



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

User Manual Cytotoxic Drug Reconstitution (CDR) Dispensing

Version	: 13th Edition
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PhIS & CPS Project
User Manual – Cytotoxic Drug Reconstitution (CDR) Dispensing



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1.0 Introduction

1.1 Overview of PhIS

Pharmacy Information System or better known as PhIS, is a complete and comprehensive system that integrates pharmacy related services geared towards pharmacy excellence. PhIS implementation would transform most of current manual process to electronic system would benefit facility end user in the health care sector.

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

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

1.2 Purpose and Objectives

This user manual outlines the Cytotoxic Drug Reconstitution (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

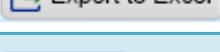
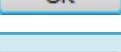
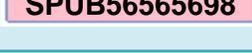
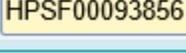
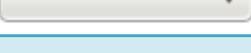
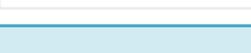
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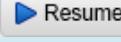
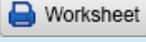
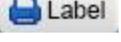
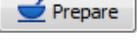
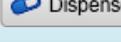
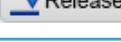
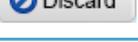
These are the sections within this document:

- 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.

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

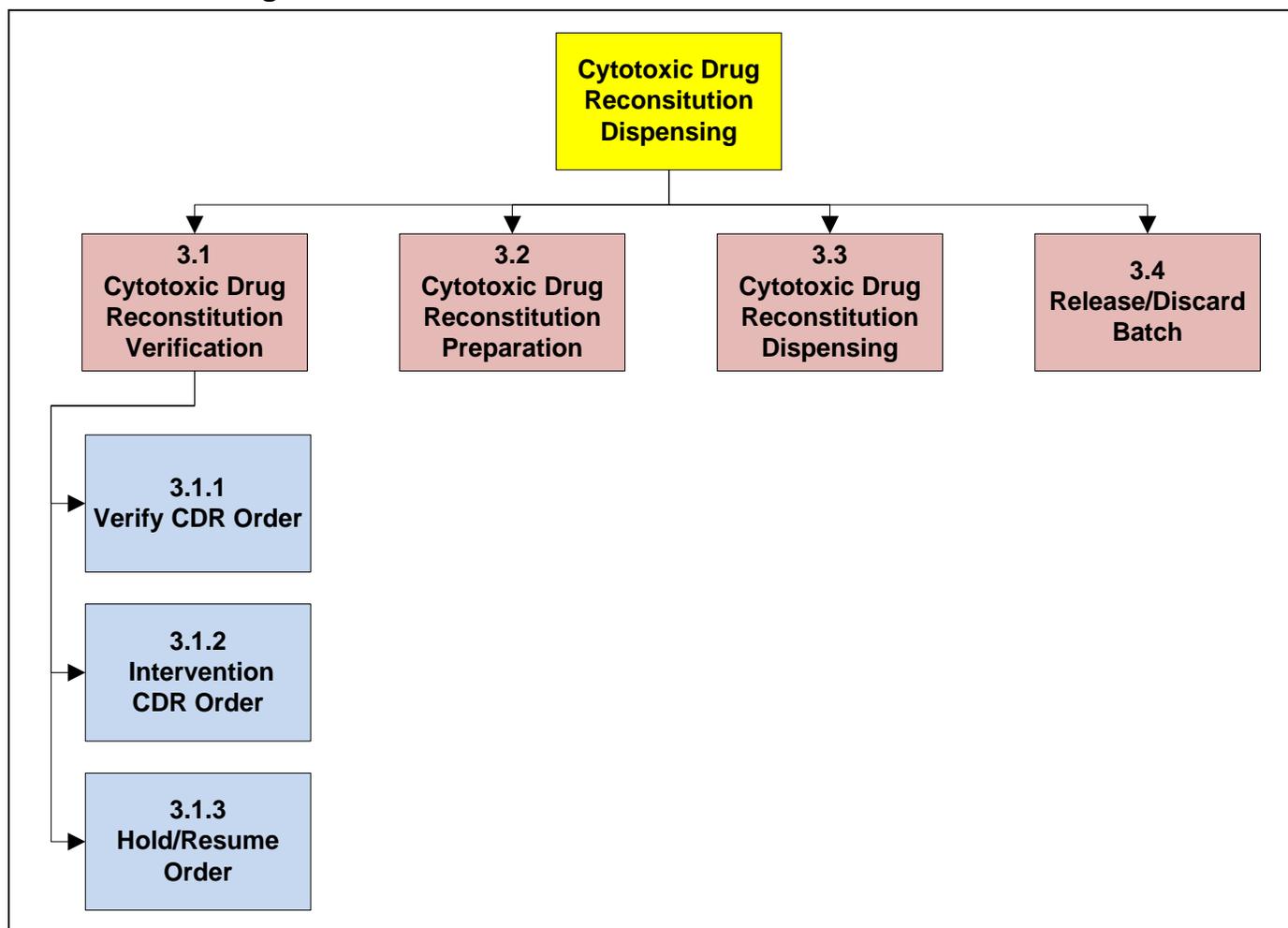


Table 3.0-1



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 dispense location)	Able to filter and search patient name by dispensing location
c	Order Status	Search by: - All - Discharge Medications	Able to filter and search patient name by order status

		- New Orders - Outsourced Orders	
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 date from the calendar or manually key-in the date with format DD/MM/YYYY
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"> All 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 (It will list all active location)	Able to filter and search patient name by visit location
c	Order Date From	Order created date	Allow to search by start date of order created
d	Order Date To	Order created 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
- Regimen Description
- Rx No
- Order Date
- Cycle Start 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									
<div style="text-align: right;">Prescription X</div>									
		Mykad 920728146224		Age 27 Years 01 Months 27 Days		Gender Female		MRN	
Address		Phone And Email		Diagnosis		No known Allergies			
Upload Photo Height 165 cm Weight 55 kg BMI/BSA 20.2 / 1.59 m ² (Last Updated : 24/09/2019) Nationality : Warganegara									
Encounter No: 0001 Actual Admission Date: 24/09/2019 Attending Practitioner: Current Visit Location WARD 5 Rx No: Ward 50000954217 Order By: Cycle Start Date: 24/09/2019									
PRESCRIPTION									
<div style="text-align: right;">CDR Cycle History Verify</div>									
<div style="text-align: right;">[1 - 4 / 4]</div>									
Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status		
CDRHE00002	Bleomycin HCl 15mg Injection	15.9 mg	5.3 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	4 vial	Remarks	ORDERED		
CDRHE00002	Sodium Chloride 0.9% 100mL IV soln Dacarbazine 100mg/10ml Injection	596.25 mg	100 ml 59.62 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	2 bott 12 vial	Remarks	ORDERED		
CDRHE00002	Sodium Chloride 0.9% 500mL IV soln Doxorubicin HCl 50mg/25ml Injection	39.75 mg	240.38 ml 19.88 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 bott 2 vial	Remarks	ORDERED		
CDRHE00002	Vinblastine Sulphate 10mg Injection	9.54 mg	9.54 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	Remarks	ORDERED		

Figure 3.1.1-3 CDR Verification

Note

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

REGIMEN DETAILS											
<div style="text-align: right;">X</div>											
Category		Hematology - HL (Hodgkin's Lymphoma)		Regimen Code		CDRHE00002		Regimen Description		ABVD (without bleomycin test dose)	
Cycle Duration		28		Remarks							
Active Ingredient	Admin Route	Dosage	Frequency	Chemo day	Infuse Over	Diluent	Diluent Volume	Drug Remark	Status		
Bleomycin	Intravenous Bolus	10 mg/m2	OD (once daily)	1,15	0 Hours 15 Minutes	Sodium Chloride 0.9% 100mL IV soln	100 ml	Over 15 minutes	Active		
Dacarbazine	Intravenous Infusion	375 mg/m2	OD (once daily)	1,15	1 Hours 0 Minutes	Sodium Chloride 0.9% 500mL IV soln	300 ml	Over 1 hour	Active		
Doxorubicin	Intravenous Bolus	25 mg/m2	OD (once daily)	1,15	0 Hours 10 Minutes			Over 10 minutes	Active		
Vinblastine	Intravenous Infusion	6 mg/m2	OD (once daily)	1,15	0 Hours 0 Minutes				Active		

Figure 3.1.1-4 Regimen Details

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

DOSE SCHEDULE							
<div style="text-align: right;">X</div>							
Active Ingredient		Bleomycin		To Prepare <input checked="" type="radio"/> Daily <input type="radio"/> Day(s) Before <input type="radio"/> All Today			
<div style="text-align: right;">[1 - 2 / 2]</div>							
Chemo Day	Schedule Date	Total Dose/Day	Schedule Time	Preparation Date	Prepare	Dispense	Hold/Resume Dose
1	14/02/2023 	13.5 mg	08:00 AM 	14/02/2023 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	28/02/2023 	13.5 mg	08:00 AM 	28/02/2023 	<input type="checkbox"/>	<input type="checkbox"/>	<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 Over 15 minutes

Pharmacist Remark

Verification Stage

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/BSA	Remarks	Prescription Status	Selection	Ordered By	Approved By(Future Order)
CDRHE00002	ABVD (without bleomycin test dose)	24/09/2019	21/10/2019	28 Days	6	1	165cm/55kg/1.59m ²		ORDERED	<input type="checkbox"/>		
Drug Name		Dose	Frequency	Route	Chemo Day		Drug Remarks	Status				
Bleomycin HCl 15mg Injection		15.9 mg Schedule	OD (once daily)	Intravenous Bolus	Day : 1,15		Over 15 minutes	ORDERED				
Dacarbazine 100mg/10ml Injection		596.25 mg Schedule	OD (once daily)	Intravenous Infusion	Day : 1,15		Over 1 hour	ORDERED				
Doxorubicin HCl 50mg/25ml Injection		39.75 mg Schedule	OD (once daily)	Intravenous Bolus	Day : 1,15		Over 10 minutes	ORDERED				
Vinblastine Sulphate 10mg Injection		9.54 mg Schedule	OD (once daily)	Intravenous Infusion	Day : 1,15			ORDERED				

Figure 3.1.1-7 CDR Cycle History

- user is allowed to print CDR History Report by click on selection button and click button to print



CDR VERIFICATION

Prescription X

Mykad 920728146224 Age 27 Years 01 Months 27 Days Gender Female MRN

Address Phone And Email Diagnosis No known Allergies

Height 165 cm Weight 55 kg BMI/BSA 20.2 / 1.59 m² (Last Updated : 24/09/2019) Nationality : Warganegara

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

Encounter No: 0001 Actual Admission Date: 24/09/2019 Attending Practitioner: Current Visit Location WARD 5 Rx No: Ward 50000954217 Order By: Cycle Start Date: 24/09/2019

PRESCRIPTION CDR Cycle History Verify

Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
CDRHE00002	Bleomycin HCl 15mg Injection	15.9 mg	5.3 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	4 vial	Remarks	ORDERED
CDRHE00002	Sodium Chloride 0.9% 100mL IV soln Dacarbazine 100mg/10ml Injection	596.25 mg	100 ml 59.62 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	2 bott 12 vial	Remarks	ORDERED
CDRHE00002	Sodium Chloride 0.9% 500mL IV soln Doxorubicin HCl 50mg/25ml Injection	39.75 mg	240.38 ml 19.88 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 bott 2 vial	Remarks	ORDERED
CDRHE00002	Vinblastine Sulphate 10mg Injection	9.54 mg	9.54 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	Remarks	ORDERED

Figure 3.1.1-8 CDR Verification

STEP 5

Click on the  button to verify the order and Dose Schedule screen will display as shown in Figure 3.1.1-9

DOSE SCHEDULE

Verify X

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

Chemo Day	Schedule Date	Total Dose/Day	Schedule Time	Preparation Date	Prepare	Dispense	Hold/Resume Dose
1	14/02/2023	13.5 mg	08:00 AM	14/02/2023	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	28/02/2023	13.5 mg	08:00 AM	28/02/2023	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Chemo Day	Schedule Date	Total Dose/Day	Schedule Time	Preparation Date	Prepare	Dispense	Hold/Resume Dose
1	14/02/2023	506.25 mg	08:00 AM	14/02/2023	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	28/02/2023	506.25 mg	08:00 AM	28/02/2023	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Chemo Day	Schedule Date	Total Dose/Day	Schedule Time	Preparation Date	Prepare	Dispense	Hold/Resume Dose
1	14/02/2023	33.75 mg	08:00 AM	14/02/2023	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	28/02/2023	33.75 mg	08:00 AM	28/02/2023	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Chemo Day	Schedule Date	Total Dose/Day	Schedule Time	Preparation Date	Prepare	Dispense	Hold/Resume Dose
1	14/02/2023	8.1 mg	08:00 AM	14/02/2023	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	28/02/2023	8.1 mg	08:00 AM	28/02/2023	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Figure 3.1.1-9 Dose Schedule

