



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

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## **Full Based User Manual Cytotoxic Drug Reconstitution (CDR) Dispensing**

<b>Version</b>	<b>: 7<sup>th</sup> Edition</b>
<b>Document ID</b>	<b>: FB_U. MANUAL_CDR_DISPENSING</b>



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



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Reference ID : FB\_U. MANUAL\_CDR\_DISPENSING-7<sup>th</sup> Edition

Application reference: PhIS & CPS v1.7.1



## 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

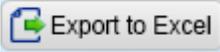
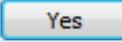
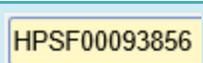
### 1.3 Organised Sections

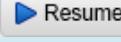
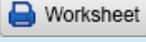
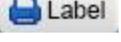
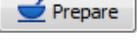
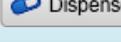
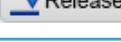
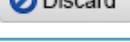
These are the sections within this document:

- 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	<u>27</u>
Preparation by CSTD	<u>25</u>

### 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

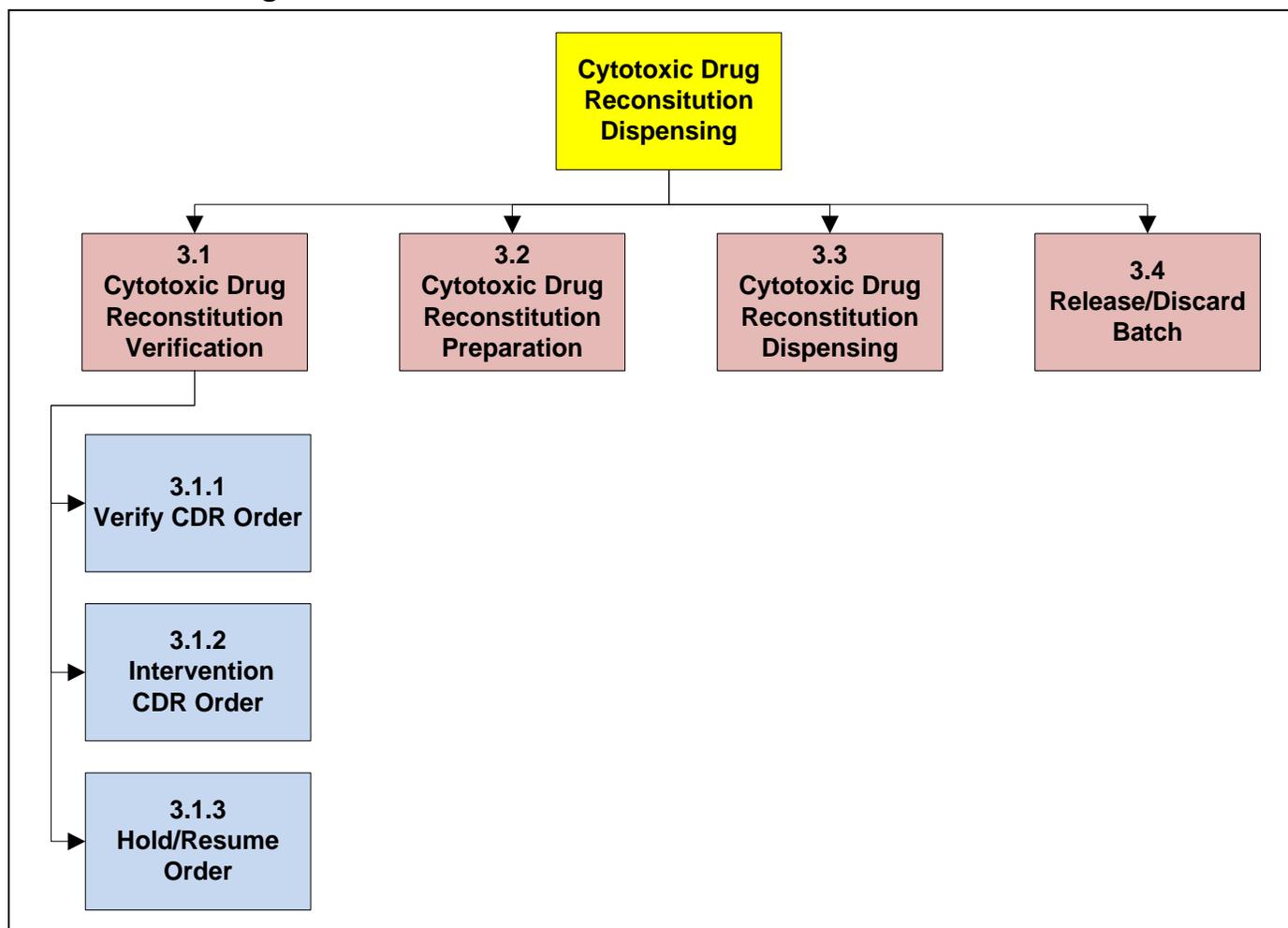


Table 3.0-1



## 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

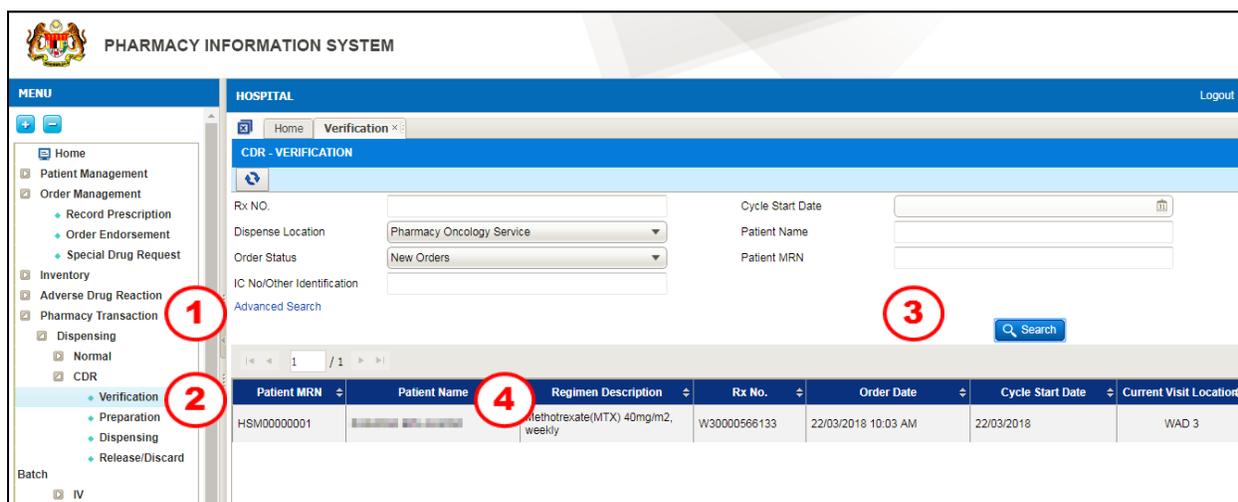


Figure 3.1.1-1 CDR Verification Listing Page

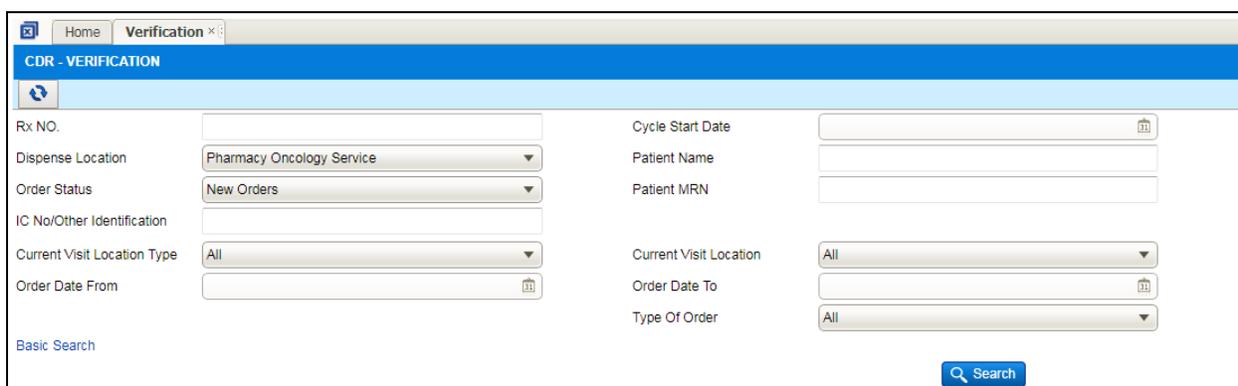


Figure 3.1.1-2 Advance Search

#### 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"> <li>- All</li> <li>- Discharge Medications</li> <li>- New Orders</li> <li>- Outsourced Orders</li> </ul>	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"> <li>• Type the MRN either in full or partially: <i>Example: HPSF00001234 or "1234"</i></li> </ul>
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
<b>Advance Search</b>			
a	Current Visit Location Type	Search by: <ul style="list-style-type: none"> <li>- All</li> <li>- Clinic</li> <li>- Day Care</li> <li>- ER</li> <li>- Nursing Unit</li> <li>- Pharmacy</li> </ul>	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
e	Type of Order	Type of Order	To select from dropdown box option: <ul style="list-style-type: none"> <li>• Approved</li> <li>• Future</li> </ul>

**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**

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

Address, Phone And Email, Diagnosis, Known Allergies

Height: 158 cm, Weight: 56 kg, BMI/BSA: 22.4 / 1.59 m<sup>2</sup> (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, Start Date: 10/06/2015

**PRESCRIPTION** CDR Cycle History Verify

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 1000 ml	100 mg/m2, OD (once daily), Day: 1 <a href="#">Schedule</a>	4 vial 2 bott	Remarks	ORDERED

Figure 3.1.1-3 CDR Verification

**Note**

- 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

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.

