



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

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## System Design Document (SDD)

### Outpatient/Inpatient Pharmacy

<p>Version : 1.0 Document ID : PhIS_CPS/SDD/OPIP</p>
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**REVISION HISTORY**

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## 1. Introduction

Pharmaniaga Logistics Sdn. Bhd. executes software development, enhancement and maintenance projects for its clients. The term “project” is used to describe the full set of activities from the time the proposal is accepted and project initiation note or contract is signed to the time all the software and services are delivered according to the acceptance of the proposal/contract.

This process is to ensure both user requirements and software requirements of the projects developments are gathered appropriately from stakeholders and are documented in User Requirements Specification (URS) and System Design Documentation (SDD) specifically.

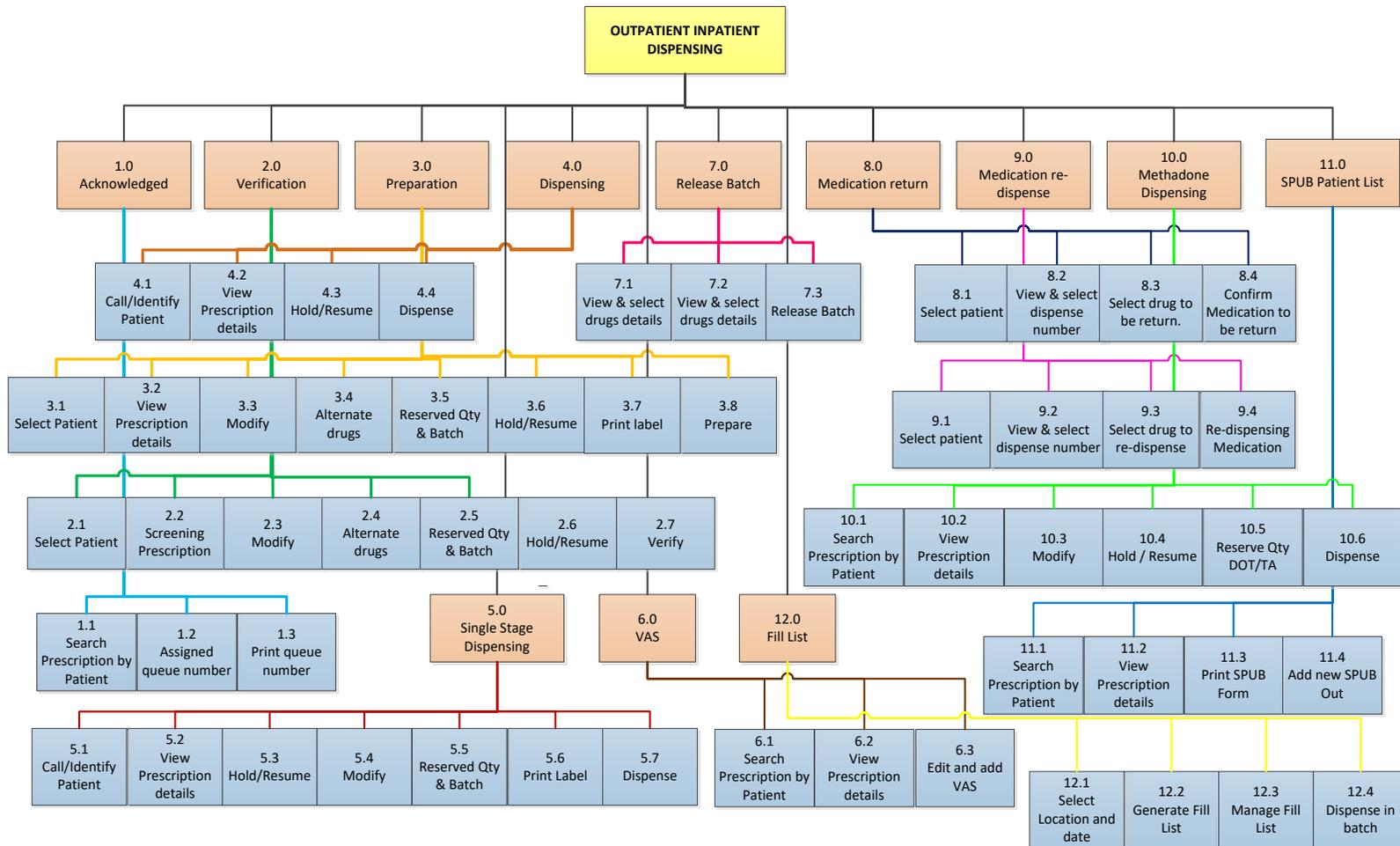
## 2. Purpose

The purpose of the document is to describe the purpose and functionality of the software product requested by client. This document outlines the project's details, requirements, interface, design issues, and components to ensure that each requirement has been met.



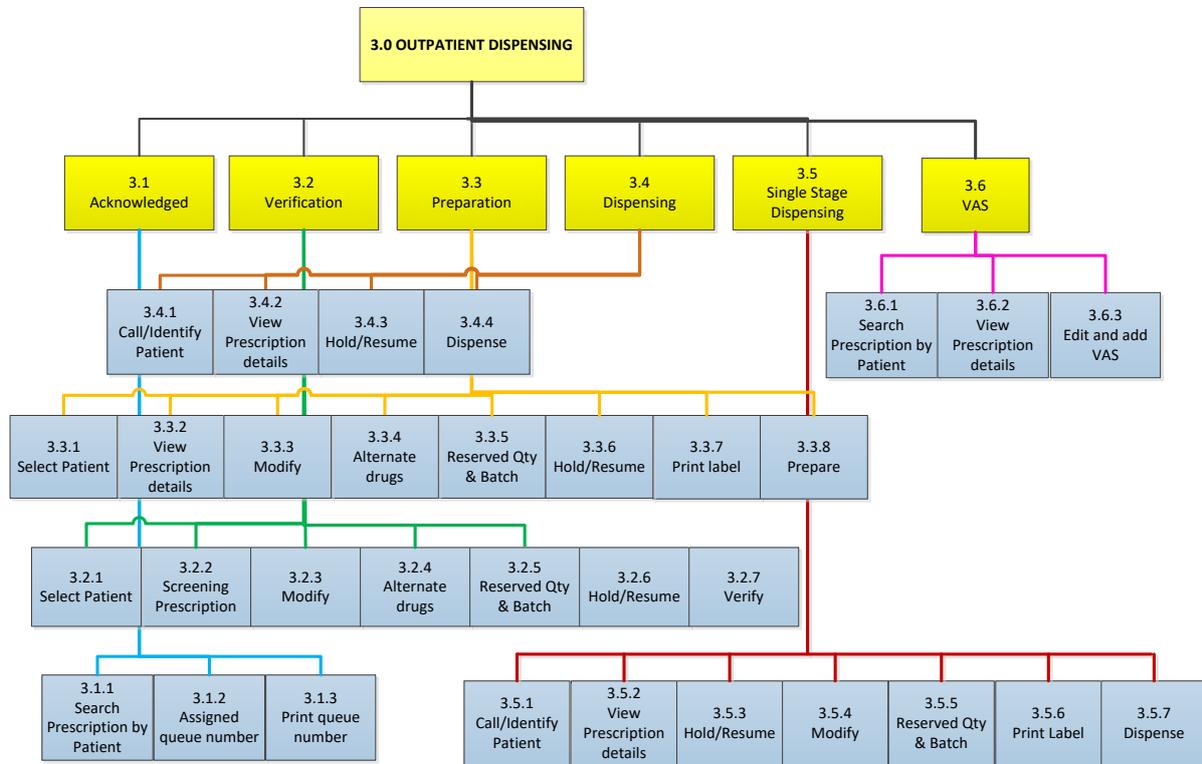
### 3. Detailed System Design

#### 3.1 Outpatient Inpatient Pharmacy Overview



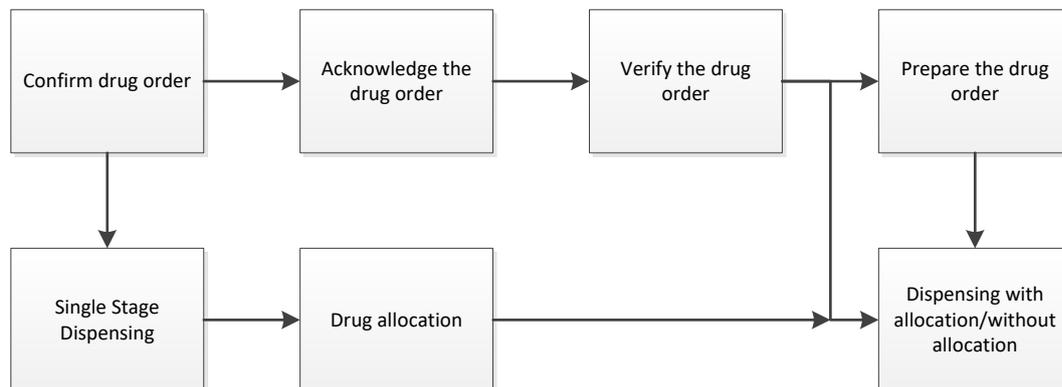
### 3.2 Outpatient Dispensing

#### 3.2.1 Overview for Outpatient Dispensing



OP.OV1: Outpatient Dispensing Overview

#### 3.2.2 Block Diagram



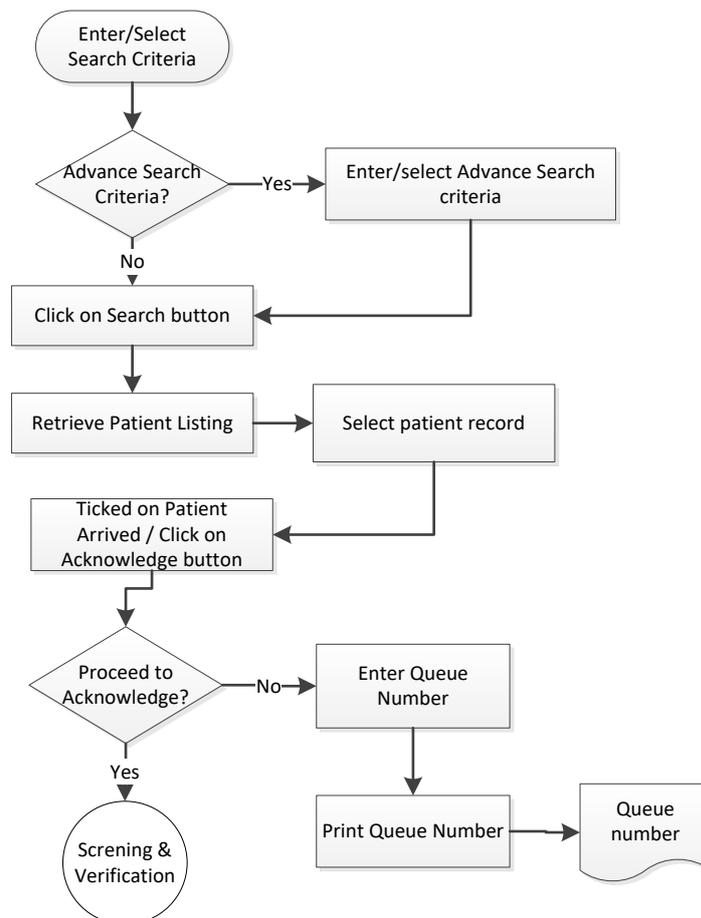
OP.BD1: Outpatient Dispensing Block Diagram

### 3.2.3 Purpose

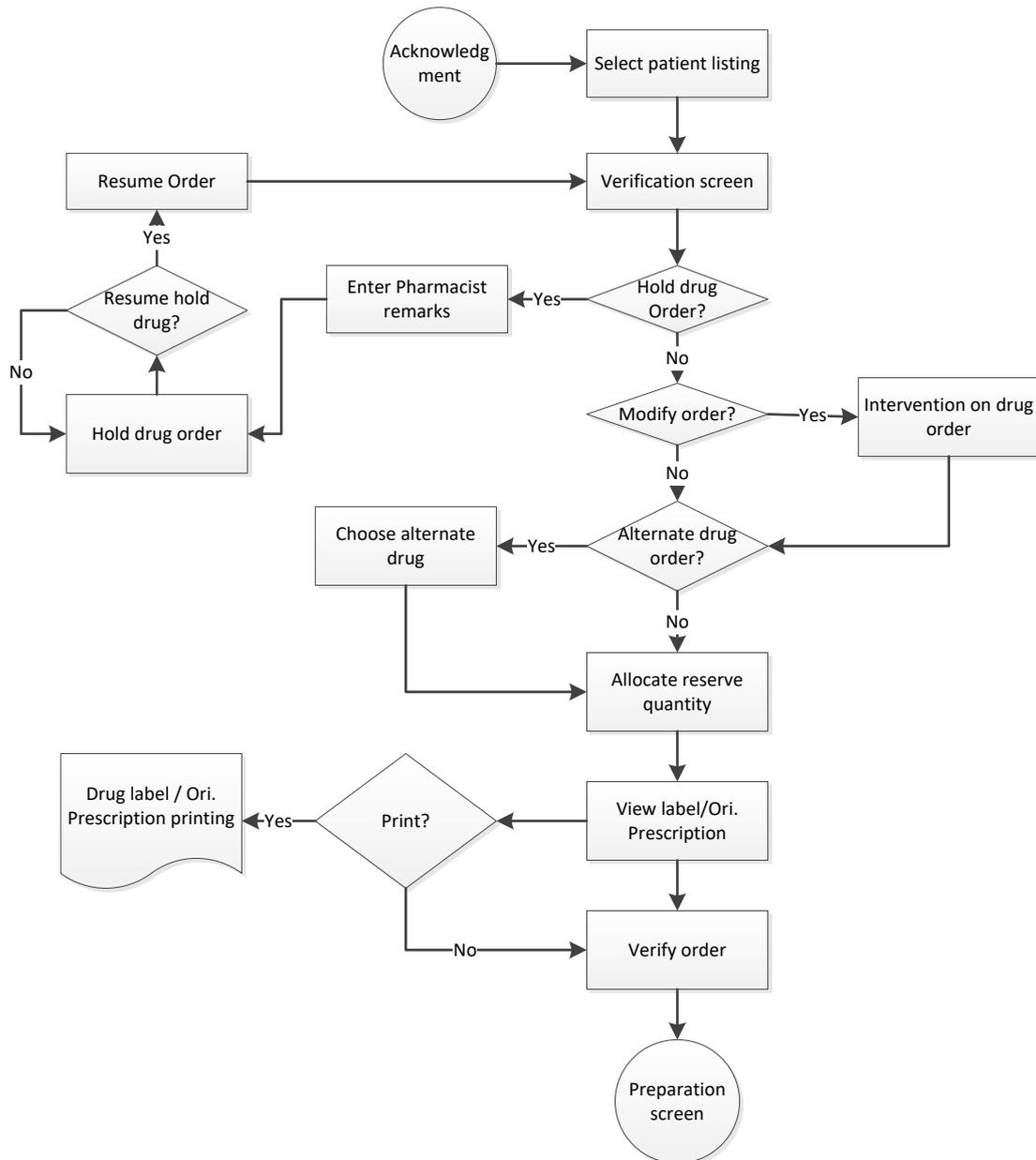
Order will flow to Acknowledgement, Screening and Verification, Preparation and Dispensing screen after confirm.

- Acknowledgment screen - allows pharmacist to acknowledge a patient's arrival to the pharmacy and a queue number is assigned to the patient.
- Screening and Verification – allows pharmacist to screen and verify medication orders made by doctors. All medication orders shall be screened for completeness and appropriateness. This process is mandatory for all orders.
- Preparation - in preparation stage pharmacist need to fill the drug based on allocation done at screening and verification stage.
- Dispensing - user will dispense the prepared drug to the patient.

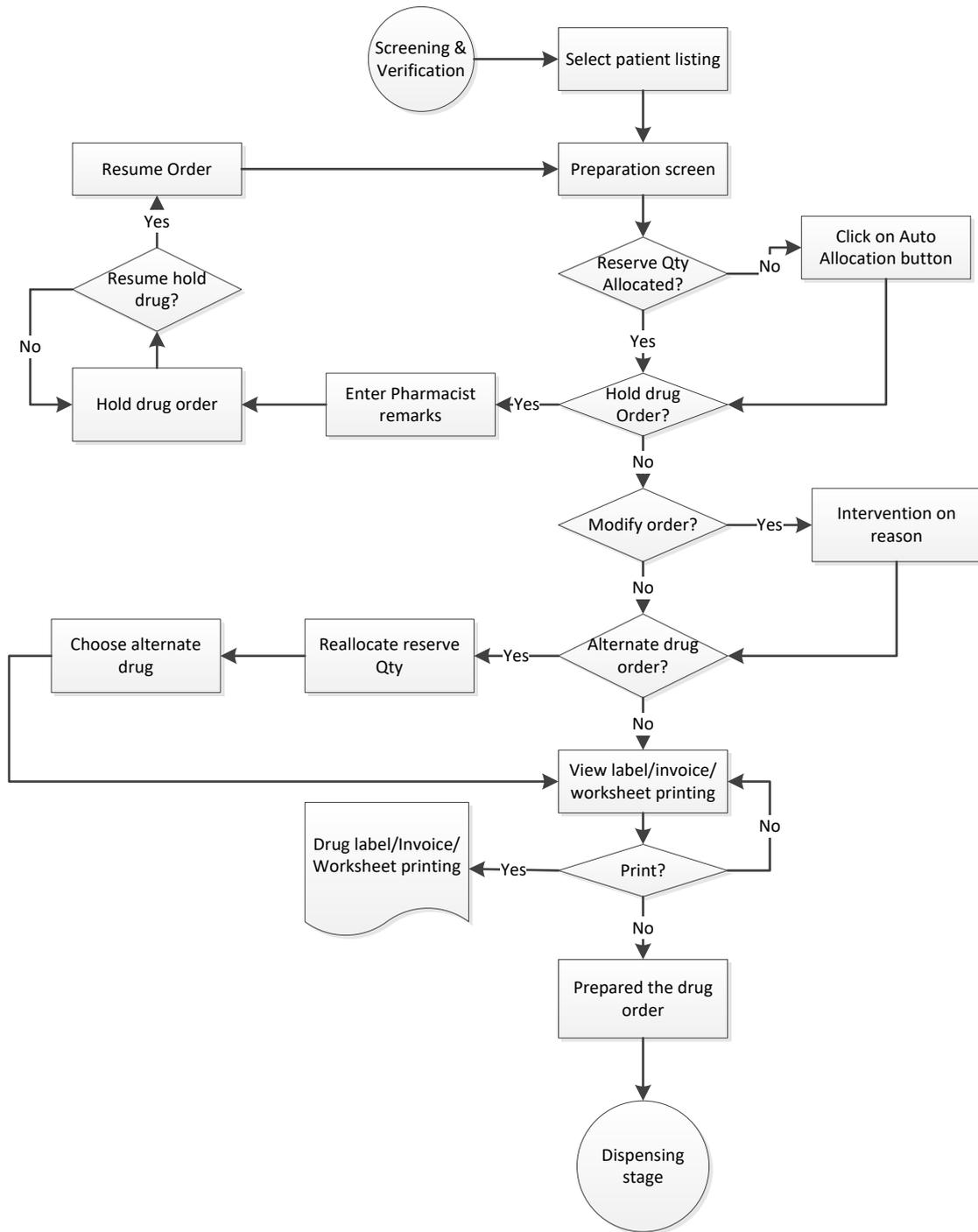
### 3.2.4 Screen Navigation Diagram



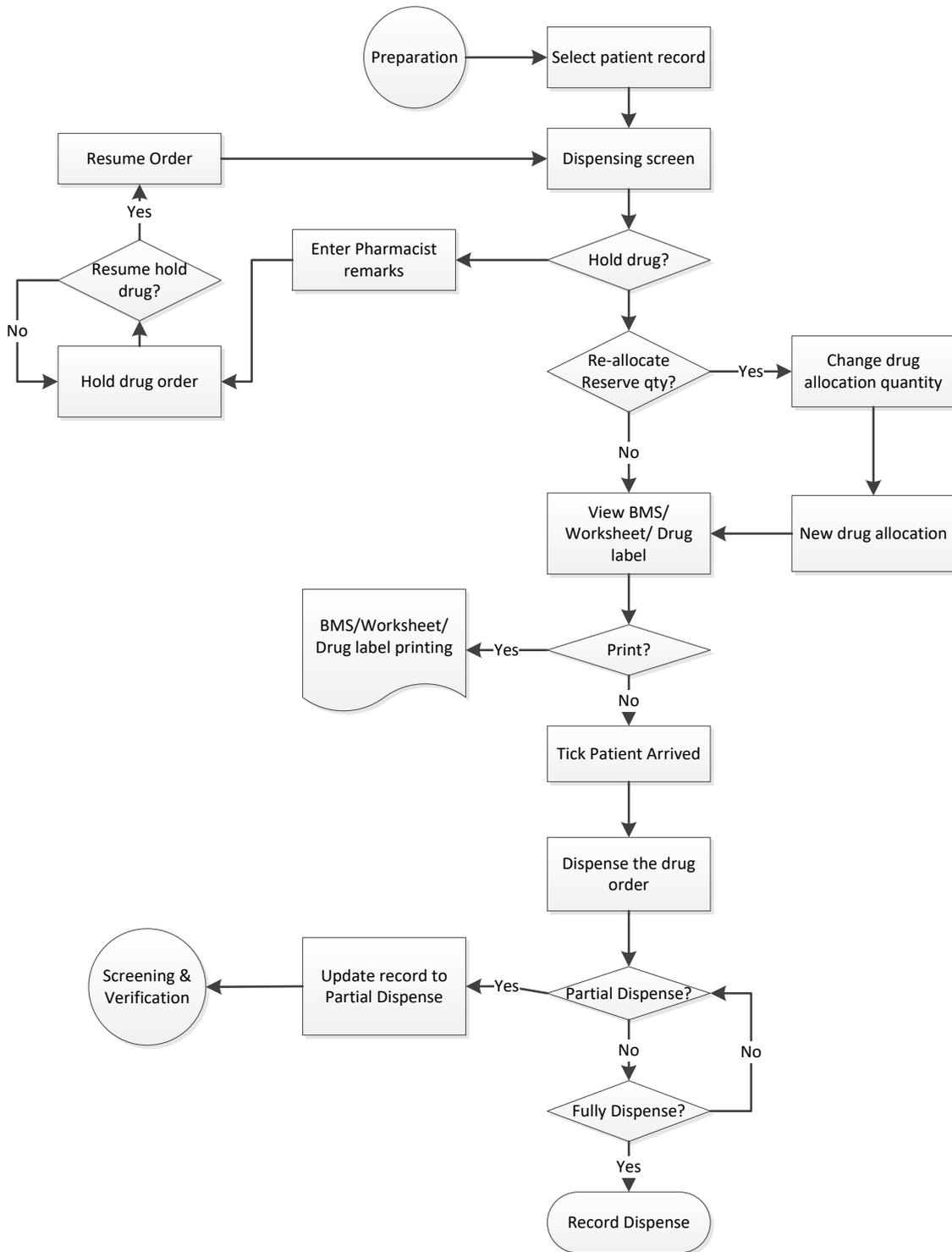
OP.SND1: Acknowledgment flow



OP.SND2: Screening and Verification



OP.SND3: Preparation Flow



OP.SND4: Dispensing Flow



3.2.5 Detail Functionality and Screen

3.2.5.1 Pharmacy Acknowledgement Listing

3.2.5.1.1 Screen Design

<b>ID</b>	PA.SD1
<b>Description</b>	Pharmacy Acknowledgment Listing
<b>Diagram</b>	
<p><i>i. Acknowledgment Listing</i></p>	
<p><i>ii. Queue Details</i></p>	
<b>Notes</b>	<ul style="list-style-type: none"> <li>To display acknowledge record listing</li> <li>Double click on patient record to open acknowledge screen and to acknowledge the record.</li> <li>Basic search fields will consist of commonly used search options and advanced search section will list all other search options available.</li> </ul>



	<ul style="list-style-type: none"> <li>Click on Queue Details link at Prescription Status column to open Queue Details screen.</li> </ul>
<b>Cross References</b>	<b>Outpatient Order</b> – refer to PhIS_CPS_SDD_OM_v1.3

3.2.5.1.2 Application Business Rules

No.	Name	Description
1.	Record Listing	<ul style="list-style-type: none"> <li>Pharmacy Acknowledgement screen allows Pharmacist to acknowledge a patient's arrival to the pharmacy and a queue number is assigned to the patient</li> <li>Listing is sorted in ascending order based on order date.</li> <li>This screen will allow the user to search for a patient who comes to the pharmacy to collect their medication. Once the patient arrives at the pharmacy counter and his/her identity is verified, a medication order will be activated for screening. The module is controlled by user access rights. Only Pharmacists are allowed to acknowledge a patient's arrival.</li> <li>Pharmacy's acknowledgement is mandatory for all outpatients.</li> <li>Patient's record for outpatient dispensing is display based on the order date as below:               <ol style="list-style-type: none"> <li>All confirm record with Ordered status will be displayed</li> <li>Partial dispense record will be displayed</li> <li>Any Ordered with Hold record will also be displayed</li> </ol> </li> </ul>
2.	Refresh List	Click on the Refresh button to reset all searched records and searching criteria to default value.
3.	Search	<ul style="list-style-type: none"> <li>Record will be search by input criteria. Acknowledgement listing are based on record status with Ordered, Ordered Hold or Partial Dispense status.</li> <li>By default this screen will allow user to perform a basic search with the following criteria:               <ol style="list-style-type: none"> <li>Dispense Location – Pharmacy location</li> <li>Order Status – This field will show the status of order in a drop down combo box:                   <ul style="list-style-type: none"> <li>All</li> <li>New – New order</li> <li>Partial Dispense – Partial dispense order</li> <li>SPUB</li> <li>Discharge Medication – Discharge medication for inpatient only</li> <li>Expired – Expired order (order that have past the end date of the order)</li> </ul> </li> <li>Order Location Type – This field will show types of orders in a drop down combo box based on the 'Location Type' values configured in the system parameter table:                   <ul style="list-style-type: none"> <li>All</li> <li>Clinic</li> <li>Nursing Unit</li> <li>Day Care</li> <li>Accident &amp; Emergency</li> </ul> </li> </ol> </li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>iv. Order Location – Source location where the medication order was made.</li> <li>v. MRN - MRN Number shall be retrieved from the database for all registered patients.</li> <li>vi. IC/Passport No – Patient’s identification</li> </ul>
4.	Queue Details	<ul style="list-style-type: none"> <li>• This screen will allow the user to assign a queue number to the patient. Once the patient has arrived at the pharmacy counter and his identity is verified, a patient will receive a queue number for medication dispensing purposes.</li> <li>• To enter the value, user need to click on Edit  button first.</li> <li>• Once this button is clicks, all field will be enable except for Arrived Date and Arrived Time since these 2 fields will auto generate the current date and time.</li> <li>• Once user has entered the information, click on Save  button.</li> <li>• Print Queue No button  will be enable after save for facility that use the queue management system. If not, this button will remain dim after save and screen will be auto close.</li> </ul>

3.2.5.1.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Acknowledgement Listing</b>				
1.	Dispensing Location	Pharmacy Acknowledgement listing shall be retrieved record from dispensing location set by user.	Yes	Drop down list (search field)
2.	Order Location Type	Default value set to All and shall be retrieved from the database for all order location type. Other Order Location Type types = Clinic, ER, Daycare, Nursing Unit, Pharmacy.	No	Drop down list (search field)
3.	MRN	Pharmacy Acknowledgement listing shall be retrieved from the database for all registered patients with visit based on matching MRN.	No	Text box
4.	Mod Of Service	Default value set to All and shall be retrieved from the database for all mode of services. Other value of Mode of Services = Appointment Card, Email and Take, Fax and Take, Normal Collection, Others, SMS and Take, Telephone and Take, UMP.	No	Drop down list (search field)
5.	Patient Name	Medication order listing shall be retrieved from the database for all registered patients with visit based on matching Patient Name.	No	Text box (search field)
6.	Order Status	Default value set to All and shall be retrieve from database for all order status. Other value of Order Status = New Order, Partial Supply.	No	Drop down list (search field)
7.	Order Location	By default, location is default to user’s login location. The listed location values are based on the user’s granted location as setup in User Profile screen.	No	Drop down list (search field)