Note

User is able to set 'Preparation Date' manually or based on selection option on 'To Prepare' field:

- Daily** - 'Preparation Date' will auto generate based on the same date as Schedule Date

- II. **Day(s) Before** - 'Preparation Date' will auto generate based on the backdated schedule date entered by user
- III. **All today** - 'Preparation Date' will auto generate current date for all open dose schedule record

STEP 6

Click on the  button to verify the Dose Schedule and Confirmation message will displayed as shown in Figure 3.1.1-10

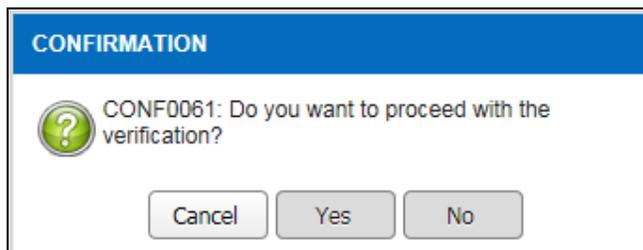
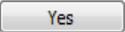
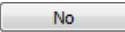


Figure 3.1.1-10 Alert Message

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

Mykad: 920728146224 | Age: 27 Years 01 Months 27 Days | Gender: Female | MRN: [REDACTED]

Height: 165 cm | Weight: 55 kg | BMI/BSA: 20.2 / 1.59 m² (Last Updated: 24/09/2019) | Nationality: Warganegara

Encounter No: 0001 | Actual Admission Date: 24/09/2019 | Attending Practitioner: [REDACTED] | Current Visit Location: WARD 5 | Rx No: Ward 50000954217 | Order By: [REDACTED] | Cycle Start Date: 24/09/2019

Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
CDRHE00002	Bleomycin HCl 15mg Injection	15.9 mg	5.3 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	4 vial	Remarks	ORDERED
CDRHE00002	Sodium Chloride 0.9% 100mL IV soln		100 ml		2 bott	Remarks	ORDERED
CDRHE00002	Dacarbazine 100mg/10ml Injection	596.25 mg	59.62 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	12 vial	Remarks	ORDERED
CDRHE00002	Sodium Chloride 0.9% 500mL IV soln		240.38 ml		2 bott	Remarks	ORDERED
CDRHE00002	Doxorubicin HCl 50mg/25ml Injection	39.75 mg	19.88 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	Remarks	ORDERED
CDRHE00002	Vinblastine Sulphate 10mg Injection	9.54 mg	9.54 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	Remarks	ORDERED

Figure 3.1.2-1 CDR Verification

STEP 1

Right click on the button and select **Intervention** function and the Intervention screen will be displayed as shown in Figure 3.1.2-2

INTERVENTION

INTERVENTION REASON

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

MODIFY ORDER

Cycle Start Date: 24/09/2019 | Cycle End Date: 21/10/2019

Cycle Duration: 28 Days | BSA: 1.59 m²

Calculate Dose Using: Actual Body Weight | Weight: 55 Kg

Active Ingredient: Bleomycin

Drug Name: Bleomycin HCl 15mg Injection | Drug Category: A

Drug Indication: Antineoplastic, Cytotoxic Antibiotics

Dosage Form: Powder for IV Soln | Admin Route: Intravenous Bolus

Dosage: 10 mg / m2

Total Dose: 15.9 mg | Drug Volume: 5.3 ml

Diluent: Sodium Chloride 0.9% 100mL IV soln

Diluent Volume: 100 ml | Total Volume: 105.3 ml

Frequency: OD (once daily)

Infuse Over: 0 (hh) : 15 (mm)

Infusion Rate: 7 ml/Min

Chemo Day: 1,15

Remarks: Over 15 minutes

Updated By: DR KOH KENG HEE | Updated Date: 24/09/2019

Figure 3.1.2-2 Intervention

STEP 2

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

STEP 3

Select **Intervention Status** radio button

Note

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

STEP 4

Modify order details

STEP 5

Click on the  button to save the record and alert message will be displayed as shown in Figure 3.1.2-3

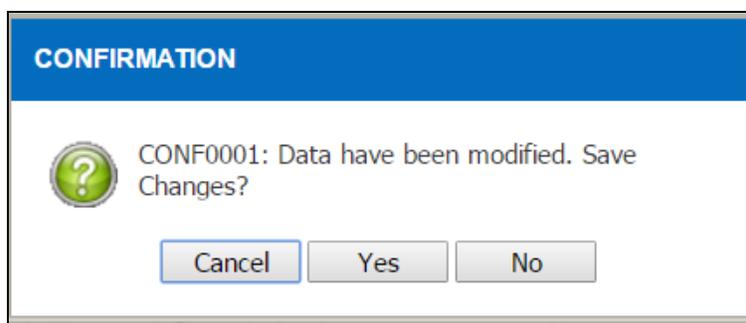


Figure 3.1.2-3 Alert Message

Note

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

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

Figure 3.1.2-4 Pharmacist Remark

- After intervention is made, *Order Details* column will change to a hyperlink as shown in Figure 3.1.2-5, and user is allowed to click to view the original order details.
- Order details will be displayed as shown in Figure 3.1.2-6.

CDR VERIFICATION

Mykad 920728146224 Age 27 Years 01 Months 27 Days Gender Female MRN [REDACTED]

Address Phone And Email Diagnosis No known Allergies

Height 165 cm Weight 55 kg BMI/BSA 20.2 / 1.59 m² (Last Updated : 24/09/2019) Nationality : Warganegara

Encounter No: 0001 Actual Admission Date: 24/09/2019 Attending Practitioner: Current Visit Location WARD 5 Rx No: Ward 50000954217 Order By: [REDACTED] Cycle Start Date: 24/09/2019

PRESCRIPTION

Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
CDRHE00002	Bleomycin HCl 15mg Injection	15.9 mg	5.3 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	4 vial	Remarks	ORDERED
	Sodium Chloride 0.45% 500mL IV soln		100 ml		2 bott		
	Dacarbazine 100mg/10ml Injection	596.25 mg	59.62 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	12 vial	Remarks	ORDERED
CDRHE00002	Sodium Chloride 0.9% 500mL IV soln		240.38 ml		2 bott		
CDRHE00002	Doxorubicin HCl 50mg/25ml Injection	39.75 mg	19.88 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	Remarks	ORDERED
CDRHE00002	Vinblastine Sulphate 10mg Injection	9.54 mg	9.54 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	Remarks	ORDERED

Figure 3.1.2-5 Prescription After Intervention

ORIGINAL RX

Category Hematology - HL (Hodgkin's Lymphoma) Regimen Code CDRHE00002 Regimen Description ABVD (without bleomycin test dose)

Cycle Duration 28 Cycle No 1 Cycle Start Date 24/09/2019 Cycle End Date 21/10/2019

Default Drug Name	Admin Route	Dosage	Total Dose	Infuse Over	Frequency	Chemo days	Diluent	Diluent Volume	Infusion Rate	Drug Remark	Intervention Reason	Intervention Remarks
Bleomycin HCl 15mg Injection	Intravenous Bolus	10 mg/m2	15.9 mg	0 Hours 15 Minutes	OD (once daily)	Day: 1,15	Sodium Chloride 0.9% 100mL IV soln	100 ml	400 ml/Hour	Over 15 minutes	Others	

Figure 3.1.2-6 Original Rx

Note

In intervention screen, user also is allowed to do a Hold function for selected dose as shown in Figure 3.1.2-7

INTERVENTION

INTERVENTION REASON

MODIFY ORDER

Cycle Start Date 16/08/2019 Cycle End Date 05/09/2019

Cycle Duration 21 Days BSA 1.74 m²

Calculate Dose Using Actual Body Weight 66 Kg

Active Ingredient Etoposide

Drug Name Etoposide 100mg/5ml Injection Drug Category A*

Drug Indication Antineoplastic, Podophylotoxin Derivatives

Dosage Form Parenteral Solution

Admin Route Intravenous Infusion

Diluent Sodium Chloride 0.9% 500mL IV soln

Diluent Volume 89.56 ml

Total Volume 100 ml

Frequency BD (twice daily)

Infuse Over 2 (hh) : 0 (mm)

Infusion Rate 0.83 ml/Min

Chemo Day 1,2,3 Drug Schedule **6**

Dosage 120 mg /m2

Total Dose 208.8 mg AUC Calculator

Drug Volume 10.44 ml

Remarks

Updated By DR. LAANG SHIAN TUCK

Updated Date 16/08/2019

Figure 3.1.2-7 Intervention

STEP 6

Click on the **Drug Schedule** hyperlink and dose schedule window will be display as Figure 3.1.2-8

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

Figure 3.1.2-9 Dose Schedule

STEP 7

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

Note

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

STEP 8

Click on the  button to save the record

Note

User is allowed to hold drug by dose only through Intervention screen. once user selected Hold dose and save the records, it is mandatory for user to enter **Intervention Reason - Remarks** before can proceed to save intervention records (Figure 3.1.2-10)

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

Figure 3.1.2-10 Intervention

Note

For partially supply, user is allowed to modify Total Dose/Day as shown in Figure 3.1.2-11 and it is applicable only for Infusion/Injectable Drug.

Figure 3.1.2-11 Intervention

STEP 9

Click on the **Drug Schedule** hyperlink and dose schedule window will be display as Figure 3.1.2-12

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

Figure 3.1.2-12 Dose Schedule

STEP 10

Enter **Modified Total Dose/Day**

Note

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

STEP 11

Click on the  button to save the record

Note

After save the Dose Schedule with Modified Total Dose/Day value, 'Intervention Reason – Remarks' is mandatory for user to specify before can proceed to save intervention record as shown in Figure 3.1.2-13

INTERVENTION

History [Icons]

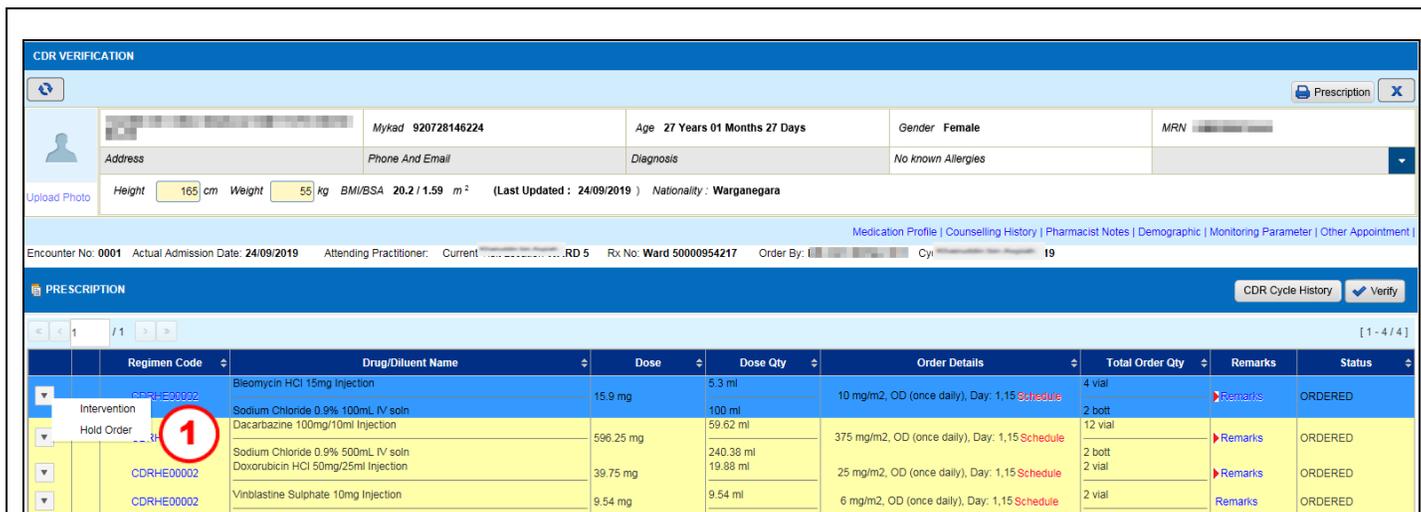
INTERVENTION REASON [1 / 12]

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

MODIFY ORDER

Figure 3.1.2-13 Intervention

3.1.3 Hold/Resume CDR Order



CDR VERIFICATION

Prescription X

Mykad 920728146224 Age 27 Years 01 Months 27 Days Gender Female MRN [REDACTED]

Address Phone And Email Diagnosis No known Allergies

Height 165 cm Weight 55 kg BMI/BSA 20.2 / 1.59 m² (Last Updated : 24/09/2019) Nationality : Warganegara

Encounter No: 0001 Actual Admission Date: 24/09/2019 Attending Practitioner: Current [REDACTED] RD 5 Rx No: Ward 50000954217 Order By: [REDACTED] Cyt [REDACTED] 19

PRESCRIPTION CDR Cycle History Verify

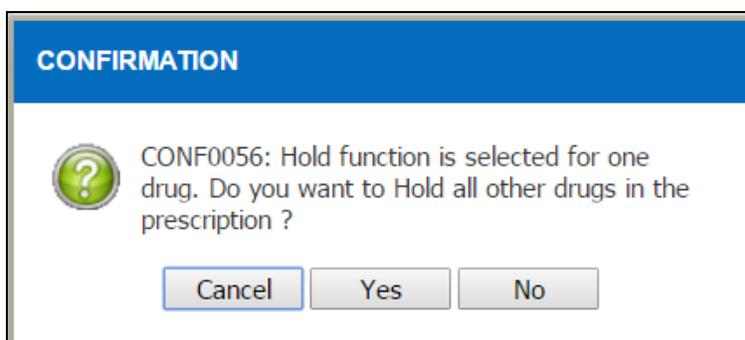
Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
Intervention	Bleomycin HCl 15mg Injection	15.9 mg	5.3 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	4 vial	Remarks	ORDERED
Hold Order	Sodium Chloride 0.9% 100mL IV soln		100 ml		2 bott		
	Dacarbazine 100mg/10ml Injection	596.25 mg	59.62 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	12 vial	Remarks	ORDERED
	Sodium Chloride 0.9% 500mL IV soln		240.38 ml		2 bott		
	Doxorubicin HCl 50mg/25ml Injection	39.75 mg	19.88 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	Remarks	ORDERED
	Vinblastine Sulphate 10mg Injection	9.54 mg	9.54 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	Remarks	ORDERED

Figure 3.1.3-1 CDR Verification Screen

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.