**PHARMACIST REMARK**

Prescriber Remark

Order Stage

Pharmacist Remark

Verification Stage

release by pharmacist

Preparation Stage

Dispensing Stage

**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 CDR Cycle History button to view CDR Cycle History.*

**CDR CYCLE HISTORY**

	Regimen Code	Regimen Name	Cycle Start Date	Cycle End Date	Cycle Duration	Total Cycle	Cycle No	Height/Weight/B SA	Remarks	Prescription Status	Selection	Ordered By	Approved By(Future Order)
<input type="checkbox"/>	CDRON0000i	Weekly Cisplatin	04/05/2016	10/05/2016	7 Days	6	6	174cm/66kg/1.79r		ORDERED	<input type="checkbox"/>	Available to Input	
<input type="checkbox"/>	CDRON0000i	MTX	19/05/2016	25/05/2016	7 Days	6	6	174cm/66kg/1.79r		ORDERED	<input type="checkbox"/>	Available to 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 AFIAH 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
CDRON00008	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	
CDRON00005	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	

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

Figure 3.1.1-8 CDR Cycle History Report

**CDR VERIFICATION**

Mykad 770509145802 Age 38 Years 01 Months 01 Days Gender Female MRN HPSF00084282

Address Phone And Email Diagnosis **Known Allergies**

Height 158 cm Weight 56 kg BMI/BSA 22.4 / 1.59 m<sup>2</sup> (Last Updated : 10/06/2015)

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

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** CDR Cycle History Verify

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 1000 ml	100 mg/m2, OD (once daily), Day: 1 Schedule	4 vial 2 bott	Remarks	ORDERED

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

**CONFIRMATION**

CONF0061: Do you want to proceed with the verification?

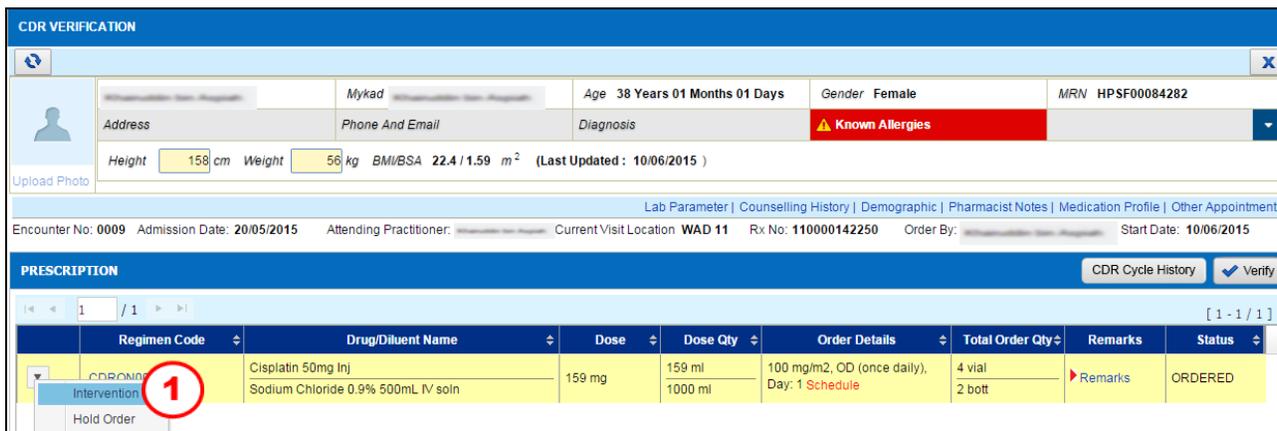
Cancel Yes No

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**

Mykad: [Redacted] Age: 38 Years 01 Months 01 Days Gender: Female MRN: HPSF00084282

Address: [Redacted] Phone And Email: [Redacted] Diagnosis: [Redacted] **Known Allergies**

Height: 158 cm Weight: 56 kg BMI/BSA: 22.4 / 1.59 m<sup>2</sup> (Last Updated: 10/06/2015)

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

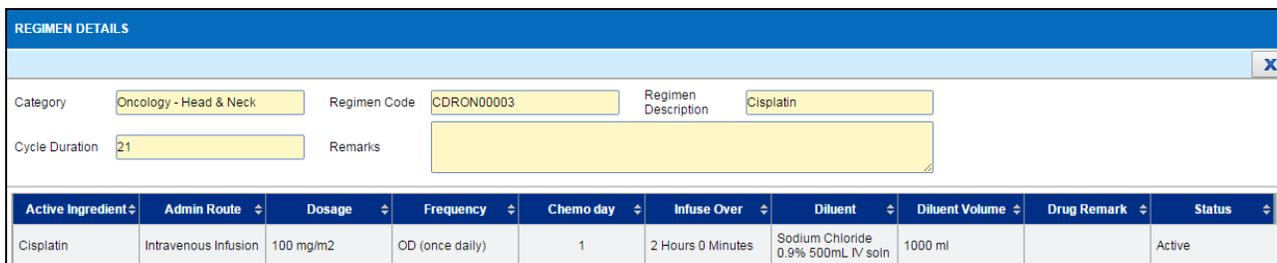
**PRESCRIPTION** CDR Cycle History  Verify

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 1000 ml	100 mg/m2, OD (once daily), Day: 1 <a href="#">Schedule</a>	4 vial 2 bott	Remarks	ORDERED

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**

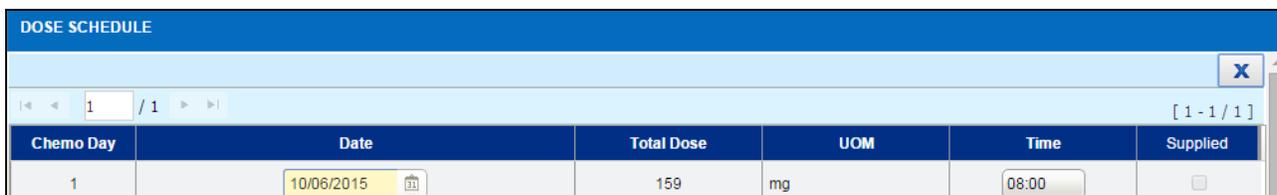
Category: Oncology - Head & Neck Regimen Code: CDRON00003 Regimen Description: Cisplatin

