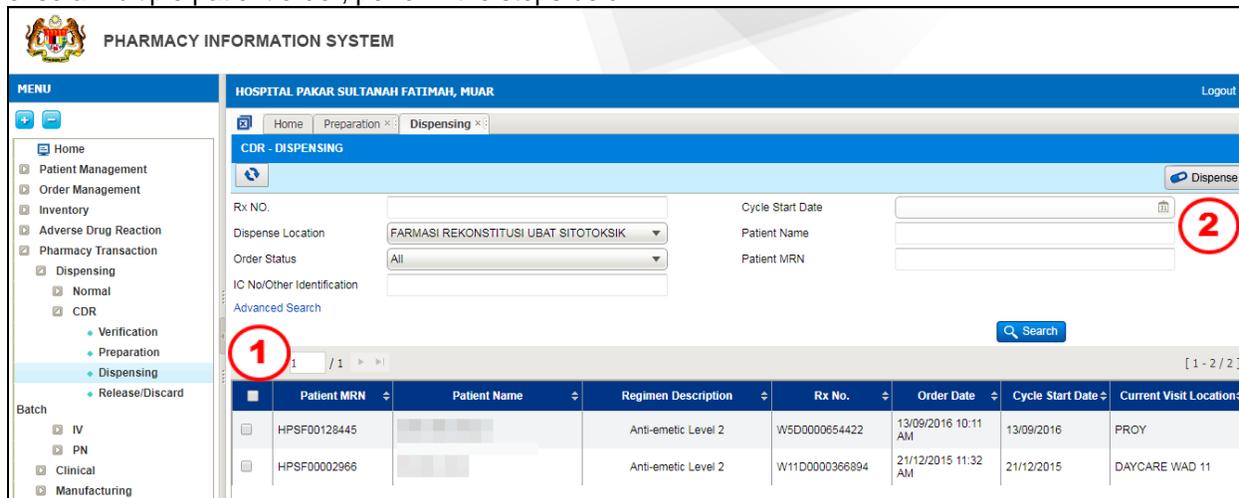
Figure 3.3-5 Alert Message

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:



PHARMACY INFORMATION SYSTEM

HOSPITAL PAKAR SULTANAH FATIMAH, MUAR

Logout

Home Preparation Dispensing

CDR - DISPENSING Dispense

Rx NO. Cycle Start Date

Dispense Location Patient Name

Order Status Patient MRN

IC No/Other Identification

Advanced Search

[1 - 2 / 2]

<input type="checkbox"/>	Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
<input checked="" type="checkbox"/>	HPSF00128445	[REDACTED]	Anti-emetic Level 2	W5D0000654422	13/09/2016 10:11 AM	13/09/2016	PROY
<input type="checkbox"/>	HPSF00002966	[REDACTED]	Anti-emetic Level 2	W11D0000366894	21/12/2015 11:32 AM	21/12/2015	DAYCARE WAD 11

Figure 3.3-6 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

Note

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

3.4 Release/Discard Batch

Figure 3.4-1 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 3.4-1

STEP 3

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

ORDER DETAILS

Mykad: [REDACTED] Age: 35 Years 11 Months 28 Days Gender: Female MRN: HSM00111571

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

Height: 160 cm Weight: 81 kg BMI/BSA: 31.6 / 1.9 m² (Last Updated: 13/03/2018) Nationality: Warganegara

Rx No: W60000562007 Order Type: CDR Order By: [REDACTED]

Order Date: 13/03/2018 11:22 AM Order Location: WAD 6

Category: Oncology - Breast Regimen Code: CDRON00180 Regimen Description: FEC 500/75/500

Cycle Duration: 21 Cycle No: 2 Cycle Start Date: 13/03/2018 Cycle End Date: 02/04/2018

Remarks: [REDACTED]

Active Ingredient	Default Drug Name	Admin Route	Dosage	Total Dose	Infuse Over	Frequency	Chemo day	Diluent	Diluent Volume	Total Volume	Infusion Rate	Drug Remark
Fluorouracil	Fluorouracil 1g/20ml Injection	Intravenous Infusion	500 mg/m ²	975 mg	1 Hours 0 Minutes	OD (once daily)	Day: 1	Sodium Chloride 0.9% 100mL IV soln	100 ml	119.5 ml	119.5 ml/Hour	

Figure 3.4-2 Medication Profile

MENU

- Home
- Patient Management
- Inventory
- Pharmacy Transaction
 - Dispensing
 - Normal
 - CDR
 - Verification
 - Preparation
 - Dispensing
 - Release/Discard
- Batch
 - Clinical
 - Manufacturing
 - Maintenance
 - Report/Enquiry