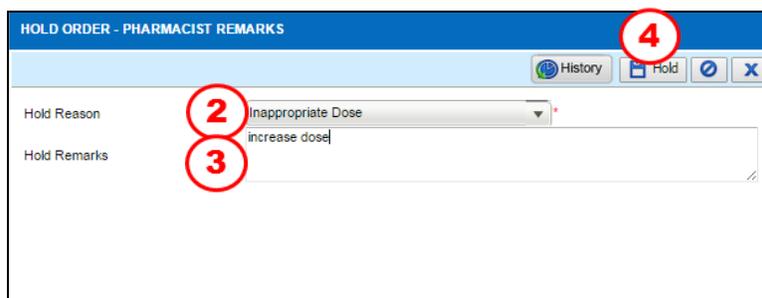


Figure 3.1.3-3 Hold Order – Pharmacist Remarks

STEP 2

Select **Hold Reason** from dropdown box:

- Authenticity
- Contraindication
- Drug Interaction
- Inappropriate Dose
- Inappropriate Drug
- Inappropriate Duration
- Inappropriate Frequency
- Incompatibility
- Intervention
- Others
- Patient Refused
- 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

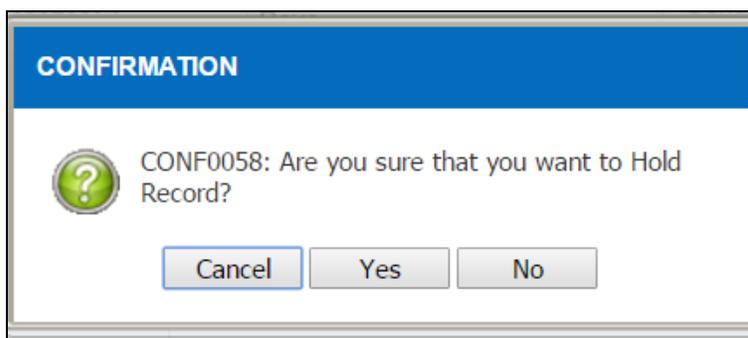
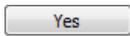


Figure 3.1.3-4 Alert Message

Note

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

Resume Order

CDR VERIFICATION

Mykad: 920728146224 | Age: 27 Years 01 Months 27 Days | Gender: Female | MRN: [REDACTED]

Height: 165 cm | Weight: 55 kg | BMI/BSA: 20.2 / 1.59 m² (Last Updated: 24/09/2019) | Nationality: Warganegara

Encounter No: 0001 | Actual Admission Date: 24/09/2019 | Attending Practitioner: [REDACTED] | Current Visit Location: WARD 5 | Rx No: Ward 50000954217 | Order By: [REDACTED] | Cycle Start Date: 24/09/2019

Regimen Code	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	Remarks	Status
CDRHE00002	Bleomycin HCl 15mg Injection	15.9 mg	5.3 ml	10 mg/m2, OD (once daily), Day: 1,15 Schedule	4 vial	Remarks	ORDERED
CDRHE00002	Sodium Chloride 0.45% 500mL IV soln		100 ml		2 bott		
CDRHE00002	Dacarbazine 100mg/10ml Injection	596.25 mg	59.62 ml	375 mg/m2, OD (once daily), Day: 1,15 Schedule	12 vial	Remarks	ORDERED HOLD
CDRHE00002	Sodium Chloride 0.9% 500mL IV soln		240.38 ml		2 bott		
CDRHE00002	Etoposide HCl 50mg/25ml Injection	39.75 mg	19.88 ml	25 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	Remarks	ORDERED
CDRHE00002	Vinblastine Sulphate 10mg Injection	9.54 mg	9.54 ml	6 mg/m2, OD (once daily), Day: 1,15 Schedule	2 vial	Remarks	ORDERED

Figure 3.1.3-5 CDR Verification Screen

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

CONFIRMATION

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

Cancel Yes No

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.

HOLD ORDER - PHARMACIST REMARKS

History Resume

Hold Reason: Inappropriate Dose

Hold Remarks: increase dose

Resume Remarks: [REDACTED]

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

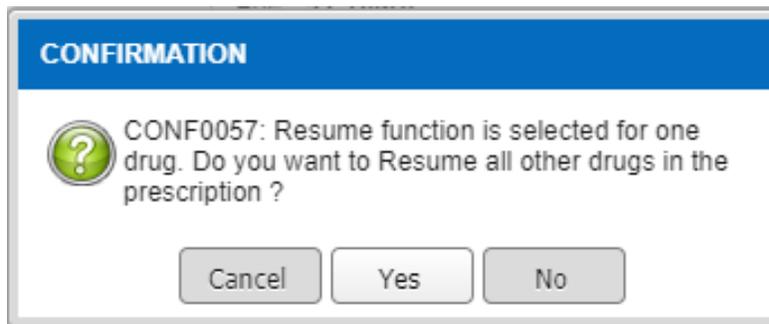


Figure 3.1.3-8 Alert Message

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.

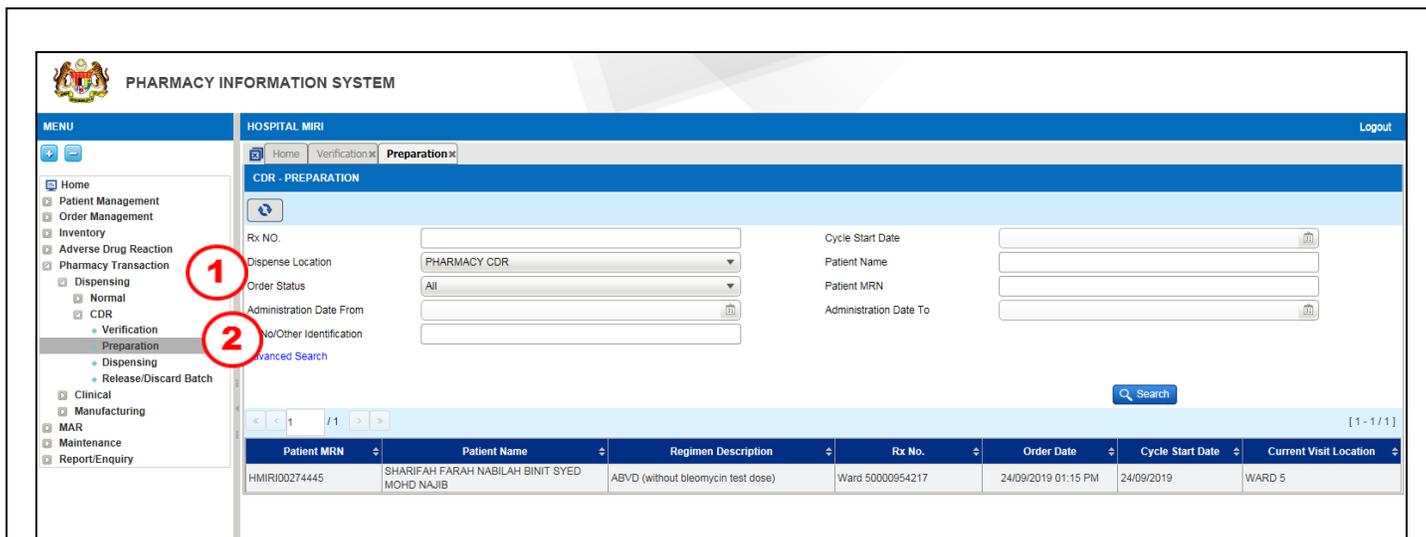


The screenshot shows a table titled "HOLD REASON HISTORY LISTING" with a blue header and a close button (X) in the top right corner. Below the header is a pagination bar showing "1 / 1" and "[1 - 1 / 1]". The table has six columns: Date/Time, Screen, Hold Reason, Remarks, Resume Remarks, and Updated By. The first row contains the following data: 24/09/2019 03:00:57 PM, Verification, Patient Refused, Patient Refused, and a partially visible name in the Updated By column.

Date/Time	Screen	Hold Reason	Remarks	Resume Remarks	Updated By
24/09/2019 03:00:57 PM	Verification	Patient Refused	Patient Refused		[Name]

Figure 3.1.3-9 Hold Reason History Listing

3.2 CDR Preparation



PHARMACY INFORMATION SYSTEM

HOSPITAL MIRI

Home | Verification | Preparation

CDR - PREPARATION

Rx NO. Cycle Start Date

Dispense Location Patient Name

Order Status Patient MRN

Administration Date From Administration Date To

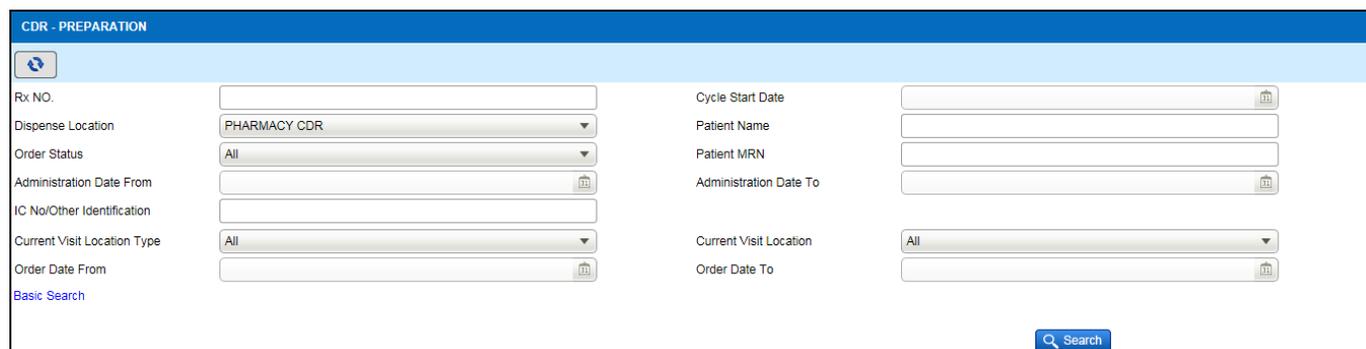
IC No/Other Identification

Advanced Search

Search

Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
HMIRI00274445	SHARIFAH FARAH NABILAH BINIT SYED MOHD NAJIB	ABVD (without bleomycin test dose)	Ward 50000954217	24/09/2019 01:15 PM	24/09/2019	WARD 5