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

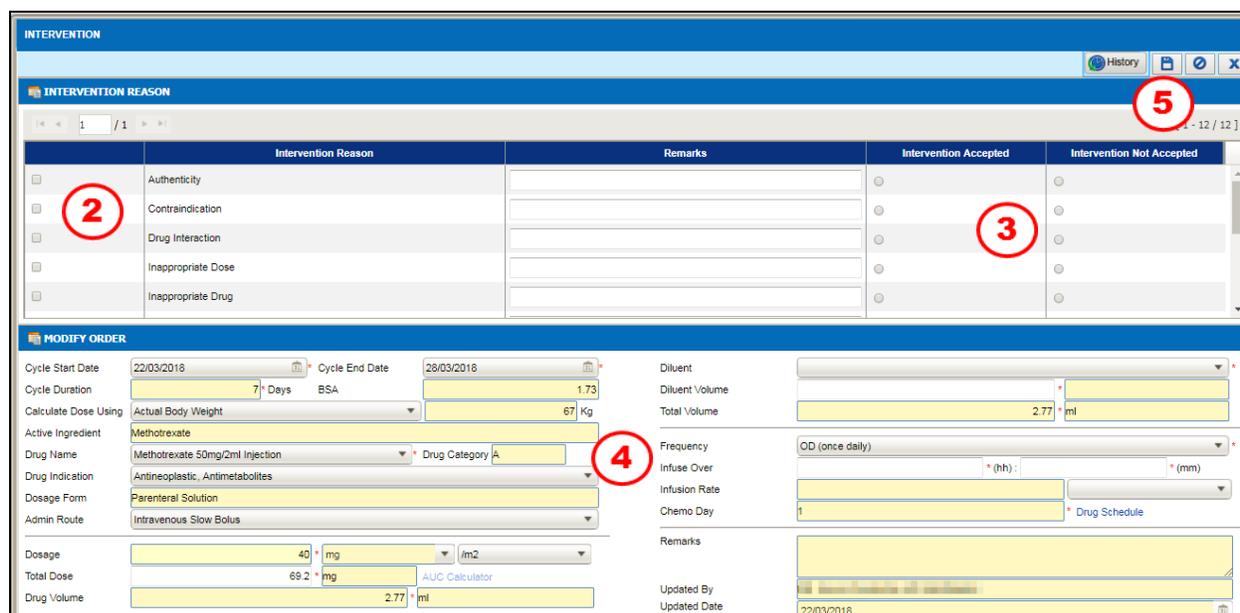


Figure 3.1.2-4 Intervention

**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**

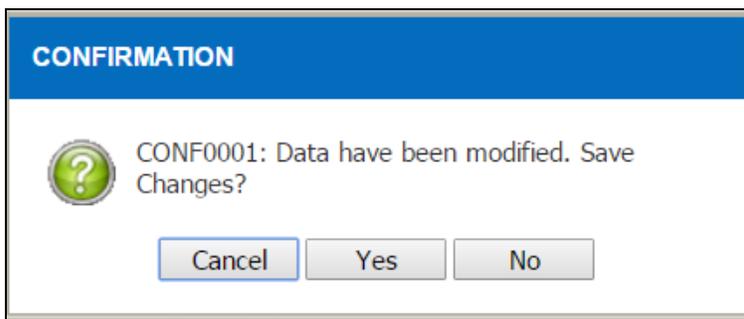
Field that can be edited are as below:

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

- Diluent
- Diluent Volume
- Frequency
- Infuse Over

**STEP 5**

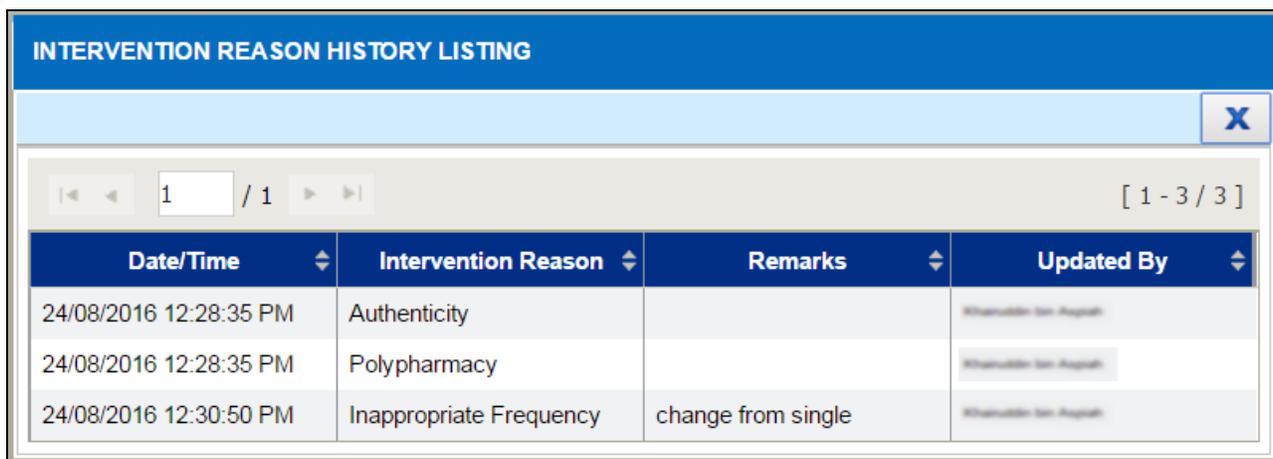
Click on the  button to save the record and alert message will be displayed as shown in Figure 3.1.2-5



**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 m<sup>2</sup> (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

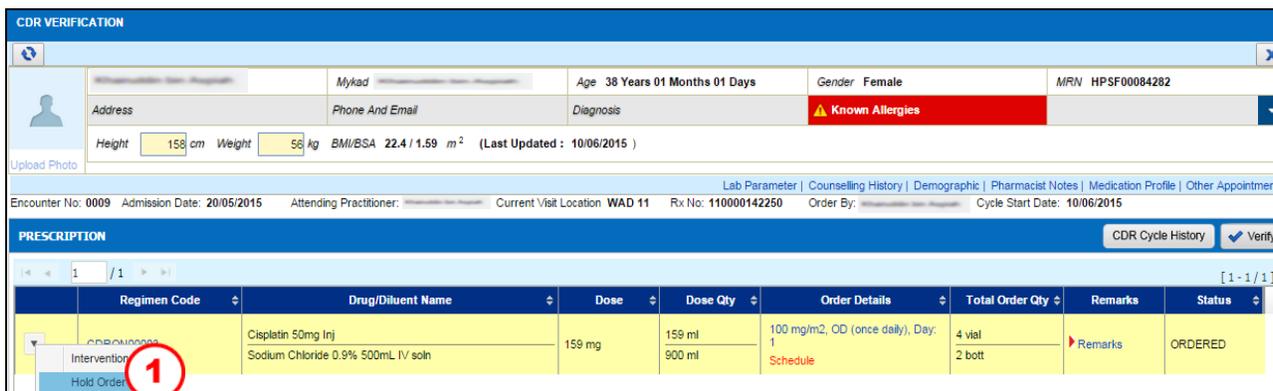
Cycle Duration: 21, Cycle No: 8, Cycle Start Date: 10/06/2015, Cycle End Date: 30/06/2015

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



Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
CDR000000	Cisplatin 50mg Inj	159 mg	159 ml	100 mg/m2, OD (once daily), Day: 1	4 vial	Remarks	ORDERED
	Sodium Chloride 0.9% 500mL IV soln		900 ml	Schedule	2 bott		

Figure 3.1.3-1 CDR Verification Screen

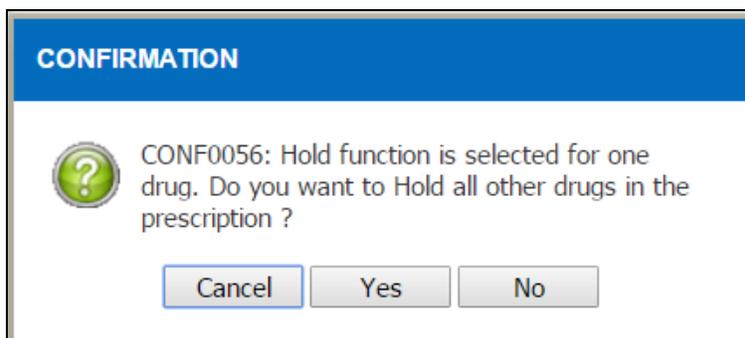
**Note**

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.

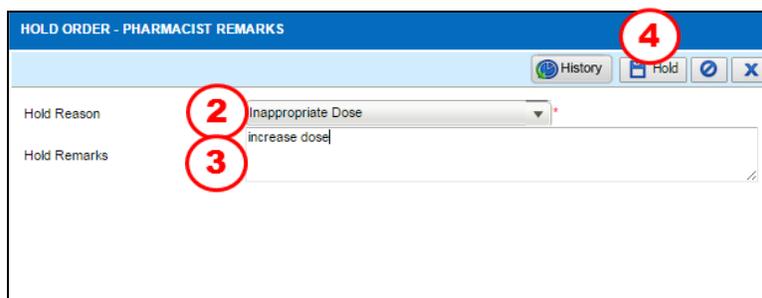


Figure 3.1.3-3 Hold Order – Pharmacist Remarks

**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

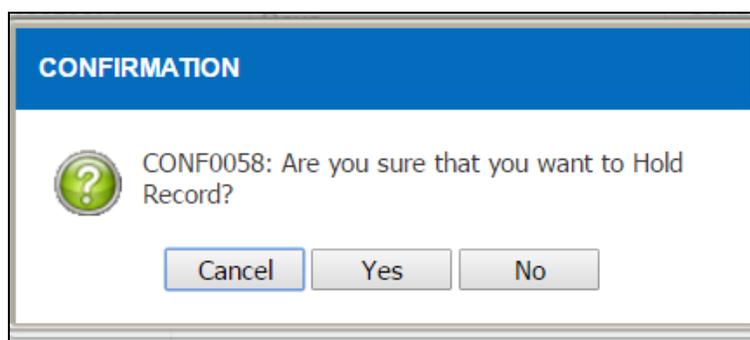
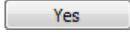
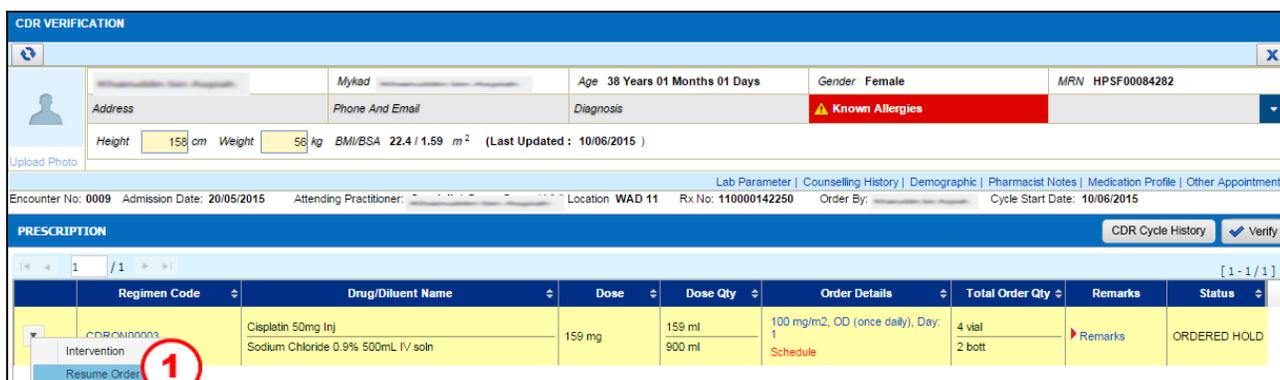