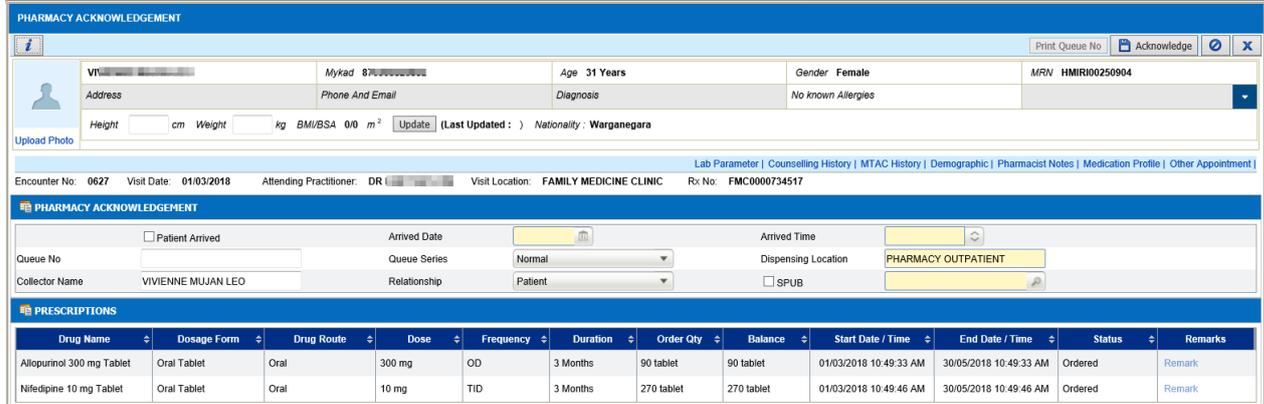


No.	Name	Description	Mandatory	Format
8.	IC Number/ Other Identification	Shall retrieve value of patient IC number or other identification number.	No	Text box (search field)
9.	Order Type	Default value set to All and shall be retrieve from database for all order type. Other value of Order Type = Normal, Discharge, SPUB, Referred Patient.	No	Drop down list (search field)
10.	Acknowledge without patient arrive	Display record shall be acknowledge without ticked on 'Patient Arrived' checkbox inside Acknowledgement screen. All record display will be acknowledge once this checkbox is tick.	No	Check box (search field)
11.	Order Date From/To	Advance search on order date from and to. Record shall be retrieve based on order start date from and to.	No	Calendar date (search field)
12.	Next Collection Date From/To	Advance search on next collection date from and to.	No	Calendar date (search field)
13.	eGL Status	Default value set to All and shall be retrieve from database for eGL type. Other value of eGL = Paying, Non Paying.	No	Drop down list (search field)
14.	Patient Type	Default value set to All and shall be retrieve from database for all patient type. Other value of Patient Type = Outpatient, Inpatient.	No	Drop down list (search field)
<b>Queue Details</b>				
1.	Patient arrival	Once user checks on this checkbox, system will capture the system date and time. This date and time will be displayed in 'Arrived date' and 'Arrival time' field.	Yes	Check box
2.	Arrived date	Read-only text box. Once user checks on 'Patient arrival' checkbox, arrival date will be captured and displayed	Yes	Read only
3.	Arrived time	Read-only text box. Once user checks on 'Patient arrival' checkbox, arrival time will be captured and displayed.	Yes	Read only
4.	Queue Series	This field will show the queue series in a drop down combo box based on the 'Queue Series' values configured in the system parameter table: <ul style="list-style-type: none"> <li>• New Prescription</li> <li>• Express</li> <li>• Partial Dispense</li> </ul>	Yes	Drop down
5.	Queue No.	System will auto generate this number based on values set in the master table. User can set starting value based on queue series. For example for new prescription queue it will start with 1000 and increase by 1 for every patient. This number will be reset on a daily basis.	Yes	Text field

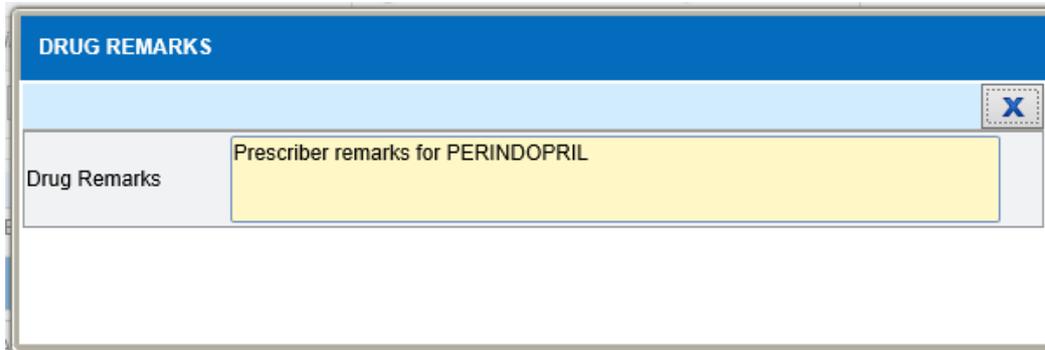
No.	Name	Description	Mandatory	Format
6.	Collector name	<ul style="list-style-type: none"> <li>By default it will show the patient name.</li> <li>Name of person who collects the prescription. By default it will show the patient's name. This field is free text with a capacity of 50 characters.</li> </ul>	No	Text field
7.	Relationship with patient.	<p>This field will show relationship of the collector with the patient in a drop down combo box based on the 'Relationship with patient' values configured in the system parameter table:</p> <ul style="list-style-type: none"> <li>Child</li> <li>Extended Family</li> <li>Father</li> <li>Foster Child</li> <li>Friends</li> <li>Grand Parent</li> <li>Guardian</li> <li>Mother</li> <li>Others</li> <li>Patient</li> <li>Sibling</li> <li>Spouse</li> <li>Step Child</li> <li>Unknown</li> </ul>	Yes	Drop down

### 3.2.5.2 Pharmacy Acknowledgment screen

#### 3.2.5.2.1 Screen Design

<b>ID</b>	PA.SD2
<b>Description</b>	Pharmacy Acknowledgment screen
<b>Diagram</b>	
<p><i>i. Acknowledgment screen</i></p>  <p>The screenshot displays the 'PHARMACY ACKNOWLEDGEMENT' screen. At the top, it shows patient information: Mykad (870000000000), Age (31 Years), Gender (Female), and MRN (HMIR00250904). Below this, there are fields for Address, Phone And Email, Diagnosis, and No known Allergies. A section for 'PHARMACY ACKNOWLEDGEMENT' includes 'Patient Arrived' checkbox, 'Arrived Date' (01/03/2018), 'Arrived Time' (10:49:33 AM), 'Queue No', 'Queue Series' (Normal), 'Dispensing Location' (PHARMACY OUTPATIENT), 'Collector Name' (VIVIENNE MULIAN LEO), and 'Relationship' (Patient). A 'PRESCRIPTIONS' table is also visible, listing drugs like Allopurinol and Nifedipine with their respective dosages and frequencies.</p>	

ii. Drug Remarks screen



**Notes**

- To acknowledge drug order done by prescriber by click on Acknowledge button.
- To indicate patient arrived by ticked on Patient Arrived checkbox and then acknowledge the patient record.
- To print queue number after acknowledge the record (if applicable) by click on Print Queue No button.
- To view prescriber remarks on the drug by clicks on Remarks link button.

**Cross References**

**Outpatient Order** – refer to PhIS\_CPS\_SDD\_OM\_v0.1

3.2.5.2.2 Application Business Rules

No.	Name	Description
1.	Queue Number	Setting by facility if queue number is mandatory. If setting is mandatory, alert to insert the queue number will appear. User enter the queue number after Patient Arrived button is ticked.
2.	Acknowledgement	<ul style="list-style-type: none"> <li>• This screen will allow the user to search for a patient who comes to the pharmacy to collect their medication. Once the patient arrives at the pharmacy counter and his/her identity is verified, a medication order will be activated for screening. The module is controlled by user access rights. Only Pharmacists are allowed to acknowledge a patient’s arrival.</li> <li>• Pharmacy’s acknowledgement is mandatory for all outpatients.</li> <li>• Before proceeding with this process, the prescriber must first create a medication order for the patient.</li> <li>• For patients referred under the SPUB, their patients’ information and medication order will be received electronically via online if both hospitals have PhIS facility. If the referring hospital is without a PhIS facility, the pharmacist or pharmacy assistant shall enter the medication order into the system manually.</li> <li>• User can clicks on Acknowledgment button  to acknowledge the record.</li> </ul>
3.	Patient Arrived	Optional to tick on Patient Arrived. If it is ticked, the waiting time will be started. If not ticked, waiting time should not started.



No.	Name	Description
4.	Print Queue No.	<ul style="list-style-type: none"> <li>User will be able to print the Queue Number after record is being acknowledge by click on this  button.</li> <li>The data entered will be saved into the database. A Queue ticket will be printed. The screen will be closed and the focus will be returned to the Pharmacy Acknowledgement screen. The selected patient's record(s) will be removed from the patient list.</li> </ul>
5.	Link	<p>Few text link to open another screen which related to the patient record available at Acknowledgment screen:</p> <ul style="list-style-type: none"> <li>Lab Parameter (for search and view only)</li> <li>Counselling History (for search and view only)</li> <li>MTAC History (for search and view only)</li> <li>Demographic (view and update field for address and phone number only)</li> <li>Pharmacist Notes (for search and view only)</li> <li>Medication Profile (for search and view only)</li> <li>Other Appointment (view only)</li> </ul>

3.2.5.2.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Acknowledgement</b>				
1.	Patient Arrived	To tick if wants to indicate that the patient has arrived at the counter.	No	Checkbox
2.	Queue Number	If Patient Arrived is being ticked, Queue Number is mandatory to fill in (setting Queue Series =Yes). If user Acknowledge without patient arrived ticked, Queue Number will be auto generated.	No	Text field
3.	Collector Name	The name of person that will collect the prescription.	No	Text field
4.	Queue Series	Drop down list type of queue series consists of Normal, Express, Special and Others.	No	Drop down list
5.	Relationship	Drop down list consist of relationship collector with the patient (Child, Extended Family, Father, Foster Child, Friend, Grandparent, Guardian, Mother, Others, Patient, Sibling, Spouse, Step Child, Unknown).	No	Drop down list
6.	SPUB	Drop down list to select facility name for SPUB record.	No	Check box with drop down
7.	Remarks	A link to open drug remarks screen entered by prescriber during drug order.	No	Read only
<b>Drug Remarks</b>				
1.	Drug Remarks	By default it will display drug remarks entered by prescriber during drug order. If no remarks entered, it will be blank and this field is a read only field.	No	Read only



### 3.2.5.3 Screening and Verification Listing

#### 3.2.5.3.1 Screen Design

<b>ID</b>	SV.SD1
<b>Description</b>	Screening and Verification Listing

#### Diagram

##### i. Screening and Verification Listing (Acknowledged=Y)

OUTPATIENT - SCREENING AND VERIFICATION

Show All

Dispensing Location: PHARMACY OUTPATIENT | Patient Name:

Order Type: All | MRN:

Mode of Services: All | Order Status: All

IC No/Other Identification:  | Prescription Status: All

Order Location: All | Order Location Type: All

Order Date From:  | Order Date To:

Queue Date:  | Queue Series: All

Queue No:

Basic Search  Acknowledged

[ 131 - 139 / 139 ]

Queue No	MRN	Patient Name	Queue Series	Order Date Time	Order Location	Current Collection Mod	Order Type	Prescription Status	Arrival Time	Waiting Time
	HMIRI00196750		Normal	14/09/2017 12:02 PM	CLINIC MEDICAL (PAKAR 3)		Normal	IN PROGRESS	<a href="#">Queue Details</a>	
	HMIRI00164903		Normal	15/09/2017 11:02 AM	CLINIC MEDICAL (PAKAR 3)	Normal Collection	Normal	IN PROGRESS/HOLD	<a href="#">Queue Details</a>	
	HMIRI00150728		Normal	28/09/2017 8:48 AM	CLINIC MEDICAL (PAKAR 3)	Normal Collection	Normal	IN PROGRESS	<a href="#">Queue Details</a>	
	HMIRI00205772		Normal	23/01/2018 9:13 AM	CLINIC OTORHINOLARYNGOL OGY (PAKAR 5)		Normal	IN PROGRESS	<a href="#">Queue Details</a>	
	HMIRI00203333		Normal	01/02/2018 3:11 PM	REHABILITATION CLINIC	Normal Collection	Normal	IN PROGRESS/HOLD	<a href="#">Queue Details</a>	
	HMIRI00140894		Normal	30/01/2018 4:11 PM	CLINIC PALLIATIVE CARE	Normal Collection	Normal	IN PROGRESS/HOLD	<a href="#">Queue Details</a>	

##### ii. Screening and Verification Listing (Acknowledged=N)

OUTPATIENT - SCREENING AND VERIFICATION

Show All

Dispensing Location: PHARMACY OUTPATIENT | Patient Name:

Order Type: All | MRN:

Mode of Services: All | Order Status: All

IC No/Other Identification:  | Prescription Status: All

Order Location: All | Order Location Type: All

Order Date From:  | Order Date To:

Queue Date:  | Queue Series: All

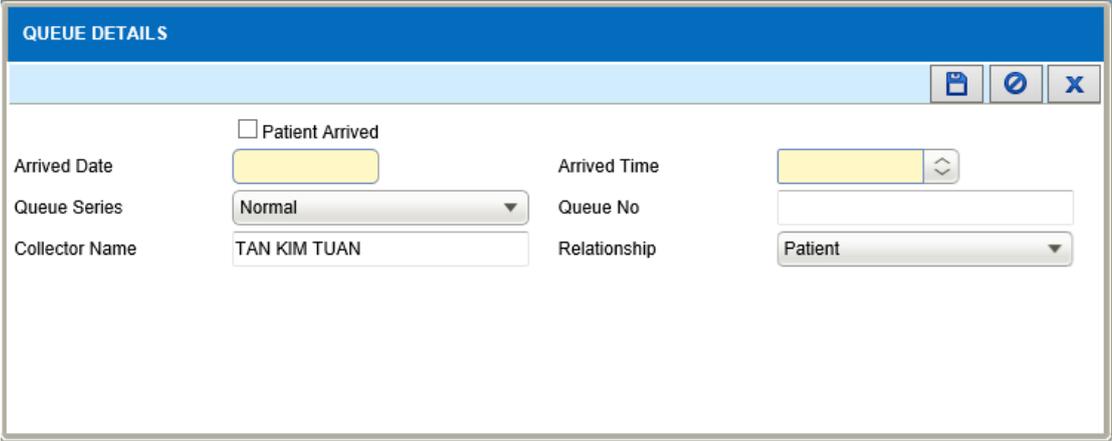
Queue No:

Basic Search  Acknowledged

[ 12701 - 12710 / 12710 ]

MRN	Patient Name	IC No/Other Identification	Order Date	Order Time	Order Location	Prescription No	Order Type	Prescription Status	eGL Status	Next Collection Date
HMIRI00250685		1	01/03/2018	3:31 PM	FAMILY MEDICINE CLINIC	FMC0000734526	Normal	PARTIALLY DISPENSED	Paying	29/03/2018
HMIRI00098578		3	07/03/2018	8:51 AM	CLINIC MEDICAL (PAKAR 3)	MEDC0000734599	Normal	PARTIALLY DISPENSED	Non Paying	09/03/2018
HMIRI00250501		9	12/03/2018	10:53 AM	FEMALE MEDICAL CLINIC	FEMALE MC0000734622	Normal	PARTIALLY DISPENSED	Paying	09/04/2018
HMIRI00252465		3	12/03/2018	5:02 PM	WARD FEMALE MEDICAL	FMW0000734628	Discharge	ORDERED		
HMIRI00252465		3	12/03/2018	5:05 PM	WARD FEMALE MEDICAL	FMW0000734629	Discharge	ORDERED		
HMIRI00251808		1	12/03/2018	5:23 PM	WARD MALE MEDICAL	MMW0000734630	Discharge	ORDERED	Paying	
HMIRI00098140		3	13/03/2018	5:04 PM	CLINIC MEDICAL (PAKAR 3)	MEDC0000734632	Normal	ORDERED		

##### iii. Queue Details

	
<b>Notes</b>	<ul style="list-style-type: none"> <li>To display record with Acknowledge=Y or Acknowledge=N.</li> <li>Double click on patient record to open screening and verification screen and to verify the record.</li> <li>Basic search fields will consist of commonly used search options and Advanced Search section will list all other search options available.</li> </ul>
<b>Cross References</b>	<b>Outpatient Order</b> – refer to PhIS_CPS_SDD_OM_v1.3

### 3.2.5.3.2 Application Business Rules

No.	Name	Description
1.	Record Listing	<ul style="list-style-type: none"> <li>This screen will allow Pharmacist to search for a patient medication order and perform screening. The module is controlled by user access rights. Only Pharmacists and/or Assistant Pharmacists are allowed to screen the medication order.</li> <li>Pharmacy screening and verification is mandatory for all orders before the pharmacist can proceed with the preparation process</li> <li>Screenings and Verification list screen displayed for user to select patient record and verify the order. Listing is sorted in ascending order based on order date.</li> <li>User able to search record with Acknowledge status or without Acknowledge status.</li> <li>By default, patient's record is displayed based on the order date as below:               <ol style="list-style-type: none"> <li>Record with Acknowledge or Acknowledge Hold status will be displayed</li> <li>Partial dispense record will be listed</li> <li>Record with Ordered or Ordered Hold status will also be displayed</li> </ol> </li> </ul>
2.	Refresh List	Click on the Refresh button to reset all searched records and searching criteria to default value.
3.	Queue Details	<ul style="list-style-type: none"> <li>This screen will allow the user to assign a queue number to the patient. Once the patient has arrived at the pharmacy counter and his identity is verified, a patient will receive a queue number for medication dispensing purposes.</li> <li>To enter the value, user need to click on Edit  button first.</li> <li>Once this button is clicks, all field will be enable except for Arrived Date and</li> </ul>

No.	Name	Description
		<p>Arrived Time since these 2 fields will auto generate the current date and time.</p> <ul style="list-style-type: none"> <li>Once user has entered the information, click on Save  button.</li> <li>Print Queue No button  will be enable after save for facility that use the queue management system. If not, this button will remain dim after save and screen will be auto close.</li> </ul>
4.	Search	<ul style="list-style-type: none"> <li>Record will be search by input criteria. Acknowledgement listing are based on record status with Ordered, Ordered Hold or Partial Dispense status.</li> <li>By default this screen will allow user to perform a basic search with the following criteria: <ul style="list-style-type: none"> <li>i. Dispense Location – Pharmacy location</li> <li>ii. Order Status – This field will show the status of order in a drop down combo box: <ul style="list-style-type: none"> <li>All</li> <li>New – New order</li> <li>Partial Dispense – Partial dispense order</li> <li>SPUB</li> <li>Discharge Medication – Discharge medication for inpatient only</li> <li>Expired – Expired order (order that have past the end date of the order.</li> </ul> </li> <li>iii. Order Location Type – This field will show types of orders in a drop down combo box based on the 'Location Type' values configured in the system parameter table: <ul style="list-style-type: none"> <li>All</li> <li>Clinic</li> <li>Nursing Unit</li> <li>Day Care</li> <li>Accident &amp; Emergency</li> </ul> </li> <li>iv. Order Location – Source location where the medication order was made.</li> <li>v. MRN - MRN Number shall be retrieved from the database for all registered patients.</li> <li>vi. IC/Passport No – Patient's identification</li> </ul> </li> </ul>

### 3.2.5.3.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Dispensing Location	By default, dispensing location display the outpatient dispensing location. Record shall be retrieve from the input criteria.	Yes	Drop down list (searching field)
2.	Order Type	Search consist the order type of the record (All, Normal, SPUB, Discharge, and Referred Patient).	No	Drop down list (searching)



No.	Name	Description	Mandatory	Format
				field)
3.	Mode of Services	Search Mode of services of the record (All, Appointment Card, Email and Take, Fax and Take, Normal Collection, Others, SMS and Take, Telephone and Take, UMP).	No	Drop down list (searching field)
4.	IC No/Other Identifications	Screening and Verification listing shall be retrieved from the database for all registered patients with visit on matching IC No/Other Identification number.	No	Text field (searching field)
5.	Order Location	Search on the outpatient location when order was made.	No	Drop down list (searching field)
6.	Order Date From	Search on the 'date from' when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
7.	Order Date To	Search on the end of order date when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
8.	Queue Date	Search the date when queue number was created.	No	Calendar in format dd/mm/yyyy (searching field)
9.	Queue No	Search on the queue number of the patient record.	No	Text field (searching field)
10.	Patient Name	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching Patient Name.	No	Text field (searching field)
11.	MRN	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching MRN.	No	Text field (searching field)
12.	Order Status	Search on the status of the patient records, either New Order or Partial Supply order.	No	Drop down list (searching field)
13.	Prescription Status	Search on the status of the prescription either Hold or Expired.	No	Drop down list (searching field)
14.	Order Location Type	Record shall be retrieve based on the type of the order location such as (Clinic, Daycare, ER, Nursing Unit, and Pharmacy)	No	Drop down list (searching field)



No.	Name	Description	Mandatory	Format
				field)
15.	Queue Series	Search on the series of the queue number which consist of (Normal, Express, Special and Others).	No	Drop down list (searching field)
16.	Acknowledged	To search on record with Acknowledge status. If ticked means search on record with status = Acknowledge and if not ticked, search record without status Acknowledge.	No	Checkbox (searching field)

### 3.2.5.4 Screening and Verification

#### 3.2.5.4.1 Screen Design

<b>ID</b>	SV.SD2
<b>Description</b>	Screening and Verification screen

**Diagram**

*i. Screening and Verification (Full Based)*

*ii. Screening and Verification (Pharmacy Based)*



**PRESCRIPTION** [Icons] **PROCEED TO PREPARATION** **ENGLISH** [Icons] Prescription Label Label Allocate Full Supply Verify

Clinic TCA [Dropdown] Next Collection Mode: Normal Collection  SPUB Waiting Time: 0 : 0 : 14  
 Next Collection Date: 06/05/2018 Dispense At [Dropdown]  Next Visit Collection  
 Supply Duration: 30 Next Collection Location: Farmasi Klinik Pakar - Rx Filling Adherence Score [Dropdown]

Drug Name	Order Details	Order Qty	Reserve Qty	Dispense UOM Qty	Balance	Remarks	Counselling Indication	Extemporaneous	Original Prescriber	Status
Perindopril 4 mg Tablet	4 mg, OD, Oral, 45 Days 06/04/2018 10:45 AM - 21/05/2018 10:45 AM	45 tablet	0 <input type="checkbox"/>	0 tablet	45 tablet (45 day(s))	Remarks	<input type="checkbox"/> Detail		DR [Redacted]	Acknowledged
Atorvastatin 20 mg Tablet	20 mg, ON, Oral, 45 Days 06/04/2018 10:46 AM - 21/05/2018 10:46 AM	45 tablet	0 <input type="checkbox"/> Alternate(C)	0 tablet	45 tablet (45 day(s))	Remarks	<input type="checkbox"/> Detail		DR [Redacted]	Acknowledged
Estradiol valerate 2mg Tablet	2 mg, BID, Oral, 45 Days 06/04/2018 10:46 AM - 21/05/2018 10:46 AM	90 tablet	0 <input type="checkbox"/>	0 tablet	90 tablet (45 day(s))	Remarks	<input type="checkbox"/> Detail		DR [Redacted]	Acknowledged

iii. Intervention

**INTERVENTION** [Info]  Modify with Reason  Reason only  Modify without Reason [Close]

**PHARMACY REMARKS**

Drug Name: All Drugs Order Detail: [Dropdown] [Reset] [Save Reason]

Selection	Intervention Reason	Remarks	Intervention Accepted	Intervention Not Accepted
<input type="checkbox"/>	Authenticity	[Text Area]	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Contraindication	[Text Area]	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Drug Interaction	[Text Area]	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Dose	[Text Area]	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Drug	[Text Area]	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Duration	[Text Area]	<input type="radio"/>	<input type="radio"/>

**MODIFY ORDER**

Drug Name	Dosage	Route	Freqency	Duration	Prescribed Qty	Start Date	End Date	Reasons
Perindopril 4 mg Tablet	4 mg	Oral	4 times a week	20 Days	12 tablet	13/03/2018 5:04 P	02/04/2018 5:04 PM	[Redacted]
Amlodipine 10 mg Tablet	10 mg	Oral	OM (every morning)	20 Days	20 tablet	13/03/2018 5:03 P	02/04/2018 5:03 PM	[Redacted]

Sr No.	Reason	Remark
1	Contraindication	test intervention

iv. Hold screen

**HOLD ORDER - PHARMACIST REMARKS** [Info] [Hold] [Refresh] [Close]

Drug Name	Reason	Other Reason	Remark
Amlodipine 10 mg Tablet	Contraindication	[Text Area]	[Text Area]
Amlodipine 5 mg and Valsartan 160 mg Tablet	Drug Interaction	[Text Area]	[Text Area]

v. Resume screen



HOLD ORDER - PHARMACIST REMARKS				
Drug Name	Reason	Other Reason	Remark	Action Taken
Amlodipine 10 mg Tablet	Contraindication			
Amlodipine 5 mg and Valsartan 160 mg Tablet	Drug Interaction			

vi. Pharmacist Remarks

**PHARMACIST REMARK**

Prescriber Remark

Order Stage

Pharmacist Remark \* Drug authorisation is required. Please enter remarks to proceed with verification

Verification Stage Pharmacist add remarks at screening stage

**DRUG REMARKS HISTORY (AMLODIPINE 10 MG TABLET)**

Prescriber Remark	Prescriber Name	Start Date	End Date	Pharmacist Remark	Stage	Rx
No Records Found!			No Records Found!			

vii. Item Batch Details

**ITEM BATCH DETAILS**

Drug Code: C08CA01000T1002XX      Default SKU: tablet

Drug Name: Amlodipine 10 mg Tablet      Dispense UOM: tablet

Order Detail: 10 mg, OM (every morning), 20 Days, 13/03/2018 - 02/04/2018      Supply Duration: 18 days Date From 15/03/2018 to 02/04/2018

**BATCH DETAIL**

Batch No	Expiry Date	Available Qty	UOM Qty	Allocated Qty
C17012	30/09/2020	5224	18 tablet	18
C17054	31/10/2020	17700	0 tablet	0
Total Available Qty		22924	Total Allocated Qty	
			18	

viii. Alternate Drug



**ALTERNATE DRUG DETAILS**

Location: PHARMACY OUTPATIENT | Order Detail: 10 mg, OM, 20 Days  
 Ordered Drug Code: C08CA01000T1002XX | Dosage Form: Oral Tablet  
 Ordered Drug Desc: Amlodipine 10 mg Tablet | Route: Oral  
 Supply Duration: 19 days Date From 15/03/2018 to

**BATCH DETAIL**

No	Drug Name	Dosage Form	Route	Qty per dose	Batch	Expiry Date	Available Qty	SKU	Allocation Qty	Select
1	Amlodipine 10 mg Tablet	Oral Tablet	Oral	0 tablet	C17012	30/09/2020	5224	tablet	0	<input type="checkbox"/>
				0 tablet	C17054	31/10/2020	17700	tablet	0	<input type="checkbox"/>
2	Amlodipine 5 mg Tablet	Oral Tablet	Oral	0 tablet	BH05675	30/04/2020	2322	tablet	0	<input type="checkbox"/>
				0 tablet	BHG6519	31/05/2020	25000	tablet	0	<input type="checkbox"/>
				0 tablet	BH09668	31/08/2020	200	tablet	0	<input type="checkbox"/>

Reason:  Remark:

ix. SPUB Form

**SPUB FORM**

Mykad: [redacted] | Age: 27 Years 01 Months 09 Days | Gender: Male | MRN: HMR00250906  
 Address: [redacted] | Phone And Email: [redacted] | Diagnosis: No known Allergies  
 Height: [redacted] cm | Weight: [redacted] kg | BMI/BSA: 0/0 m<sup>2</sup> | Update | (Last Updated: ) | Nationality: Warganegara

**PHARMACY ORDER**

SPUB No: [redacted]  
 Referred From: Hospital Miri | Referred To: Hospital Bahagia Ulu Kinta  
 Contact Person / Office: System Administrator | Contact Person / Office: test person  
 Contact no / Ext No: 085420033 | Contact no / Ext No: 11223344  
 Fax No: [redacted] | Fax No: [redacted]  
 Next Collection Date: 20/04/2018 |  Counselling Provided  
 Remarks: [redacted] | Previous SPUB Referred To: [redacted]

Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Disp Qty	Prev Disp Qty	Bal Qty	Remarks
MEDC0000734635	14/03/2018	Nifedipine 10 mg Tablet	10 mg, TID, 3 Months	270 tablet	0 tablet	0 tablet	270 tablet	Remark
MEDC0000734635	14/03/2018	Allopurinol 300 mg Tablet	450 mg, OD, 3 Months	135 tablet	45 tablet	0 tablet	90 tablet	Remark

x. Original Prescription Printing



**Ministry of Health, Malaysia  
Hospital Miri**

Patient Name	: ██████████	Patient ID	: ██████████
Age	: 27 Years 01 Months 14 Days	MRN	: HMIRI00250906
Gender	: Male	Prescription #	: MEDC0000734635
Height/Weight/BSA	: ___/___/___	Order Date/Time	: 14/03/2018 04:19 PM
Room No/Bed No	: ___/___	Location	: CLINIC MEDICAL (PAKAR 3)
Diagnosis	: left eye conjunctivitis	Allergy	:

Drug Name	Route	Dose	Frequency	Start Date	End Date	Duration	Prescribed Qty	Prescription Status
Allopurinol 300 mg Tablet	Oral	300 mg	OD (once daily)	14/03/2018	12/06/2018	3 Months	90 tablet	Acknowledged
Nifedipine 10 mg Tablet	Oral	10 mg	TDS (3 times a day)	14/03/2018	12/06/2018	3 Months	270 tablet	Acknowledged

Prescribed by : DR F. ██████████  
 Designation : Pegawai Perubatan Pakar  
 Department : General Medicine

**Notes**

- Click on 'Print Original Prescription' button to print the original prescription report.
- Drug label can be printed directly or preview first than print.
- Click on 'Allocate' button to do auto allocation.
- Click on 'Full Supply' button to do fully supply.
- Click on icon HOLD  to hold the drug order.
- Click on icon RESUME  to resume the hold drug.
- Click on icon INTERVENTION  to modify the order.
- Click on 'Alternate' or 'Alternate(C)' to alternate the drug order.
- Click on 'Reserve Qty number' to do manual allocation.
- Ticked on 'Proceed to Preparation' to proceed the drug order to preparation stage.
- Click on 'Remarks' to insert pharmacist remarks at Screening and Verification stage.
- Ticked on select all checkbox or single checkbox to select the drug(s) either to hold, resume or intervention.