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

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

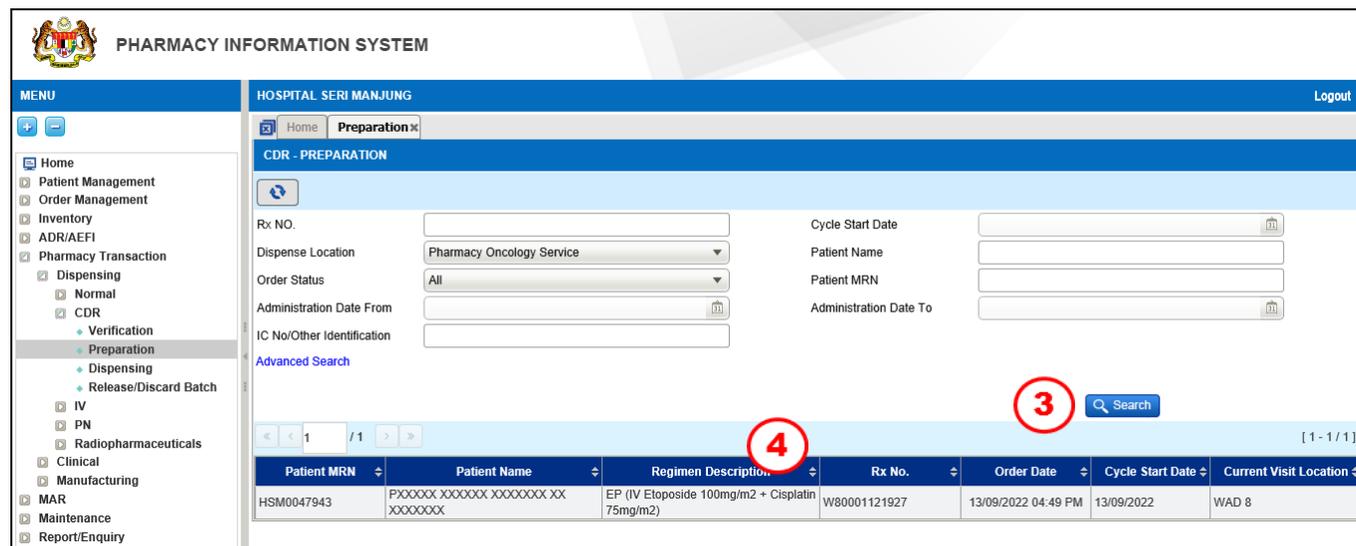
Note

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 dispense 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: <ul style="list-style-type: none"> 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 date from the calendar or manually key-in the date with format DD/MM/YYYY
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: <ul style="list-style-type: none"> All Clinic Day Care ER Nursing Unit Pharmacy
B	Current Visit Location	Current visit Location(list will be based on active location)	Able to filter and search patient name by visit location
C	Order Date From	Order created date from	Allow to search by start date of order created
d	Order Date To	Order created date to	Allow to search by order date to of order created

Table 3.2-1



PHARMACY INFORMATION SYSTEM

HOSPITAL SERI MANJUNG Logout

Home 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

Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
HSM0047943	PXXXXX XXXXXX XXXXXXXX XX XXXXXXX	EP (IV Etoposide 100mg/m2 + Cisplatin 75mg/m2)	W80001121927	13/09/2022 04:49 PM	13/09/2022	WAD 8

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
- Regimen Description
- Rx No
- Order Date
- Cycle Start Date
- 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

Prescription X

Patient: PXXXXX XXXXXX XXXXXXXX XX XXXXXXXX
 Mykad: [REDACTED] Age: 25 Years 01 Months 19 Days Gender: Female MRN: HSM0047943
 Address: [REDACTED] Phone And Email: [REDACTED] Diagnosis: [REDACTED] Known Allergies[1] Vital Sign: [REDACTED]
 Height: 112 cm Weight: 33 kg BMI/BSA: 26.3 / 1.01 m² (Last Updated : 13/09/2022) Nationality: Warganegara

Encounter No: 0144 Actual Admission Date: 28/03/2020 Attending Practitioner: [REDACTED] Current Visit Location: WAD 8 Rx No: W80001121927 Order By: doctor Prescriber Dept.: General Surgery Cycle Start Date: 13/09/2022

PRESCRIPTION Full Supply Allocate Outsource CDR Cycle History Worksheet Label Prepare

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Disp Qty	Prepare Admixture	No. of Preparation	Outsource	Prev Disp Qty	Remarks	Status
Cisplatin 50mg/50ml Injection	75.75 mg	75.75 ml	75 mg/m2, OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose (s) supplied	2 vial	0	Details	1	Details	0 vial	Remarks	VERIFIED
Sodium Chloride 0.9% 500mL IV soln		424.25 ml		1 bott		1 bott	1	Details		Details	0 bott	Remarks	VERIFIED
Etoposide 100mg/5ml Injection	101 mg	5.05 ml	100 mg/m2, OD (once daily), Day: 1,2,3 Schedule	6 vial	0 of 3 dose (s) supplied	6 vial	0	Details	1	Details	0 vial	Remarks	VERIFIED
Sodium Chloride 0.9% 500mL IV soln		494.95 ml		3 bott		3 bott	3	Details		Details	0 bott	Remarks	VERIFIED

Figure 3.2-4 CDR Preparation

Note

- **Prepare Qty** will be auto allocate after verify the order in Verification Stage (refer 3.1.1 CDR Verification - Step 5)
- **Allocate** button is where system will allocate batch based on the new 'Preparation Date' if user edit the 'Preparation Date' in 'Schedule' hyperlink.
- **Full Supply** button is where system will auto select all balance dose schedule which is not supplied.

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: L01CB01000P3001XX Default SKU: vial
 Drug Name: Etoposide 100mg/5ml Injection Dispense UOM: vial
 Supply: Day 1,2,3 Date From: 15/09/2022 To: 15/09/2022

Chemo Day	Schedule Date	Total Dose/Day	UOM	Schedule Time	Preparation Date	Supplied	Dispense	Hold/Resume Dose
1	13/09/2022	101 mg	mg	08:00 AM	13/09/2022	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	14/09/2022	101 mg	mg	08:00 AM	14/09/2022	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	15/09/2022	101 mg	mg	08:00 AM	15/09/2022	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Batch No.	Expiry Date	Available Qty	UOM Qty	Allocate Qty
VB67098	31/12/2022	994	6 vial	6

Total Location Quantity: 1000 Total Allocated Quantity: 6

Figure 3.2-5 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

CDR PREPARATION

Prescription
X

	PXXXXX XXXXXX XXXXXXXX XX XXXXXXX	Mykad [REDACTED]	Age 25 Years 01 Months 19 Days	Gender Female	MRN HSM0047943
Address		Phone And Email	Diagnosis	! Known Allergies[1]	Vital Sign

Upload Photo Height 112 cm Weight 33 kg BMI/BSA 26.3 / 1.01 m² (Last Updated : 13/09/2022) Nationality : Warganegara

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

Encounter No: 0144	Actual Admission Date: 28/03/2020	Attending Practitioner: [REDACTED]	Current Visit Location: WAD 8	Rx No: W80001121927	Order By: doctor	Prescriber Dept.: General Surgery	Cycle Start Date: 13/09/2022
--------------------	-----------------------------------	------------------------------------	-------------------------------	---------------------	------------------	-----------------------------------	------------------------------

PRESCRIPTION Full Supply Allocate Outsource CDR Cycle History Worksheet Label Prepare

[1 - 2 / 2]

	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admix	No. of preparation	Outsource	Prev Disp Qty	Remarks	Status
▼	Cisplatin 50mg/50ml Injection	75.75 mg	75.75 ml	75 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	1	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
	Sodium Chloride 0.9% 500mL IV soln		424.25 ml	1 bott		1 bott		1 bott	<input type="checkbox"/> Details		<input type="checkbox"/> Details	0 bott	Remarks	VERIFIED
▼	Etoposide 100mg/5ml Injection	101 mg	5.05 ml	100 mg/m2, OD (once daily), Day: 1,2,3 Schedule	6 vial	0 of 3 dose (s) supplied	6 vial	6 vial	<input type="checkbox"/> Details	1	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
	Sodium Chloride 0.9% 500mL IV soln		494.95 ml	3 bott		3 bott		3 bott	<input type="checkbox"/> Details		<input type="checkbox"/> Details	0 bott	Remarks	VERIFIED

Figure 3.2-6 CDR Preparation

Note

- No. of Preparation field will appear for all type of admin route exclude 'Oral'.
- No. of Preparation field will be default to '1' and user is allowed to change the value.

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.
- Click on the 'Details' hyperlink to edit or add information and Preparation Details screen will display as Figure 3.2-7

PREPARATION DETAILS

Preparation Using CSTD

Split Preparation Split to preparations

Storage

Below 0 °C "Refrigerate (2 - 8 °C)"

Protect from Light "Room Temperature (< 25 °C)"

Reconstitution Fluid

Preparation Instruction

Figure 3.2-7 Preparation Details

- User can click on the **Using CSTD** checkbox to specify preparation using CSTD method.
- User can click on the **Split Preparation** checkbox to proceed with split preparation

CDR PREPARATION

PXXXXX XXXXXX XXXXXXXX XX
XXXXXX
Mykad [REDACTED]
Age 25 Years 01 Months 19 Days
Gender Female
MRN HSM [REDACTED]

Address
Phone And Email
Diagnosis
⚠ Known Allergies[1]
Vital Sign

Upload Photo
Height cm
Weight kg
BMI/BSA 26.3 / 1.01 m²
(Last Updated : 13/09/2022)
Nationality : Warganegara

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

Encounter No: 0144
Actual Admission Date: 28/03/2020
Attending Practitioner: [REDACTED]
Current Visit Location: WAD 8
Rx No: W80001121927
Order By: doctor
Prescriber Dept.: General Surgery
Cyc Date: 13/09/2022

PRESCRIPTION

[CDR Cycle History](#)

[1 - 2 / 2]

<	1	>	/ 1	>		Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	No. of Preparation	Outsource	Prev Disp Qty	Remarks	Status
						Cisplatin 50mg/50ml Injection	75.75 mg	75.75 ml	75 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="text" value="2"/>	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
						Sodium Chloride 0.9% 500mL IV soln		424.25 ml		1 bott		1 bott	1 bott	<input type="checkbox"/> Details		<input type="checkbox"/> Details	0 bott	Remarks	VERIFIED
						Etoposide 100mg/5ml Injection	101 mg	5.05 ml	100 mg/m2, OD (once daily), Day: 1,2,3 Schedule	6 vial	0 of 3 dose (s) supplied	6 vial	6 vial	<input type="checkbox"/> Details	<input type="text" value="1"/>	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
						Sodium Chloride 0.9% 500mL IV soln		494.95 ml		3 bott		3 bott	3 bott	<input type="checkbox"/> Details		<input type="checkbox"/> Details	0 bott	Remarks	VERIFIED

Figure 3.2-8 CDR Preparation

Note

- No. of Preparation field value will be updated based on split preparation value entered in the preparation details screen (Figure 3.2-7) and field will be disable for user to enter/edit.
- No. of Preparation field will be enabled if user unselect Prepare Admixture checkbox and value will default back to '1'
- Once 'Split Preparation' (Figure 3.2-7) option selected on 'Prepare Admixture' details, it is mandatory for user to save/print label first before proceed with print worksheets.

STEP 9

Click on the button and CDR Edit Label screen will be displayed as shown in Figure 3.2-9

Figure 3.2-9 CDR Edit Label

Note

- For Split Preparation option selected in the preparation details (Figure 3.2-7), Total Volume will display a value after re-calculate based on value selected in Split Preparation dropdown list.
- in CDR Edit Label (Figure 3.2-9), user is allowed to modify **Total volume** where **Total Dose**, **Drug Volume**, **Diluent volume** and **Infusion Over** will be automatically calculate but only applicable if set Split Preparation

STEP 10

Click on the  button to print drug label as shown in Figure 3.2-10

	HOSPITAL KUALA LUMPUR	1 of 2		HOSPITAL KUALA LUMPUR	2 of 2
CYTOTOXIC DRUG - Handle with care			CYTOTOXIC DRUG - Handle with care		
HKL00381413 Farmasi Bekalan Wad			HKL00381413 Farmasi Bekalan Wad		
Drug name : CISPLATIN ROA : IV INFUSION			Drug name : CISPLATIN ROA : IV INFUSION		
Dose : 48.5 MG Vol : 48.5 ML			Dose : 48.5 MG Vol : 48.5 ML		
IV Fluid : Sodium Chloride 0.9% 500mL IV soln			IV Fluid : Sodium Chloride 0.9% 500mL IV soln		
Inf. Rate : Inf. Over : Vol : 403.00 ml			Inf. Rate : Inf. Over : Vol : 403.00 ml		
Treatment Date : 02/11/2020 Total Vol : 48.5 ml			Treatment Date : 02/11/2020 Total Vol : 48.5 ml		
Prepared Date : 02/11/2020 Exp Date : 02/11/2020			Prepared Date : 02/11/2020 Exp Date : 02/11/2020		
Chemo Day : 1 Exp Time :			Chemo Day : 1 Exp Time :		
Storage : Refrigerate (2 - 8 ?C)			Storage : Refrigerate (2 - 8 ?C)		

Figure 3.2-10 Spilt Preparation Drug Label

	HOSPITAL KUALA LUMPUR	
	CYTOTOXIC DRUG - Handle with care	
HKL00381413 Farmasi Bekalan Wad		
Drug Name : METHOTREXATE		
Dose :	194 MG	Vol : 7.70 ML
ROA : IV SLOW BOLUS		
Treatment Date : 02/11/2020		
Prepared Date : 02/11/2020		Exp Date : 03/11/2020
Chemo Day : 1		Exp Time :
Storage : Refrigerate (2 - 8 °C)		