Figure 3.1.3-4 Alert Message

**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
	Cisplatin 50mg Inj	159 mg	159 ml	100 mg/m <sup>2</sup> , OD (once daily), Day: 1	4 vial		ORDERED HOLD
	Sodium Chloride 0.9% 500mL IV soln		900 ml	Schedule	2 bott	Remarks	

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

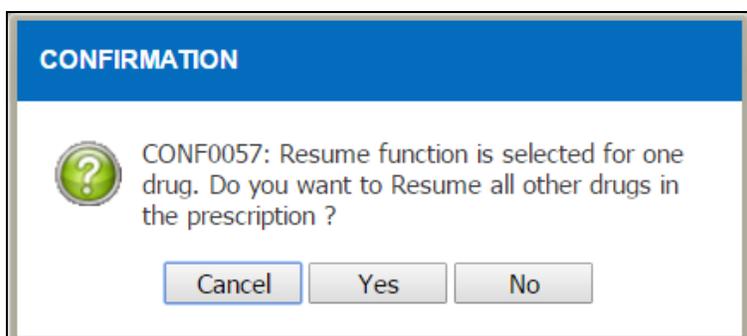


Figure 3.1.3-6 Alert Message

#### 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.

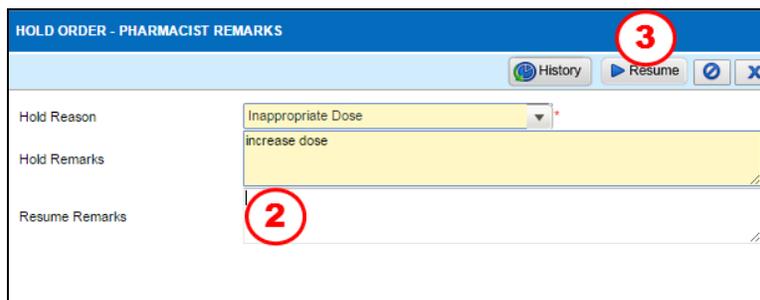
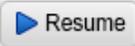


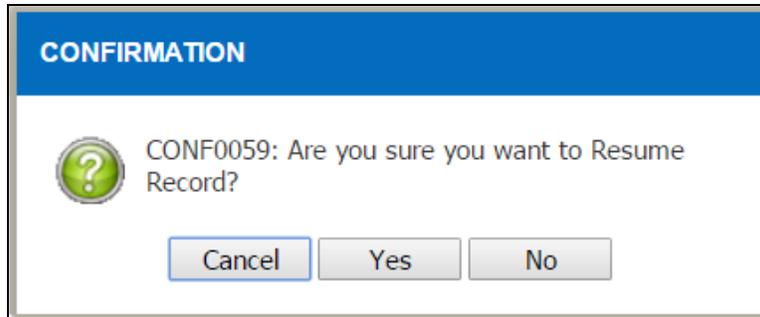
Figure 3.1.3-7 Resume Hold Order

#### STEP 2

Enter **Resume Remarks** (if required)

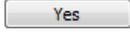
**STEP 3**

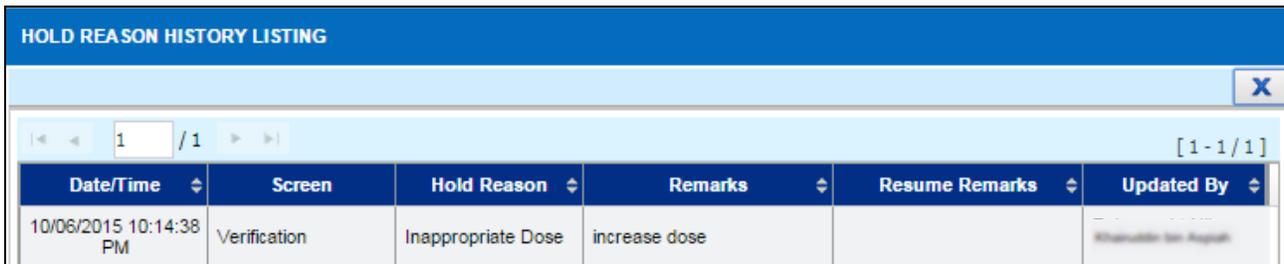
Click on the  button to resume the hold order and an alert message will be displayed as shown in Figure 3.1.3-8



**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.

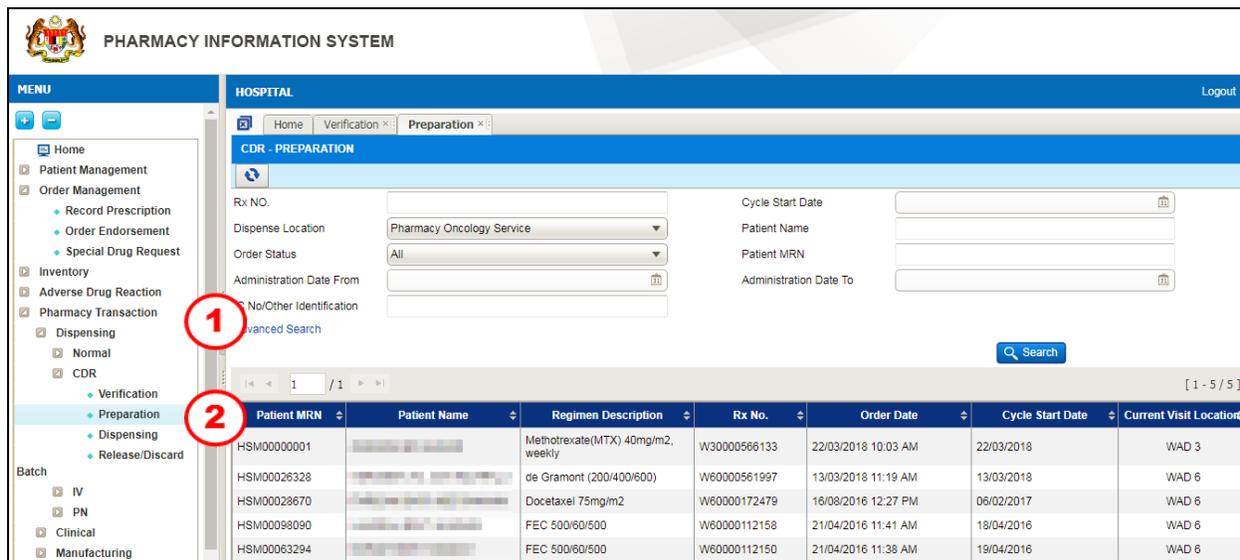


A screenshot of a web application window titled "HOLD REASON HISTORY LISTING". The window has a blue header and a close button (X) in the top right corner. Below the header is a pagination bar showing "1 / 1" and "[ 1 - 1 / 1 ]". The main content is a table with the following data:

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

**Figure 3.1.3-9 Alert Message**

### 3.2 CDR Preparation



**PHARMACY INFORMATION SYSTEM**

**HOSPITAL** Logout

Home | Verification × | Preparation ×

**CDR - PREPARATION**

Rx NO.  Cycle Start Date

Dispense Location  Patient Name

Order Status  Patient MRN

Administration Date From  Administration Date To

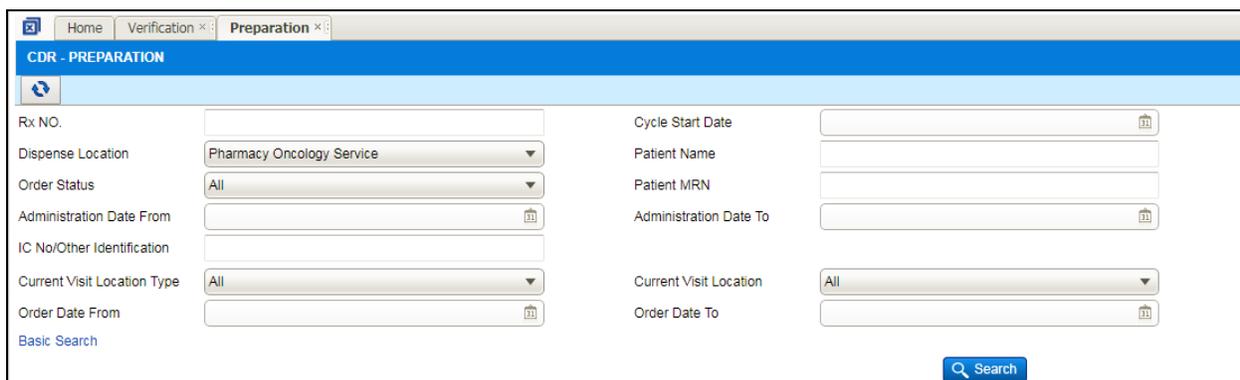
IC No/Other Identification

[Advanced Search](#)