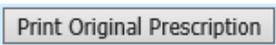
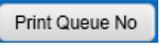
**Cross References**

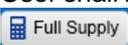
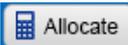
**Order Management** – PhIS\_CPS\_SDD\_OM\_v1.3.



3.2.5.4.2 Application Business Rules

No.	Name	Description
1.	Record Status	<ul style="list-style-type: none"> <li>Record in Screening and Verification will display if the record status is Ordered/Ordered Hold, Acknowledge/Acknowledge Hold or Partial Dispense.</li> <li>For a drug order which required authorisation, 'Status' column will displayed as Ordered (PA) means drug record is ordered but pending for authorisation.</li> <li>Expired drug will be remove from the list at 12:00 midnight on the date of expired.</li> <li>Drug alert icon will be displayed in red color if the order have interaction with other drug within the same prescription.</li> </ul>
2.	Reserve Quantity	<ul style="list-style-type: none"> <li>Quantity to be reserved for this order. By default this value will be 0.</li> <li>If Reserve Qty display in red text <b>0</b>, it means no stock available.</li> <li>User shall be able to dispense the quantity with 0 allocation by ticked on the checkbox <b>0</b> <input checked="" type="checkbox"/>.</li> <li>Reserve Quantity value is being set at Screening or Preparation stage once record is being verified or prepared.</li> <li>However, user shall be able to de-allocate back the reserve quantity using Item Batch Details screen.</li> </ul>
3.	Alternate Drug	<ul style="list-style-type: none"> <li>Pharmacists and pharmacy assistants will have the ability to select different available strength of the same drug.</li> <li>System will show alternate drug with different strengths and dosages form within the same administration route of the same drug.</li> <li>If drug detail information display <b>Alternate</b>, it means the alternate drug must be from the same strength.</li> <li>If drug display as <b>Alternate(C)</b>, it means the alternate drug can be a combination of two drugs with different strength.</li> <li>The alternate drug will be shown based on the validation that the drug must contain the same generic name and the same route of administration. (Only tablet, capsule and syrup etc. which can be taken orally for a given generic name may become alternate drugs for each other but NOT the Injection form of the same generic).</li> <li>Alternate drug list will contain the following information:               <ol style="list-style-type: none"> <li>No – running no</li> <li>Drug name</li> <li>Form</li> <li>Route</li> <li>Batch No - Available batch no</li> <li>Expiry Date - Batch expiry date</li> <li>Available Qty – Quantity available for selected batch</li> <li>UOM</li> <li>Allocate Qty – Quantity to be reserved from selected batch. Allocated quantity cannot be more than the available quantity and order quantity. This field allows number only with a capacity of 10 digits.</li> </ol> </li> </ul>

No.	Name	Description
		<p>x. Select – Checkbox for user to select the alternate drug</p> <ul style="list-style-type: none"> <li>This screen will show the selected drug info and a list of alternate drugs available for user to choose.</li> </ul>
4.	Printing	<ul style="list-style-type: none"> <li>User able to print the original prescription record when click on  button in Full Based or click on  button in Pharmacy Based.</li> <li>Prescriber name with designation and department will be displayed at each of drug name.</li> <li>Print drug label applicable for a drug with allocated quantity only. User shall be able to directly print the drug label directly  or click on  button to preview first before print. Editing on drug label for certain field is allowed before print in preview label.</li> <li>User shall be able to print the queue number , if applicable</li> </ul>
5.	Hold drug	<ul style="list-style-type: none"> <li>User shall be able to select multiple drugs and hold. Select multiple checkbox and then click on HOLD  icon. Another pop-up windows will appear.</li> <li>Enter the hold reason and save. Record will be updated to hold. User cannot hold again the existing hold drugs where alert will be displayed.</li> </ul>
6.	Resume drug	<ul style="list-style-type: none"> <li>User shall be able to select multiple drugs and resume. Select multiple checkbox and then click on RESUME  icon. Another pop-up windows will appear.</li> <li>Enter the resume reason and save. Drug records will be resume to original status. User cannot resume the normal drugs (without hold status) where alert will be displayed.</li> </ul>
7.	Drug Intervention	<ul style="list-style-type: none"> <li>User shall be able to intervene the existing drug order. Select multiple checkbox and then click on INTERVENTION  icon. Another pop-up windows will appear. Once intervene is done, drug details will be highlighted in blue color with a link on detail information.</li> <li>User must add in intervention reason first before do intervene on the drug details. Intervention reason should be save FIRST before intervene the drugs details.</li> <li>User shall be able to save the intervention reason by clicks on 'Save' button.</li> <li>'Confirm' button used to confirm the intervene. It will appear after intervention reason is saved.</li> <li>User shall be able to click on the link (  ) and see the history of the intervention records done earlier.</li> <li>User can choose selected drug by clicks on add icon (  ) to add in different reason for each drugs. The selected drug name will appear at</li> </ul>

No.	Name	Description
		<p>the top of the intervention reason.</p> <ul style="list-style-type: none"> <li>Reset button  used to reset back the selected drug name from Drug name and Order Details text box.</li> </ul>
8.	Drug Allocation	<ul style="list-style-type: none"> <li>User shall be able to do full supply for the record by click on Full Supply  button. Full amount of allocation will be calculated into the drug order.</li> <li>User shall be able to do auto allocation by click on Allocate button . The reserve quantity will be auto calculated based on supply duration entered. Reserve quantity will be auto allocate based on this formula (Supply duration x frequency)</li> </ul>
9.	SPUB Form	<ul style="list-style-type: none"> <li>User shall be able to create SPUB R1 Form for SPUB record.</li> <li>This screen will allow user to generate SPUB R1 form &amp; medication order for collection of medication at a centre of choice. The printed SPUB R1 form is endorsed and signed by authorized personnel.</li> <li>If the preferred facility is SPUB enabled and has PhIS facility, an electronic transfer will be initiated.</li> <li>Online SPUB R1 form will be displayed with default information from the Dispensing screen. Patient information will be defaulted and cannot be changed.</li> <li>Once SPUB checkbox is tick <input checked="" type="checkbox"/> SPUB, SPUB R1 Form button  will be enable and user able to create SPUB record. User able to send SPUB out to online or offline facility.</li> </ul>
10.	Verification	<ul style="list-style-type: none"> <li>This process is mandatory for all prescriptions received before user can proceed with preparation.</li> <li>Click on the patient MRN from the patient listing, verification screen will be displayed with the selected patient and prescription information.</li> <li>User shall be able to click on  button to verify the order.</li> <li>User able to proceed to Preparation screen if ticked on 'Proceed to Preparation' checkbox. Once ticked, it will bypass the verification process and record will be updated to Verify automatically.</li> </ul>
11.	Link	<p>Few text link to open another screen which related to the patient record available from Preparation screen such as:</p> <ul style="list-style-type: none"> <li>Lab Parameter (for search and view only)</li> <li>Counselling History (for search and view only)</li> <li>MTAC History (for search and view only)</li> <li>Demographic (view and update field for address and phone number only)</li> <li>Pharmacist Notes (for search and view only)</li> <li>Medication Profile (for search and view only)</li> <li>Other Appointment (view only)</li> </ul>

3.2.5.4.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Screening and Verification screen</b>				
1.	Patient Arrive	To indicate that patient has arrived at the counter. Waiting time will be started once ticked.	No	Checkbox
2.	Queue Series	Type of queue series in drop down value which consist of Express, Normal, Others and Special.	No	Drop down list
3.	Queue Number	To enter patient queue number, if applicable.	No	Text field
4.	Arrival Time	Arrival time will appear once user ticked on Patient Arrived checkbox.	No	Text field (non editable)
5.	Collector Name	The name of the collector which can be a patient himself or other person from patient.	No	Text field
6.	Relationship	Refer to collector relationship with the patient which consist of (Child, Extended Family, Father, Foster Child, Friend, Grandparent, Guardian, Mother, Others, Patient, Sibling, Spouse, Step Child, Unknown).	No	Drop down list
7.	Clinic TCA	Refer to clinic next appointment date in a format dd/mm/yyyy.	No	Calendar in format dd/mm/yyyy
8.	Next Collection Date	Indicate the next date for patient to collect a medication in a format of dd/mm/yyyy. User able to edit on this date for the next cycle of dispensing.	No	Calendar in format dd/mm/yyyy
9.	Supply Duration	The number of days to supply for the drug order. By default shows the next date based on supply duration.	Yes	Text field
10.	Current Collection Mode	By default it will display value of the current mode of collection. Text field and non editable.	Yes	Read only
11.	Next Collection Mode	By default it will display same mode as Current Collection Mode. Refer to next collection mode under VAS (Appointment Card, Email and Take, Fax and Take, Normal Collection, Others, SMS and Take, Telephone and Take, UMP). User able to update on this column for the next cycle of dispensing.	No	Drop down list
12.	Next Collection Location	By default it will display the current collection location. User able to update on this column for the next cycle of dispensing.	Yes	Read only
13.	SPUB	To create SPUB record. Ticked on SPUB checkbox, SPUB R1 Form button will be enable and user shall be able to open SPUB R1 Form screen to create SPUB record. SPUB record will be send once Dispense button click at dispensing stage.	No	Checkbox with Button
14.	Dispense At	A location where the current dispensing will take place. For outpatient, it will be defaulted to Pharmacy Counter however user can change to other dispensing location	Yes	Drop down list



No.	Name	Description	Mandatory	Format
		such as Bedside or Drive Through Counter.		
15.	Adherence Score	Allow user to enter Compliance Score (in numerical score between 1 until 8) in 2 decimal point.	No	Text field
16.	MPR	Display the MPR (Medication Possession Rate) at dispensing screens. MPR is auto calculated. <ol style="list-style-type: none"> <li>i. To count MPR for all active drugs but display minimum MPR at prescription level.</li> <li>ii. Exemption of MPR calculation for <b><u>drug with PRN frequency</u></b></li> </ol>	Yes	Text field (non editable)
17.	Remarks	Click on Remarks link to open Pharmacist Remarks screen to add in remarks by pharmacist at screening stage. An icon will appear after save on remarks.	No	Link
18.	Drug Counselling	Ticked this checkbox if user wants this patient to have drug counselling. Once ticked, Details link will be enable and user can click to open Counselling Indicator screen to add in remarks.	No	Checkbox with link
<b>Intervention screen</b>				
1.	Intervention Reason	Multiple or one intervention reason can be selected through a checkbox list. The reason will be updated into the selected drug(s). Intervention reason dataset: <ul style="list-style-type: none"> <li>• Authenticity</li> <li>• Contraindication</li> <li>• Drug Interaction</li> <li>• Inappropriate Dose</li> <li>• Inappropriate Drug</li> <li>• Inappropriate Duration</li> <li>• In appropriate Frequency</li> <li>• Incompatibility</li> <li>• Others</li> <li>• Polypharmacy</li> <li>• Suggest to Monitor Vital Sign/Lab Result</li> <li>• Wrong patient</li> </ul>	Yes	Checkbox selection
2.	Intervention Remarks	Remarks for the intervention.	No	Text field
3.	Intervention Accepted	Select the radio button if intervention reason and remarks being accepted.	No	Radio button
4.	Intervention Not Accepted	Select the radio button if intervention reason and remarks is not accepted.	No	Radio button
5.	Dosage	User shall be able to change the current dosage to a new dosage of the drugs.	Yes	Text field
6.	Frequency	User shall be able to change the current frequency to a new drug frequency.	Yes	Drop down list



No.	Name	Description	Mandatory	Format
7.	Duration	User shall be able to change the current duration to a new drug duration.	Yes	Text field
8.	Prescribe Quantity	User shall be able to change the current quantity to a new drug quantity.	Yes	Text field
9.	Start Date	User shall be able to change the current start date to a new start date.	Yes	Calendar format in dd/mm/yyyy
<b>Hold screen</b>				
1.	Hold Reason	Multiple or one drug can be selected through a checkbox list. The hold reason will be updated into the selected drug(s). Hold reason dataset: <ul style="list-style-type: none"> <li>• Authenticity</li> <li>• Contraindication</li> <li>• Drug Interaction</li> <li>• Inappropriate Dose</li> <li>• Inappropriate Drug</li> <li>• Inappropriate Duration</li> <li>• In appropriate Frequency</li> <li>• Incompatibility</li> <li>• Others</li> <li>• Polypharmacy</li> <li>• Suggest to Monitor Vital Sign/Lab Result</li> <li>• Wrong patient</li> </ul>	Yes	Drop down list
2.	Hold Remarks	Enter a hold remarks if applicable.	No	Text field
<b>Resume screen</b>				
1.	Drug Name	Display the drug name selected to resume. It is non editable field.	Yes	Read only
2.	Reason	Show the reason of the hold drug which going to be resumed. It is non editable field.	No	Read only
3.	Other Reason	Show the other reason of the hold drug which going to be resumed. It is non editable field.	No	Read only
4.	Remarks	Show any remarks entered by user during at hold drug stage. If during hold drug, this remarks is entered, it will be display in resume screen. It is non editable field.	No	Read only
5.	Action Taken	Entered by user during resume of the drug. It is a free text field.	No	Text field
<b>Alternate screen</b>				
1.	Location	Location of the dispensing and it is non editable field.	Yes	Text field (non editable)
2.	Ordered Drug Code	The drug code related to the ordered.	Yes	Text field (non



No.	Name	Description	Mandatory	Format
				editable)
3.	Ordered Drug Desc	The description of the drug name and strength. Non-editable field.	Yes	Text field (non editable)
4.	Order Details	Details of the order which consist of dosage, frequency and duration.	Yes	Text field (non editable)
5.	Dosage Form	Dosage form of the drug order.	Yes	Text field (non editable)
6.	Route	Route of the drug and non-editable field.	Yes	Text field (non editable)
7.	Supply Duration	User shall be able to enter the number of days to supply for alternate drug. Start date and End date will be auto calculated once user entered the number of days for supply duration.	Yes	Calendar format in dd/mm/yyyy
8.	Quantity Per Dose	User shall be able to enter the quantity per dose for the alternate drug if want to do for the alternate.	Yes	Text field (number)
9.	Allocation Quantity	The allocation quantity for the alternate drug. Enter the value after enter the quantity per dose and checkbox will be auto selected for the drug.	Yes	Text field (number)
10.	Reason	Reason for the alternate activity entered by pharmacist.	No	Text field
11.	Remarks	Remarks for the alternate activity entered by pharmacist.	No	Text field
<b>Item Batch Details</b>				
1.	Drug Code	Display the drug code of the order. It is non editable field.	Yes	Text field (non editable)
2.	Drug Name	Display the drug name and non-editable field.	Yes	Text field (non editable)
3.	Order Details	Display the order details in dosage, frequency, duration, start date and end date.	Yes	Text field (non editable)
4.	Default SKU	Display the default SKU of the selected drug but non-editable.	Yes	Text field (non editable)
5.	Dispense UOM	By default it will show the dispense UOM of the drug. Able to change the dispense UOM only if applicable.	Yes	Drop down list
6.	Supply Duration	User shall be able to enter the number of days of the supply duration. Date from and date to will be auto calculated. No changes allowed on start and end date.	Yes	Text field
7.	UOM Quantity	User shall be able to enter the UOM quantity for the	Yes	Text field



No.	Name	Description	Mandatory	Format
		selected batch items.		
8.	Allocated Quantity	It will display the allocated quantity for the selected batch item. It is non-editable field.	Yes	Text field (non editable)
9.	Total Available Qty	It will display the total available quantity for the current batch.	Yes	Text field (non editable)
10.	Total Allocated Qty	It will count the amount of UOM quantity for the new batch item. It is auto calculated and non-editable field.	Yes	Text field (non editable)
<b>Pharmacist Remarks</b>				
1.	Order Stage	A prescriber remarks during drug order will be display here, if any.	No	Text field (non editable)
2.	Verification Stage	User shall be able to enter the pharmacist remarks at verification stage.	No	Text field
<b>SPUB Form</b>				
1.	SPUB No	SPUB number will be auto generated once SPUB is save as a Draft record. Non editable.	Yes	Read only
2.	Referred From	The name of facility that SPUB referred from and default value appear based on the current facility name.	Yes	Read only
3.	Contact Person/Officer	The name of contact person from referred facility.	No	Text field
4.	Contact no/ Ext No	The contact number and extension number, if applicable for the referred facility.	No	Text field
5.	Fax No	The fax number of the referred facility.	No	Text field
6.	Next Collection Date	The date of next collection of the medication.	No	Date format in dd/mm/yyyy
7.	Remarks	Remarks entered by the referred facility.	No	Text field
8.	Referred To	Search on drop down for facility name that SPUB record will be sent to.	Yes	Drop down
9.	Contact Person/Officer	Contact person name at the referred to facility. Number will auto appear if the information of the contact person is exist.in database.	No	Text field
10.	Contact no/ Ext No	The contact number with extension number of the referred to facility.	No	Text field
11.	Fax No	The fax number of the referred to facility.	No	Text field
12.	Counselling Provided	Check on this value if patient has a counselling at sending facility.	No	Check box



No.	Name	Description	Mandatory	Format
13.	Previous SPUB Referred To	Display the previous SPUB Out record, if any.	No	Read only
14.	Balance Qty	Display the balance quantity available for the SPUB record.	Yes	Text field

### 3.2.5.5 Preparation Listing Screen

#### 3.2.5.5.1 Screen Design

<b>ID</b>	PR.SD1
<b>Description</b>	Preparation Listing

**Diagram**

*i. Preparation Listing*

The screenshot shows a web interface for 'OUTPATIENT - PREPARATION'. It includes various filters such as Dispensing Location (PHARMACY OUTPATIENT), Order Type (All), Mode of Services (All), IC No/Other Identification, Order Location (All), Order Date From, Next Supply From, Queue Date, and Queue No. There are also fields for Patient Name, MRN, Order Status (All), Prescription Status (All), Order Location Type (All), Order Date To, Next Supply To, and Queue Series (All). A 'Basic Search' button is present. Below the filters is a table with 12 columns: Queue No, MRN, Patient Name, Queue Series, Order Date Time, Order Location, Current Collection Mode, Next Collection Date, Order Type, Prescription Status, Arrival Time, and Waiting Time. The table contains 5 rows of data.

Queue No	MRN	Patient Name	Queue Series	Order Date Time	Order Location	Current Collection Mode	Next Collection Date	Order Type	Prescription Status	Arrival Time	Waiting Time
	HMIRI00168783	[REDACTED]	Normal	15/03/2018 3:20 PM	CLINIC MEDICAL (PAKAR 3)			Normal	IN PROGRESS	15/03/2018 3:20 PM	19 : 16 : 59
	HMIRI00127905	[REDACTED]	Normal	20/11/2017 2:44 PM	DAY CARE ADULT	Normal Collection		Normal	IN PROGRESS	<a href="#">Queue Details</a>	
	HMIRI00133267	[REDACTED]	Normal	19/10/2017 10:13 AM	CLINIC EYE CLINIC (PAKAR 5)	Normal Collection	22/12/2017	Normal	IN PROGRESS	<a href="#">Queue Details</a>	
	HMIRI00134599	[REDACTED]	Normal	22/02/2018 11:46 AM	CLINIC MEDICAL (PAKAR 3)	Normal Collection	22/03/2018	Normal	IN PROGRESS	<a href="#">Queue Details</a>	
	HMIRI00205772	[REDACTED]	Normal	23/01/2018 9:13 AM	CLINIC OTORHINOLARYNGOLOGY (PAKAR 5)	Normal Collection		Normal	IN PROGRESS	<a href="#">Queue Details</a>	

*ii. Queue Details*

QUEUE DETAILS	
Print Queue No   	
<input checked="" type="checkbox"/> Patient Arrived	
Arrived Date	<input type="text" value="06/04/2018"/>
Arrived Time	<input type="text" value="9:54 AM"/>
Queue Series	<input type="text" value="Normal"/>
Queue No	<input type="text" value=""/> *
Collector Name	<input type="text" value="PERSON a"/>
Relationship	<input type="text" value="Patient"/>
<b>Notes</b>	<ul style="list-style-type: none"> <li>To display verified record listing.</li> <li>Double click on patient record to open Preparation screen and to prepare the record.</li> <li>Basic search fields will consist of commonly used search options and advanced search section will list all other search options available.</li> </ul>
<b>Cross References</b>	None

3.2.5.5.2 Application Business Rules

No.	Name	Description
1.	Preparation Listing	<ul style="list-style-type: none"> <li>This screen will allow the user to search for patients who come to the pharmacy to collect their medication. Once the medication order has been verified, his/her medication order will be activated for preparation and filling. The module is controlled by user access rights. Only Pharmacists and pharmacy assistants are allowed to do the preparation of the medication ordered.</li> <li>Preparation and filling process is mandatory to all verified orders before pharmacist can proceed with the dispensing process.</li> <li>Before the user can proceed with this process, pharmacists must first verify the order. By default, patient's record is displayed based on the order date as below:</li> <li>All record should be displayed after verified the order or verified with hold.</li> <li>Partial dispense and In Progress record will also be listed</li> <li>All type of record which dispensing location is outpatient, will be displayed</li> </ul>
2.	Refresh List	Click on the Refresh button to reset all searched records and searching criteria to default value.
3.	Queue Details	<ul style="list-style-type: none"> <li>This screen will allow the user to assign a queue number to the patient. Once the patient has arrived at the pharmacy counter and his identity is verified, a patient will receive a queue number for medication dispensing purposes.</li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>To enter the value, user need to click on Edit  button first.</li> <li>Once this button is clicks, all field will be enable except for Arrived Date and Arrived Time since these 2 fields will auto generate the current date and time.</li> <li>Once user has entered the information, click on Save  button.</li> <li>Print Queue No button  will be enable after save for facility that use the queue management system. If not, this button will remain dim after save and screen will be auto close.</li> </ul>
4.	Search listing	<ul style="list-style-type: none"> <li>Record will be search based on the input filter criteria and return the value which matched with the filter value. Only record with status Verified or Verified Hold will be searched.</li> <li>By default this screen will allow user to perform a basic search with the following criteria: <ul style="list-style-type: none"> <li>i. Dispense Location – Pharmacy location</li> <li>ii. Order Status – This field will show the status of order in a drop down combo box: <ul style="list-style-type: none"> <li>All</li> <li>New – New order</li> <li>Partial Supply – Partial dispense order</li> </ul> </li> <li>iii. Order Location Type – This field will show types of orders in a drop down combo box based on the 'Location Type' values configured in the system parameter table: <ul style="list-style-type: none"> <li>All</li> <li>Clinic</li> <li>Daycare</li> <li>ER</li> <li>Nursing Unit</li> </ul> </li> </ul> </li> </ul>

3.2.5.5.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Preparation Listing</b>				
1.	Dispensing Location	By default, dispensing location display the outpatient dispensing location. Record shall be retrieve from the input criteria.	Yes	Drop down list (searching field)
2.	Order Type	Search consist the order type of the record (All, Normal, SPUB, Discharge, and Referred Patient).	No	Drop down list (searching field)
3.	Mode of Services	Search Mode of services of the record (All, Appointment Card, Email and Take, Fax and Take, Normal Collection, Others, SMS and Take, Telephone	No	Drop down list (searching



No.	Name	Description	Mandatory	Format
		and Take, UMP).		field)
4.	IC No/Other Identifications	Screening and Verification listing shall be retrieved from the database for all registered patients with visit on matching IC No/Other Identification number.	No	Text field (searching field)
5.	Order Location	Search on the outpatient location when order was made.	No	Drop down list (searching field)
6.	Order Date From	Search on the 'date from' when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
7.	Order Date To	Search on the end of order date when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
8.	Queue Date	Search the date when queue number was created.	No	Calendar in format dd/mm/yyyy (searching field)
9.	Next Supply From	Search on the next supply from, from which date.	No	Calendar in format dd/mm/yyyy (searching field)
10.	Next Supply To	Search on the next supply date, to which date.	No	Calendar in format dd/mm/yyyy (searching field)
11.	Queue No	Search on the queue number of the patient record.	No	Text field (searching field)
12.	Patient Name	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching Patient Name.	No	Text field (searching field)
13.	MRN	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching MRN.	No	Text field (searching field)
14.	Order Status	Search on the status of the patient records, either New Order or Partial Supply order.	No	Drop down list (searching field)



No.	Name	Description	Mandatory	Format
15.	Prescription Status	Search on the status of the prescription either Hold or Expired.	No	Drop down list (searching field)
16.	Order Location Type	Record shall be retrieve based on the type of the order location such as (Clinic, Daycare, ER, Nursing Unit, and Pharmacy)	No	Drop down list (searching field)
17.	Queue Series	Search on the series of the queue number which consist of (Normal, Express, Special and Others).	No	Drop down list (searching field)
<b>Queue Details</b>				
1.	Patient arrival	Once user checks on this checkbox, system will capture the system date and time. This date and time will be displayed in 'Arrived date' and 'Arrival time' field.	Yes	Checbos
2.	Arrived date	Read-only text box. Once user checks on 'Patient arrival' checkbox, arrival date will be captured and displayed	Yes	Read only
3.	Arrived time	Read-only text box. Once user checks on 'Patient arrival' checkbox, arrival time will be captured and displayed.	Yes	Read only
4.	Queue Series	This field will show the queue series in a drop down combo box based on the 'Queue Series' values configured in the system parameter table: <ul style="list-style-type: none"> <li>• New Prescription</li> <li>• Express</li> <li>• Partial Dispense</li> </ul>	Yes	Drop down
5.	Queue No.	System will auto generate this number based on values set in the master table. User can set starting value based on queue series. For example for new prescription queue it will start with 1000 and increase by 1 for every patient. This number will be reset on a daily basis.	Yes	Text field
6.	Collector name	<ul style="list-style-type: none"> <li>• By default it will show the patient name.</li> </ul> Name of person who collects the prescription. By default it will show the patient's name. This field is free text with a capacity of 50 characters.	No	Text field
7.	Relationship with patient.	This field will show relationship of the collector with the patient in a drop down combo box based on the 'Relationship with patient' values configured in the system parameter table: <ul style="list-style-type: none"> <li>• Child</li> </ul>	Yes	Drop downb