HOSPITAL PAKAR SULTANAH FATIMAH, MUAR Change Password Logout

Home Release/Discard Batch

RELEASE/DISCARD BATCH

MRN: [REDACTED] Patient Name: [REDACTED]

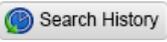
Drug Name: [REDACTED] Dispense Location: [REDACTED]

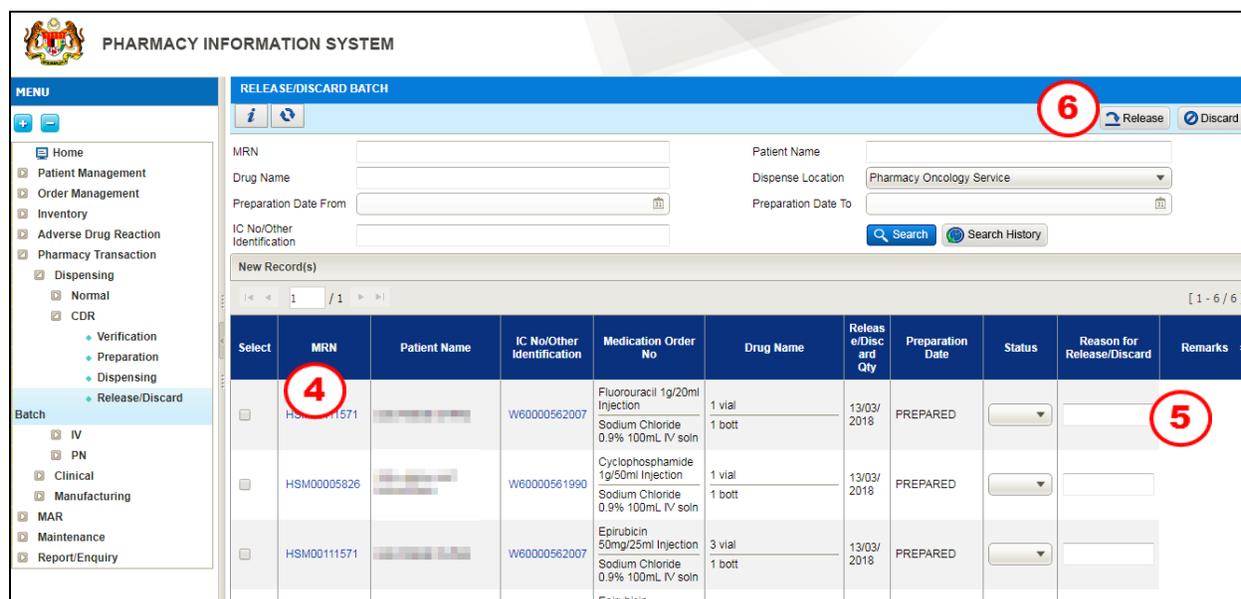
Search Search History

History Record(s)

MRN	Patient Name	Drug Name	Medication Order No	Preparation Date	Status	Reason for Release/Discard
HPSF00009142	[REDACTED]	Ifosfamide 1g Inj Sodium Chloride 0.9% 500mL IV soln	WAD 90000001107	06/05/2014	VERIFIED	Change of Regimen

Figure 3.4-4 Release/Discard Batch History

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



PHARMACY INFORMATION SYSTEM

RELEASE/DISCARD BATCH

MRN: Patient Name:

Drug Name: Dispense Location: Pharmacy Oncology Service

Preparation Date From: Preparation Date To:

IC No/Other Identification:

Search Search History

New Record(s)

[1 - 6 / 6]

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"/>	HSM0011571	[REDACTED]	W60000562007	Fluorouracil 1g/20ml Injection Sodium Chloride 0.9% 100mL IV soln	1 vial 1 bott	13/03/2018	PREPARED	[Dropdown]	[Input]	
<input type="checkbox"/>	HSM00005826	[REDACTED]	W60000561990	Cyclophosphamide 1g/50ml Injection Sodium Chloride 0.9% 100mL IV soln	1 vial 1 bott	13/03/2018	PREPARED	[Dropdown]	[Input]	
<input type="checkbox"/>	HSM0011571	[REDACTED]	W60000562007	Epirubicin 50mg/25ml Injection Sodium Chloride 0.9% 100mL IV soln	3 vial 1 bott	13/03/2018	PREPARED	[Dropdown]	[Input]	

Figure 3.4-5 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 button to proceed release

Click on the button to proceed discard

4.0 Acronyms

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

5.0 Links to Clinical Modules

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