Figure 3.2-11 CDR Drug Label

Note

- When user tick on the multiple Supplied checkbox dose to supply (figure 3.2-12), CDR Edit Label will display drug according to the dose selected as Figure 3.2-13
- Volume will be round up in CDR label as per below conditions (not applicable on split preparation) :
 - Drug volume less than 1 (< 1 ml) show in 2 decimal point (E.g. 0.75 ml)
 - Drug volume equal or more than 1 and less than 10 (=> 1 ml and < 10 ml) show in 1 decimal point (E.g. 8.76 ml become 8.8 ml or 9.94 ml become 9.9 ml)
 - Drug volume equal or more than 10 (=> 10 ml) show in 2 decimal point (E.g. 10.75 ml become 11 ml or 10.12 ml become 10 ml)

ITEM BATCH DETAILS																																					
Drug Code: L01XA01000P3002XX					Default SKU: vial																																
Drug Name: Cisplatin 50mg/50ml Injection					Dispense UOM: vial																																
Supply: Day					Date From: To:																																
DOSE SCHEDULE								BATCH DETAIL																													
<table border="1"> <thead> <tr> <th>Chemo Day</th> <th>Schedule Date</th> <th>Total Dose/Day</th> <th>UOM</th> <th>Schedule Time</th> <th>Preparation Date</th> <th>Supplied</th> <th>Dispense</th> <th>Hold/Resume Dose</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10/02/2023</td> <td>69.6 mg</td> <td>mg</td> <td>08:00 AM</td> <td>10/02/2023</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>								Chemo Day	Schedule Date	Total Dose/Day	UOM	Schedule Time	Preparation Date	Supplied	Dispense	Hold/Resume Dose	1	10/02/2023	69.6 mg	mg	08:00 AM	10/02/2023	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<table border="1"> <thead> <tr> <th>Batch No.</th> <th>Expiry Date</th> <th>Available Qty</th> <th>UOM Qty</th> <th>Allocate Qty</th> </tr> </thead> <tbody> <tr> <td>4232</td> <td>04/01/2031</td> <td>2179</td> <td>0 vial</td> <td>0</td> </tr> </tbody> </table>		Batch No.	Expiry Date	Available Qty	UOM Qty	Allocate Qty	4232	04/01/2031	2179	0 vial	0
Chemo Day	Schedule Date	Total Dose/Day	UOM	Schedule Time	Preparation Date	Supplied	Dispense	Hold/Resume Dose																													
1	10/02/2023	69.6 mg	mg	08:00 AM	10/02/2023	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																													
Batch No.	Expiry Date	Available Qty	UOM Qty	Allocate Qty																																	
4232	04/01/2031	2179	0 vial	0																																	
Total Location Quantity: 2179								Total Allocated Quantity: 0																													

Figure 3.2-12 Item Batch Details

CDR EDIT LABEL

Select All

<input checked="" type="checkbox"/>	Drug Name	Etoposide	Diluent	Sodium Chloride 0.9% 500mL IV soln
	Total Dose	173 mg	Diluent Volume	491.35 ml
	Drug Volume	8.65 ml	Total Volume	500 ml
	Route	Intravenous Infusion	Infusion Rate	8.33 ml/Min
	Treatment Date	19/03/2019	Infusion Over	1 hr 0 m
	Prepared Date	19/03/2019	No Of Label To Print	1
	Expire Date/Time	19/03/2019	Split Preparation	Split to 1 labels
	Price(RM)	154.02		
	Storage			

<input checked="" type="checkbox"/>	Drug Name	Etoposide	Diluent	Sodium Chloride 0.9% 500mL IV soln
	Total Dose	173 mg	Diluent Volume	491.35 ml
	Drug Volume	8.65 ml	Total Volume	500 ml
	Route	Intravenous Infusion	Infusion Rate	8.33 ml/Min
	Treatment Date	19/03/2019	Infusion Over	1 hr 0 m
	Prepared Date	19/03/2019	No Of Label To Print	1
	Expire Date/Time	19/03/2019	Split Preparation	Split to 1 labels
	Price(RM)	154.02		
	Storage			

Drug Name Etoposide Diluent Sodium Chloride 0.9% 500mL IV soln

Figure 3.2-13 CDR Edit Label

CDR PREPARATION

Prescription

	PXXXXX XXXXXX XXXXXXXX XX XXXXXXXX	Mykad [REDACTED]	Age 25 Years 01 Months 19 Days	Gender Female	MRN HSP [REDACTED]
Address	Phone And Email	Diagnosis	Known Allergies[1]		Vital Sign

Upload Photo Height 112 cm Weight 33 kg BMI/BSA 26.3 / 1.01 m² (Last Updated : 13/09/2022) Nationality : Warganegara

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

Encounter No: 0144 Actual Admission Date: 28/03/2020 Attending Practitioner: [REDACTED] Current Visit Location: WAD 8 Rx No: W80001121927 Order By: doctor Prescriber Dept.: Gene Surg: **11** Cycle Start Date: 13/09/2022

PRESCRIPTION Full Supply Allocate Outsource CDR Cycle History Worksheet Label Prepare

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	No. of Preparation	Outsource	Prev Disp Qty	Remarks	Status
Cisplatin 50mg/50ml Injection	75.75 mg	75.75 ml	75 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	2	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
Sodium Chloride 0.9% 500mL IV soln		424.25 ml		1 bott		1 bott	1 bott				0 bott		
Etoposide 100mg/5ml Injection	101 mg	5.05 ml	100 mg/m2, OD (once daily), Day: 1,2,3 Schedule	6 vial	0 of 3 dose (s) supplied	6 vial	6 vial	<input type="checkbox"/> Details	1	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
Sodium Chloride 0.9% 500mL IV soln		494.95 ml		3 bott		3 bott	3 bott				0 bott		

Figure 3.2-14 CDR Preparation

STEP 11

Click on the button to view and print record as shown in Figure 3.2-15



CDR WORKSHEET												
MINISTRY OF HEALTH												
Hospital Seri Manjung												
Preparation Date : 13/09/2022				Worksheet ID: 22-09-0003								
Name : PXXXXX XXXXXX XXXXXX XX XXXXXXX		Gender : Female		Rx. No. : W80001121927		MRN : FXXXXXX		Height/Weight/BSA : 112 cm/33 kg/1.01 m ²		Regimen : EP (IV Etoposide 100mg/m ² + Cisplatin)		
ID No : 9XXXXXX		Ordered By : doctor		Cycle No. : 2		Age : 25Y 01M 19D		Current Visit Location : WAD 8				
No	ROA	Preparation Name	Drug/Diluent Name	Material Used						Storage	Instruction	
				Total Dose	Drug / Diluent Vol	No of Dose	No of Pack	Allocated Qty	Batch No			Expiry Date
1	INF	Cisplatin	Cisplatin 50mg/50ml Injection	37.875 mg	38 ml	1 dose(s) to supply	2	2 vial	12312	04/01/2031	Refrigerate (2 - 8 °C)	
		Recons. Fluid:- Chemo Day:1	Sodium Chloride 0.9% 500mL IV soln		212 ml			1 bottle	F310B227	05/12/2024		
	INF	Cisplatin	Cisplatin 50mg/50ml Injection	37.875 mg	38 ml						Refrigerate (2 - 8 °C)	
		Recons. Fluid:- Chemo Day:1	Sodium Chloride 0.9% 500mL IV soln		212 ml							

Worksheet generated by Pharmacist 3 Date: 27/09/2022	Worksheet & label checked by Date:	Prepared by Date:	Final Product Checked by Date:
--	---------------------------------------	----------------------	-----------------------------------

Figure 3.2-15 CDR Worksheets

CDR PREPARATION

Prescription X

	PXXXXX XXXXXX XXXXXX XX XXXXXXX	Mykad XXXXXXX	Age 25 Years 01 Months 19 Days	Gender Female	MRN HSIXXXXXX
Address	Phone And Email	Diagnosis	Known Allergies[1]		Vital Sign

Upload Photo Height 112 cm Weight 33 kg BMI/BSA 26.3 / 1.01 m² (Last Updated : 13/09/2022) Nationality : Warganegara

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

Encounter No: 0144 Actual Admission Date: 28/03/2020 Attending Practitioner: [Name] Current Visit Location: WAD 8 Rx No: W80001121927 Order By: doctor Prescriber Dept.: General Surgery Cycle Start Date: 13/09/2022

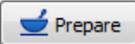
PRESCRIPTION Full Supply Allocate Outsource CDR Cycle History Worksheet Label Prepare

[1 - 2 / 2]

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	No. of Preparation	Outsource	Prev Disp Qty	Remarks	Status
Cisplatin 50mg/50ml Injection	75.75 mg	75.75 ml	75 mg/m ² , OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose (s) supplied	2 vial	2 vial	<input checked="" type="checkbox"/> Details	2	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
Sodium Chloride 0.9% 500mL IV soln		424.25 ml		1 bott		1 bott	1 bott				0 bott		
Etoposide 100mg/5ml Injection	101 mg	5.05 ml	100 mg/m ² , OD (once daily), Day: 1,2,3 Schedule	6 vial	0 of 3 dose (s) supplied	6 vial	6 vial	<input type="checkbox"/> Details	1	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
Sodium Chloride 0.9% 500mL IV soln		494.95 ml		3 bott		3 bott	3 bott				0 bott		

Figure 3.2-16 CDR Preparation

STEP 12

Click on the  button to proceed with preparation and an alert message will be displayed as shown in Figure 3.2-17

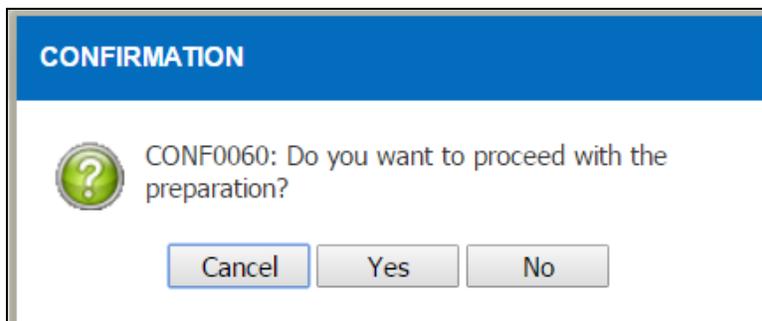
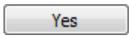
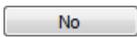


Figure 3.2-17 Alert Message

Note

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

3.2.1 Sending Outsource

CDR PREPARATION

Prescription

XXXXXXXX XXXXXX XXXXXX XX
XXXXXXXX
Mykad: [REDACTED] Age: 25 Years 01 Months 19 Days Gender: Female MRN: HSP [REDACTED]
Address: [REDACTED] Phone And Email: [REDACTED] Diagnosis: [REDACTED] **Known Allergies [1]** Vital Sign: [REDACTED]
Height: 112 cm Weight: 33 kg BMI/BSA: 26.3 / 1.01 m² (Last Updated : 13/09/2022) Nationality: Warganegara

Encounter No: 0144 Actual Admission Date: 28/03/2020 Attending Practitioner: [REDACTED] Current Visit Location: WAD 8 Rx No: W80001121927 doctor: [REDACTED] Prescriber Dept.: General Surgery Cycle Start Date: 13/09/2022

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

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	No. of Preparation	Outsource	Prev Disp Qty	Remarks	Status
Cisplatin 50mg/50ml Injection	75.75 mg	75.75 ml	75 mg/m2, OD (once daily), Day: 1 Schedule	2 vial	0 of 1 dose (s) supplied	2 vial	2 vial	<input checked="" type="checkbox"/>	2	<input type="checkbox"/>	0 vial	Remarks	VERIFIED
Sodium Chloride 0.9% 500mL IV soln		424.25 ml		1 bott		1 bott	1 bott				0 bott	Remarks	VERIFIED
Etoposide 100mg/5ml Injection	101 mg	5.05 ml	100 mg/m2, OD (once daily), Day: 1,2,3 Schedule	6 vial	0 of 3 dose (s) supplied	6 vial	6 vial	<input type="checkbox"/>	1	<input type="checkbox"/>	0 vial	Remarks	VERIFIED
Sodium Chloride 0.9% 500mL IV soln		494.95 ml		3 bott		3 bott	3 bott				0 bott	Remarks	VERIFIED

Figure 3.2.1-1 CDR Preparation

STEP 1

Select and click on the **Outsource** checkbox

Note

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

STEP 2

Click on the button and Outsource Details window will be display as Figure 3.2.1-2