No.	Name	Description	Mandatory	Format
		<ul style="list-style-type: none"> <li>Extended Family</li> <li>Father</li> <li>Foster Child</li> <li>Friends</li> <li>Grand Parent</li> <li>Guardian</li> <li>Mother</li> <li>Others</li> <li>Patient</li> <li>Sibling</li> <li>Spouse</li> <li>Step Child</li> <li>Unknown</li> </ul>		

3.2.5.6 Preparation Screen

3.2.5.6.1 Screen Design

<b>ID</b>	PR.SD2
<b>Description</b>	Preparation screen

**Diagram**

*i. Preparation screen*

*ii. Intervention*



**INTERVENTION**

Modify with Reason Reason only Modify without Reason

**PHARMACY REMARKS**

Drug Name: All Drugs Order Detail: [ ] [Reset] [Save Reason]

Selection	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"/>

**MODIFY ORDER**

Drug Name	Dosage	Route	Frequency	Duration	Prescribed Qty	Start Date	End Date	Reasons
Perindopril 4 mg Tablet	4 mg	Oral	4 times a week	20 Days	12 tablet	13/03/2018 5:04 P	02/04/2018 5:04 PM	[ ]

Sr No.	Reason	Remark
1	Contraindication	DRUG REMARKS INTERVENTION

iii. Original RX (link open from intervention record)

**ORIGINAL RX**

Drug Code: C08CA01000T1002XX Default SKU: tablet

Drug Name: Amlodipine 10 mg Tablet

Intervention Date	Dose	Frequency	Duration	Order Qty	Start Date / Time	End Date / Time	Reason	Other Reason	Intervened By
15/03/2018 11:29 AM	5 mg	BD (twice daily)	20 Days	20 tablet	13/03/2018 05:03 PM	02/04/2018 05:03 PM	Inappropriate Dose, Contraindication, Inappropriate Drug	remarks2, remarks1, remarks3	[ ]
15/03/2018 11:08 AM	10 mg	OM (every morning)	20 Days	20 tablet	13/03/2018 05:03 PM	02/04/2018 05:03 PM	Contraindication	test intervention	[ ]

iv. SPUB Form

**SPUB FORM**

Mykad: [ ] Age: 21 Years 11 Months 25 Days Gender: Male MRN: HMIRI0020333

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

Height: [ ] cm Weight: [ ] kg BMI/BSA: 0/0 m<sup>2</sup> Update (Last Updated: ) Nationality: Warganegara

**PHARMACY ORDER**

SPUB No: [ ]

Referred From: Hospital Miri Referred To: Hospital Baling

Contact Person / Office: [ ] Contact Person / Office: person office

Contact no / Ext No: 085420033 Contact no / Ext No: 045567976

Fax No: [ ] Fax No: 045567988

Next Collection Date: 17/04/2018 [ ]  Counselling Provided

Remarks: test spub Previous SPUB Referred To: [ ]

Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Disp Qty	Prev Disp Qty	Bal Qty	Remarks
REHAB.CLI0000714435	01/02/2018	Bisacodyl 10 mg Suppository	10 mg, OD, 3 Months	90 supp	11 supp	0 supp	79 supp	Remark

v. Alternate



**ALTERNATE DRUG DETAILS**

Location: PHARMACY OUTPATIENT | Order Detail: 4 mg, 4XWK, 20 Days  
 Ordered Drug Code: C09AA04000T1001XX | Dosage Form: Oral Tablet  
 Ordered Drug Desc: Perindopril 4 mg Tablet | Route: Oral  
 Supply Duration: 10 days Date From: 16/03/2018 to 26/03/2018

**BATCH DETAIL**

No	Drug Name	Dosage Form	Route	Qty per dose	Batch	Expiry Date	Available Qty	SKU	Allocation Qty	Select
1	Perindopril 4 mg Tablet	Oral Tablet	Oral	0 tablet	1704305	30/04/2019	6	tablet	0	<input type="checkbox"/>
				0 tablet	17F120	30/04/2019	13903	tablet	0	<input type="checkbox"/>
				0 tablet	1704304	30/04/2019	18415	tablet	0	<input type="checkbox"/>
				0 tablet	1709243	30/09/2019	9000	tablet	0	<input type="checkbox"/>
				0 tablet	362051	31/08/2020	16200	tablet	0	<input type="checkbox"/>
2	Perindopril 8 mg Tablet	Oral Tablet	Oral	0 tablet	5000466	31/10/2019	1520	tablet	0	<input type="checkbox"/>
				0 tablet	5000453	31/10/2019	3040	tablet	0	<input type="checkbox"/>
				0 tablet	5000289	31/10/2019	2580	tablet	0	<input type="checkbox"/>

Reason:  Remark:

vi. Hold screen

**HOLD ORDER - PHARMACIST REMARKS**

Drug Name	Reason	Other Reason	Remark
Amlodipine 10 mg Tablet	Contraindication		
Amlodipine 5 mg and Valsartan 160 mg Tablet	Drug Interaction		

vii. Resume screen

**HOLD ORDER - PHARMACIST REMARKS**

Drug Name	Reason	Other Reason	Remark	Action Taken
Amlodipine 10 mg Tablet	Contraindication			
Amlodipine 5 mg and Valsartan 160 mg Tablet	Drug Interaction			

viii. Item Batch Details



**ITEM BATCH DETAILS**

Drug Code: C09AA04000T1001XX      Default SKU: tablet

Drug Name: Perindopril 4 mg Tablet      Dispense UOM: tablet

Order Detail: 4 mg, 4 times a week, 20 Days, 13/03/2018 - 02/04/2018      Supply Duration: 10 days Date From: 16/03/2018 to 26/03/2018

---

**BATCH DETAIL**

Batch No	Expiry Date	Available Qty	UOM Qty	Allocated Qty
1704304	30/04/2019	18415	8 tablet	8
17F120	30/04/2019	13903	0 tablet	0
1704305	30/04/2019	6	0 tablet	0
1709243	30/09/2019	9000	0 tablet	0
362051	31/08/2020	16200	0 tablet	0

Total Available Qty: 57524      Total Allocated Qty: 8

ix. CP4

**CP4**

Reference Number: [ ]      Refer To:  Inter-facility [ ]       Intra-facility [ - Select - ]

Methadone

**Assessment Of Understanding & Compliance To Medicine Therapy (not related if patient is not counselled)**

a) Patient is being counselled and understand about drug/medication aids that have been prescribed

Yes  
 No

b) Compliance Level About Drugs

Satisfactory  
 Not Satisfactory

c) Compliance Aids

Yes  
 Pill Box    Drug Leaflet    Others [ ]

No

**Interventions/Requests Encountered**

Drug Counselling and medication aids that have been prescribed

Evaluating compliance and understanding about drugs therapy that have been prescribed

Drugs Storage Issue

Therapeutic Monitoring [ ] (Drug)

Others [ ]

Print in Malay    Print in English

x. Extemporaneous



**EXTEMPORANEOUS**

Preparation Done By:  Pharmacist  Patient      Worksheet ID: [ ]

Preparation Name: Amlodipine 1mg/1ml Oral Liquid(Syrup)      Concentration: 1 mg/ml

Dosage: 10 ml

Item	Item Name	Quantity	UOM
Active Ingredient	Amlodipine 10 mg Tablet		30 tablet
Vehicle	Syrup BP	300	ml

Storage Condition and Procedures in Local Language

Storage Condition: Refrigerate      Expiry: 14 Days

References: [ ]      Formulation Remarks: [ ]

Procedures(Preparation by Pharmacist):  
 1. Crush tablets in a mortar to a fine powder.  
 2. Levigate the powder with distilled water until a smooth paste is formed.  
 3. Add more distilled water to the paste until a liquid is formed and transfer the liquid into the container.

Procedures(Preparation by Patient): [ ]

Preparation Remarks: [ ]

*xi. Original Prescription Printing*

**Ministry of Health, Malaysia  
Hospital Miri**

Patient Name : [ ]      Patient ID : [ ]

Age : 76 Years 06 Months      MRN : HMIRI00205772

Gender : Female      Prescription # : ORLC0000704396

Height/Weight/BSA : [ ]/[ ]/[ ]      Order Date/Time : 23/01/2018 09:13 AM

Room No/Bed No : [ ]/[ ]      Location : CLINIC OTORHINOLARYNGOLOGY (PAKAR 5)

Diagnosis : bilateral SNHL      Allergy : [ ]

Drug Name	Route	Dose	Frequency	Start Date	End Date	Duration	Prescribed Qty	Prescription Status
Mecobalamin 500 mcg Tablet	Oral	500 mcg	OD (once daily)	23/07/2018	19/01/2019	6 Months	180 tablet	Verified

Prescribed by : DR [ ]

Designation : Pegawai Perubatan Pelatih

Department : Otorhinolaryngology

*xii. CP4 Printing*





xiii. Worksheet Printing

**EXTEMPORANEOUS WORKSHEET (PARTIAL)**

MINISTRY OF HEALTH  
HOSPITAL MIRI

**Date of preparation :** 06/04/2018      **Worksheet Id:** 18-04-0071

<b>MRN</b>	HMIRI00252466	<b>Name</b>	[REDACTED]
<b>ID No</b>	[REDACTED]	<b>Rx. No.</b>	STAFFC0000734779
<b>Order Location</b>	CLINIC STAFF PAKAR 3	<b>Ordered By</b>	DR [REDACTED]
<b>Order Date</b>	06/04/2018		

No	ROA	Preparation Name	Dose	Total Dose	Material Used				Storage
					Item Name	Volume/Qty Required	Batch No	Expiry Date	
1.	Oral	Acetylsalicylic acid 30mg/ml Oral Liquid(A) Expiry Date : 07/04/2018	300mg (10ML)	3000mg (100ml)	Acetylsalicylic Acid 300 mg Soluble Tablet	10 tablet	T1703009	31/03/2019	Discard balance
					Water	100 ml			

**Remarks:**      **Instruction:**  
-

**Reference:**

<b>Worksheet generated by</b>	<b>Worksheet &amp; label checked by</b>	<b>Prepared by</b>	<b>Final Product Checked by</b>
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
<b>Date:</b> 06/04/2018	<b>Date:</b> 06/04/2018	<b>Date:</b>	<b>Date:</b>

xiv. Balance Medication Sheet printing

KEMENTERIAN KESIHATAN MALAYSIA  
HOSPITAL MIRI  
**BALANCE MEDICATION SHEET**

<b>No Preskripsi</b> : MEDC0000734309	<b>Tarikh Preskripsi</b> : 22/02/2018
<b>Nama</b> : [REDACTED]	<b>No K/P</b> : 001105100100
<b>Umur</b> : 15 Years 05 Months 01 Days    05/11/2002	<b>MRN</b> : HMIRI00134599
<b>Lokasi</b> : CLINIC MEDICAL (PAKAR 3)	
<b>Alahan</b> :	<b>Berat</b> : 52.00 kg
	<b>BMI/BSA</b> : 23.4 / 1.47
<b>Diagnosis</b> : epilepsy	<b>Dipreskrib oleh</b> : Dr Siti Maslinda Abi Gh Fakaruzamri
	<b>Temujanji Klinik</b> : 09/05/2018

Bil	Maklumat Preskripsi				Maklumat Pendispensan															
	Nama Ubat	Maklumat Dos	Kuantiti Ubat	Tarikh:	TCA			Tarikh:			TCA			Tarikh:			TCA			
				Kuantiti	Baki	F	D	Kuantiti	Baki	F	D	Kuantiti	Baki	F	D	Kuantiti	Baki	F	D	
1	Sodium Valproate 200 mg Tablet	600 mg (08:00 AM), 400 mg (08:00 PM) BD (twice daily) , 3 Months, Oral	450 tablet	0	75															
	Valproic Acid/Sodium Valproate (ER) 500mg Tablet			90																

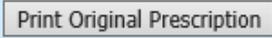
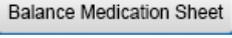
**Notes**

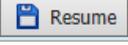
- Click on 'Print Original Prescription' button to print the original prescription report.
- Click on 'Balance Medication Sheet' button to print BMS form.
- Click on 'Worksheet' button to print worksheet but only applicable if there are extemporaneous order.
- Drug label can be printed directly or preview first than print.
- Click on 'Allocate' button to do auto allocation.
- Click on 'Full Supply' button to do fully supply.
- Click on icon HOLD to hold the drug order.
- Click on icon RESUME to resume the hold drug.
- Click on icon INTERVENTION to modify the order.
- Click on 'Alternate' or 'Alternate(C)' to alternate the drug order.

	<ul style="list-style-type: none"> <li>Click on 'Reserve Qty number' to do manual allocation.</li> <li>Click on 'Remarks' to insert pharmacist remarks during screening and verification stage.</li> <li>Ticked on select all checkbox or single checkbox to select the drug(s) either to hold, resume or intervention.</li> <li>Ticked on Reserve Qty checkbox to dispense the drug with '0' quantity.</li> </ul>
<b>Cross References</b>	<b>CP4</b> – refer to PhIS_CPS_SDD_WP_v1.3

3.2.5.6.2 Application Business Rules

No.	Name	Description
1.	Preparation record	<ul style="list-style-type: none"> <li>Preparation screen allows Pharmacist to do preparation and filling on medication orders made by doctors. All verified orders will be checked for completeness and appropriateness. This process is mandatory for all verified order.</li> <li>Record status in Preparation screen will display as Verify. Once the medication order has been verified, his/her medication order will be activated for preparation and filling. The module is controlled by user access rights. Only Pharmacists and pharmacy assistants are allowed to do the preparation of the medication ordered.</li> <li>Preparation and filling process is mandatory to all verified orders before pharmacist can proceed with the dispensing process.</li> <li>Before the user can proceed with this process, pharmacists must first verify the order.</li> <li>Expired drug will be remove from the list at 12:00 midnight on the date of expired.</li> </ul>
2.	Reserve Quantity	<ul style="list-style-type: none"> <li>Quantity to be reserved for this order. By default this value will be 0.</li> <li>If Reserve Qty display in red text <b>0</b>, it means no stock available.</li> <li>User shall be able to dispense the quantity with 0 allocation by ticked on the checkbox <b>0</b> <input checked="" type="checkbox"/>.</li> <li>Reserve Quantity value is being set at Screening or Preparation stage once record is being verified or prepared.</li> <li>However, user shall be able to de-allocate back the reserve quantity using Item Batch Details screen.</li> </ul>
3.	Alternate Drug	<ul style="list-style-type: none"> <li>Pharmacists and pharmacy assistants will have the ability to select different available strength of the same drug.</li> <li>System will show alternate drug with different strengths and dosages form within the same administration route of the same drug.</li> <li>If drug detail information display <b>Alternate</b>, it means the alternate drug must be from the same strength.</li> <li>If drug display as <b>Alternate(C)</b>, it means the alternate drug can be a combination of two drugs with different strength.</li> <li>The alternate drug will be shown based on the validation that the drug must contain the same generic name and the same route of administration. (Only tablet, capsule and syrup etc. which can be taken orally for a given generic name may become alternate drugs for each other but NOT the Injection form of the same generic).</li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>• Alternate drug list will contain the following information:               <ol style="list-style-type: none"> <li>No – running no</li> <li>Drug name</li> <li>Form</li> <li>Route</li> <li>Batch No - Available batch no</li> <li>Expiry Date - Batch expiry date</li> <li>Available Qty – Quantity available for selected batch</li> <li>UOM</li> <li>Allocate Qty – Quantity to be reserved from selected batch. Allocated quantity cannot be more than the available quantity and order quantity. This field allows number only with a capacity of 10 digits.</li> <li>Select – Checkbox for user to select the alternate drug</li> </ol> </li> <li>• This screen will show the selected drug info and a list of alternate drugs available for user to choose.</li> </ul>
4.	Printing	<ul style="list-style-type: none"> <li>• User able to print the original prescription record when click on  button. Prescriber name with designation and department will be displayed at each of drug name.</li> <li>• Print drug label applicable for a drug with allocated quantity only. User shall be able to directly print the drug label directly  or click on  button to preview first before print. Editing on drug label for certain field is allowed before print in preview label.</li> <li>• User shall be able to print the CP4 form at CP4 screen by click on print button  .</li> <li>• Worksheet button   will enable if there are any extemporaneous drug in the order and user able to print it with direct print or preview print.</li> <li>• Invoice will be printed through Invoice screen. Refer to section 3.2.5.11 for more details.</li> <li>• Balance Medication Sheet will be printed if user click on  button for preview print or  for direct print.</li> </ul>
5.	Hold drug	<ul style="list-style-type: none"> <li>• User shall be able to select multiple drugs and hold. Select multiple checkbox and then click on HOLD  icon. Another pop-up windows will appear. User cannot hold again the existing hold drugs where alert will be displayed.</li> <li>• Enter the hold reason and click on  to save hold. Record will be updated to hold.</li> </ul>
6.	Resume drug	<ul style="list-style-type: none"> <li>• User shall be able to select multiple drugs and resume. Select multiple</li> </ul>

No.	Name	Description
		<p>checkbox and then click on RESUME  icon. Another pop-up windows will appear. User cannot resume the normal drugs (without hold status) where alert will be displayed.</p> <ul style="list-style-type: none"> <li>Enter the resume reason and click on  to save resume. Drug records will be resume back to original status.</li> </ul>
7.	Drug Intervention	<ul style="list-style-type: none"> <li>Before proceed with intervention, user should re-allocate the reserve quantity to 0 first.</li> <li>User shall be able to intervene the existing drug order. Select multiple checkbox and then click on INTERVENTION  icon. Another pop-up windows will appear. Once intervene is done, drug details will be highlighted in blue color with link.</li> <li>User shall be able to click on the link (  ) and see the history of the intervention records done earlier.</li> <li>User can choose selected drug by clicks on add icon (  ) to add different reason from other drugs. The drug name will appear at the top of the intervention reason.</li> <li>Reset button  used to reset back the selected drug name from Drug name and Order Details text box.</li> <li>User shall be able to save the intervention reason by clicks on Save button. Advice that intervention reason should be save before do modification on the drugs.</li> <li>Confirm button used to confirm the modification. It will appear after intervention reason is saved.</li> </ul>
8.	Drug Allocation	<ul style="list-style-type: none"> <li>User shall be able to do full supply for the record by click on Full Supply  button. Full amount of allocation will be calculated into the drug order.</li> <li>User shall be able to do auto allocation by click on Allocate button . The reserve quantity will be auto calculated based on supply duration entered. Reserve quantity will be auto allocate based on this formula (Supply duration x frequency)</li> </ul>
9.	Preparation	<ul style="list-style-type: none"> <li>User shall be able to prepare the verified drug by clicks on Prepare button .</li> <li>Any hold drugs will remain status as hold and will not be prepared. User shall not be able to dispense hold drug status.</li> </ul>
10.	Original Rx	<p>Once intervention has been done, user shall be able to open the original order and history of intervention by clicking on a link of intervention details (drug details) which highlight with blue color.</p>
11.	Extemporaneous	<ul style="list-style-type: none"> <li>Extemporaneous screen is for user to do compounding for the ordered tablet drugs. Drugs are allowed to do extemporaneous when the compounded item flag in drug master is selected and</li> </ul>

No.	Name	Description
		<p>extemporaneous details is also setup in Drug Master.</p> <ul style="list-style-type: none"> <li>Extemporaneous details checkbox <input type="checkbox"/> Detail is displayed at Preparation screen or when user clicks Proceed to Preparation flag or after order is being verified.</li> <li>Extemporaneous function is divided into two categories; Preparation done by pharmacist or Preparation done by patient. Once extemporaneous details are saved, user is able to print the worksheet, ingredient label and patient label.</li> </ul>
12.	Link	<p>Few text link to open another screen which related to the patient record available from Preparation screen such as:</p> <ul style="list-style-type: none"> <li>Lab Parameter (for search and view only)</li> <li>Counselling History (for search and view only)</li> <li>MTAC History (for search and view only)</li> <li>Demographic (view and update field for address and phone number only)</li> <li>Pharmacist Notes (for search and view only)</li> <li>Medication Profile (for search and view only)</li> <li>Other Appointment (view only)</li> </ul>
13.	CP4, Medication Counselling	Please refer to document PhIS_CPS_SDD_MC_v1.3

### 3.2.5.6.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Preparation Screen</b>				
1.	Patient Arrive	To indicate that patient has arrived at the counter. Waiting time will be started once ticked.	No	Checkbox
2.	Queue Series	Type of queue series which consist from Express, Normal, Others and Special.	No	Drop down list
3.	Queue Number	Patient queue number, if applicable.	No	Text field
4.	Arrival Time	Arrival time will appear once user ticked on Patient Arrived checkbox.	No	Read only
5.	Waiting Time	Waiting time will be displayed if Patient Arrived checkbox is checked.	No	Read only
6.	Collector Name	The name of the medicine collector which can be a different person from patient.	No	Text field
7.	Relationship	Refer to collector relationship with the patient which consist of (Child, Extended Family, Father, Foster Child, Friend, Grandparent, Guardian, Mother, Others, Patient, Sibling, Spouse, Step Child, Unknown).	No	Drop down list
8.	Clinic TCA	Refer to clinic next appointment date in a format dd/mm/yyyy.	No	Calendar in format

No.	Name	Description	Mandatory	Format
				dd/mm/yyyy
9.	Next Collection Date	Indicate the next date for patient to collect a medication in a format of dd/mm/yyyy.	No	Calendar in format dd/mm/yyyy
10.	Supply Duration	The number of days to supply/dispense the medication. By default shows the next date based on supply duration.	Yes	Text field
11.	Current Collection Mode	By default it will display the current mode of collection. Non editable.	Yes	Read only
12.	Next Collection Mode	By default it will display same mode as Current Collection Mode. Refer to next collection mode under VAS (Appointment Card, Email and Take, Fax and Take, Normal Collection, Others, SMS and Take, Telephone and Take, UMP)	No	Drop down list
13.	Next Collection Location	By default it will display the current collection location.	Yes	Read only
14.	SPUB	To create SPUB Out. Ticked on SPUB checkbox, SPUB R1 Form button will be enable and user shall be able to open SPUB R1 Form screen to create SPUB Out.	No	Checkbox with Button
15.	Dispense At	A place where the dispensing will take place. For outpatient, it will be default to Pharmacy Counter however user can change to other dispensing location such as Bedside, Drive Through Counter or Pharmacy Counter.	Yes	Drop down list
16.	Adherence Score	Allow user to enter Compliance Score (numerical score between 1 until 8) in 2 decimal point.	No	Text field
17.	MPR	Display the MPR (Medication Possession Rate) at dispensing screens. MPR is auto calculated. iii. To count MPR for all active drugs but display minimum MPR at prescription level. iv. Exemption of MPR calculation for <b><u>drug with PRN frequency</u></b>	Yes	Read only
18.	Remarks link	Click on Remarks link to open Pharmacist Remarks screen to add in remarks by pharmacist at screening stage. An icon will appear after save on remarks.	No	Link
19.	Drug Counselling	Ticked this checkbox if user wants this patient to have drug counselling. Once ticked, Details link will be enable and user can click to open Counselling Indicator screen to add in remarks.	No	Checkbox with link
<b>Intervention</b>				
1.	Intervention Reason	Multiple or one intervention reason can be selected through a checkbox list. The reason will be updated into the selected drug(s). Intervention reason dataset: • Authenticity	Yes	Checkbox selection



No.	Name	Description	Mandatory	Format
		<ul style="list-style-type: none"> <li>• Contraindication</li> <li>• Drug Interaction</li> <li>• Inappropriate Dose</li> <li>• Inappropriate Drug</li> <li>• Inappropriate Duration</li> <li>• In appropriate Frequency</li> <li>• Incompatibility</li> <li>• Others</li> <li>• Polypharmacy</li> <li>• Suggest to Monitor Vital Sign/Lab Result</li> <li>• Wrong patient</li> </ul>		
2.	Intervention Remarks	Remarks for the intervention.	No	Text field
3.	Intervention Accepted	Select the radio button if intervention reason and remarks being accepted.	No	Radio button
4.	Intervention Not Accepted	Select the radio button if intervention reason and remarks is not accepted.	No	Radio button
5.	Dosage	User shall be able to change the current dosage to a new dosage of the drugs.	Yes	Text field
6.	Frequency	User shall be able to change the current frequency to a new drug frequency.	Yes	Drop down list
7.	Duration	User shall be able to change the current duration to a new drug duration.	Yes	Text field
8.	Prescribe Quantity	User shall be able to change the current quantity to a new drug quantity.	Yes	Text field
9.	Start Date	User shall be able to change the current start date to a new start date.	Yes	Calendar format in dd/mm/yyyy
<b>Hold screen</b>				
1.	Reason	<p>Multiple or one drug can be selected through a checkbox list. The hold reason will be updated into the selected drug(s). Hold reason dataset:</p> <ul style="list-style-type: none"> <li>• Authenticity</li> <li>• Contraindication</li> <li>• Drug Interaction</li> <li>• Inappropriate Dose</li> <li>• Inappropriate Drug</li> <li>• Inappropriate Duration</li> <li>• In appropriate Frequency</li> <li>• Incompatibility</li> <li>• Others</li> <li>• Polypharmacy</li> </ul>	Yes	Drop down list



No.	Name	Description	Mandatory	Format
		<ul style="list-style-type: none"> <li>Suggest to Monitor Vital Sign/Lab Result</li> <li>Wrong patient</li> </ul>		
2.	Hold Remarks	Enter a hold remarks if applicable.	No	Text field
<b>Resume screen</b>				
1.	Drug Name	Display the drug name selected to resume. It is non editable field.	Yes	Read only
2.	Reason	Show the reason of the hold drug which going to be resumed. It is non editable field.	No	Read only
3.	Other Reason	Show the other reason of the hold drug which going to be resumed. It is non editable field.	No	Read only
4.	Remarks	Show any remarks entered by user during at hold drug stage. If during hold drug, this remarks is entered, it will be display in resume screen. It is non editable field.	No	Read only
5.	Action Taken	Entered by user during resume of the drug. It is a free text field.	No	Text field
<b>Alternate</b>				
1.	Location	Location of the dispensing and it is non editable field.	Yes	Text field (non editable)
2.	Ordered Drug Code	The drug code related to the ordered.	Yes	Text field (non editable)
3.	Ordered Drug Desc	The description of the drug name and strength. Non-editable field.	Yes	Text field (non editable)
4.	Order Details	Details of the order which consist of dosage, frequency and duration.	Yes	Text field (non editable)
5.	Dosage Form	Dosage form of the drug order.	Yes	Text field (non editable)
6.	Route	Route of the drug and non-editable field.	Yes	Text field (non editable)
7.	Supply Duration	User shall be able to enter the number of days to supply for alternate drug. Start date and End date will be auto calculated once user entered the number of days for supply duration.	Yes	Calendar format in dd/mm/yyyy
8.	Quantity Per Dose	User shall be able to enter the quantity per dose for the alternate drug if want to do for the alternate.	Yes	Text field (number)
9.	Allocation Quantity	The allocation quantity for the alternate drug. Enter the value after enter the quantity per dose and checkbox will be auto selected for the drug.	Yes	Text field (number)