[ 1 - 5 / 5 ]

Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
HSM00000001	[REDACTED]	Methotrexate(MTX) 40mg/m2, weekly	W30000566133	22/03/2018 10:03 AM	22/03/2018	WAD 3
HSM00026328	[REDACTED]	de Gramont (200/400/600)	W60000561997	13/03/2018 11:19 AM	13/03/2018	WAD 6
HSM00028670	[REDACTED]	Docetaxel 75mg/m2	W60000172479	16/09/2016 12:27 PM	06/02/2017	WAD 6
HSM00098090	[REDACTED]	FEC 500/60/500	W60000112158	21/04/2016 11:41 AM	18/04/2016	WAD 6
HSM00063294	[REDACTED]	FEC 500/60/500	W60000112150	21/04/2016 11:38 AM	19/04/2016	WAD 6

Figure 3.2-1 CDR Preparation Listing Page



**CDR - PREPARATION**

Rx NO.  Cycle Start Date

Dispense Location  Patient Name

Order Status  Patient MRN

Administration Date From  Administration Date To

IC No/Other Identification

Current Visit Location Type  Current Visit Location

Order Date From  Order Date To

[Basic Search](#)

Figure 3.2-2 Advance Search

**STEP 1**

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

**STEP 2**

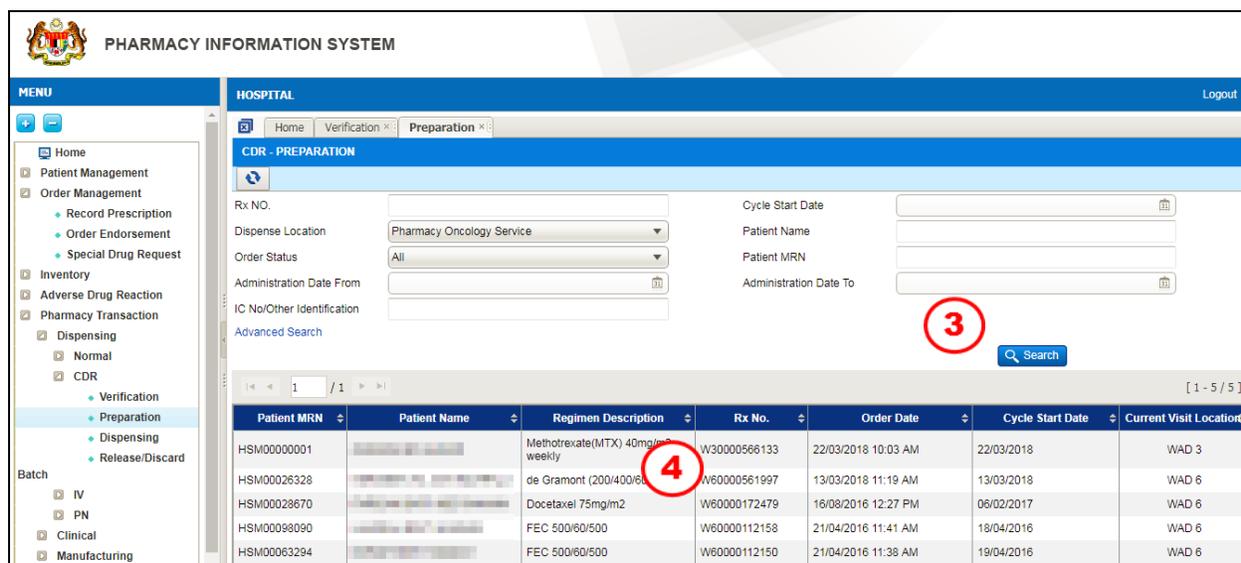
Click on 'Preparation' function

**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**



Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
HSM00000001		Methotrexate(MTX) 40mg/m <sup>2</sup> weekly	W30000566133	22/03/2018 10:03 AM	22/03/2018	WAD 3
HSM00026328		de Gramont (200/400/600) weekly	W60000561997	13/03/2018 11:19 AM	13/03/2018	WAD 6
HSM00028670		Docetaxel 75mg/m <sup>2</sup>	W60000172479	16/08/2016 12:27 PM	06/02/2017	WAD 6
HSM00098090		FEC 500/60/500	W60000112158	21/04/2016 11:41 AM	18/04/2016	WAD 6
HSM00063294		FEC 500/60/500	W60000112150	21/04/2016 11:38 AM	19/04/2016	WAD 6

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 m<sup>2</sup> (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 <sup>2</sup> , OD (once daily), Day: 1 <a href="#">Schedule</a>	2 vial	0 of 1 dose(s) supplied	0 vial	2 vial	<input type="checkbox"/> Details	<input type="checkbox"/> 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**

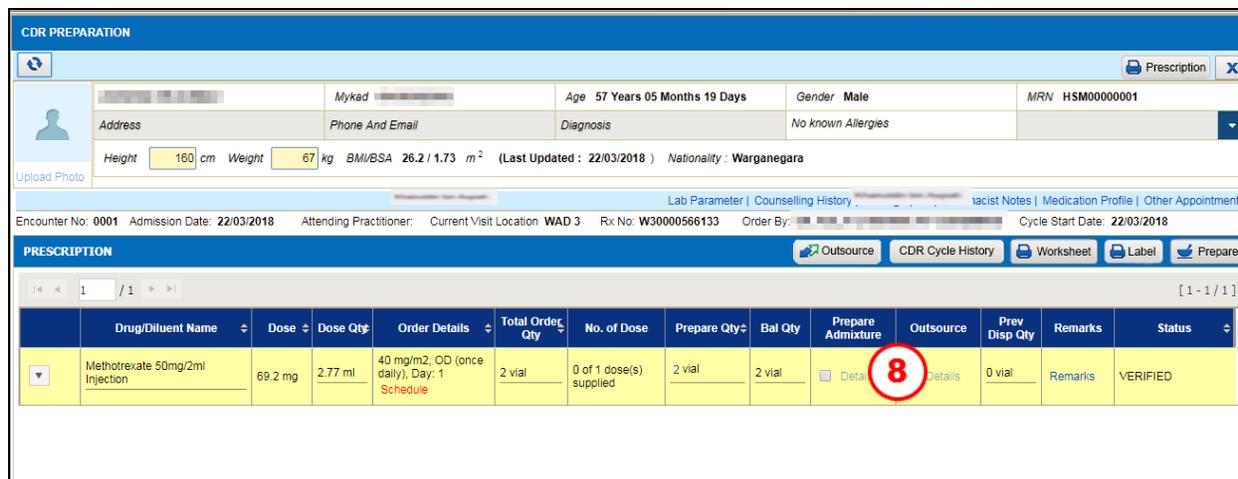
Click on the selected **Supplied**  checkbox to select the dose to prepare

**STEP 7**

Click on the button to save the record

**Note**

After saving, the Item Batch Screen will be displayed.



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	0 vial	0 vial	Remarks	VERIFIED

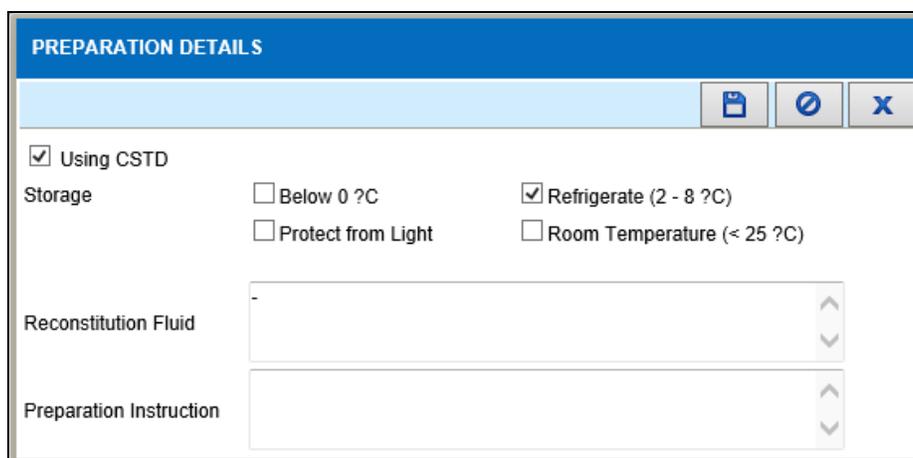
Figure 3.2-7 CDR Preparation

**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

Preparation Instruction

Figure 3.2-8 Preparation Details

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]
Height: 160 cm Weight: 67 kg BMI/BSA: 26.2 / 1.73 m <sup>2</sup> (Last Updated: 22/03/2018) Nationality: Warganegara				

[Lab Parameter](#) | [Counselling History](#) | [Demographic](#) | [Pharmacist Notes](#) | [Medication Profile](#) | [Other Appointment](#)

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
9
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 <span style="color: red;">Schedule</span>	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  Worksheet 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				Rx. No. W30000566133							
MRN				Order By							
ID NO				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 Recons. Fluid-	Methotrexate 50mg/2ml Injection	69.2 mg	2.77 ml	1 dose(s) to supply	2 vial	888H9004	31/03/2018	Refrigerate (2 - 8 C), Protect from Light	

Worksheet generated by	Worksheet & label checked by	Prepared by	Final Product Checked by
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.