OUTSOURCE DETAILS

Cancel Outsource Send Outsource Request

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

PHARMACY ORDER

Outsource No: [REDACTED] Sending Status: [REDACTED] **3**
Referred From: HOSPITAL KUALA LUMPUR Referred To: Hospital Seri Manjung **4**
Contact Person / Office: [REDACTED] Contact Person / Office: [REDACTED]
Contact no / Ext No: [REDACTED] Contact no / Ext No: [REDACTED]
Request Date/Time: 21/10/2019 12:20 PM
Remarks: [REDACTED]

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

Figure 3.2.1-2 Outsource Details

STEP 3

Select **Referred To** from button

STEP 4

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

Rx No	Rx Date	Drug Name	Dose	Order Detail	Order Qty	Prev Disp Qty	Bal Qty	Remarks
FPD000741001	10/10/2019 4:21 PM	Cyclophosphamide 1g/50ml Injection	1305 mg	750 mg/m ² , OD (once daily), Day: 1 , Intravenous Slow Bolus , Cycle Start Date:10/10/2019	2 vial	0 vial	2 vial	Remarks
FPD0000741001	10/10/2019 4:21 PM	Vincristine Sulphate 1mg Injection	2.44 mg	1.4 mg/m ² , OD (once daily), Day: 1 , Intravenous Bolus , Cycle Start Date:10/10/2019	3 vial	0 vial	3 vial	Remarks

Figure 3.2.1-3 Outsource Details

STEP 5

Click on the button and Confirmation Message will be display as Figure 3.2.1-4

Figure 3.2.1-4 Confirmation Message

Note

- Click on the button to send the request and Information Message will be display as Figure 3.2.1-5

Figure 3.2.1-5 Information Message

- Click on the button and screen will be updated as shown in Figure 3.2.1-6

CDR PREPARATION

Prescription X

	PXXXXX XXXXXX XXXXXXXX XX XXXXXXXX	Mykad [REDACTED]	Age 25 Years 01 Months 19 Days	Gender Female	MRN H [REDACTED]
	Address	Phone And Email	Diagnosis	⚠️ Known Allergies[1]	Vital Sign

Upload Photo Height cm Weight kg BMI/BSA 26.3 / 1.01 m² (Last Updated : 13/09/2022) Nationality : Warganegara

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

Encounter No: 0144	Actual Admission Date: 28/03/2020	Attending Practitioner: [REDACTED]	Current Visit Location: WAD 8	Rx No: W80001121927	Order By: doctor	Prescriber Dept.: General Surgery	Cycle Start Date: 13/09/2022
--------------------	-----------------------------------	------------------------------------	-------------------------------	---------------------	------------------	-----------------------------------	------------------------------

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

[1 - 2 / 2]

	Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose	Prepare Qty	Bal Qty	Prepare Admixture	No. of Preparation	Outsource	Prev Disp Qty	Remarks	Status
▼	Cisplatin 50mg/50ml Injection	75.75 mg	75.75 ml	75 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	2	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
	Sodium Chloride 0.9% 500mL IV soln		424.25 ml		1 bott		1 bott	0 bott						
▼	Etoposide 100mg/5ml Injection	101 mg	5.05 ml	100 mg/m2, OD (once daily), Day: 1,2,3 Schedule	6 vial	0 of 3 dose (s) supplied	0 vial	6 vial	<input type="checkbox"/> Details	1	<input checked="" type="checkbox"/> Details	0 vial	Remarks	OUTSOURCED
	Sodium Chloride 0.9% 500mL IV soln		494.95 ml		3 bott		3 bott	0 bott						

Figure 3.2.1-6 CDR Preparation

Note

- Status of the drug will change to **OUTSOURCED**
- User is allowed to cancel the Outsource by click on the button and Outsource Details window will be display as Figure 3.2.1-7

OUTSOURCE DETAILS

Cancel Outsource Send Outsource Request X

	YXXXXX XXXXXX XXXXXX	Mykad [REDACTED]	Age 36 Years 11 Months 03 Days	Gender Female	MRN [REDACTED]
	Address	Phone And Email	Diagnosis	No known Allergies	

Upload Photo Height cm Weight kg BMI/BSA 24 / 1.74 m² Update (Last Updated : 10/10/2019) Nationality : Warganegara

PHARMACY ORDER

Outsource No: CDR-11-14010002211019-001	Sending Status: Successful
Referred From: HOSPITAL KUALA LUMPUR	Referred To: Hospital Seri Manjung
Contact Person / Office: [REDACTED]	Contact Person / Office: [REDACTED]
Contact no / Ext No: 012	Contact no / Ext No: 036675443231
Request Date/Time: 21/10/2019 12:20 PM	
Remarks:	

[1 - 1 / 1]

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

Figure 3.2.1-7 Outsource Details

- Click on the button to cancel the Outsource record and Confirmation Message will be displayed as Figure 3.2.1-8
- If there is more than one (1) Outsource Drug, to cancel only one (1) drug user need to click on the **Details** Hyperlink of the selected Drug and Outsource Details screen will be display as Figure 3.2.1-7 and click on the button

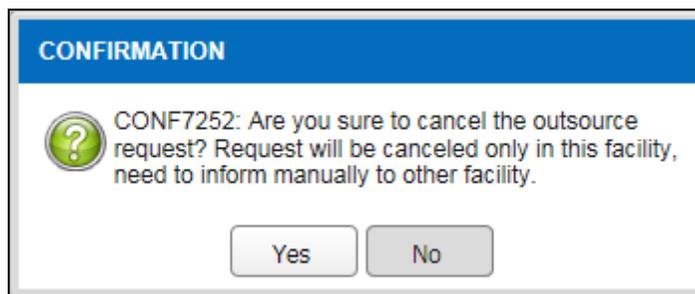
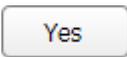


Figure 3.2.1-8 Confirmation Message

Note

- Click on the  button to cancel the request and Information Message will be display as Figure 3.2.1-9
- For cancel outsource, user need to inform the other facility manually

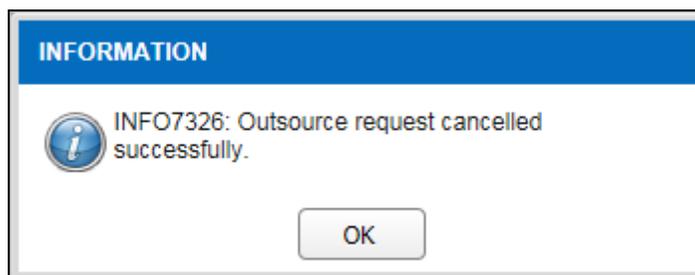


Figure 3.2.1-9 Information Message

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

CDR PREPARATION

Prescription [X]

PXXXXX XXXXXXX XXXXXXXX XX XXXXXXXX Mykad [REDACTED] Age 25 Years 01 Months 19 Days Gender Female MRN H [REDACTED]
 Address Phone And Email Diagnosis **Known Allergies[1]** Vital Sign

Upload Photo Height 112 cm Weight 33 kg BMI/BSA 26.3 / 1.01 m² (Last Updated : 13/09/2022) Nationality : Warganegara

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

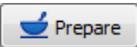
Encounter No. 0144 Actual Admission Date: 28/03/2020 Attending Practitioner: [REDACTED] Current Visit Location WAD 8 Rx No: W80001121927 Order By: doctor Prescriber Dept.: General Surgery Cycle Start Date: 13/03/2020 **6**

PRESCRIPTION Full Supply Allocate Outsource Cancel 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	No. of Preparation	Outsource	Prev Disp Qty	Remarks	Status
Cisplatin 50mg/50ml Injection	75.75 mg	75.75 ml	75 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	2	<input type="checkbox"/> Details	0 vial	Remarks	VERIFIED
Sodium Chloride 0.9% 500mL IV soln		424.25 ml		1 bott		1 bott	1 bott				0 bott		
Etoposide 100mg/5ml Injection	101 mg	5.05 ml	100 mg/m2, OD (once daily), Day: 1,2,3 Schedule	6 vial	0 of 3 dose (s) supplied	0 vial	6 vial	<input type="checkbox"/> Details	1	<input checked="" type="checkbox"/> Details	0 vial	Remarks	OUTSOURCED
Sodium Chloride 0.9% 500mL IV soln		494.95 ml		3 bott		0 bott	3 bott				0 bott		

Figure 3.2.1-10 CDR Preparation

STEP 6

Click on the  button to proceed with preparation

3.2.2 Receive Outsource

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

External Notification	
Online Indent Request Received:	0
Online External CDR Request Received:	17
Online External PN Request Received:	3
External Radio Order Request Received:	9
External TDM Request Received:	8
Online Contract Request Received:	127
Online SPUB R1 Request Received:	16
Online Issue SPUB Request Received:	0
Online Issue Manufacturing Received:	0

Figure 3.2.2-1 External Notification

STEP 1

Click on the **Online External CDR Request Received** 17 button and Outsource Listing window will be display as Figure 3.2.2-2

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

Figure 3.2.2-2 Outsource Listing

Note

Click on the *Outsource No* hyperlink to view *Outsource Details* as Figure 3.2.2-3

OUTSOURCE DETAILS

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

PHARMACY ORDER

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

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

Figure 3.2.2-3 Outsource Details

Note

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

OUTSOURCE LISTING

[1 - 10 / 17]

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

Figure 3.2.2-4 Outsource Listing

STEP 2

Click on the Register hyperlink to register outsource patient and Ward Management window will be display as Figure 3.2.2-5

WARD MANAGEMENT

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

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

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

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

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

Department/Discipline General Medicine Location CDR Pharmacy Oncology Service

Room No [redacted] Facility RN Number [redacted]

Specialist [redacted] Attending Doctor [redacted]

Collection Mode [redacted] Referred By [redacted]

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

Visit Case New Case Follow-Up

TRANSFER DETAILS LIST

+ New Patient Transfer

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

DISCHARGE

Discharge Deceased/Death End Visit

Discharge Date [redacted] Doctor [redacted]

Discharge Type [redacted] Decease Date Time [redacted]

Discharge By [redacted]

Figure 3.2.2-5 Ward Management

STEP 3

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

STEP 4

Click on the  button to save the registered outsource patient

Note

After save, this record will flow to prescriber to proceed with prescribing for outsource patient. Once prescriber confirm the prescription, the information will flow to CDR dispensing to proceed with dispensing process as Figure 3.2.2-6

PHARMACY INFORMATION SYSTEM

HOSPITAL SERI MANJUNG

Home Verification

CDR - VERIFICATION

Rx NO. [redacted] Cycle Start Date [redacted]

Dispense Location Pharmacy Oncology Service Patient Name [redacted]

Order Status Outsourced Orders Patient MRN [redacted]

IC No/Other Identification [redacted] Type Of Order All

Advanced Search

Search

Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
No record found						

Figure 3.2.2-6 CDR Verification

STEP 5

Search for the outsourced order



Note

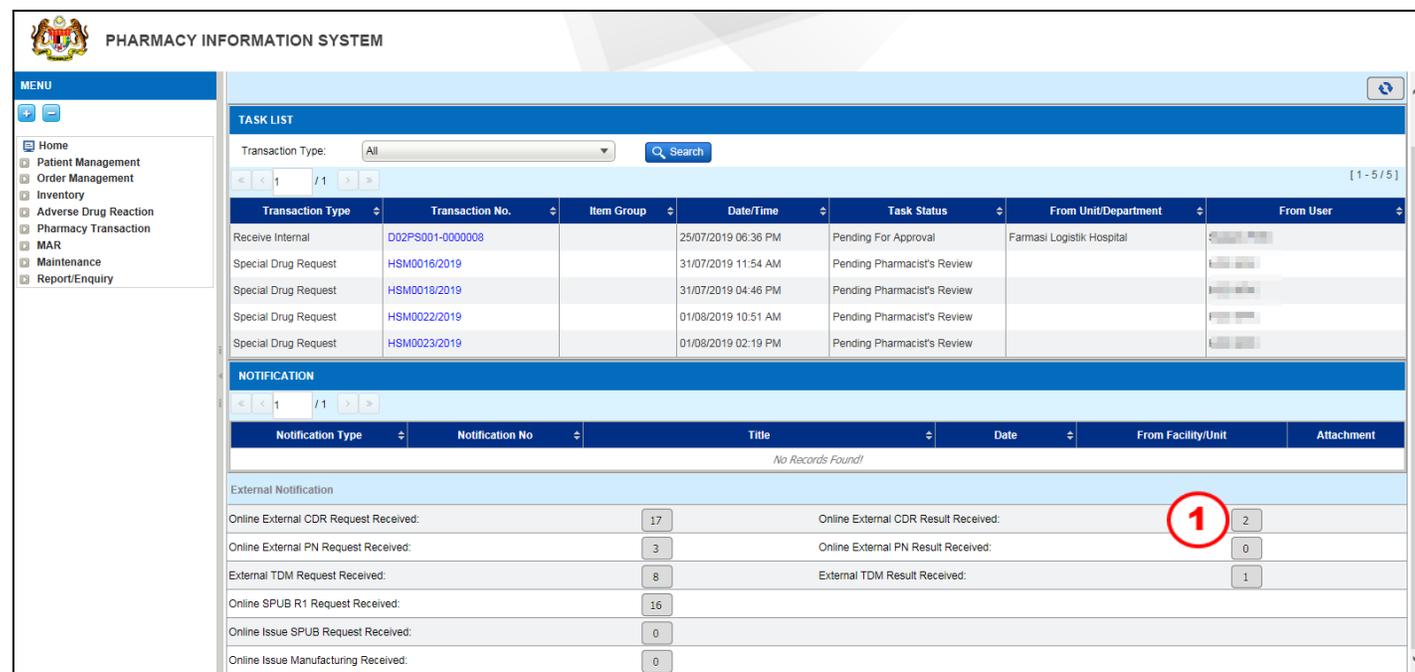
To proceed with CDR Dispensing process, please refer:

- i. Section [3.1 Cytotoxic Drug Reconstitution \(CDR\) Verification](#) : Verification Process*
- ii. Section [3.2 CDR Preparation](#) : Preparation Process*
- iii. Section [3.3 CDR Dispensing](#) : Dispensing Process*

3.2.3 Outsource Result Received

Note

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



PHARMACY INFORMATION SYSTEM

MENU

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

TASK LIST

Transaction Type: All Search [1-5/5]

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

NOTIFICATION

No Records Found!