No.	Name	Description	Mandatory	Format
10.	Reason	Reason for the alternate activity entered by pharmacist.	No	Text field
11.	Remarks	Remarks for the alternate activity entered by pharmacist.	No	Text field
<b>Item Batch Details</b>				
1.	Drug Code	Display the drug code of the order. It is non editable field.	Yes	Read only
2.	Drug Name	Display the drug name and non-editable field.	Yes	Read only
3.	Drug Details	Display the order details in dosage, frequency, duration, start date and end date.	Yes	Read only
4.	Default SKU	Display the default SKU of the selected drug but non-editable.	Yes	Read only
5.	Dispense UOM	By default it will show the dispense UOM of the drug. Able to change the dispense UOM only if applicable.	Yes	Drop down list
6.	Supply Duration	User shall be able to enter the number of days of the supply duration. Date from and date to will be auto calculated. No changes allowed on start and end date.	Yes	Text field
7.	UOM Qty	User shall be able to enter the UOM quantity for the selected batch items.	Yes	Text field
8.	Allocated Qty	It will display the allocated quantity for the selected batch item. It is non-editable field.	Yes	Read only
9.	Total Available Qty	It will display the total available quantity for the current batch.	Yes	Read only
10.	Total Allocated Qty	It will count the amount of UOM quantity for the new batch item. It is auto calculated and non-editable field.	Yes	Read only
<b>CP4</b>				
1.	Reference Number	Reference number related to the CP4 form generated by system. It shall display CP4/<running number>	Yes	Read only
2.	Methadone	User shall be able to tick if patient is taken methadone drug.	No	Checkbox
3.	Inter Facility	Show a value refer to which inter facility. By default, it will show the existing inter facility, if any.	No	Search window
4.	Intra Facility	Show a value refer to which intra facility. By default it will be blank.	No	Search window
5.	Assessment Of Understanding & Compliance To Medicine Therapy	A set of questionnaire which consists of few question for a patient which has not been counselled. Consists of 3 questionnaire with selection of radio button and checkboxes.	No	Other
6.	Interventions/ Request Encounter	Display a selection of intervention or request encounter. User able to choose multiple or one only.	No	Checkbox
<b>Extemporaneous</b>				



No.	Name	Description	Mandatory	Format
1.	Preparation Done By	Preparation Done By radio button is to be selected either by Pharmacist or by Patient. Default value is Preparation Done by Pharmacist.	Yes	Radio button
2.	Preparation Name	Preparation Name will display a list of available extemporaneous preparation formula as setup in drug master.	Yes	Search
3.	Worksheet ID	Worksheet ID field is displayed only when preparation is done by pharmacist. Value is auto-generated by system once user saves the extemporaneous record and auto generated based on the format as below: Current Year-Current Month-Running Number Example: 14-06-0010 The running number is up to 4 integer values and should reset monthly. Each month should generate the running number separately.	No	Read only
4.	Concentration	Concentration field will be auto-populated based on the selected extemporaneous preparation.	Yes	Read only
5.	Dosage in (ml)	Dosage is displayed based on the calculation as below: i. If the ordered Dosage is by drug strength UOM: Dosage (in ml) = Ordered Dosage/ Extemporaneous Concentration ii. If the ordered Dosage is by drug Quantity UOM: Dosage (in ml) = (Ordered Dosage * Order or Alternate drug Strength value) / Extemporaneous Concentration Value is auto-calculated and not editable.  Dosage UOM is hardcoded to ml (millilitre).	Yes	Read only
6.	Active Ingredient: Item Name	Item Name for Active Ingredient will display value based on the ordered drug. If drug is alternate to another drug, the alternate drug name will be displayed. Value is read-only	Yes	Read only
7.	Active Ingredient: Quantity	Quantity for Active Ingredient will display value based on the drug allocated quantity as per allocation in the verification or preparation screen. Once user change the allocation, value in this field will update based on the latest allocation value. This field is read-only.	Yes	Read only
8.	Active Ingredient: UOM	Quantity UOM for Active Ingredient will display based on the ordered drug SKU UOM in drug master. If drug is alternate to another drug, the alternate drug SKU UOM will be displayed. Value is read-only.	Yes	Read only
9.	Vehicle: Item Name	Item Name for Vehicle will display value based on the selected extemporaneous preparation as setup in drug master. Value is read-only.	Yes	Read only
10.	Vehicle: Quantity and UOM	Vehicle Quantity is displayed based on the calculation as below: Total Allocated Dose = Order or Alternate drug strength value * Allocated Qty (as per allocation in Verification or Preparation screen)	Yes	Read only



No.	Name	Description	Mandatory	Format
		<p>Vehicle Quantity = Total Allocated Dose / Extemporaneous Concentration (Round up to the next integer, no decimal value)</p> <p>Value is auto-calculated but still allowed to edit.</p> <p>Vehicle UOM is auto-default to ml (millilitre) but still allowed to edit.</p> <p>Both fields are mandatory.</p>		
11.	Storage Condition and Procedures in Local Language	<p>This checkbox is for user to change the displayed Storage Condition and Procedures (Preparation by Pharmacist) values from english to local language (malay). Once user select the checkbox, system will display the local language value for the fields above as setup in drug master.</p> <p>This function is optional for user to select.</p>	No	Checkbox
12.	Storage Condition	Storage Condition is displayed based on the selected extemporaneous preparation based on the value setup in drug master. Field value will be displayed in english by default, once user select the Storage Condition and Procedures in Local Language checkbox, value will be displayed in local language (if any). This field is read-only.	No	Read only
13.	Expiry	Expiry is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field value will be used to auto generate the preparation expiry date in drug label. This field is numeric only with no decimal value. This field is mandatory.	Yes	Text field
14.	References	References field is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field is read-only.	No	Read only
15.	Formulation Remarks	References field is displayed based on the selected extemporaneous preparation based on the remarks value setup in drug master (if any). This field is read-only.	No	Read only
16.	Procedures (Preparation by Pharmacist)	Procedures (Preparation by Pharmacist) field will disable when preparation by patient radio button is selected. Field will enable only when preparation by pharmacist radio button is selected.	No	Read only
17.	Procedures (Preparation by Patient)	<p>Procedures (Preparation by Patient) field is displayed based on the default format as below, but value is still editable:</p> <p><i>Cara Penyediaan:</i></p> <ol style="list-style-type: none"> <li>1. <i>Ambil (A) (Ordered or Alternate Drug Name).</i></li> <li>2. <i>Hancurkan (Ordered or Alternate Drug Name).</i></li> <li>3. <i>Tambah (B) ML (Extemporaneous Vehicle).</i></li> <li>4. <i>Tambah (Additional Item Quantity) ML</i></li> </ol>	No	Read only

No.	Name	Description	Mandatory	Format
		<p>(Additional Item Name).</p> <p>5. Larutkan supaya sekata.</p> <p>6. Sukat dan minum (Dosage in ml) ML.</p> <p>7. Buat bancuhan baru setiap hari.</p> <p>A = Ordered Dose / Ordered or Alternate drug strength value -&gt; round up to the next integer.</p> <p>B = [A * (Ordered or Alternate drug strength)] / Extemporaneous Concentration -&gt; round up to the next integer.</p> <p>The procedure is displayed only in malay, no english version for the patient procedures.</p> <p>For instruction no. 4, will only be displayed if additional item is available in the extemporaneous preparation.</p>		
18.	Preparation Remarks	Remark is to be entered in the textbox. Maximum of 250 characters capacity. This field is not mandatory.	No	Text field

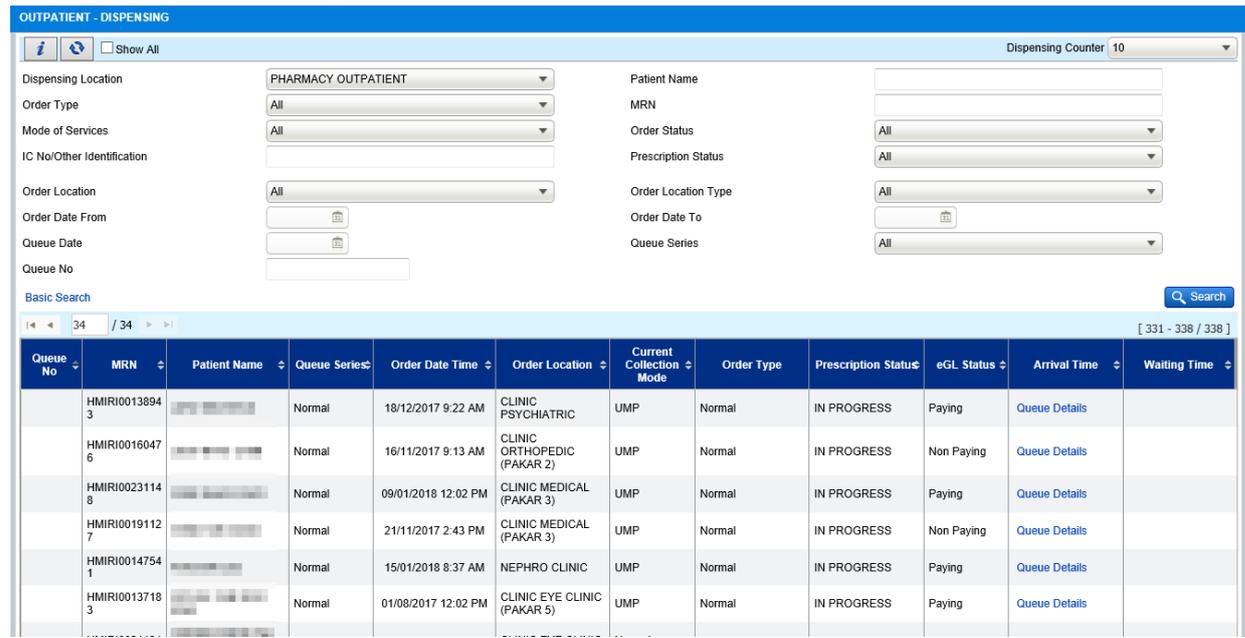
### 3.2.5.7 Dispensing Listing Screen

#### 3.2.5.7.1 Screen Design

<b>ID</b>	DS.SD1
<b>Description</b>	Dispensing Listing

**Diagram**

*i. Dispensing Listing*



The screenshot shows the 'OUTPATIENT - DISPENSING' interface. It includes a 'Dispensing Counter' set to 10 and various filters for Dispensing Location (PHARMACY OUTPATIENT), Order Type (All), Mode of Services (All), IC No/Other Identification, Order Location (All), Order Date From, Queue Date, and Queue No. There are also fields for Patient Name, MRN, Order Status (All), Prescription Status (All), Order Location Type (All), Order Date To, and Queue Series (All). A 'Basic Search' button is present.

Queue No	MRN	Patient Name	Queue Series	Order Date Time	Order Location	Current Collection Mode	Order Type	Prescription Status	eGL Status	Arrival Time	Waiting Time
	HMIRI00138943	[REDACTED]	Normal	18/12/2017 9:22 AM	CLINIC PSYCHIATRIC	UMP	Normal	IN PROGRESS	Paying	<a href="#">Queue Details</a>	
	HMIRI00160476	[REDACTED]	Normal	16/11/2017 9:13 AM	CLINIC ORTHOPEDIC (PAKAR 2)	UMP	Normal	IN PROGRESS	Non Paying	<a href="#">Queue Details</a>	
	HMIRI00231148	[REDACTED]	Normal	09/01/2018 12:02 PM	CLINIC MEDICAL (PAKAR 3)	UMP	Normal	IN PROGRESS	Paying	<a href="#">Queue Details</a>	
	HMIRI00191127	[REDACTED]	Normal	21/11/2017 2:43 PM	CLINIC MEDICAL (PAKAR 3)	UMP	Normal	IN PROGRESS	Non Paying	<a href="#">Queue Details</a>	
	HMIRI00147541	[REDACTED]	Normal	15/01/2018 8:37 AM	NEPHRO CLINIC	UMP	Normal	IN PROGRESS	Paying	<a href="#">Queue Details</a>	
	HMIRI00137183	[REDACTED]	Normal	01/08/2017 12:02 PM	CLINIC EYE CLINIC (PAKAR 5)	UMP	Normal	IN PROGRESS	Paying	<a href="#">Queue Details</a>	

ii. Queue Details

QUEUE DETAILS			
Print Queue No   			
	<input checked="" type="checkbox"/> Patient Arrived		
Arrived Date	06/04/2018	Arrived Time	9:54 AM
Queue Series	Normal	Queue No	
Collector Name	PERSON a	Relationship	Patient

**Notes**

- To display record with status=Prepared.
- Double click on patient record to open Dispensing screen and to dispense the drug order.
- Basic search fields will consist of commonly used search options and advanced search section will list all other search options available.

**Cross References**

None.

3.2.5.7.2 Application Business Rules

No.	Name	Description
1.	Dispensing Listing	<ul style="list-style-type: none"> <li>• This screen will allow the user to search for a patient who has come to the pharmacy to collect their medication. Once the medication order has been prepared, his/her medication order will be ready for dispensing. The module is controlled by user access rights. Only Pharmacists and pharmacy assistants are allowed to perform dispensing of the medication order.</li> <li>• Before proceeding with this process, pharmacists must prepare the order first.</li> <li>• Dispensing list screen displayed for user to select patient record and dispense the order. Listing is sorted in ascending order based on order date.</li> <li>• By default, patient's record is displayed based on the order date as below:               <ol style="list-style-type: none"> <li>i. All record should be displayed after prepared the order</li> <li>ii. Partial dispense and In Progress record will also be listed</li> <li>iii. All type of record which dispensing location is outpatient, will be displayed</li> </ol> </li> </ul>
2.	Refresh List	Click on the Refresh button to reset all searched records and searching criteria to default value.
3.	Queue Details	<ul style="list-style-type: none"> <li>• This screen will allow the user to assign a queue number to the patient. Once the patient has arrived at the pharmacy counter and his identity is verified, a patient will receive a queue number for</li> </ul>

No.	Name	Description
		<p>medication dispensing purposes.</p> <ul style="list-style-type: none"> <li>To enter the value, user need to click on Edit  button first.</li> <li>Once this button is clicks, all field will be enable except for Arrived Date and Arrived Time since these 2 fields will auto generate the current date and time.</li> <li>Once user has entered the information, click on Save  button.</li> <li>Print Queue No button  will be enable after save for facility that use the queue management system. If not, this button will remain dim after save and screen will be auto close.</li> </ul>
4.	Search Record	<ul style="list-style-type: none"> <li>Record will be search based on the input filter criteria and return the value which matched with the filter value for a prepared record. Record that has been prepared will appear inside the dispensing list when search.</li> <li>By default this screen will allow user to perform a basic search with the following criteria: <ul style="list-style-type: none"> <li>i. Dispense Location – Pharmacy location</li> <li>ii. Order Status – This field will show the status of order in a drop down combo box: <ul style="list-style-type: none"> <li>All</li> <li>New – New order</li> <li>Partial Supply – Partial dispense order</li> </ul> </li> <li>iii. Location Type – This field will show types of orders in a drop down combo box based on the 'Location Type' values configured in the system parameter table: <ul style="list-style-type: none"> <li>All</li> <li>Clinic</li> <li>ER</li> <li>Daycare</li> <li>Nursing Unit</li> <li>Pharmacy</li> </ul> </li> </ul> </li> </ul>

### 3.2.5.7.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Dispensing Listing</b>				
1.	Dispensing Location	By default, dispensing location display the outpatient dispensing location. Record shall be retrieve from the input criteria.	Yes	Drop down list (searching field)
2.	Order Type	Search consist the order type of the record (All, Normal, SPUB, Discharge, and Referred Patient).	No	Drop down list (searching field)



No.	Name	Description	Mandatory	Format
3.	Mode of Services	Search Mode of services of the record (All, Appointment Card, Email and Take, Fax and Take, Normal Collection, Others, SMS and Take, Telephone and Take, UMP).	No	Drop down list (searching field)
4.	IC No/Other Identifications	Screening and Verification listing shall be retrieved from the database for all registered patients with visit on matching IC No/Other Identification number.	No	Text field (searching field)
5.	Order Location	Search on the outpatient location when order was made.	No	Drop down list (searching field)
6.	Order Date From	Search on the 'date from' when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
7.	Order Date To	Search on the end of order date when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
8.	Queue Date	Search the date when queue number was created.	No	Calendar in format dd/mm/yyyy (searching field)
9.	Next Supply From	Search on the next supply from, from which date.	No	Calendar in format dd/mm/yyyy (searching field)
10.	Next Supply To	Search on the next supply date, to which date.	No	Calendar in format dd/mm/yyyy (searching field)
11.	Queue No	Search on the queue number of the patient record.	No	Text field (searching field)
12.	Patient Name	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching Patient Name.	No	Text field (searching field)
13.	MRN	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching MRN.	No	Text field (searching field)
14.	Order Status	Search on the status of the patient records, either New Order or Partial Supply order.	No	Drop down list (searching field)



No.	Name	Description	Mandatory	Format
				field)
15.	Prescription Status	Search on the status of the prescription either Hold or Expired.	No	Drop down list (searching field)
16.	Order Location Type	Record shall be retrieve based on the type of the order location such as (Clinic, Daycare, ER, Nursing Unit, and Pharmacy)	No	Drop down list (searching field)
17.	Queue Series	Search on the series of the queue number which consist of (Normal, Express, Special and Others).	No	Drop down list (searching field)
<b>Queue Details</b>				
1.	Patient arrival	Once user checks on this checkbox, system will capture the system date and time. This date and time will be displayed in 'Arrived date' and 'Arrival time' field.	Yes	Check box
2.	Arrived date	Read-only text box. Once user checks on 'Patient arrival' checkbox, arrival date will be captured and displayed	Yes	Read only
3.	Arrived time	Read-only text box. Once user checks on 'Patient arrival' checkbox, arrival time will be captured and displayed.	Yes	Read only
4.	Queue Series	This field will show the queue series in a drop down combo box based on the 'Queue Series' values configured in the system parameter table: <ul style="list-style-type: none"> <li>• New Prescription</li> <li>• Express</li> <li>• Partial Dispense</li> </ul>	Yes	Drop down
5.	Queue No.	System will auto generate this number based on values set in the master table. User can set starting value based on queue series. For example for new prescription queue it will start with 1000 and increase by 1 for every patient. This number will be reset on a daily basis.	Yes	Text field
6.	Collector name	<ul style="list-style-type: none"> <li>• By default it will show the patient name.</li> </ul> Name of person who collects the prescription. By default it will show the patient's name. This field is free text with a capacity of 50 characters.	No	Text field
7.	Relationship with patient.	This field will show relationship of the collector with the patient in a drop down combo box based on the 'Relationship with patient' values configured in the system parameter table: <ul style="list-style-type: none"> <li>• Child</li> <li>• Extended Family</li> <li>• Father</li> </ul>	Yes	Drop down



No.	Name	Description	Mandatory	Format
		<ul style="list-style-type: none"> <li>Foster Child</li> <li>Friends</li> <li>Grand Parent</li> <li>Guardian</li> <li>Mother</li> <li>Others</li> <li>Patient</li> <li>Sibling</li> <li>Spouse</li> <li>Step Child</li> <li>Unknown</li> </ul>		

### 3.2.5.8 Dispensing Screen

#### 3.2.5.8.1 Screen Design

<b>ID</b>	DS.SD1
<b>Description</b>	Dispensing screen

**Diagram**

i. *Dispensing screen*

ii. *Medication Counselling screen*



**MEDICATION COUNSELLING ORDER**

Mykad: [redacted] Age: 28 Years 04 Months 02 Days Gender: Male MRN: HMIR00098140  
Address: [redacted] Phone And Email: [redacted] Diagnosis: [redacted] No known Allergies  
Height: [redacted] cm Weight: [redacted] kg BMI/BSA: 0/0 m<sup>2</sup> Update (Last Updated: ) Nationality: Warganegara

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

Counselling Order No: [redacted] Priority: Routine  
Counselling Category: Individual Counselling Location: Bedside  
Discipline: General Medicine Appointment Date: 22/03/2018 Schedule Time  
Appointment Type: New

**TOPIC AND SUBTOPIC**

Topic: Medication Remarks: [redacted] Add/Update

No	Topic	Subtopic	Remarks
No Records Found!			

**COUNSELLING HISTORY**

Appointment Date	Counselling Category	Priority	Discipline	Counselling Location	Appointment Type
------------------	----------------------	----------	------------	----------------------	------------------

iii. MTAC Order screen

**MTAC ORDER**

Proceed To Reporting

Mykad: [redacted] Age: 28 Years 04 Months 02 Days Gender: Male MRN: HMIR00098140  
Address: [redacted] Phone And Email: [redacted] Diagnosis: [redacted] No known Allergies  
Height: [redacted] cm Weight: [redacted] kg BMI/BSA: 0/0 m<sup>2</sup> (Last Updated: ) Nationality: Warganegara

Upload Photo

Type Of MTAC: Warfarin Search History Appointment Date: 22/03/2018 Audit Trail  
Priority: Routine Appointment Type: New  
To Be Counselling By: [redacted] Remarks: [redacted]  
Target INR Range: [redacted] Date Warfarin Started: 22/03/2018  
Warfarin Indication: Atrial Fibrillation Anticipated Duration: [redacted]  
Bleeding Risk Factor: 0 Calculate Score

**MTAC HISTORY**

MTAC No	Type of MTAC	Appointment Date	Appointment Type	Status	Updated By
No Records Found!					

**BLEEDING RISK FACTORS (TICK ALL THAT APPLIES)**

<input checked="" type="checkbox"/> Hypertension	<input type="checkbox"/> Impaired Renal Function	<input checked="" type="checkbox"/> Impaired Liver Function
<input checked="" type="checkbox"/> History of stroke	<input checked="" type="checkbox"/> History of bleeding	<input type="checkbox"/> Labile INRs
<input type="checkbox"/> Elderly(≥65years)	<input type="checkbox"/> Drugs	<input type="checkbox"/> Alcohol Consumption

SCORE : 4  
Indicator: Each ticked checkbox will be given 1 point  
≥3 Points=High Risk  
1-2 Points=Intermediate Risk  
0 Points=Low Risk

iv. CP4 screen



CP4 Medication Profile

Reference Number: CP4/41

Refer To:  Inter-facility Hospital Permai Tampoi  
 Intra-facility - Select -

Methadone

Assessment Of Understanding & Compliance To Medicine Therapy (not related if patient is not counselled)

a) Patient is being counselled and understand about drug/medication aids that have been prescribed  
 Yes  
 No

b) Compliance Level About Drugs  
 Satisfactory  
 Not Satisfactory

c) Compliance Aids  
 Yes  
 Pill Box  Drug Leaflet  Others

Interventions/Requests Encountered

Drug Counselling and medication aids that have been prescribed  
 Evaluating compliance and understanding about drugs therapy that have been prescribed  
 Drugs Storage Issue  
 Therapeutic Monitoring (Drug)

Others

Print in Malay | Print in English

v. Hold screen (Countercheck)

COUNTERCHECK

Hold

Drug Name	Reason	Correction Required	
Amlodipine 10 mg Tablet		<input type="checkbox"/>	Add

1 / 1

Drug Name	Reason	Selection
Amlodipine 10 mg Tablet	Wrong Drug Filled	<input type="checkbox"/>

vi. Resume screen (Countercheck)

COUNTERCHECK

Resume

[ 1 - 1 / 1 ]

Drug Name	Reason	Selection
Amlodipine 10 mg Tablet	Wrong Drug Filled	<input checked="" type="checkbox"/>

vii. Pharmacist Remarks screen

PHARMACIST REMARK

Prescriber Remark

Order Stage

Pharmacist Remark

Verification Stage: Pharmacist add remarks at screening stage

Preparation Stage

Dispensing Stage: Pharmacist remarks at dispensing stage

DRUG REMARKS HISTORY (AMLODIPINE 10 MG TABLET)

Prescriber Remark	Prescriber Name	Start Date	End Date	Pharmacist Remark	Stage	Rx
No Records Found!			No Records Found!			

viii. Release/Discard screen



MRN	Patient Name	Medication Order No	Drug Name	Prepared Qty	Preparation Date	Status	Reason for Release/Discard	Remark
HMIRI00098140	A. [REDACTED]	MEDC0000734632	Amlodipine 10 mg Tablet	10 tablet	21/03/2018	Prepared	Change of Regimen	test1
HMIRI00098140	A. [REDACTED]	MEDC0000734632	Perindopril 4 mg Tablet	8 tablet	21/03/2018	Prepared		
HMIRI00098140	A. [REDACTED]	MEDC0000734632	Amoxicillin 250mg Capsule	30 capsule	21/03/2018	Prepared		

ix. Extemporaneous

**EXTEMPORANEOUS**

Preparation Done By:  Pharmacist  Patient      Worksheet ID: [ ]

Preparation Name: Allopurinol Suspension 20mg/mL(x-temp)      Concentration: 20 mg/ml

Dosage: 7.5 ml

Item	Item Name	Quantity	UOM
Active Ingredient	Allopurinol 300 mg Tablet		5 tablet
Vehicle	X-Temp	75	ml

Storage Condition: (Refrigerate), Protect from light      Expiry: 60 Days

References: X-Temp Oral Suspension System – Master Formulation Sheets      Formulation Remarks: [ ]

Procedures(Preparation by Pharmacist):  
 1. Crush tablets in a mortar to a fine powder.  
 2. Levigate the powder with vehicle until a smooth paste is formed.  
 3. Add more vehicle to the paste until a liquid is formed and transfer the liquid into the container.

Procedures(Preparation by Patient): [ ]

Preparation Remarks: [ ]

Balance Medication Sheet printing

**KEMENTERIAN KESIHATAN MALAYSIA  
HOSPITAL MIRI  
BALANCE MEDICATION SHEET**

No Preskripsi : SURGC0000616259      Tarikh Preskripsi : 18/10/2017

Nama : [REDACTED]      No K/P : [REDACTED]

Umur : 72 Years 06 Months 11 Days      25/09/1945      MRN : HMIRI00205387

Lokasi : CLINIC SURGICAL (PAKAR 2)

Alahan : [REDACTED]

Diagnosis : TRO PVD

Berat : [REDACTED]

BMI/BSA : [REDACTED]

Dipreskrib oleh : DR [REDACTED]

Temujanji Klinik : 20/06/2018

Bil	Maklumat Preskripsi			Maklumat Pendispensan													
	Nama Ubat	Maklumat Dos	Kuantiti Ubat	Tarikh:	Baki	TCA	04/05/2018			Tarikh:	Baki	TCA	Tarikh:			Baki	TCA
				Kuantiti		F	D	Kuantiti		F	D	Kuantiti		F	D		
1	Methyl Salicylate 25% Ointment	1 app, PRN , 8 Months, LA	120 g	0	0												
2	Acetylsalicylic Acid 300 mg Soluble Tablet	75 mg, OM (every morning) , 8 Months, Oral	60 tablet	8	12												
3	Simvastatin 10 mg Tablet	10 mg, ON (every night) , 8 Months, Oral	240 tablet	30	60												

Original Prescription printing



**Ministry of Health, Malaysia  
Hospital Miri**

Patient Name : ██████████ Patient ID : ██████████  
 Age : 72 Years 06 Months 11 Days MRN : HMIRI00205387  
 Gender : Male Prescription # : SURGC0000616259  
 Height/Weight/BSA : █/█/█ Order Date/Time : 18/10/2017 09:31 AM  
 Room No/Bed No : █/█ Location : CLINIC SURGICAL (PAKAR 2)  
 Diagnosis : TRO PVD Allergy :

Drug Name	Route	Dose	Frequency	Start Date	End Date	Duration	Prescribed Qty	Prescription Status
Methyl Salicylate 25% Ointment	LA	1 app	PRN	18/10/2017	15/06/2018	8 Months	120 g	Dispensed
Vitamin B1, B6, B12 Tablet	Oral	1 tablet	OD (once daily)	18/10/2017	15/06/2018	8 Months	240 tablet	Stop
Acetylsalicylic Acid 300 mg Soluble Tablet	Oral	75 mg	OM (every morning)	18/10/2017	15/06/2018	8 Months	60 tablet	Prepared
Simvastatin 10 mg Tablet	Oral	10 mg	ON (every night)	18/10/2017	15/06/2018	8 Months	240 tablet	Prepared

Prescribed by : DR ██████████  
 Designation : Pegawai Perubatan Pelatih  
 Department : Paediatric Medicine

*Worksheet printing*

**EXTEMPORANEOUS WORKSHEET (PARTIAL)**

MINISTRY OF HEALTH  
HOSPITAL MIRI

Date of preparation : 06/04/2018 Worksheet Id: 18-04-0071  
 MRN HMIRI00252466 Name ██████████  
 ID No ██████████  
 Order Location CLINIC STAFF PAKAR 3 Rx. No. STAFFC0000734779  
 Order Date 06/04/2018 Ordered By DR ██████████

No	ROA	Preparation Name	Dose	Total Dose	Material Used				Storage
					Item Name	Volume/Qty Required	Batch No	Expiry Date	
1.	Oral	Acetylsalicylic acid 300mg/ml Oral Liquid(A) Expiry Date : , 07/04/2018	300mg (10ML)	3000mg (100ml)	Acetylsalicylic Acid 300 mg Soluble Tablet	10 tablet	T1703009	31/03/2019	Discard balance
					Water	100 ml			

Remarks: Instruction: -

Reference:

Worksheet generated by ██████████ Worksheet & label checked by ██████████ Prepared by ██████████ Final Product Checked by ██████████  
 Date: 06/04/2018 Date: 06/04/2018 Date: Date:



CP4 Printing

**KEMENTERIAN KESIHATAN MALAYSIA**

Hospital Miri

**Jabatan Farmasi****NOTA RUJUKAN****CP4/47**

KEPADA:

Pegawai Perubatan/Pegawai Farmasi : Hospital Sultanah Aminah, Johor Bahru

PER: RUJUKAN PESAKIT

\_\_\_\_\_ / **HMIRI00252466** / \_\_\_\_\_  
 NAMA MRN NO. KP

Pesakit ini TELAH / ~~BEUM~~ DIBERI KAUNSELING UBAT-UBATAN untuk dinilai tahap kefahaman/kepatuhan terhadap terapi ubat yang ditetapkan. Diharapkan pihak tuan/puan dapat memberi kaunseling dan penilaian susulan yang diperlukan untuk meningkatkan keberkesanan rawatan.