PHARMACIST REMARK

Prescriber Remark

Order Stage

Pharmacist Remark

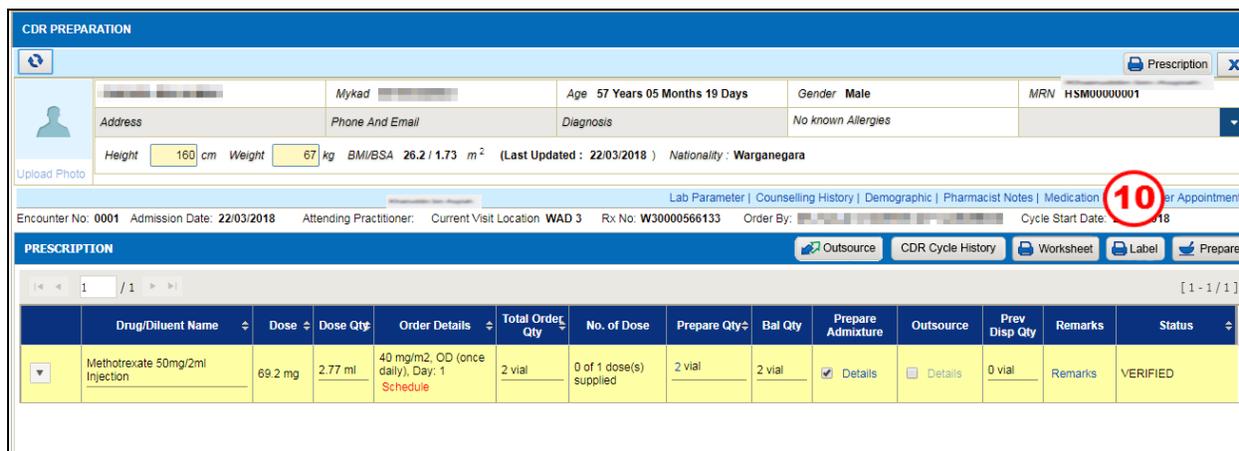
Verification Stage

Preparation Stage

Dispensing Stage

Figure 3.2-11 Pharmacist Remark

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



**CDR PREPARATION**

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 m<sup>2</sup> (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

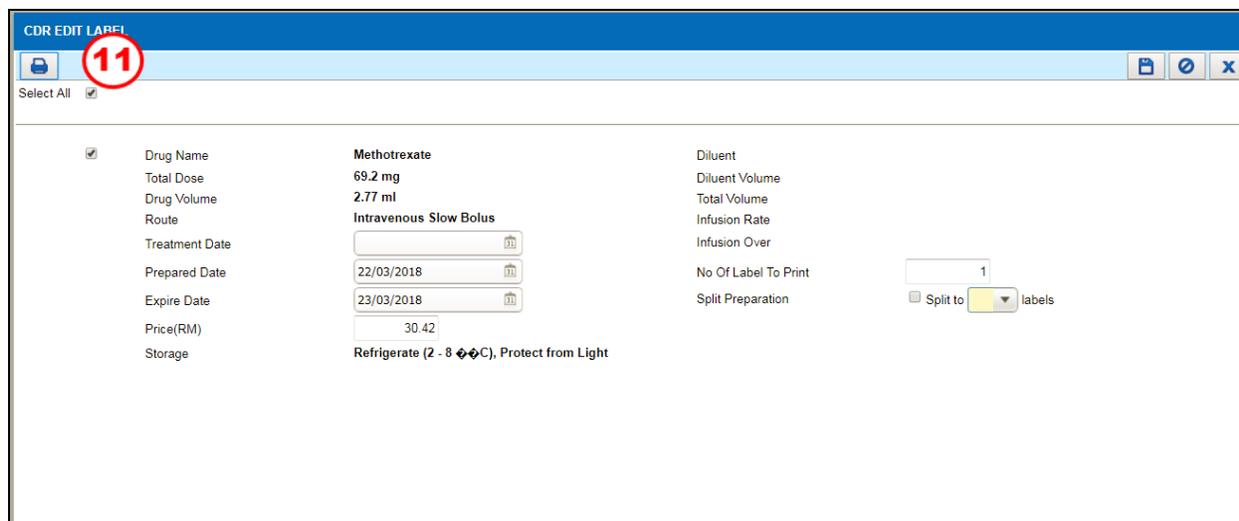
**PRESCRIPTION**

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 <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 3.2-12 Edit Label

**STEP 10**

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



**CDR EDIT LABEL**

Select All:

<input checked="" type="checkbox"/>	Drug Name	Methotrexate	Diluent	
	Total Dose	69.2 mg	Diluent Volume	
	Drug Volume	2.77 ml	Total Volume	
	Route	Intravenous Slow Bolus	Infusion Rate	
	Treatment Date	<input type="text" value="22/03/2018"/>	Infusion Over	
	Prepared Date	<input type="text" value="22/03/2018"/>	No Of Label To Print	<input type="text" value="1"/>
	Expire Date	<input type="text" value="23/03/2018"/>	Split Preparation	<input type="checkbox"/> Split to <input type="text" value="1"/> labels
	Price(RM)	<input type="text" value="30.42"/>		
	Storage	Refrigerate (2 - 8 °C), Protect from Light		

Figure 3.2-13 CDR Edit Label

**STEP 11**

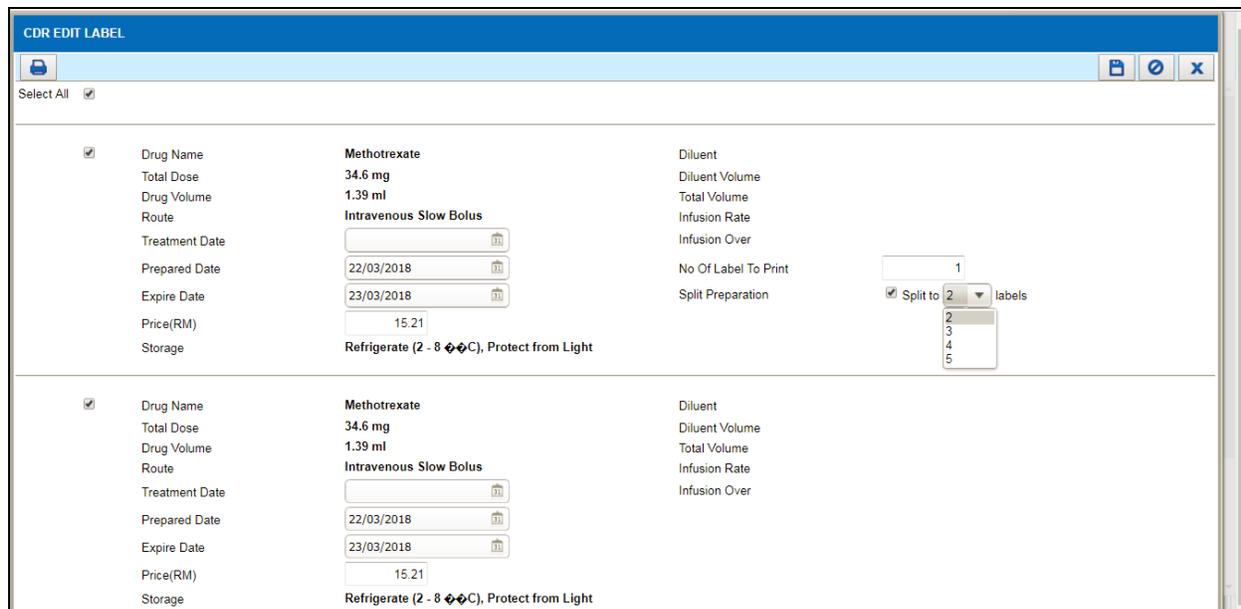
Click on the  button to print drug label as shown in Figure 3.2-14

	HOSPITAL SERI MANJUNG	
	<b>CYTOTOXIC DRUG - Handle with care</b>	
[REDACTED]		
<b>HSM00000001</b>	<b>WAD 3</b>	[REDACTED]
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 two identical entries. Each entry includes fields for Drug Name (Methotrexate), Total Dose (34.6 mg), Drug Volume (1.39 ml), Route (Intravenous Slow Bolus), Treatment Date, Prepared Date (22/03/2018), Expire Date (23/03/2018), Price (RM) (15.21), and Storage (Refrigerate (2 - 8 C), Protect from Light). A 'Split Preparation' dropdown menu is open, showing options 1, 2, 3, 4, and 5, with '2' selected. A 'No Of Label To Print' field is set to 1.