External Notification

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

Figure 3.2.3-1 Online External CDR Result Received

STEP 1

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

Note

System will display Outsource Listing screen as shown in Figure 3.2.3-2



OUTSOURCE LISTING [X] [1-2/2]

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

Figure 3.2.3-2 Outsource Listing

STEP 2

Click on the **Receive** hyperlink and Outsource Details will display as Figure 3.2.3-3

OUTSOURCE DETAILS



Upload Photo

Mykad: AXXXX XXXXXX	Age: 79 Years 05 Months 04 Days	Gender: Male	MRN: [REDACTED]
Address: [REDACTED]	Phone And Email: [REDACTED]	Diagnosis: [REDACTED]	No known Allergies
Height: 170 cm Weight: 70 kg BMI/BSA: 24.2 / 1.82 m ² Update (Last Updated: 11/09/2019) Nationality: Warganegara			

PHARMACY ORDER

Outsource No: CDR-11-14010002110919-003	Sending Status: [REDACTED]
Referred From: Hospital Seri Manjung	Referred To: Hospital Kuala Lumpur
Contact Person / Office: [REDACTED]	Contact Person / Office: [REDACTED]
Contact no / Ext No: 012	Contact no / Ext No: 0123456789
Request Date/Time: 11/09/2019 5:10 PM	
Remarks: [REDACTED]	

Rx No	Rx Date	Drug Name	Dose	Order Detail	Order Qty	Prev Disp Qty	Bal Qty	Remarks
FPD000740907	11/09/2019 12:00 AM	Fluorouracil 1g/20ml Injection	1092 mg	600 mg/m ² , OD (once daily), Day: 1,2 Intravenous Infusion Cycle Start Date : 11/09/2019	4 vial	0 vial	4 vial	▶ Remarks
FPD000740907	11/09/2019 12:00 AM	Fluorouracil 1g/20ml Injection	728 mg	400 mg/m ² , OD (once daily), Day: 1,2 Intravenous Slow Bolus Cycle Start Date : 11/09/2019	2 vial	0 vial	2 vial	▶ Remarks

RECEIVE DETAILS

Received By: [REDACTED] Date/Time: 23/10/2019 5:17 PM

Remarks: [REDACTED] 3 + Add

No.	Received By	Received Date	Remarks
No Records Found!			

Figure 3.2.3-3 Outsource Details

STEP 3

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

Note

Information will be updated as shown in Figure 3.2.3-4

OUTSOURCE DETAILS

4   

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

PHARMACY ORDER

RECEIVE DETAILS

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

Remarks:

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

Figure 3.2.3-4 Outsource Details

STEP 4

Click on the  button to save the record and can proceed with preparation

3.3 CDR Dispensing

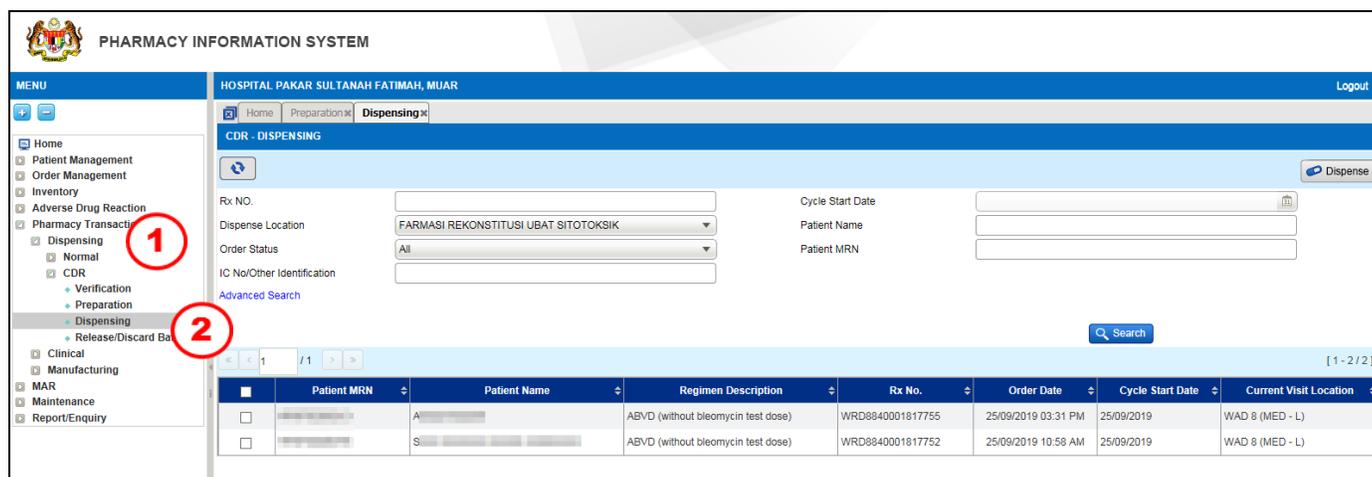


Figure 3.3-1 CDR Dispensing Listing Page

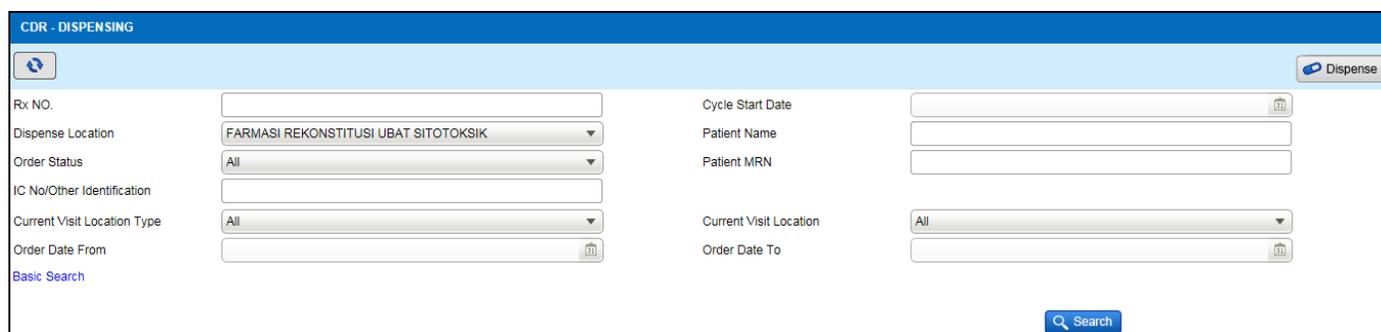


Figure 3.3-2 Advance Search

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: • 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: - 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

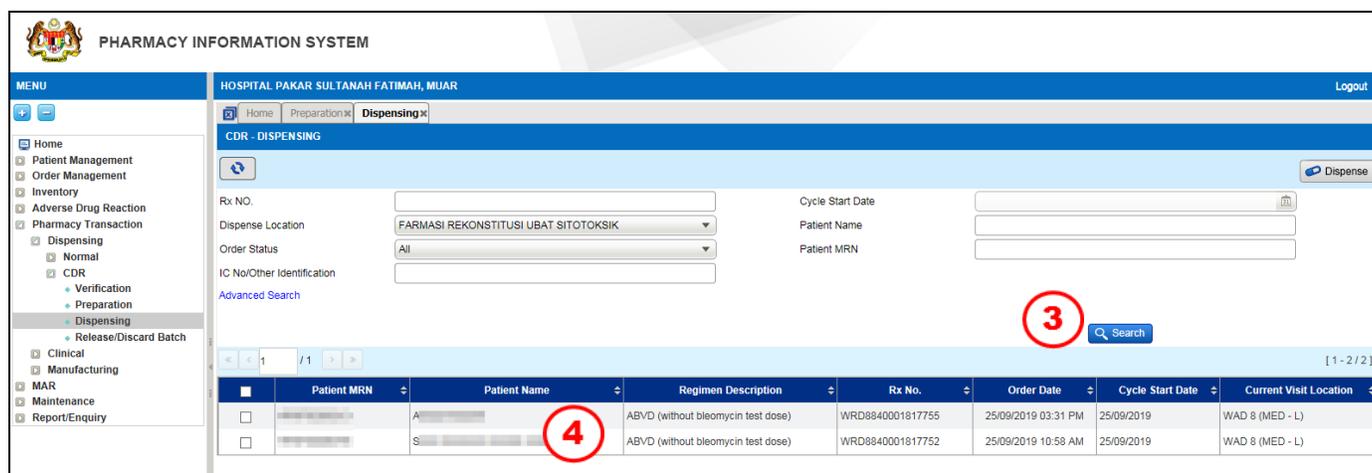


Figure 3.3-3 CDR Dispensing Listing Page

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

The screenshot shows the 'CDR DISPENSING' interface. At the top, there are navigation buttons like 'Prescription' and 'X'. Below that is a patient information section with fields for Mykad, Age (25 Years 01 Months 19 Days), Gender (Female), and MRN. A red banner indicates 'Known Allergies [1]'. Below this is a demographic section with fields for Height (112 cm), Weight (33 kg), BMI/BSA (26.3 / 1.01 m²), and Nationality (Warganegara). The encounter information section shows Encounter No: 0144, Actual Admission Date: 28/03/2020, and Current Visit Location: WAD 8. The 'COLLECTION DETAILS' section includes 'Dispensed To' (Pharmacy Counter) and 'Dispensed Date and Time' (27/09/2022 12:15:22). A red circle with the number '5' is around the 'Remarks' field. The 'PRESCRIPTION' section has buttons for 'CDR Cycle History', 'Release/Discard', 'Label', and 'Dispense'. Below this is a table of prescriptions:

Drug/Diluent Name	Dose	Dose Qty	Order Details	Total Order Qty	No. of Dose (s) supplied	Prepare Qty	Bal Qty	Prepare Admixture	No. of Preparation	Outsource	Prev Disp Qty	Remarks	Status
Cisplatin 50mg/50ml Injection	75.75 mg	75.75 ml	75 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	2	<input type="checkbox"/> Details	0 vial	Remarks	PREPARED
Sodium Chloride 0.9% 500mL IV soln		424.25 ml		1 bott		1 bott	1 bott				0 bott		
Etoposide 100mg/5ml Injection	101 mg	5.05 ml	100 mg/m2, OD (once daily), Day: 1,2,3 Schedule	6 vial	0 of 3 dose (s) supplied	6 vial	6 vial	<input type="checkbox"/> Details	1	<input type="checkbox"/> Details	0 vial	Remarks	PREPARED
Sodium Chloride 0.9% 500mL IV soln		494.95 ml		3 bott		3 bott	3 bott				0 bott		

Figure 3.3-4 CDR Dispensing

Note

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

STEP 5

Click on the button to dispense the medication and Confirmation Message window will be displayed as shown in Figure 3.3-5

The confirmation message window has a blue header with the text 'CONFIRMATION'. Below the header is a question mark icon and the text 'CONF0064: Do you want to dispense now?'. At the bottom of the window are three buttons: 'Cancel', 'Yes', and 'No'.