**2. DIAGNOSIS :**

Tarikh	Diagnosis
06/04/2018	sas

**3. SENARAI UBAT SEMASA:**

Nama Ubat	Dos	Frekuensi	Tarikh Mula	Tarikh Tamat	Jangkamasa Bekalan
Acetylsalicylic Acid 300 mg Soluble Tablet	300 mg	OM (every morning)	06/04/2018	10/05/2018	34 Days
Enalapril 10 mg Tablet	10 mg	OD (once daily)	06/04/2018	10/05/2018	34 Days
Amlodipine 5 mg and Valsartan 160 mg Tablet	1 tablet	OM (every morning)	06/04/2018	10/05/2018	34 Days
Amlodipine 5 mg Tablet	5 mg	OM (every morning)	06/04/2018	10/05/2018	34 Days

**4. PENILAIAN KEFAHAMAN & KEPATUHAN TERHADAP TERAPI UBAT**

(Tidak berkenaan jika pesakit belum dikaunsel)

- a) Pesakit telah dikaunsel dan faham tentang ubat/alat bantuan pengubatan yang ditetapkan  Ya  Tidak
- b) Tahap kepatuhan terhadap ubat - ubatan  Memuaskan  Tidak Memuaskan
- c) Alat bantuan kepatuhan  Pill Box  Risalah Ubat  Lain - lain  Tidak

**5. TINDAKAN SUSULAN YANG DIPERLUKAN**[Sila tandakan (  ) di kotak yang disediakan]

	Kaunseling ubat - ubat dan alat bantuan pengubatan yang ditetapkan
<input checked="" type="checkbox"/>	Menilai kepatuhan dan kefahaman terhadap terapi ubat yang ditetapkan
<input checked="" type="checkbox"/>	Pemantauan terapeutik: (Ubat)
<input checked="" type="checkbox"/>	Isu penyimpanan ubat -ubatan
	Lain - lain:

Sekian, terima kasih.

KPF

085420033

06/04/2018



## Invoice Printing

**KEMENTERIAN KESIHATAN MALAYSIA**  
**Hospital Miri**  
**Invoice**

Invoice No. : 22/02/2018\_867417

Date : 22/02/2018

MRN : HMIRI00205387

Patient Name : C [REDACTED]

No	Drug Name	Quantity	Amount
1	Simvastatin 10 mg Tablet	30	3.00
2	Acetylsalicylic Acid 300 mg Soluble Tablet	8	1.46
Total : RM			4.46

**Notes**

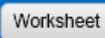
- Click on 'Medication Counselling' to open the Medication Counselling Order screen.
- Click on 'MTAC Order' to open the MTAC Order screen.
- Click on 'Print Original Prescription' button to print the original prescription report.
- Click on 'CP4' button to open CP4 form screen.
- Drug label can be printed directly or preview first than print.
- Click on icon HOLD  to hold the drug order through countercheck screen.
- Click on icon RESUME  to resume the drug through countercheck screen.
- Click on 'Remarks' to insert pharmacist remarks during screening and verification stage.
- Ticked on select all checkbox or single checkbox to select the drug(s) either to hold or resume.
- Ticked on Reserve Qty checkbox to dispense the drug with '0' quantity.
- Click on Reserve Qty value to re-allocate the quantity.
- Click on Release/Discard button to release and discard the drug order.
- Click on Invoice button to print invoice sheet.
- Click on Worksheet button to print worksheet (direct printing or preview printing)
- Click on Balance Medication Sheet to print the BMS form (direct printing or preview printing).
- Click on Label to print drug label (direct printing or preview printing).
- Click on Dispense button to dispense drug order.
- Click on Extemporaneous checkbox to display the Extemporaneous screen

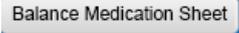
**Cross References**

**CP4** – refer to PhIS\_CPS\_SDD\_WP\_v1.3  
**MTAC Order** – refer to PhIS\_CPS\_SDD\_MTAC\_v1.3

**Medication Counselling - refer to PHIS\_CPS\_SDD\_MC\_v1.3**

3.2.5.8.2 Application Business Rules

No.	Name	Description
1.	Dispensing status	<ul style="list-style-type: none"> <li>This screen is for the pharmacist to dispense the prepared prescriptions.</li> <li>Click on the patient's MRN from the patient listing, dispensing screen will be displayed with the selected patient and prescription information.</li> <li>Patient banner will be displayed at the top of the screen.</li> <li>User shall be able to see all records which has been prepared inside Dispensing screen. Record status will display as 'Prepared'. Only record with status Prepared shall be able to dispense. If record status is cancel/stop/hold, these records shall not able to dispense.</li> </ul>
2.	Patient Arrived	User shall be asked to tick on these checkbox ( <input type="checkbox"/> Patient Arrived ) before the dispensing. If user click on Dispense button without tick on the Patient Arrived checkbox, a message shall appear.
3.	Queue Number	Queue number is not compulsory, depends on facility setting. If Queue Series (at Facility Info screen) set to 'Y', queue number will be generated automatically but if facility set to 'N', they have to enter the queue number manually.
4.	Invoice	User shall be able view and to print the invoice related to the order. No changes allowed. Refer to section 3.2.5.11 for more details.
5.	Release/Discard	<ul style="list-style-type: none"> <li>User shall be able to do de-allocation or release back on the stock allocated for the drug at dispensing screen.</li> <li>Before click on Release/Discard button at this screen, user have to select on the record by tick on the checkbox <input type="checkbox"/> available at the left of the drugs name. Click on this checkbox <input checked="" type="checkbox"/> if user wants to select all drugs display in the listing.</li> <li>Once drugs has been selected, click on Release/Discard button  to deallocate back the stock.</li> </ul>
6.	Printing	<ul style="list-style-type: none"> <li>User able to print the original prescription record when click on  button. Prescriber name with designation and department will be displayed at each of drug name.</li> <li>Print drug label only for a drug with allocated quantity. User shall be able to directly print the drug label directly  or click on  button to preview first before print. Editing on drug label for certain field is allowed before print in preview label.</li> <li>Worksheet button   will be able to open a worksheet form if there are any extemporaneous drug in the order. User shall be able to view and print directly the worksheet if there are extemporaneous order. If any order related to extemporaneous, this button shall be able to function. If not, user shall not be able to open or click on the worksheet button.</li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>Invoice will be printed through Invoice screen. Refer to section 3.2.5.11 for more details.</li> <li>Balance Medication Sheet will be printed if user click on  button for preview print or  for direct print.</li> </ul>
7.	Reserve Quantity	<ul style="list-style-type: none"> <li>Quantity to be reserved for this order. By default this value will be 0.</li> <li>If Reserve Qty display in red text , it means no stock available.</li> <li>User shall be able to dispense the quantity with 0 allocation by ticked on the checkbox .</li> <li>Reserve Quantity value is being set at Screening or Preparation stage once record is being verified or prepared.</li> <li>However, user shall be able to de-allocate back the reserve quantity using Item Batch Details screen.</li> </ul>
8.	SPUB Form	<ul style="list-style-type: none"> <li>User shall be able to create SPUB R1 Form for SPUB record.</li> <li>This screen will allow user to generate SPUB R1 form &amp; medication order for collection of medication at a centre of choice. The printed SPUB R1 form is endorsed and signed by authorized personnel.</li> <li>If the preferred facility is SPUB enabled and has PhIS facility, an electronic transfer will be initiated.</li> <li>Online SPUB R1 form will be displayed with default information from the Dispensing screen. Patient information will be defaulted and cannot be changed.</li> <li>Once SPUB checkbox is tick <input checked="" type="checkbox"/> SPUB, SPUB R1 Form button  will be enable and user able to create SPUB record. User able to send SPUB out to online or offline facility.</li> </ul>
9.	Call Patient	Used to indicate that the patient has been called but they did not come and collect the medication. Record status will be changes to Uncollected. Once dispense, record status shall be changed to Partial Dispense and able to open it inside Screening and Verification screen.
10.	Dispense the record	<ul style="list-style-type: none"> <li>On click of Dispense  button, record will be dispense.</li> <li>Before dispense the record, it will check on available quantity and if available quantity is zero in stock or drug is being hold but user did not dispense ith 0 quantity, alert message will appear.</li> </ul>
11.	Extemporaneous	<ul style="list-style-type: none"> <li>Extemporaneous Details link will enable if any value entered during Preparation stage for Extemporaneous drugs.</li> <li>User should be able to view and print Worksheet from the Extemporaneous details link.</li> <li>No changes allowed when at dispensing stage for Extemporaneous drug.</li> </ul>
12.	MTAC Order	<ul style="list-style-type: none"> <li>Please refer to PhIS_CPS_SDD_MTAC_v1.3</li> </ul>
13.	CP4, Medication	<ul style="list-style-type: none"> <li>Please refer to PhIS_CPS_SDD_MC_v1.3.</li> </ul>



No.	Name	Description
	Counselling	

3.2.5.8.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Dispensing screen</b>				
1.	Patient Arrived	To indicate that patient has arrived at the counter. Waiting time will be started once ticked.	No	Checkbox
2.	Queue Series	Type of queue series which consist from Express, Normal, Others and Special.	No	Drop down list
3.	Queue Number	Patient queue number, if applicable.	No	Text field
4.	Arrival Time	Arrival time will appear once user ticked on Patient Arrived checkbox.	No	Read only
5.	Waiting Time	Waiting time will be displayed if Patient Arrived checkbox is checked.	No	Text field (non editable)
6.	Collector Name	The name of the medicine collector which can be a different person from patient.	No	Text field
7.	Relationship	Refer to collector relationship with the patient which consist of (Child, Extended Family, Father, Foster Child, Friend, Grandparent, Guardian, Mother, Others, Patient, Sibling, Spouse, Step Child, Unknown).	No	Drop down list
8.	Clinic TCA	Refer to clinic next appointment date in a format dd/mm/yyyy.	No	Calendar in format dd/mm/yyyy
9.	Next Collection Date	Indicate the next date for patient to collect a medication in a format of dd/mm/yyyy.	No	Calendar in format dd/mm/yyyy
10.	Current Collection Mode	By default it will display the current mode of collection. Non editable.	Yes	Read only
11.	Next Collection Mode	By default it will display same mode as Current Collection Mode. Refer to next collection mode under VAS (Appointment Card, Email and Take, Fax and Take, Normal Collection, Others, SMS and Take, Telephone and Take, UMP)	No	Drop down list
12.	SPUB	To create SPUB Out. Ticked on SPUB checkbox, SPUB R1 Form button will be enable and user shall be able to open SPUB R1 Form screen to create SPUB Out.	No	Checkbox with SPUB button
13.	Next Collection Location	By default it will display the current collection location.	Yes	Read only
14.	Dispense At	A place where the dispensing will take place. For outpatient, it will be default to Pharmacy Counter	Yes	Drop down

No.	Name	Description	Mandatory	Format
		however user can change to other dispensing location such as Bedside, Drive Through Counter or Pharmacy Counter.		list
15.	Dispense Method	A value added services. Defaulted to Normal Collection method. A method of dispense through few criteria such as Appointment Card, Direct Observation Therapy (DOT), Direct Observation Therapy (DOT) and Take Away (TA), Normal Collection, Others, SMS and Take, SPUB, Take Away (TA), Telephone and Take, and *UMP. *UPM – <i>Ubat Melalui Pos</i> .	Yes	Drop down list
16.	Witness By	The person witness name for dispensing process. Free text field.	No	Text field
17.	Remarks	Dispensing remarks by pharmacist. Applicable only at Dispensing screen.	No	Text field
18.	Drug Counselling Required?	To indicate if patient required counselling.	No	Checkbox
19.	Queue No. Call time	Queue time will appear after user ticked on Patient Arrived and then click on Called Patient button. Time will be capture when this actions is take.	No	Read only
20.	Patient Call	User shall be able to update the prescription to Uncollected. Used when pharmacist already call the patient but the patient did not turn up.	No	Checkbox with button
21.	Adherence Score	Allow user to enter Compliance Score (numerical score between 1 until 8) in 2 decimal point.	No	Text field
22.	MPR	Display the MPR (Medication Possession Rate) at dispensing screens. MPR is auto calculated. i. To count MPR for all active drugs but display minimum MPR at prescription level. ii. Exemption of MPR calculation for <b><u>drug with PRN frequency</u></b>	Yes	Read only
23.	Remarks	Pharmacist shall be able to enter pharmacist remarks at dispensing stage.	No	Link
24.	Drug Counselling	Ticked this checkbox if user wants this patient to have drug counselling. Once ticked, Details link will be enable and user can click to open Counselling Indicator screen to add in remarks.	No	Checkbox with link
25.	Extemporaneous	If drug order is from extemporaneous drug, the checkbox and details link will appear.	No	Checkbox with link
26.	Complete	User shall be able to complete the supply by ticked on this checkbox and drug order will be updated to Fully Supply.	No	Checkbox
<b>Medication Counselling</b>				
1.	Counselling Category	Consist of 'Individual' category or 'Group' category. By default it will display a value	No	Read only



No.	Name	Description	Mandatory	Format
2.	Discipline	Display the discipline of the patient during visit registration. By default it will display the discipline during the visit.	No	Drop down list
3.	Appointment Type	User shall be able to select the type of appointment, either Follow Up or New.	Yes	Drop down list
4.	Priority	User shall be able to select the priority of the medication counselling, either Routine or Urgent.	Yes	Drop down list
5.	Counselling Location	Counselling location is a place where counselling will take place. Data consists of Bedside, CRP (Cardiac Rehabilitation Program), Chronic Pain Clinic, Discharge, Home Medication Review, Methadone Pharmacy, Others, Outpatient, Quit Smoking Clinic, Radiopharmaceutical.	Yes	Drop down list
6.	Appointment Date	User shall be able to select on the date of appointment. Once date is choose, the time will be able to enter.	Yes	Calendar format in dd/mm/yyyy
7.	Topic	By default it was set to Medication. Data consists of Device, Disease, Radiopharmaceutical, Chemotherapy, Medication, Methadone Replacement Therapy, Smoking Cessation, Chronic Pain, and Cardiac Rehabilitation.	Yes	Drop down list
8.	Remarks	Remarks entered by pharmacist.	No	Text field
<b>MTAC Order</b>				
1.	Type of MTAC	A type of MTAC consists from Cardiovascular Care Bundle, Chronic Kidney Disease, Diabetes Mellitus, Dialysis, Haemophilia, Hepatitis, Methadone, Neurology, Psoriasis, Psychiatry, Renal Transplant, Respiratory, Retro Viral Disease, Rheumatology, and Warfarin. With a Search History button which will find any past record.	Yes	Drop down list
2.	Priority	Priority of MTAC order, Routine or Urgent.	Yes	Drop down list
3.	To Be Counselling by	Name of person that will do the counselling.	No	Text field
4.	Appointment Date	Default value will show today's date.	No	Calendar format in dd/mm/yyyy
5.	Appointment Type	Type of appointment for MTAC Order in Follow Up, Follow Up Reschedule, New or New Reschedule.	No	Drop down list
6.	Remarks	Remarks entered by pharmacist.	No	Text field
<b>Hold/Countercheck screen</b>				
1.	Reason	Multiple or one drug can be selected through a checkbox list. The hold reason will be updated into the selected drug(s). Hold reason dataset: <ul style="list-style-type: none"> <li>Intervention</li> </ul>	Yes	Drop down list



No.	Name	Description	Mandatory	Format
		<ul style="list-style-type: none"> <li>• Not Filled</li> <li>• Wrong Drug Filled</li> <li>• Wrong Label Information</li> <li>• Wrong Patient Label</li> <li>• Wrong Quantity Filled</li> <li>• Wrong Strength Filled</li> </ul>		
2.	Correction Required	A checkbox to select either hold drug required correction or not.	Yes	Checkbox
<b>Resume/Countercheck screen</b>				
1.	Resume Selection	A checkbox to select which drug with a reason to resume.	No	Checkbox
<b>Pharmacist Remarks</b>				
1.	Remarks link	Click on Remarks link to open Pharmacist Remarks screen to add in remarks by pharmacist at dispensing stage. Link will appear after save on the remarks.	No	Link
<b>Extemporaneous</b>				
1.	Preparation Done By	Preparation Done By radio button is to be selected either by Pharmacist or by Patient. Default value is Preparation Done by Pharmacist.	Yes	Radio button
2.	Preparation Name	Preparation Name will display a list of available extemporaneous preparation formula as setup in drug master.	Yes	Search
3.	Worksheet ID	Worksheet ID field is displayed only when preparation is done by pharmacist. Value is auto-generated by system once user saves the extemporaneous record and auto generated based on the format as below: Current Year-Current Month-Running Number Example: 14-06-0010  The running number is up to 4 integer values and should reset monthly. Each month should generate the running number separately.	No	Read only
4.	Concentration	Concentration field will be auto-populated based on the selected extemporaneous preparation.	Yes	Read only
5.	Dosage in (ml)	Dosage is displayed based on the calculation as below: i. If the ordered Dosage is by drug strength UOM: Dosage (in ml) = Ordered Dosage/ Extemporaneous Concentration ii. If the ordered Dosage is by drug Quantity UOM: Dosage (in ml) = (Ordered Dosage * Order or Alternate drug Strength value) / Extemporaneous Concentration  Value is auto-calculated and not editable.	Yes	Read only



No.	Name	Description	Mandatory	Format
		Dosage UOM is hardcoded to ml (millilitre).		
6.	Active Ingredient: Item Name	Item Name for Active Ingredient will display value based on the ordered drug. If drug is alternate to another drug, the alternate drug name will be displayed. Value is read-only	Yes	Read only
7.	Active Ingredient: Quantity	Quantity for Active Ingredient will display value based on the drug allocated quantity as per allocation in the verification or preparation screen. Once user change the allocation, value in this field will update based on the latest allocation value. This field is read-only.	Yes	Read only
8.	Active Ingredient: UOM	Quantity UOM for Active Ingredient will display based on the ordered drug SKU UOM in drug master. If drug is alternate to another drug, the alternate drug SKU UOM will be displayed. Value is read-only.	Yes	Read only
9.	Vehicle: Item Name	Item Name for Vehicle will display value based on the selected extemporaneous preparation as setup in drug master. Value is read-only.	Yes	Read only
10.	Vehicle: Quantity and UOM	Vehicle Quantity is displayed based on the calculation as below: Total Allocated Dose = Order or Alternate drug strength value * Allocated Qty (as per allocation in Verification or Preparation screen) Vehicle Quantity = Total Allocated Dose / Extemporaneous Concentration (Round up to the next integer, no decimal value) Value is auto-calculated but still allowed to edit. Vehicle UOM is auto-default to ml (millilitre) but still allowed to edit. Both fields are mandatory.	Yes	Read only
11.	Storage Condition and Procedures in Local Language	This checkbox is for user to change the displayed Storage Condition and Procedures (Preparation by Pharmacist) values from English to local language (Malay). Once user select the checkbox, system will display the local language value for the fields above as setup in drug master. This function is optional for user to select.	No	Checkbox
12.	Storage Condition	Storage Condition is displayed based on the selected extemporaneous preparation based on the value setup in drug master. Field value will be displayed in English by default, once user select the Storage Condition and Procedures in Local Language checkbox, value will be displayed in local language (if any). This field is read-only.	No	Read only
13.	Expiry	Expiry is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field value will be used to auto generate the preparation expiry date in drug label. This field is numeric only with no decimal value. This field is	Yes	Text field



No.	Name	Description	Mandatory	Format
		mandatory.		
14.	References	References field is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field is read-only.	No	Read only
15.	Formulation Remarks	References field is displayed based on the selected extemporaneous preparation based on the remarks value setup in drug master (if any). This field is read-only.	No	Read only
16.	Procedures (Preparation by Pharmacist)	Procedures (Preparation by Pharmacist) field will disable when preparation by patient radio button is selected. Field will enable only when preparation by pharmacist radio button is selected.	No	Read only
17.	Procedures (Preparation by Patient)	<p>Procedures (Preparation by Patient) field is displayed based on the default format as below, but value is still editable:</p> <p><i>Cara Penyediaan:</i></p> <ol style="list-style-type: none"> <li>1. <i>Ambil (A) (Ordered or Alternate Drug Name).</i></li> <li>2. <i>Hancurkan (Ordered or Alternate Drug Name).</i></li> <li>3. <i>Tambah (B) ML (Extemporaneous Vehicle).</i></li> <li>4. <i>Tambah (Additional Item Quantity) ML (Additional Item Name).</i></li> <li>5. <i>Larutkan supaya sekata.</i></li> <li>6. <i>Sukat dan minum (Dosage in ml) ML.</i></li> <li>7. <i>Buat bancuhan baru setiap hari.</i></li> </ol> <p>A = Ordered Dose / Ordered or Alternate drug strength value -&gt; round up to the next integer.            B = [A * (Ordered or Alternate drug strength)] / Extemporaneous Concentration -&gt; round up to the next integer.</p> <p>The procedure is displayed only in malay, no english version for the patient procedures.            For instruction no. 4, will only be displayed if additional item is available in the extemporaneous preparation.</p>	No	Read only
18.	Preparation Remarks	Remark is to be entered in the textbox. Maximum of 250 characters capacity. This field is not mandatory.	No	Text field
<b>Release/Discard</b>				
1.	IC No/Other Identification	User shall be able to enter the IC number or other identification number only for a selected patient that user choose from Single Stage Dispensing screen. Release/Discard screen is applicable for a pharmacist that has same dispense location as patient dispense location.	No	Search field



No.	Name	Description	Mandatory	Format
2.	Drug Name	User shall be able to search y specific drug name for the selected patient only. By default, list of the drugs will display a listing of drug order that belongs to the patient's name at single stage dispensing screen.	No	Search field
3.	MRN	MRN column will displayed the MRN number belongs to the patient. It is read only field in table form.	Yes	Read Only
4.	Patient Name	Display the patient name which user choose from the Single Stage screen. It is read only field in a table form.	Yes	Read Only
5.	Medication Order No	It shall display the prescription number of the order. It is read only field in a table form.	Yes	Read Only
6.	Drug Name	It shall display the list if drugs name within same prescription number. It is read only field in a table form.	Yes	Read Only
7.	Prepared Qty	It shall display the prepared quantity allocated. It is read only field in table form.	Yes	Read Only
8.	Preparation Date	It shall display the preparation date of the order. It is read only field in table form.	Yes	Read Only
9.	Status	It shall display the current status of the drug order. It is read only field in table form.	Yes	Read Only
10.	Reason for Release/Discard	User shall be able to add in reason for release/discard the drug order. This reason data consists of: Change of Regimen, Faulty Product, Intervention, Patient Refused, Uncollected and Wrong Allocation.	Yes	Drop down list
11.	Remarks	User shall be able to add in remarks if applicable.	No	Text field

### 3.2.5.9 Single Stage Dispensing Listing

#### 3.2.5.9.1 Screen Design

<b>ID</b>	SS.SD1
<b>Description</b>	Single Stage Dispensing Listing
<b>Diagram</b>	
i. <i>Single Stage Dispensing listing</i>	

**SINGLE STAGE DISPENSING**

Show All Dispensing Counter 10

Dispensing Location	PHARMACY OUTPATIENT	Patient Name	<input type="text"/>
Order Type	All	MRN	<input type="text"/>
Mode of Services	All	Order Status	All
IC No/Other Identification	<input type="text"/>	Prescription Status	All
Original Prescription Serial No.	<input type="text"/>	Order Location Type	All
Order Location	All	Order Date From	<input type="text"/>
Order Date From	<input type="text"/>	Order Date To	<input type="text"/>
Queue Date	<input type="text"/>	Queue Series	All
Queue No	<input type="text"/>		

Basic Search Search

Queue No	MRN	Patient Name	Queue Series	Order Date Time	Order Location	Current Collection Mode	Order Type	Prescription Status	eGL Status	Arrival Time	Waiting Time
3412	HMIRI00110529	J [REDACTED]	Normal	21/03/2018 11:28 AM	CLINIC QUIT SMOKING		Normal	IN PROGRESS		21/03/2018 11:29 AM	126 : 12 : 48
	HMIRI00127928	T [REDACTED]	Normal	19/12/2017 10:18 AM	CLINIC MEDICAL (PAKAR 3)	Normal Collection	Normal	IN PROGRESS	Paying	<a href="#">Queue Details</a>	
	HMIRI00203333	S [REDACTED]	Normal	01/02/2018 3:10 PM	REHABILITATION CLINIC	Normal Collection	Normal	IN PROGRESS/HOLD	Paying	<a href="#">Queue Details</a>	
	HMIRI00140894	A [REDACTED]	Normal	30/01/2018 4:10 PM	CLINIC PALLIATIVE CARE	Normal Collection	Normal	IN PROGRESS/HOLD	Non Paying	<a href="#">Queue Details</a>	
	HMIRI00234507	L [REDACTED]	Normal	26/01/2018 11:03 AM	Neurology Clinic	SMS and Take	Normal	IN PROGRESS/HOLD	Paying	<a href="#">Queue Details</a>	
	HMIRI00146732	S [REDACTED]	Normal	05/02/2018 2:55 PM	BPH CLINIC	Appointment Card	Normal	IN PROGRESS/HOLD	Non Paying	<a href="#">Queue Details</a>	

ii. Queue Details

**QUEUE DETAILS**

Patient Arrived

Arrived Date	<input type="text"/>	Arrived Time	<input type="text"/>
Queue Series	Normal	Queue No	<input type="text"/>
Collector Name	H [REDACTED]	Relationship	Patient

**Notes**

- To display record with status=Acknowledge / Acknowledge Hold / Partial Supply.
- Double click on patient record to open Single Stage Dispensing screen and to dispense the drug order.
- Basic search fields will consist of commonly used search options and advanced search section will list all other search options available.