Figure 3.2-15 CDR Edit Label

	HOSPITAL SERI MANJUNG	
	<b>CYTOTOXIC DRUG - Handle with care</b>	
<p>HSM00000001      WAD 3</p>		
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	
	<b>CYTOTOXIC DRUG - Handle with care</b>	
<p>HSM00000001      WAD 3</p>		
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
<b>39 mg</b>	<b>Oral</b>	
Daily		
Take after meal		
Take medicine as directed by pharmacist		
Do not stop this medicine abruptly.		
<b>Prednisolone 5mg Tab</b>		
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	

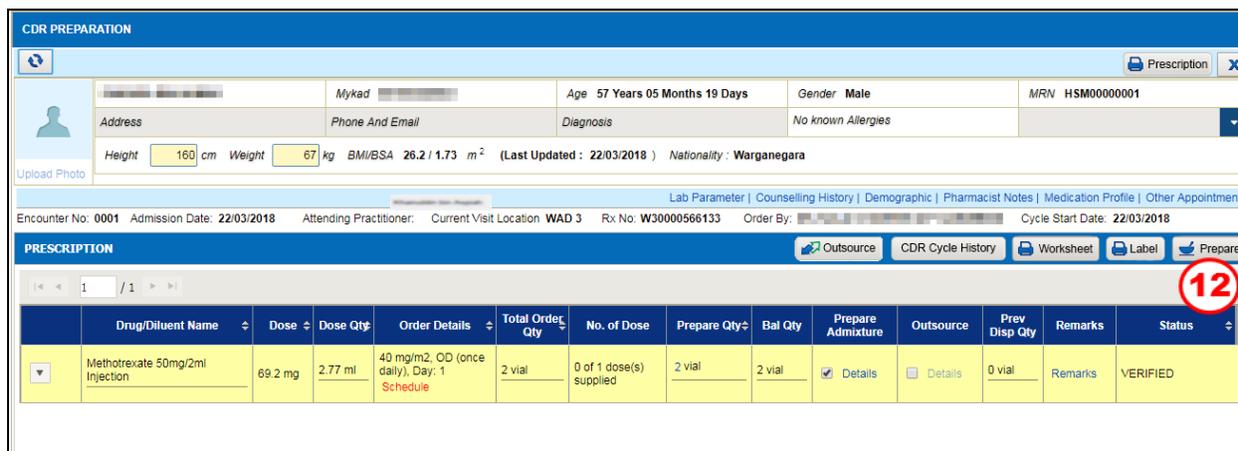
Figure 3.2-17 CDR Normal Drug Label Sample

	HOSPITAL KULIM	
	<b>CYTOTOXIC DRUG - Handle with care</b>	
TESTING		
<b>HKLM00067194</b>	<b>Ward 3 -Medical</b>	<b>650213355698</b>
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	
	<b>CYTOTOXIC DRUG - Handle with care</b>	
TESTING		
<b>HKLM00067194</b>	<b>Ward 3 -Medical</b>	<b>650213355698</b>
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 m<sup>2</sup> (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

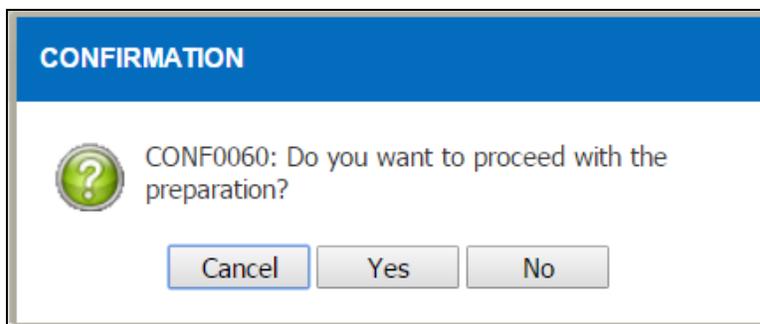
**PRESCRIPTION** Outsource CDR Cycle History Worksheet Label Prepare

	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



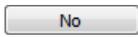
**CONFIRMATION**

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

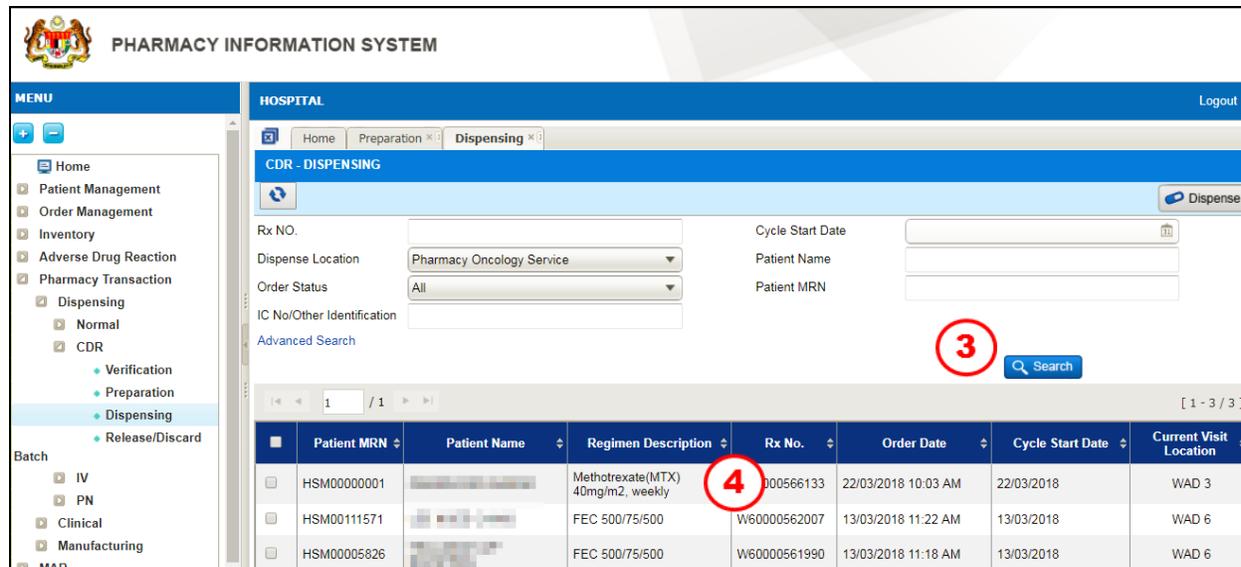
**Note**

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"> <li>Type the MRN either in full or partially:  <i>Example: HPSF00001234 or "1234"</i></li> </ul>
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
<b>Advance Search</b>			
a	Current Visit Location Type	Search by: <ul style="list-style-type: none"> <li>All</li> <li>Clinic</li> <li>Day Care</li> <li>ER</li> <li>Nursing Unit</li> <li>Pharmacy</li> </ul>	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**



**PHARMACY INFORMATION SYSTEM**

**HOSPITAL** Logout

Home Preparation Dispensing

**CDR - DISPENSING** Dispense

Rx NO. Cycle Start Date

Dispense Location: Pharmacy Oncology Service Patient Name

Order Status: All Patient MRN

IC No/Other Identification

Advanced Search **3** Search

[ 1 - 3 / 3 ]

	Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
<input type="checkbox"/>	HSM00000001	[REDACTED]	Methotrexate(MTX) 40mg/m2, weekly	000566133	22/03/2018 10:03 AM	22/03/2018	WAD 3
<input type="checkbox"/>	HSM00111571	[REDACTED]	FEC 500/75/500	W60000562007	13/03/2018 11:22 AM	13/03/2018	WAD 6
<input type="checkbox"/>	HSM00005826	[REDACTED]	FEC 500/75/500	W60000561990	13/03/2018 11:18 AM	13/03/2018	WAD 6