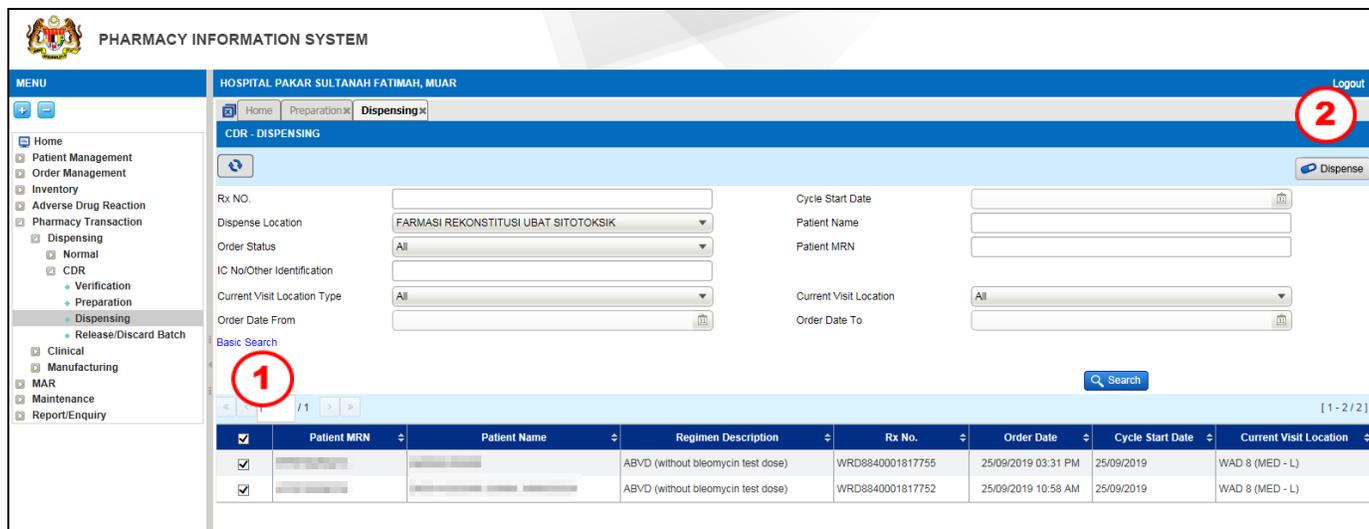
Figure 3.3-5 Confirmation Message

Note

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

Dispense Multiple Patient Order:

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



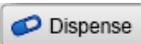
	Patient MRN	Patient Name	Regimen Description	Rx No.	Order Date	Cycle Start Date	Current Visit Location
<input checked="" type="checkbox"/>	[REDACTED]	[REDACTED]	ABVD (without bleomycin test dose)	WRD8840001817755	25/09/2019 03:31 PM	25/09/2019	WAD 8 (MED - L)
<input checked="" type="checkbox"/>	[REDACTED]	[REDACTED]	ABVD (without bleomycin test dose)	WRD8840001817752	25/09/2019 10:58 AM	25/09/2019	WAD 8 (MED - L)

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 and Collection Details windows will displayed as Figure 3.3-7

Note

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

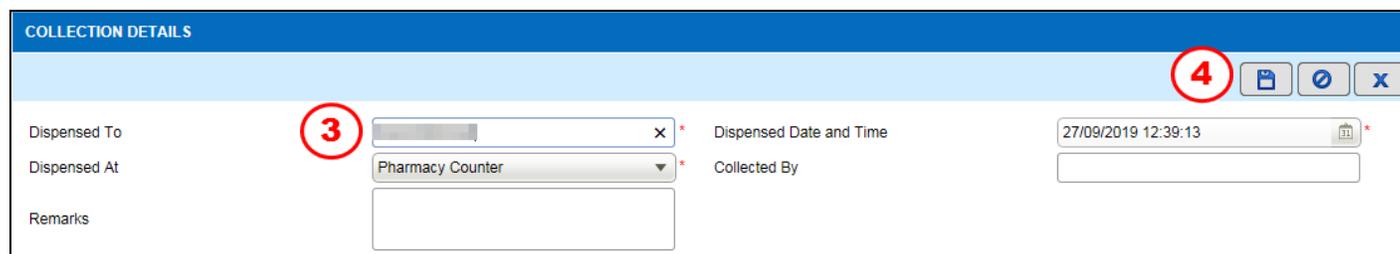


Figure 3.3-7 Collection Details

STEP 3

Enter **Dispensed To**

STEP 4

Click on the  button to save the record and Confirmation Message screen will be displayed as Figure 3.3-8

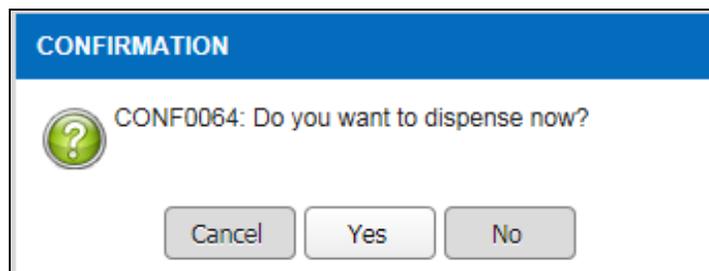


Figure 3.3-8 Confirmation Message

Note

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

3.4 Release/Discard Batch

The screenshot shows the 'RELEASE/DISCARD BATCH' page in the PHARMACY INFORMATION SYSTEM. The left-hand menu has 'CDR' selected under 'Dispensing'. The main area contains search filters for MRN, Patient Name, Drug Name, Dispense Location, and Preparation Date. A table below lists medication records with columns for Select, MRN, Patient Name, IC No/Other Identification, Medication Order No, Drug Name, Release/Di Qty, Preparation Date, Status, Reason for Release/Discard, and Remarks. The table contains five rows of data for various drugs like Leucovorin Calcium, Fluorouracil, and Sodium Chloride.

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: • 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
F	Preparation Date From	Preparation Date From	Allow to search by Preparation Date From
G	Preparation Date To	Preparation Date To	Allow to search by Preparation Date To

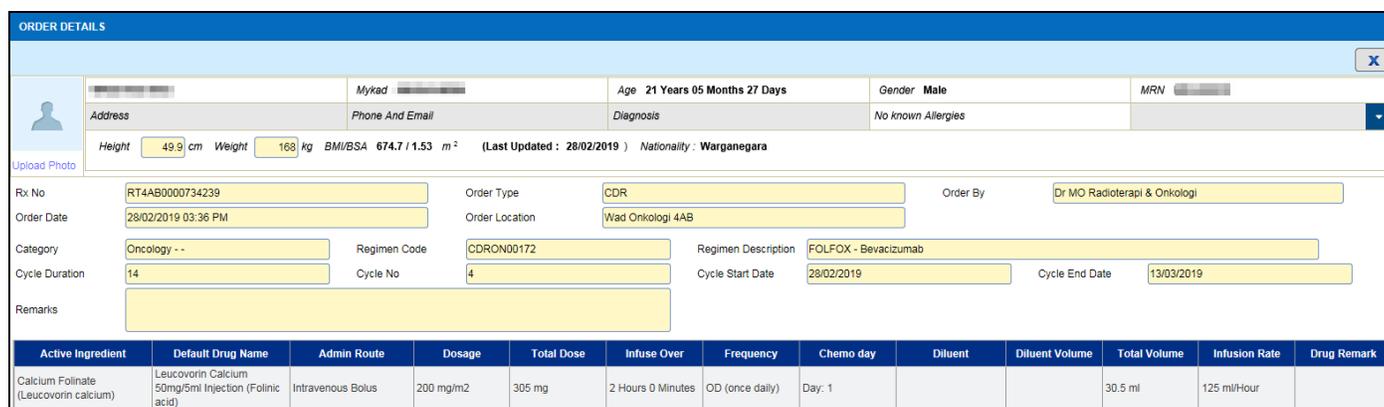
Table 3.4-1

STEP 3

Click on the Search button to search for patient

Note

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



ORDER DETAILS

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

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

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

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

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

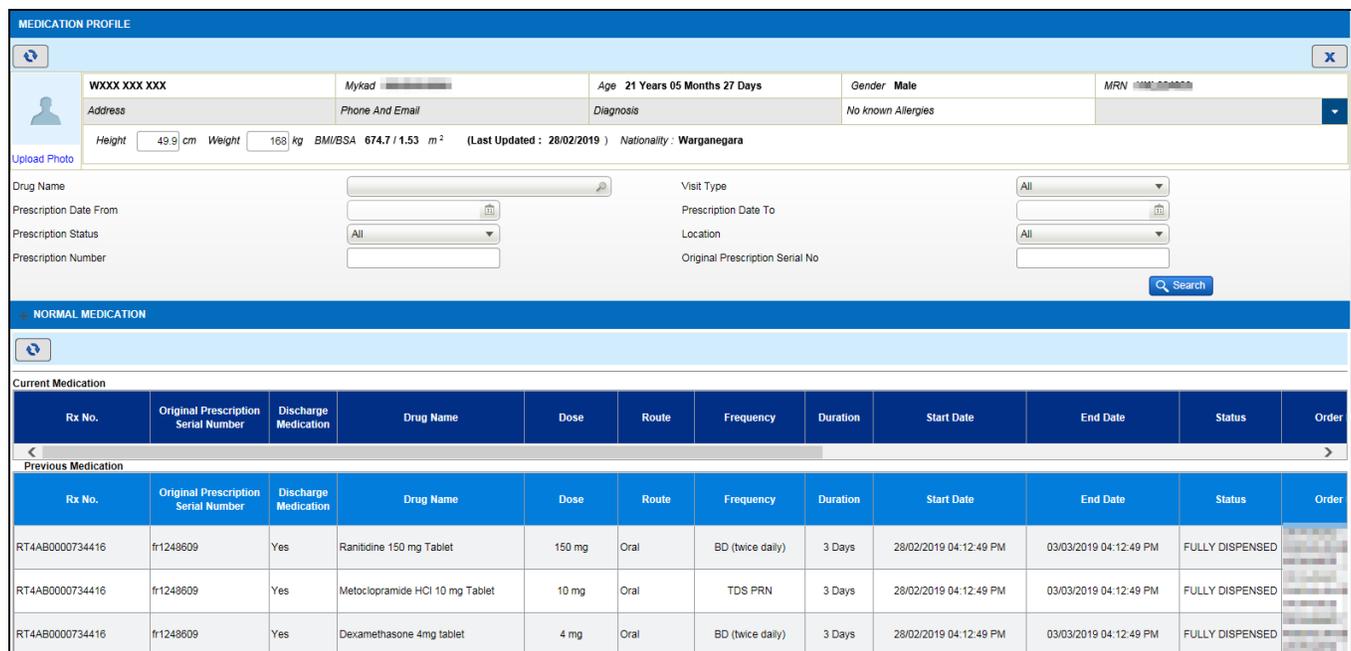
Category: Oncology -- Regimen Code: CDRON00172 Regimen Description: FOLFOX - Bevacizumab

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

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

Figure 3.4-2 Order Details

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



MEDICATION PROFILE

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

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

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

Drug Name: [Redacted] Visit Type: [Redacted]

Prescription Date From: [Redacted] Prescription Date To: [Redacted]

Prescription Status: [Redacted] Location: [Redacted]

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

NORMAL MEDICATION

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

Figure 3.4-3 Medication Profile

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

PHARMACY INFORMATION SYSTEM

HOSPITAL SERI MANJUNG

RELEASE/DISCARD BATCH

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

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

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

Figure 3.4-4 Release/Discard Batch History

PHARMACY INFORMATION SYSTEM

HOSPITAL KUALA LUMPUR

RELEASE/DISCARD BATCH

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

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

Select	MRN	Patient Name	IC No/Other Identification	Medication Order No	Drug Name	Release/Di Qty	Preparation Date	Status	Reason for Release/Discard	Remarks
<input checked="" type="checkbox"/>	[]	[]	[]	RT4AB0000734239	Leucovorin Calcium 50mg/5ml Injection (Folinic acid)	7 vial	28/02/2019	PREPARED	[]	[]
<input type="checkbox"/>	[]	[]	[]	RT3AB0000732144	Fluorouracil 1g/20ml Injection	2 vial	27/02/2019	PREPARED	[]	[]
<input type="checkbox"/>	[]	[]	[]	RT2CD0000732236	Etoposide 100mg/5ml Injection	8 vial	27/02/2019	PREPARED	[]	[]
<input type="checkbox"/>	[]	[]	[]	[]	Sodium Chloride 0.9% 500mL IV soln	4 bott	[]			
<input type="checkbox"/>	[]	[]	[]	RT3CD0000732245	Trastuzumab 440mg Injection	2 vial	27/02/2019	PREPARED	[]	[]
<input type="checkbox"/>	[]	[]	[]	[]	Sodium Chloride 0.9% 250mL IV soln	1 bott	[]			
<input type="checkbox"/>	[]	[]	[]	[]	Fluorouracil 1g/20ml Injection	4 vial	[]			
<input type="checkbox"/>	HKL224039	WXXX XXX XXX	980424146991	RT4AB0000734239	Leucovorin Calcium 50mg/5ml Injection (Folinic acid)	7 vial	28/02/2019	PREPARED	[]	[]

Figure 3.4-5 Release/Discard Batch Listing Page

STEP 4

Click on the selected drug checkbox

STEP 5

Select **Reason for Release/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

Note

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

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		