**Cross References**

**Medication Order– PhIS\_CPS\_SDD\_OM\_v1.3**

3.2.5.9.2 Application Business Rules

No.	Name	Description
1.	Single Stage Dispensing Listing	<ul style="list-style-type: none"> <li>• Single Stage Dispensing list screen displayed for user to select patient record and dispense the order. Listing is sorted in ascending order based on order date.</li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>• By default, patient's record is displayed based on the order date as below:               <ol style="list-style-type: none"> <li>i. All record should be displayed after confirm order from Record Prescription or acknowledge the order in Acknowledgement screen.</li> <li>ii. Partial dispense and In Progress record will also be listed</li> <li>iii. All type of record which dispensing location is outpatient, will be displayed here</li> <li>iv. Uncollected record will also appear in this listing if user search by 'Hold' status.</li> </ol> </li> </ul>
2.	Refresh List	Click on the Refresh button, system will reset all searched records and searching criteria to default value.
3.	Search	<p>Record will be search by input criteria.</p> <ul style="list-style-type: none"> <li>• By default this screen will allow user to perform a basic search with the following criteria:               <ol style="list-style-type: none"> <li>i. Dispense Location – Pharmacy location</li> <li>ii. Order Status – This field will show the status of order in a drop down combo box:                   <ul style="list-style-type: none"> <li>• All</li> <li>• New – New order</li> <li>• Partial Supply – Partial dispense order</li> </ul> </li> <li>iii. Location Type – This field will show types of orders in a drop down combo box based on the 'Location Type' values configured in the system parameter table:                   <ul style="list-style-type: none"> <li>• All</li> <li>• Clinic</li> <li>• ER</li> <li>• Daycare</li> <li>• Nursing Unit</li> <li>• Pharmacy</li> </ul> </li> </ol> </li> </ul>
4.	Queue Details	<ul style="list-style-type: none"> <li>• This screen will allow the user to assign a queue number to the patient. Once the patient has arrived at the pharmacy counter and his identity is verified, a patient will receive a queue number for medication dispensing purposes.</li> <li>• To enter the value, user need to click on Edit  button first.</li> <li>• Once this button is clicks, all field will be enable except for Arrived Date and Arrived Time since these 2 fields will auto generate the current date and time.</li> <li>• Once user has entered the information, click on Save  button.</li> <li>• Print Queue No button  will be enable after save for facility that use the queue management system. If not, this button will remain dim after save and screen will be auto close.</li> </ul>



3.3.5.9.2.1 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Single Stage Listing</b>				
1.	Dispensing Location	By default, dispensing location display the outpatient dispensing location. Record shall be retrieve from the input criteria.	Yes	Drop down list (searching field)
2.	Order Type	Search consist the order type of the record (All, Normal, SPUB, Discharge, and Referred Patient).	No	Drop down list (searching field)
3.	Mode of Services	Search Mode of services of the record (All, Appointment Card, Email and Take, Fax and Take, Normal Collection, Others, SMS and Take, Telephone and Take, UMP).	No	Drop down list (searching field)
4.	IC No/Other Identifications	Screening and Verification listing shall be retrieved from the database for all registered patients with visit on matching IC No/Other Identification number.	No	Text field (searching field)
5.	Order Location	Search on the outpatient location when order was made.	No	Drop down list (searching field)
6.	Order Date From	Search on the 'date from' when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
7.	Order Date To	Search on the end of order date when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
8.	Queue Date	Search the date when queue number was created.	No	Calendar in format dd/mm/yyyy (searching field)
9.	Queue No	Search on the queue number of the patient record.	No	Text field (searching field)
10.	Patient Name	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching Patient Name.	No	Text field (searching field)
11.	MRN	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching MRN.	No	Text field (searching field)
12.	Order Status	Search on the status of the patient records, either New	No	Drop down list

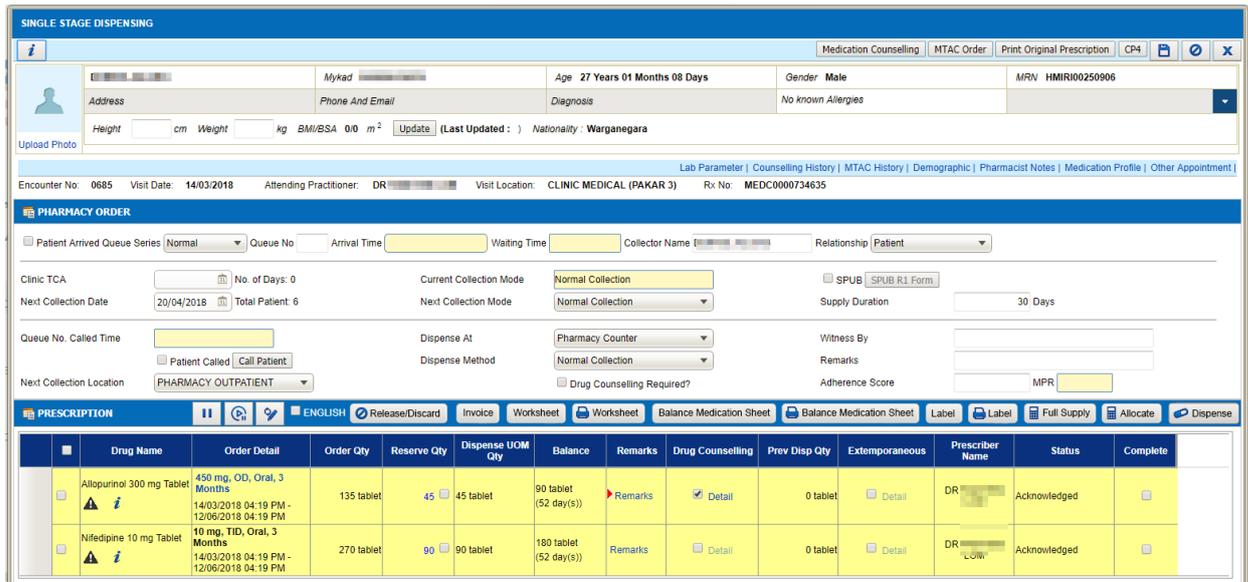


No.	Name	Description	Mandatory	Format
		Order or Partial Supply order.		(searching field)
13.	Prescription Status	Search on the status of the prescription either Hold or Expired.	No	Drop down list (searching field)
14.	Order Location Type	Record shall be retrieve based on the type of the order location such as (Clinic, Daycare, ER, Nursing Unit, and Pharmacy)	No	Drop down list (searching field)
15.	Queue Series	Search on the series of the queue number which consist of (Normal, Express, Special and Others).	No	Drop down list (searching field)
<b>Queue Details</b>				
1.	Patient arrival	Once user checks on this checkbox, system will capture the system date and time. This date and time will be displayed in 'Arrived date' and 'Arrival time' field.	Yes	Check box
2.	Arrived date	Read-only text box. Once user checks on 'Patient arrival' checkbox, arrival date will be captured and displayed	Yes	Read only
3.	Arrived time	Read-only text box. Once user checks on 'Patient arrival' checkbox, arrival time will be captured and displayed.	Yes	Read only
4.	Queue Series	This field will show the queue series in a drop down combo box based on the 'Queue Series' values configured in the system parameter table: <ul style="list-style-type: none"> <li>• New Prescription</li> <li>• Express</li> <li>• Partial Dispense</li> </ul>	Yes	Drop down
5.	Queue No.	System will auto generate this number based on values set in the master table. User can set starting value based on queue series. For example for new prescription queue it will start with 1000 and increase by 1 for every patient. This number will be reset on a daily basis.	Yes	Text field
6.	Collector name	<ul style="list-style-type: none"> <li>• By default it will show the patient name.</li> </ul> Name of person who collects the prescription. By default it will show the patient's name. This field is free text with a capacity of 50 characters.	No	Text field
7.	Relationship with patient.	This field will show relationship of the collector with the patient in a drop down combo box based on the 'Relationship with patient' values configured in the	Yes	Drop down

No.	Name	Description	Mandatory	Format
		system parameter table: <ul style="list-style-type: none"> <li>• Child</li> <li>• Extended Family</li> <li>• Father</li> <li>• Foster Child</li> <li>• Friends</li> <li>• Grand Parent</li> <li>• Guardian</li> <li>• Mother</li> <li>• Others</li> <li>• Patient</li> <li>• Sibling</li> <li>• Spouse</li> <li>• Step Child</li> <li>• Unknown</li> </ul>		

### 3.2.5.10 Single Stage Dispensing

#### 3.2.5.10.1 Screen Design

<b>ID</b>	SS.SD2
<b>Description</b>	Single Stage Dispensing screen
<b>Diagram</b>	
<p><i>i. Single Stage Dispensing screen</i></p>  <p>The screenshot displays the 'SINGLE STAGE DISPENSING' interface. At the top, there are navigation links for Medication Counselling, MTAC Order, Print Original Prescription, and CP4. Below this is a patient information section with fields for Mykad, Age (27 Years 01 Months 08 Days), Gender (Male), and MRN (HMIRI00250906). There are also fields for Address, Phone And Email, and Diagnosis. A 'PHARMACY ORDER' section includes dropdowns for Patient Arrived Queue Series (Normal), Queue No, Arrival Time, Waiting Time, Collector Name, and Relationship (Patient). It also shows Clinic TCA, Next Collection Date (20/04/2018), Total Patient (6), Current Collection Mode (Normal Collection), and Supply Duration (30 Days). A 'PRESCRIPTION' table is visible at the bottom with columns for Drug Name, Order Detail, Order Qty, Reserve Qty, Dispense UOM Qty, Balance, Remarks, Drug Counselling, Prev Disp Qty, Extemporaneous, Prescriber Name, Status, and Complete. Two prescriptions are listed: Allopurinol 300 mg Tablet and Nifedipine 10 mg Tablet.</p>	
<p><i>ii. Medication Counselling</i></p>	



**MEDICATION COUNSELLING ORDER**

Mykad: [redacted] Age: 27 Years 01 Months 08 Days Gender: Male MRN: HMIRI00250906

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

Height: [redacted] cm Weight: [redacted] kg BMI/BSA: 0/0 m<sup>2</sup> (Last Updated: ) Nationality: Warganegara

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

Counselling Order No: [redacted] Priority: Routine  
Counselling Category: Individual Counselling Location: CRP (Cardiac Rehabilitation Program)  
Discipline: General Medicine Appointment Date: [redacted] Schedule Time: [redacted]  
Appointment Type: New

**TOPIC AND SUBTOPIC**

Topic: Medication Remarks: [redacted] Add/Update

No	Topic	Subtopic	Remarks
No Records Found!			

**COUNSELLING HISTORY**

Appointment Date	Counselling Category	Priority	Discipline	Counselling Location	Appointment Type
------------------	----------------------	----------	------------	----------------------	------------------

iii. MTAC Order

**MTAC ORDER**

Mykad: [redacted] Age: 27 Years 01 Months 08 Days Gender: Male MRN: HMIRI00250906

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

Height: [redacted] cm Weight: [redacted] kg BMI/BSA: 0/0 m<sup>2</sup> (Last Updated: ) Nationality: Warganegara

Proceed To Reporting

Type Of MTAC: Diabetes Mellitus Search History: [redacted] Appointment Date: 28/03/2018 Audit Trail: [redacted]  
Priority: Routine Appointment Type: Follow Up  
To Be Counsellled By: [redacted] Remarks: [redacted]

**MTAC HISTORY**

MTAC No	Type of MTAC	Appointment Date	Appointment Type	Status	Updated By
No Records Found!					

iv. Extemporaneous



**EXTEMPORANEOUS**

Preparation Done By:  Pharmacist  Patient      Worksheet ID: [ ]

Preparation Name: Allopurinol Suspension 20mg/mL(Syrup) \*      Concentration: 20 mg /ml

Dosage: 22.5 ml

Item	Item Name	Quantity	UOM
Active Ingredient	Allopurinol 300 mg Tablet	45	tablet
Vehicle	Syrup BP (or Cherry Syrup)	675	ml

Storage Condition and Procedures in Local Language

Storage Condition: Refrigerate (preferable) or at room temperature. Protect from light.      Expiry: 60 Days

References: Calgary Pharmacy Compounding Manual, 2008      Formulation Remarks: [ ]

Procedures(Preparation by Pharmacist):  
1. Crush tablets in a mortar to a fine powder.  
2. Levigate the powder with small amount of vehicle until a smooth paste is formed.  
3. Add more vehicle to the paste until a liquid is formed and transfer the liquid into the container.

Procedures(Preparation by Patient): [ ]

Preparation Remarks: [ ]

v. Pharmacy Remarks

**SINGLE STAGE DISPENSING**

Medication Counselling    MTAC Order    Print Original Prescription    CP4

Mykad: [ ]    Age: 27 Years 01 Months 08 Days    Gender: Male    MRN: HMIRI00250906

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

PHARMACIST REMARK

Prescriber Remark: [ ]

Order Stage: [ ]

Pharmacist Remark: [ ]

Verification Stage: remarks1 in single stage

**DRUG REMARKS HISTORY (ALLOPURINOL 300 MG TABLET)**

Prescriber Remark	Prescriber Name	Start Date	End Date	Pharmacist Remark	Stage	Rx
No Records Found!						

vi. Hold screen

**HOLD ORDER - PHARMACIST REMARKS**

Hold    [ ]    [ ]

Drug Name	Reason	Other Reason	Remark
Nifedipine 10 mg Tablet	Contraindication	[ ]	[ ]

vii. Resume screen



**HOLD ORDER - PHARMACIST REMARKS**

Drug Name	Reason	Other Reason	Remark	Action Taken
Nifedipine 10 mg Tablet	Contraindication			resume drug nifedipine

viii. Intervention

**INTERVENTION**

Modify with Reason Reason only Modify without Reason

**PHARMACY REMARKS**

Drug Name: All Drugs Order Detail: [ ] Reset Save Reason

Selection	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"/>

**MODIFY ORDER**

Drug Name	Dosage	Route	Frequency	Duration	Prescribed Qty	Start Date	End Date	Reasons
Nifedipine 10 mg Tablet	20 mg	Oral	TDS (3 times a day)	3 Months	270 tablet	14/03/2018 4:19 PM	12/06/2018 4:19 PM	[ ] +

ix. Alternate

**ALTERNATE DRUG DETAILS**

Location: PHARMACY OUTPATIENT Order Detail: 5 mg, ON, 5 Months

Ordered Drug Code: G04CA03110T1003XX Dosage Form: Oral Tablet

Ordered Drug Desc: Terazosin HCl 5 mg Tablet Route: Oral

Supply Duration: 12 days Date From 06/04/2018 to 18/04/2018

**BATCH DETAIL**

No	Drug Name	Dosage Form	Route	Qty per dose	Batch	Expiry Date	Available Qty	SKU	Allocation Qty	Select
1	Terazosin HCl 2 mg Tablet	Oral Tablet	Oral	0 tablet	150961L	31/05/2018	5114	tablet	0	<input type="checkbox"/>
				0 tablet	170607L	30/04/2020	108	tablet	0	<input type="checkbox"/>
				0 tablet	170607L	30/04/2020	90	tablet	0	<input type="checkbox"/>
2	Terazosin HCl 5 mg Tablet	Oral Tablet	Oral	0 tablet	160288L	28/02/2019	24339	tablet	0	<input type="checkbox"/>
				0 tablet	160287L	28/02/2019	3919	tablet	0	<input type="checkbox"/>
				0 tablet	BG004	31/07/2020	100	tablet	0	<input type="checkbox"/>

Reason: [ ] Remark: [ ]

x. SPUB Form



**SPUB FORM**

Mykad: [Redacted] Age: 27 Years 01 Months 08 Days Gender: Male MRN: HMIRI00250906

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

Height: [Redacted] cm Weight: [Redacted] kg BMI/BSA: 0/0 m<sup>2</sup> Update (Last Updated: ) Nationality: Warganegara

---

**PHARMACY ORDER**

SPUB No: [Redacted]

Referred From: Hospital Miri Referred To: Klinik Kesihatan Greentown

Contact Person / Office: System Administrator Contact Person / Office: [Redacted]

Contact no / Ext No: 085420033 Contact no / Ext No: 055622114

Fax No: [Redacted] Fax No: [Redacted]

Next Collection Date: 20/04/2018  Counselling Provided

Remarks: [Redacted] Previous SPUB Referred To: [Redacted]

Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Disp Qty	Prev Disp Qty	Bal Qty	Remarks
MEDC0000734635	14/03/2018	Nifedipine 10 mg Tablet	10 mg, TID, 3 Months	270 tablet	0 tablet	0 tablet	270 tablet	Remark
MEDC0000734635	14/03/2018	Allopurinol 300 mg Tablet	450 mg, OD, 3 Months	135 tablet	45 tablet	0 tablet	90 tablet	Remark

xi. Release/Discard

**RELEASE/DISCARD BATCH**

IC No/Other Identification: [Redacted]

Drug Name: [Redacted]

New Record(s)

MRN	Patient Name	Medication Order No	Drug Name	Prepared Qty	Preparation Date	Status	Reason for Release/Discard	Remark
HMIRI00098140	A. [Redacted]	MEDC0000734632	Amlodipine 10 mg Tablet	10 tablet	21/03/2018	Prepared	Change of Regimen	test1
HMIRI00098140	A. [Redacted]	MEDC0000734632	Perindopril 4 mg Tablet	8 tablet	21/03/2018	Prepared		
HMIRI00098140	A. [Redacted]	MEDC0000734632	Amoxicillin 250mg Capsule	30 capsule	21/03/2018	Prepared		

Original Prescription printing



**Ministry of Health, Malaysia  
Hospital Miri**

Patient Name	: ██████████	Patient ID	: ██████████
Age	: 27 Years 01 Months 14 Days	MRN	: HMIRI00250906
Gender	: Male	Prescription #	: MEDC0000734635
Height/Weight/BSA	: ___/___/___	Order Date/Time	: 14/03/2018 04:19 PM
Room No/Bed No	: ___/___	Location	: CLINIC MEDICAL (PAKAR 3)
Diagnosis	: left eye conjunctivitis	Allergy	:

Drug Name	Route	Dose	Frequency	Start Date	End Date	Duration	Prescribed Qty	Prescription Status
Allopurinol 300 mg Tablet	Oral	300 mg	OD (once daily)	14/03/2018	12/06/2018	3 Months	90 tablet	Acknowledged
Nifedipine 10 mg Tablet	Oral	10 mg	TDS (3 times a day)	14/03/2018	12/06/2018	3 Months	270 tablet	Acknowledged

Prescribed by : DR ██████████  
 Designation : Pegawai Perubatan Pakar  
 Department : General Medicine

*Worksheet Printing*

**EXTEMPORANEOUS WORKSHEET (PARTIAL)**

MINISTRY OF HEALTH HOSPITAL MIRI									
Date of preparation : 06/04/2018					Worksheet Id: 18-04-0071				
MRN		HMIRI00252466			Name		██████████		
ID No		██████████			Rx. No.		STAFFC0000734779		
Order Location		CLINIC STAFF PAKAR 3			Ordered By		DR ██████████		
Order Date		06/04/2018							
No	ROA	Preparation Name	Dose	Total Dose	Material Used				Storage
					Item Name	Volume/Qty Required	Batch No	Expiry Date	
1.	Oral	Acetylsalicylic acid 30mg/ml Oral Liquid(A) Expiry Date : 07/04/2018	300mg (10ML)	3000mg (100ml)	Acetylsalicylic Acid 300 mg Soluble Tablet	10 tablet	T1703009	31/03/2019	Discard balance
					Water	100 ml			
Remarks:					Instruction:				
Reference:									
Worksheet generated by		Worksheet & label checked by			Prepared by		Final Product Checked by		
Date: 06/04/2018		Date: 06/04/2018			Date:		Date:		



## CP4 Printing

## KEMENTERIAN KESIHATAN MALAYSIA

Hospital Miri

## Jabatan Farmasi

## NOTA RUJUKAN

CP4/47

## KEPADA:

Pegawai Perubatan/Pegawai Farmasi : Hospital Sultanah Aminah, Johor Bahru

## PER: RUJUKAN PESAKIT

\_\_\_\_\_ / HMIRI00252466 / \_\_\_\_\_  
 NAMA MRN NO. KP

Pesakit ini TELAH / ~~BEUM~~ DIBERI KAUNSELING UBAT-UBATAN untuk dinilai tahap kefahaman/kepatuhan terhadap terapi ubat yang ditetapkan. Diharapkan pihak tuan/puan dapat memberi kaunseling dan penilaian susulan yang diperlukan untuk meningkatkan keberkesanan rawatan.

## 2. DIAGNOSIS :

Tarikh	Diagnosis
06/04/2018	sas

## 3. SENARAI UBAT SEMASA:

Nama Ubat	Dos	Frekuensi	Tarikh Mula	Tarikh Tamat	Jangkamasa Bekalan
Acetylsalicylic Acid 300 mg Soluble Tablet	300 mg	OM (every morning)	06/04/2018	10/05/2018	34 Days
Enalapril 10 mg Tablet	10 mg	OD (once daily)	06/04/2018	10/05/2018	34 Days
Amlodipine 5 mg and Valsartan 160 mg Tablet	1 tablet	OM (every morning)	06/04/2018	10/05/2018	34 Days
Amlodipine 5 mg Tablet	5 mg	OM (every morning)	06/04/2018	10/05/2018	34 Days

## 4. PENILAIAN KEFAHAMAN &amp; KEPATUHAN TERHADAP TERAPI UBAT

(Tidak berkenaan jika pesakit belum dikaunsel)

- a) Pesakit telah dikaunsel dan faham tentang ubat/alat bantuan pengubatan yang ditetapkan  Ya  Tidak
- b) Tahap kepatuhan terhadap ubat - ubatan  Memuaskan  Tidak Memuaskan
- c) Alat bantuan kepatuhan  Pill Box  Risalah Ubat  Lain - lain  Tidak

## 5. TINDAKAN SUSULAN YANG DIPERLUKAN

[Sila tandakan ( ✓ ) di kotak yang disediakan]

	Kaunseling ubat - ubat dan alat bantuan pengubatan yang ditetapkan
✓	Menilai kepatuhan dan kefahaman terhadap terapi ubat yang ditetapkan
✓	Pemantauan terapeutik: (Ubat)
✓	Isu penyimpanan ubat - ubatan
	Lain - lain:

Sekian, terima kasih.

KPF

085420033

06/04/2018

**Balance Medication Sheet printing**

KEMENTERIAN KESIHATAN MALAYSIA  
HOSPITAL MIRI  
BALANCE MEDICATION SHEET

No Preskripsi : MEDC0000734309	Tarikh Preskripsi : 22/02/2018
Nama : [REDACTED]	No K/P : 001106100400
Umur : 15 Years 05 Months 01 Days 05/11/2002	MRN : HMIRI00134599
Lokasi : CLINIC MEDICAL (PAKAR 3)	
Alahan :	Berat : 52.00 kg
Diagnosis : epilepsy	BMI/BSA : 23.4 / 1.47
	Dipreskrib oleh : Dr Siti Maslinda Aini Gti Pakerungai
	Temujanji Klinik : 09/05/2018

Bil	Maklumat Preskripsi			Maklumat Pendispensan												
	Nama Ubat	Maklumat Dos	Kuantiti Ubat	Tarikh:	TCA			Tarikh:	TCA			Tarikh:	TCA			
				Kuantiti	Baki	F	D	Kuantiti	Baki	F	D	Kuantiti	Baki	F	D	
1	Sodium Valproate 200 mg Tablet	600 mg (08:00 AM), 400 mg (08:00 PM) BD (twice daily) . 3 Months. Oral	450 tablet	0	75											
	Valproic Acid/Sodium Valproate (ER) 500mg Tablet			90												

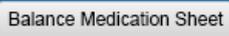
**Notes**

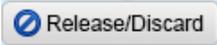
- Click on 'Medication Counselling' to open the Medication Counselling Order screen.
- Click on 'MTAC Order' to open the MTAC Order screen.
- Click on 'Print Original Prescription' button to print the original prescription report.
- Click on 'CP4' button to open CP4 form screen.
- Drug label can be printed directly or preview first than print.
- Click on icon HOLD  to hold the drug order through countercheck screen.
- Click on icon RESUME  to resume the drug through countercheck screen.
- Click on icon INTERVENTION  to modify the order by pharmacist.
- Click on 'Remarks' link to insert pharmacist remarks at Single Stage.
- Click on Extemporaneous checkbox to display the Extemporaneous screen.
- Ticked on select all checkbox or single checkbox to select the drug(s) either to hold or resume.
- Ticked on Reserve Qty checkbox to dispense the drug with '0' quantity.
- Click on Reserve Qty value to re-allocate the quantity.
- Click on Release/Discard button to release and discard the drug order.
- Click on Invoice button to print invoice sheet.
- Click on Worksheet button to print worksheet (direct printing or preview printing).
- Click on Balance Medication Sheet to print the BMS form (direct printing or preview printing).
- Click on Label to print drug label (direct printing or preview printing).
- Click on Dispense button to dispense drug order.

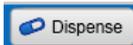
**Cross References**

**Medication Counselling** – refer to PhIS\_CPS\_SDD\_MC\_v1.3  
**MTAC Order** – refer to PhIS\_CPS\_SDD\_MTAC\_v1.3  
**CP4** – refer to PhIS\_CPS\_SDD\_WP\_v1.3

3.2.5.10.2 Application Business Rules

No.	Name	Description
1.	Single Stage Record status	<ul style="list-style-type: none"> <li>This screen is for the pharmacist to perform all activities of dispensing like verification &amp; screening, update drug preparation details and print documents like labels/dispense sheets and dispense the order including capturing SPUB R1 details.</li> <li>Click on the patient's MRN from the single stage patient listing and the single stage dispensing screen will be displayed with the selected patient and prescription information.</li> <li>Patient banner will be displayed at the top of the screen.</li> <li>User shall be able to see all records which has been confirmed at medication order screen. Refer to PHIS_CPS_SDD_v1.3</li> <li>Record status will display as 'Acknowledge'. Only record with status Prepared shall be able to dispense.</li> </ul>
2.	Patient Arrived	User shall be asked to tick on these checkbox before the dispensing. If user click on Dispense button without tick on the Patient Arrived checkbox, a message shall appear.
3.	Queue Number	Queue number is not compulsory, depends on facility setting. If Queue Series (at Facility Info screen) set to 'Y', queue number will be generated automatically but if facility set to 'N', they have to enter the queue number manually.
4.	Printing	<ul style="list-style-type: none"> <li>User able to print the original prescription record when click on  button. Prescriber name with designation and department will be displayed at each of drug name.</li> <li>Print drug label applicable for a drug with allocated quantity only. User shall be able to directly print the drug label directly  or click on  button to preview first before print. Editing on drug label for certain field is allowed before print in preview label. Drug label will be printed only for the allocated quantity. If drug order is dispense with 0 quantity, no label will be printed.</li> <li>User shall be able to print the CP4 form at CP4 screen by click on print button  .</li> <li>Worksheet button   will enable if there are any extemporaneous drug in the order and user able to print it with direct print or preview print.</li> <li>Invoice will be printed through Invoice screen. Refer to section 3.2.5.11 for more details.</li> <li>Balance Medication Sheet will be printed if user click on  button for preview print or  for direct print.</li> </ul>
5.	Alternate	<ul style="list-style-type: none"> <li>Pharmacists and pharmacy assistants will have the ability to select different available strength of the same drug.</li> <li>System will show alternate drug with different strengths and dosages form within the same administration route of the same drug.</li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>• If drug detail information display <b>Alternate</b> , it means the alternate drug must be from the same strength.</li> <li>• If drug display as <b>Alternate(C)</b> , it means the alternate drug can be a combination of two drugs with different strength.</li> <li>• The alternate drug will be shown based on the validation that the drug must contain the same generic name and the same route of administration. (Only tablet, capsule and syrup etc. which can be taken orally for a given generic name may become alternate drugs for each other but NOT the Injection form of the same generic).</li> <li>• Alternate drug list will contain the following information:               <ol style="list-style-type: none"> <li>i. No – running no</li> <li>ii. Drug name</li> <li>iii. Form</li> <li>iv. Route</li> <li>v. Batch No - Available batch no</li> <li>vi. Expiry Date - Batch expiry date</li> <li>vii. Available Qty – Quantity available for selected batch</li> <li>viii. UOM</li> <li>ix. Allocate Qty – Quantity to be reserved from selected batch. Allocated quantity cannot be more than the available quantity and order quantity. This field allows number only with a capacity of 10 digits.</li> <li>x. Select – Checkbox for user to select the alternate drug</li> </ol> </li> <li>• This screen will show the selected drug info and a list of alternate drugs available for user to choose.</li> </ul>
6.	Invoice	User shall be able view and to print the invoice related to the order. No changes allowed. Refer to section 3.2.5.11 for more details.
7.	Release/Discard	<ul style="list-style-type: none"> <li>• User shall be able to do de-allocation or release back on the stock allocated for the drug at dispensing screen.</li> <li>• Before click on Release/Discard button at this screen, user have to select on the record by tick on the checkbox <input type="checkbox"/> available at the left of the drugs name. Click on this checkbox <input checked="" type="checkbox"/> if user wants to select all drugs display in the listing.</li> <li>• Once drugs has been selected, click on Release/Discard button  to deallocate back the stock.</li> </ul>
8.	Reserve Quantity	<ul style="list-style-type: none"> <li>• Quantity to be reserved for this order. By default this value will be 0.</li> <li>• If Reserve Qty display in red text <b>0</b> , it means no stock available.</li> <li>• User shall be able to dispense the quantity with 0 allocation by ticked on the checkbox <b>0</b> <input checked="" type="checkbox"/>.</li> <li>• Reserve Quantity value is being set at Screening or Preparation stage once record is being verified or prepared.</li> <li>• However, user shall be able to de-allocate back the reserve quantity using Item Batch Details screen.</li> </ul>