**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

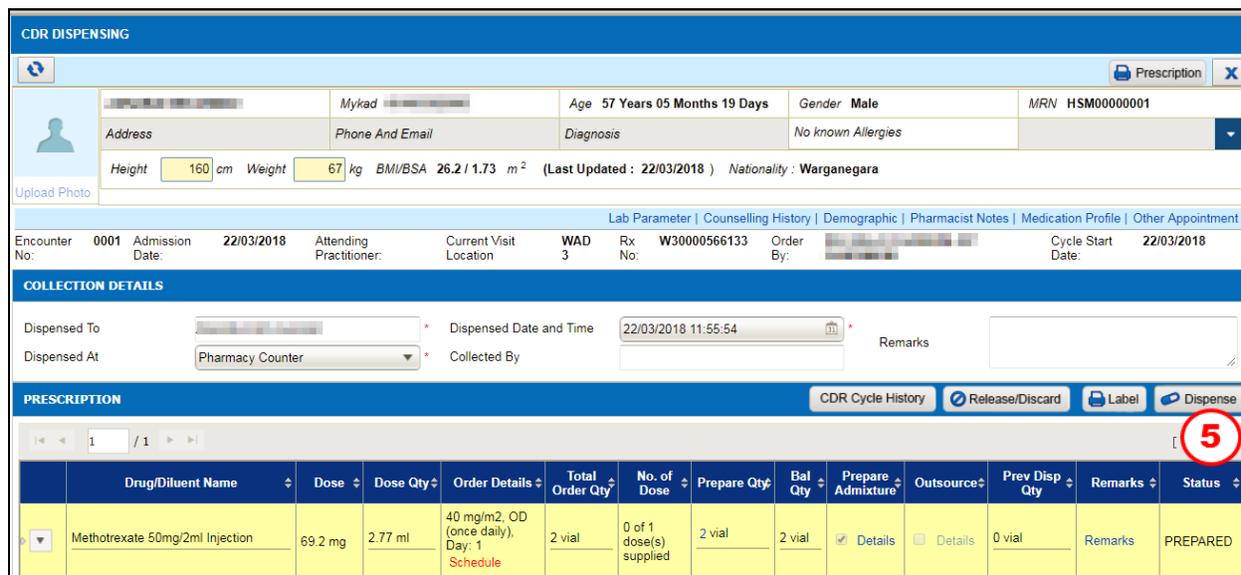
- Order Date
  - Cycle start date
  - Current Visit Location
- User have the option to dispense the medication by:
    - Dispense individual order
    - Dispense multiple patient order

**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: HSM00000001

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

Height: 160 cm Weight: 67 kg BMI/BSA: 26.2 / 1.73 m<sup>2</sup> (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 \* Remarks: [REDACTED]

Dispensed At: Pharmacy Counter \* Collected By: [REDACTED]

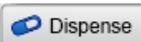
**PRESCRIPTION**

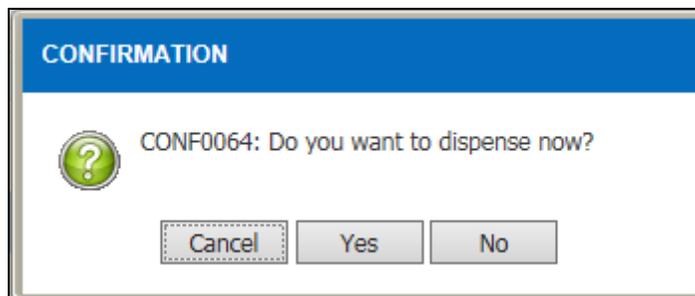
CDR Cycle History Release/Discard Label **Dispense** (5)

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



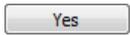
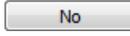
**CONFIRMATION**

CONF0064: Do you want to dispense now?

Cancel Yes No

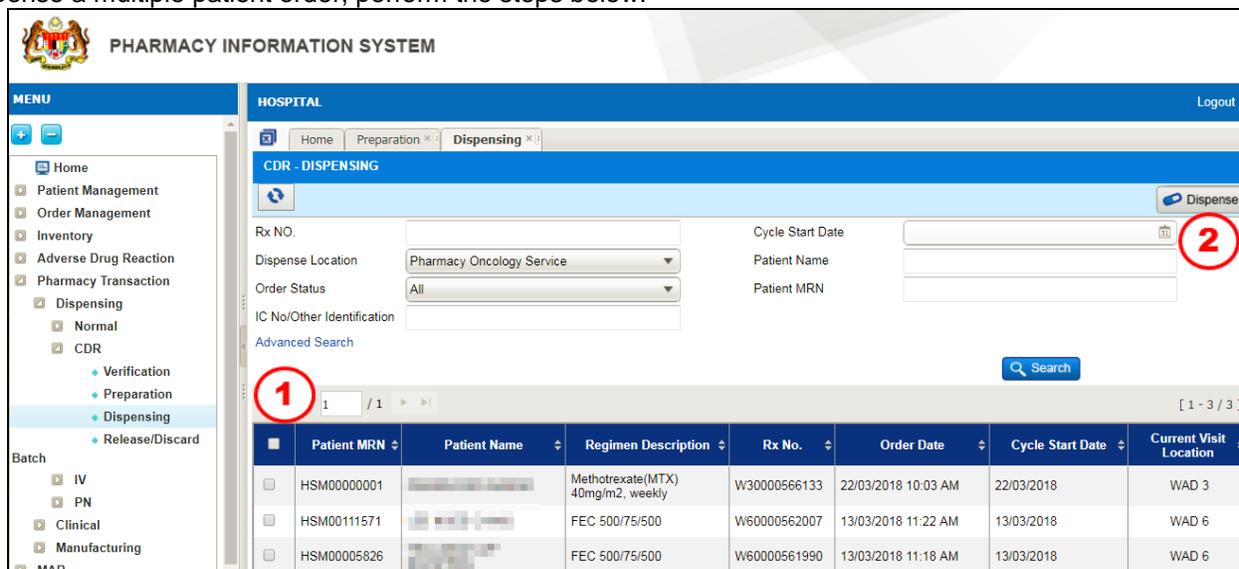
Figure 3.3-5 Alert Message

**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** Logout

Home Preparation x Dispensing x

**CDR - DISPENSING** Dispense

Rx NO. Cycle Start Date

Dispense Location Pharmacy Oncology Service Patient Name

Order Status All Patient MRN

IC No/Other Identification

Advanced Search Search

1 / 1 [ 1 - 3 / 3 ]

	Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
<input checked="" type="checkbox"/>	HSM00000001		Methotrexate(MTX) 40mg/m2, weekly	W30000566133	22/03/2018 10:03 AM	22/03/2018	WAD 3
<input type="checkbox"/>	HSM00111571		FEC 500/75/500	W60000562007	13/03/2018 11:22 AM	13/03/2018	WAD 6
<input type="checkbox"/>	HSM00005826		FEC 500/75/500	W60000561990	13/03/2018 11:18 AM	13/03/2018	WAD 6

**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"> <li>Type the MRN either in full or partially:  <i>Example: HPSF00001234 or "1234"</i> </li> </ul>
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 m<sup>2</sup> (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 <sup>2</sup>	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

**HOSPITAL PAKAR SULTANAH FATIMAH, MUAR** Change Password Logout

Home Release/Discard Batch

**RELEASE/DISCARD BATCH**

MRN: [REDACTED] Patient Name: [REDACTED]

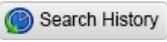
Drug Name: [REDACTED] Dispense Location: [REDACTED]

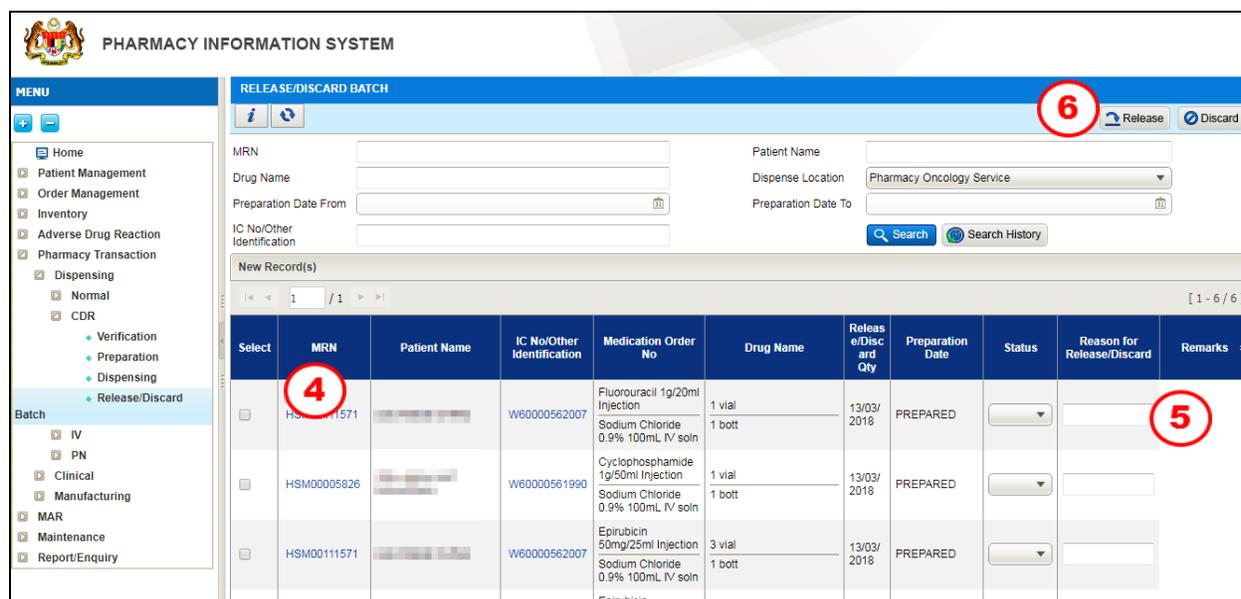
[Search] [Search History]

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

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