No.	Name	Description
9.	SPUB Form	<ul style="list-style-type: none"> <li>User shall be able to create SPUB R1 Form for SPUB record.</li> <li>This screen will allow user to generate SPUB R1 form &amp; medication order for collection of medication at a centre of choice. The printed SPUB R1 form is endorsed and signed by authorized personnel.</li> <li>If the preferred facility is SPUB enabled and has PhIS facility, an electronic transfer will be initiated.</li> <li>Online SPUB R1 form will be displayed with default information from the Dispensing screen. Patient information will be defaulted and cannot be changed.</li> <li>Once SPUB checkbox is tick <input checked="" type="checkbox"/> SPUB, SPUB R1 Form button  will be enable and user able to create SPUB record. User able to send SPUB out to online or offline facility.</li> </ul>
10.	Call Patient	Used to indicate that the patient has been called but they did not come and collect the medication. Record status will be changes to Uncollected. Once dispense, record status shall be changed to Partial Dispense and able to open it inside Screening and Verification screen.
11.	Dispense the record	<ul style="list-style-type: none"> <li>On click of Dispense  button, record will be dispense.</li> <li>Before record is dispense, it will check on available quantity and if available quantity is zero in stock, alert message to hold or dispense with zero quantity will appear.</li> <li>Drug withhold status will not be dispense.</li> </ul>
12.	Extemporaneous	<ul style="list-style-type: none"> <li>Extemporaneous Details link will enable if user ticked on the checkbox and value entered for Extemporaneous drugs.</li> <li>User shall be able to edit back on the extemporaneous details.</li> <li>User should be able to view and print Worksheet from the Extemporaneous details link.</li> </ul>

### 3.2.5.10.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Single Stage Dispensing</b>				
1.	Patient Arrived	To indicate that patient has arrived at the counter. Waiting time will be started once ticked.	No	Checkbox
2.	Queue Series	Type of queue series which consist from Express, Normal, Others and Special.	No	Drop down list
3.	Queue Number	Patient queue number, if applicable.	No	Text field
4.	Arrival Time	Arrival time will appear once user ticked on Patient Arrived checkbox.	No	Read only
5.	Waiting Time	Waiting time will be displayed if Patient Arrived checkbox is checked.	No	Read only

No.	Name	Description	Mandatory	Format
6.	Collector Name	The name of the medicine collector which can be a different person from patient.	No	Text field
7.	Relationship	Refer to collector relationship with the patient which consist of (Child, Extended Family, Father, Foster Child, Friend, Grandparent, Guardian, Mother, Others, Patient, Sibling, Spouse, Step Child, Unknown).	No	Drop down list
8.	Clinic TCA	Refer to clinic next appointment date in a format dd/mm/yyyy.	No	Calendar in format dd/mm/yyyy
9.	Next Collection Date	Indicate the next date for patient to collect a medication in a format of dd/mm/yyyy.	No	Calendar in format dd/mm/yyyy
10.	Current Collection Mode	By default it will display the current mode of collection. Non editable.	Yes	Read only
11.	Next Collection Mode	By default it will display same mode as Current Collection Mode. Refer to next collection mode under VAS (Appointment Card, Email and Take, Fax and Take, Normal Collection, Others, SMS and Take, Telephone and Take, UMP)	No	Drop down list
12.	SPUB	To create SPUB Out. Ticked on SPUB checkbox, SPUB R1 Form button will be enable and user shall be able to open SPUB R1 Form screen to create SPUB Out.	No	Checkbox with SPUB button
13.	Next Collection Location	By default it will display the current collection location.	Yes	Read only
14.	Dispense At	A place where the dispensing will take place. For outpatient, it will be default to Pharmacy Counter however user can change to other dispensing location such as Bedside, Drive Through Counter or Pharmacy Counter.	Yes	Drop down list
15.	Dispense Method	A value added services. Defaulted to Normal Collection method. A method of dispense through few criteria such as Appointment Card, Direct Observation Therapy (DOT), Direct Observation Therapy (DOT) and Take Away (TA), Normal Collection, Others, SMS and Take, SPUB, Take Away (TA), Telephone and Take, and UMP. UPM – <i>Ubat Melalui Pos</i> .	Yes	Drop down list
16.	Witness By	The person witness name for dispensing process. Free text field.	No	Text field
17.	Remarks	Dispensing remarks by pharmacist. Applicable only at Dispensing screen.	No	Text field
18.	Drug Counselling Required?	To indicate if patient required counselling.	No	Checkbox

No.	Name	Description	Mandatory	Format
19.	Queue No. Call time	Queue time will appear after user ticked on Patient Arrived and then click on Called Patient button. Time will be capture when this actions is take.	No	Read only
20.	Patient Call	User shall be able to update the prescription to Uncollected. Used when pharmacist already call the patient but the patient did not turn up.	No	Checkbox with button
21.	Adherence Score	Allow user to enter Compliance Score (numerical score between 1 until 8) in 2 decimal point.	No	Text field
22.	MPR	Display the MPR (Medication Possession Rate) at dispensing screens. MPR is auto calculated. <ul style="list-style-type: none"> <li>i. To count MPR for all active drugs but display minimum MPR at prescription level.</li> <li>ii. Exemption of MPR calculation for <b><u>drug with PRN frequency</u></b></li> </ul>	No	Read only
23.	Remarks	Pharmacist shall be able to enter pharmacist remarks at dispensing stage.	No	Link
24.	Drug Counselling	Ticked this checkbox if user wants this patient to have drug counselling. Once ticked, Details link will be enable and user can click to open Counselling Indicator screen to add in remarks.	No	Checkbox with link
25.	Extemporaneous	If drug order is from extemporaneous drug, the checkbox and details link will appear.	No	Checkbox with link
26.	Complete	User shall be able to complete the supply by ticked on this checkbox and drug order will be updated to Fully Supply.	No	Checkbox
<b>Medication Counselling</b>				
1.	Counselling Category	Consist of 'Individual' category or 'Group' category. By default it will display a value	No	Read only
2.	Discipline	Display the discipline of the patient during visit registration. By default it will display the discipline during the visit.	No	Drop down list
3.	Appointment Type	User shall be able to select the type of appointment, either Follow Up or New.	Yes	Drop down list
4.	Priority	User shall be able to select the priority of the medication counselling, either Routine or Urgent.	Yes	Drop down list
5.	Counselling Location	Counselling location is a place where counselling will take place. Data consists of Bedside, CRP (Cardiac Rehabilitation Program), Chronic Pain Clinic, Discharge, Home Medication Review, Methadone Pharmacy, Others, Outpatient, Quit Smoking Clinic, Radiopharmaceutical.	Yes	Drop down list
6.	Appointment Date	User shall be able to select on the date of appointment. Once date is choose, the time will be able to enter.	Yes	Calendar format in dd/mm/yyyy
7.	Topic	By default it was set to Medication. Data consists of	Yes	Drop down



No.	Name	Description	Mandatory	Format
		Device, Disease, Radiopharmaceutical, Chemotherapy, Medication, Methadone Replacement Therapy, Smoking Cessation, Chronic Pain, and Cardiac Rehabilitation.		list
8.	Remarks	Remarks entered by pharmacist.	No	Text field
<b>MTAC Order</b>				
1.	Type of MTAC	A type of MTAC consists from Cardiovascular Care Bundle, Chronic Kidney Disease, Diabetes Mellitus, Dialysis, Haemophilia, Hepatitis, Methadone, Neurology, Psoriasis, Psychiatry, Renal Transplant, Respiratory, Retro Viral Disease, Rheumatology, and Warfarin. With a Search History button which will find any past record.	Yes	Drop down list
2.	Priority	Priority of MTAC order, Routine or Urgent.	Yes	Drop down list
3.	To Be Counselling by	Name of person that will do the counselling.	No	Text field
4.	Appointment Date	Default value will show today's date.	No	Calendar format in dd/mm/yyyy
5.	Appointment Type	Type of appointment for MTAC Order in Follow Up, Follow Up Reschedule, New or New Reschedule.	No	Drop down list
6.	Remarks	Remarks entered by pharmacist.	No	Text field
<b>Extemporaneous</b>				
1.	Preparation Done By	Preparation Done By radio button is to be selected either by Pharmacist or by Patient. Default value is Preparation Done by Pharmacist.	Yes	Radio button
2.	Preparation Name	Preparation Name will display a list of available extemporaneous preparation formula as setup in drug master.	Yes	Search
3.	Worksheet ID	Worksheet ID field is displayed only when preparation is done by pharmacist. Value is auto-generated by system once user saves the extemporaneous record and auto generated based on the format as below: Current Year-Current Month-Running Number Example: 14-06-0010 The running number is up to 4 integer values and should reset monthly. Each month should generate the running number separately.	No	Read only
4.	Concentration	Concentration field will be auto-populated based on the selected extemporaneous preparation.	Yes	Read only
5.	Dosage in (ml)	Dosage is displayed based on the calculation as below: iii. If the ordered Dosage is by drug strength UOM: Dosage (in ml) = Ordered Dosage/ Extemporaneous Concentration iv. If the ordered Dosage is by drug Quantity	Yes	Read only



No.	Name	Description	Mandatory	Format
		<p>UOM:  <math>\text{Dosage (in ml)} = (\text{Ordered Dosage} * \text{Order or Alternate drug Strength value}) / \text{Extemporaneous Concentration}</math>                      Value is auto-calculated and not editable.                      Dosage UOM is hardcoded to ml (millilitre).</p>		
6.	Active Ingredient: Item Name	Item Name for Active Ingredient will display value based on the ordered drug. If drug is alternate to another drug, the alternate drug name will be displayed. Value is read-only	Yes	Read only
7.	Active Ingredient: Quantity	Quantity for Active Ingredient will display value based on the drug allocated quantity as per allocation in the verification or preparation screen. Once user change the allocation, value in this field will update based on the latest allocation value. This field is read-only.	Yes	Read only
8.	Active Ingredient: UOM	Quantity UOM for Active Ingredient will display based on the ordered drug SKU UOM in drug master. If drug is alternate to another drug, the alternate drug SKU UOM will be displayed. Value is read-only.	Yes	Read only
9.	Vehicle: Item Name	Item Name for Vehicle will display value based on the selected extemporaneous preparation as setup in drug master. Value is read-only.	Yes	Read only
10.	Vehicle: Quantity and UOM	<p>Vehicle Quantity is displayed based on the calculation as below:  <math>\text{Total Allocated Dose} = \text{Order or Alternate drug strength value} * \text{Allocated Qty (as per allocation in Verification or Preparation screen)}</math>  <math>\text{Vehicle Quantity} = \text{Total Allocated Dose} / \text{Extemporaneous Concentration (Round up to the next integer, no decimal value)}</math>                      Value is auto-calculated but still allowed to edit.                      Vehicle UOM is auto-default to ml (millilitre) but still allowed to edit.                      Both fields are mandatory.</p>	Yes	Read only
11.	Storage Condition and Procedures in Local Language	<p>This checkbox is for user to change the displayed Storage Condition and Procedures (Preparation by Pharmacist) values from English to local language (Malay). Once user select the checkbox, system will display the local language value for the fields above as setup in drug master.                      This function is optional for user to select.</p>	No	Checkbox
12.	Storage Condition	Storage Condition is displayed based on the selected extemporaneous preparation based on the value setup in drug master. Field value will be displayed in English by default, once user select the Storage Condition and Procedures in Local Language checkbox, value will be displayed in local language (if any). This field is read-only.	No	Read only



No.	Name	Description	Mandatory	Format
13.	Expiry	Expiry is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field value will be used to auto generate the preparation expiry date in drug label. This field is numeric only with no decimal value. This field is mandatory.	Yes	Text field
14.	References	References field is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field is read-only.	No	Read only
15.	Formulation Remarks	References field is displayed based on the selected extemporaneous preparation based on the remarks value setup in drug master (if any). This field is read-only.	No	Read only
16.	Procedures (Preparation by Pharmacist)	Procedures (Preparation by Pharmacist) field will disable when preparation by patient radio button is selected. Field will enable only when preparation by pharmacist radio button is selected.	No	Read only
17.	Procedures (Preparation by Patient)	<p>Procedures (Preparation by Patient) field is displayed based on the default format as below, but value is still editable:</p> <p><i>Cara Penyediaan:</i></p> <ol style="list-style-type: none"> <li>8. <i>Ambil (A) (Ordered or Alternate Drug Name).</i></li> <li>9. <i>Hancurkan (Ordered or Alternate Drug Name).</i></li> <li>10. <i>Tambah (B) ML (Extemporaneous Vehicle).</i></li> <li>11. <i>Tambah (Additional Item Quantity) ML (Additional Item Name).</i></li> <li>12. <i>Larutkan supaya sekata.</i></li> <li>13. <i>Sukat dan minum (Dosage in ml) ML.</i></li> <li>14. <i>Buat bancuhan baru setiap hari.</i></li> </ol> <p>A = Ordered Dose / Ordered or Alternate drug strength value -&gt; round up to the next integer.            B = [A * (Ordered or Alternate drug strength)] / Extemporaneous Concentration -&gt; round up to the next integer.</p> <p>The procedure is displayed only in malay, no english version for the patient procedures.            For instruction no. 4, will only be displayed if additional item is available in the extemporaneous preparation.</p>	No	Read only
18.	Preparation Remarks	Remark is to be entered in the textbox. Maximum of 250 characters capacity. This field is not mandatory.	No	Text field
<b>Remarks Link</b>				
1.	Order Stage	A prescriber remarks during drug order will be display here, if any.	No	Read only



No.	Name	Description	Mandatory	Format
2.	Verification Stage	User shall be able to enter the pharmacist remarks at verification stage.	No	Text field
<b>Hold screen</b>				
1.	Drug Name	By default it will display the drug name of the selected drug. Read only field.	Yes	Read only
2.	Reason	Reason of hold in drop down value (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)	Yes	Drop down
3.	Other Reason	User shall be able to enter remarks for hold if choose 'Others' from drop down value of Reason.	No	Text field
4.	Remarks	User shall be able to enter remarks of drug hold.	No	Text field
<b>Resume screen</b>				
1.	Drug Name	Display the drug name selected to resume. It is non editable field.	Yes	Read only
2.	Reason	Show the reason of the hold drug which going to be resumed. It is non editable field.	No	Read only
3.	Other Reason	Show the other reason of the hold drug which going to be resumed. It is non editable field.	No	Read only
4.	Remarks	Show any remarks entered by user during at hold drug stage. If during hold drug, this remarks is entered, it will be display in resume screen. It is non editable field.	No	Read only
5.	Action Taken	Entered by user during resume of the drug. It is a free text field.	No	Text field
<b>Alternate</b>				
1.	Location	Location of the dispensing and it is non editable field.	Yes	Text field (non editable)
2.	Ordered Drug Code	The drug code related to the ordered.	Yes	Text field (non editable)
3.	Ordered Drug Desc	The description of the drug name and strength. Non-editable field.	Yes	Text field (non editable)
4.	Order Details	Details of the order which consist of dosage, frequency and duration.	Yes	Text field (non editable)
5.	Dosage Form	Dosage form of the drug order.	Yes	Text field (non editable)
6.	Route	Route of the drug and non-editable field.	Yes	Text field (non



No.	Name	Description	Mandatory	Format
				editable)
7.	Supply Duration	User shall be able to enter the number of days to supply for alternate drug. Start date and End date will be auto calculated once user entered the number of days for supply duration.	Yes	Calendar format in dd/mm/yyyy
8.	Quantity Per Dose	User shall be able to enter the quantity per dose for the alternate drug if want to do for the alternate.	Yes	Text field (number)
9.	Allocation Quantity	The allocation quantity for the alternate drug. Enter the value after enter the quantity per dose and checkbox will be auto selected for the drug.	Yes	Text field (number)
10.	Reason	Reason for the alternate activity entered by pharmacist.	No	Text field
11.	Remarks	Remarks for the alternate activity entered by pharmacist.	No	Text field
<b>Intervention</b>				
1.	Intervention Reason	Multiple or one intervention reason can be selected through a checkbox list. The reason will be updated into the selected drug(s). Intervention reason dataset: <ul style="list-style-type: none"> <li>• Authenticity</li> <li>• Contraindication</li> <li>• Drug Interaction</li> <li>• Inappropriate Dose</li> <li>• Inappropriate Drug</li> <li>• Inappropriate Duration</li> <li>• In appropriate Frequency</li> <li>• Incompatibility</li> <li>• Others</li> <li>• Polypharmacy</li> <li>• Suggest to Monitor Vital Sign/Lab Result</li> </ul> Wrong patient	Yes	Checkbox selection
2.	Intervention Remarks	Remarks for the intervention.	No	Text field
3.	Intervention Accepted	Select the radio button if intervention reason and remarks being accepted.	No	Radio button
4.	Intervention Not Accepted	Select the radio button if intervention reason and remarks is not accepted.	No	Radio button
5.	Dosage	User shall be able to change the current dosage to a new dosage of the drugs.	Yes	Text field
6.	Frequency	User shall be able to change the current frequency to a new drug frequency.	Yes	Drop down list
7.	Duration	User shall be able to change the current duration to a new drug duration.	Yes	Text field



No.	Name	Description	Mandatory	Format
8.	Prescribe Quantity	User shall be able to change the current quantity to a new drug quantity.	Yes	Text field
9.	Start Date	User shall be able to change the current start date to a new start date.	Yes	Calendar format in dd/mm/yyyy
<b>SPUB Form</b>				
1.	SPUB No	SPUB number will be auto generated once SPUB is save as a Draft record. Non editable.	Yes	Read only
2.	Referred From	The name of facility that SPUB referred from and default value appear based on the current facility name.	Yes	Read only
3.	Contact Person/Officer	The name of contact person from referred facility.	No	Text field
4.	Contact no/ Ext No	The contact number and extension number, if applicable for the referred facility.	No	Text field
5.	Fax No	The fax number of the referred facility.	No	Text field
6.	Next Collection Date	The date of next collection of the medication.	No	Date format in dd/mm/yyyy
7.	Remarks	Remarks entered by the referred facility.	No	Text field
8.	Referred To	Search on drop down for facility name that SPUB record will be sent to.	Yes	Drop down
9.	Contact Person/Officer	Contact person name at the referred to facility. Number will auto appear if the information of the contact person is exist.in database.	No	Text field
10.	Contact no/ Ext No	The contact number with extension number of the referred to facility.	No	Text field
11.	Fax No	The fax number of the referred to facility.	No	Text field
12.	Counselling Provided	Check on this value if patient has a counselling at sending facility.	No	Check box
13.	Previous SPUB Referred To	Display the previous SPUB Out record, if any.	No	Read only
14.	Balance Qty	Display the balance quantity available for the SPUB record.	Yes	Text field
<b>Release/Discard</b>				
1.	IC No/Other Identification	User shall be able to enter the IC number or other identification number only for a selected patient that user choose from Single Stage Dispensing screen. Release/Discard screen is applicable for a pharmacist that has same dispense location as patient dispense location.	No	Search field
2.	Drug Name	User shall be able to search y specific drug name for the selected patient only. By default, list of the drugs will	No	Search field

No.	Name	Description	Mandatory	Format
		display a listing of drug order that belongs to the patient's name at single stage dispensing screen.		
3.	MRN	MRN column will displayed the MRN number belongs to the patient. It is read only field in table form.	Yes	Read Only
4.	Patient Name	Display the patient name which user choose from the Single Stage screen. It is read only field in a table form.	Yes	Read Only
5.	Medication Order No	It shall display the prescription number of the order. It is read only field in a table form.	Yes	Read Only
6.	Drug Name	It shall display the list if drugs name within same prescription number. It is read only field in a table form.	Yes	Read Only
7.	Prepared Qty	It shall display the prepared quantity allocated. It is read only field in table form.	Yes	Read Only
8.	Preparation Date	It shall display the preparation date of the order. It is read only field in table form.	Yes	Read Only
9.	Status	It shall display the current status of the drug order. It is read only field in table form.	Yes	Read Only
10.	Reason for Release/Discard	User shall be able to add in reason for release/discard the drug order. This reason data consists of: Change of Regimen, Faulty Product, Intervention, Patient Refused, Uncollected and Wrong Allocation.	Yes	Drop down list
11.	Remarks	User shall be able to add in remarks if applicable.	No	Text field

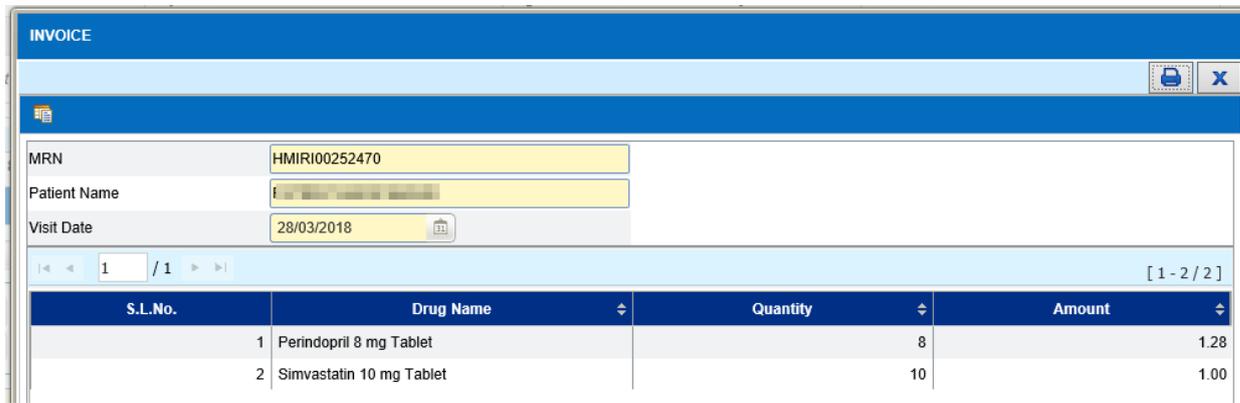
### 3.2.5.11 Invoice

#### 3.2.5.11.1 Screen Design

<b>ID</b>	INV.SD1
<b>Description</b>	Invoice screen

**Diagram**

i. Invoice screen



The screenshot shows an 'INVOICE' window with the following details:

- MRN: HMIRI00252470
- Patient Name: [Redacted]
- Visit Date: 28/03/2018
- Page indicator: 1 / 1
- Table of drug orders:
 

S.L.No.	Drug Name	Quantity	Amount
1	Perindopril 8 mg Tablet	8	1.28
2	Simvastatin 10 mg Tablet	10	1.00

ii. Invoice Printing



<b>KEMENTERIAN KESIHATAN MALAYSIA</b> <b>Hospital Miri</b> <b>Invoice</b>			
Invoice No. : 28/03/2018_867551		Date : 28/03/2018	
MRN : HMIRI00252470		Patient Name : P [REDACTED]	
No	Drug Name	Quantity	Amount
1	Perindopril 8 mg Tablet	8	1.28
2	Simvastatin 10 mg Tablet	10	1.00
Total : RM			2.28
<b>Notes</b>	<ul style="list-style-type: none"><li>• Click on print button to print invoice.</li><li>• Click on close button to close the invoice and go back to previous screen.</li></ul>		
<b>Cross References</b>	<b>Drug Price</b> – refer to PhIS_CPS_SDD_General_v1.3		

### 3.2.5.11.2 Application Business Rules

No.	Name	Description
1.	Print invoice	Invoice will be printed for a drug order with a drug price mention in drug master.
2.	Invoice record	Invoice record will be displayed by patient name and for the current order in one prescription number only.

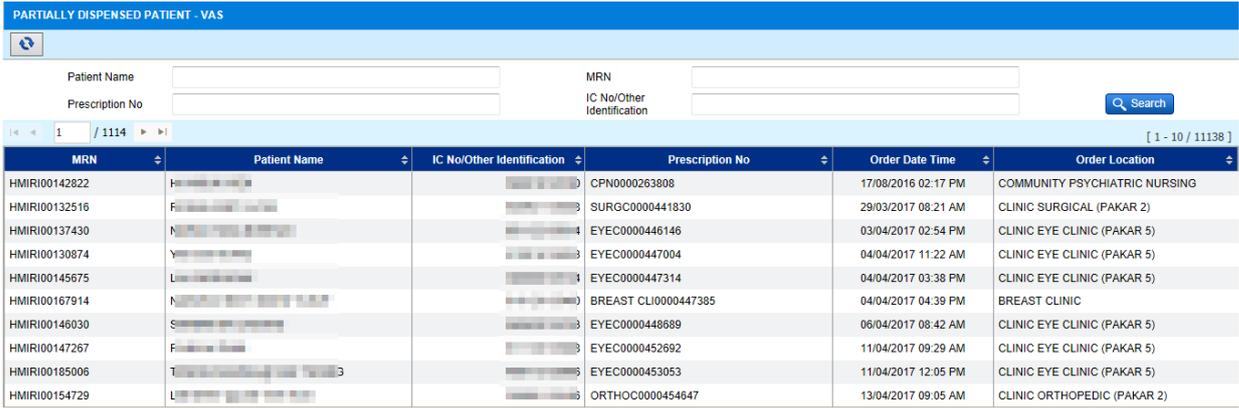
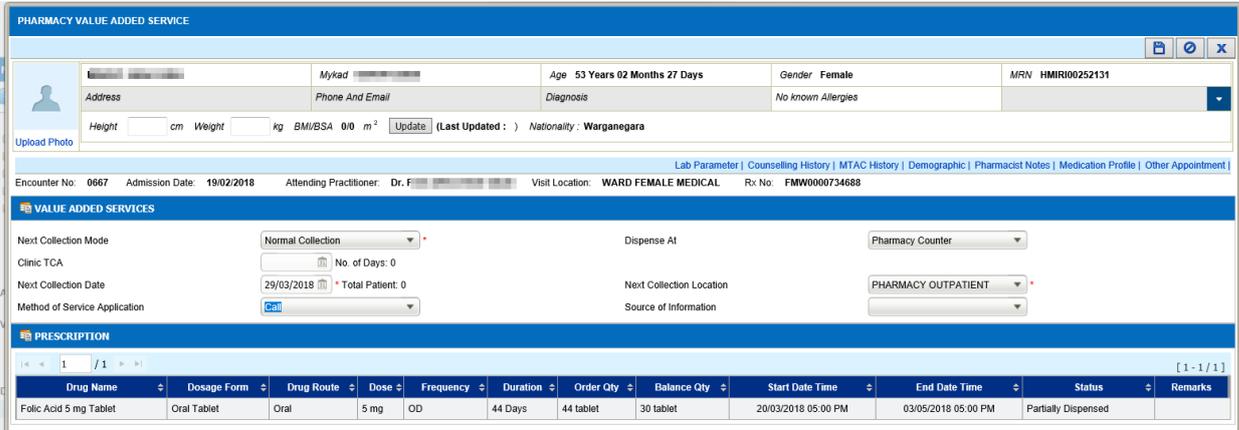
### 3.2.5.11.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	MRN	MRN number of the patient.	Yes	Read Only
2.	Patient Name	Display the patient name in full.	Yes	Read Only
3.	Visit Date	Display the visit date of the order.	Yes	Read Only
4.	S.L. No	The sequence number in numbering.	Yes	Read Only
5.	Drug Name	Display the list of drugs name from the same order.	Yes	Read Only
6.	Quantity	Display the quantity amount of the order.	Yes	Read Only
7.	Amount	Display the total amount of each drug (drug price x quantity).	Yes	Read Only



3.2.5.12 Value Added Service

3.2.5.12.1 Screen Design

<b>ID</b>	VAS.SD1																																																																																										
<b>Description</b>	Value Added Service (VAS) screen																																																																																										
<p><b>Diagram</b></p> <p>i. VAS Listing</p>  <table border="1"> <thead> <tr> <th>MRN</th> <th>Patient Name</th> <th>IC No/Other Identification</th> <th>Prescription No</th> <th>Order Date Time</th> <th>Order Location</th> </tr> </thead> <tbody> <tr> <td>HMIRI00142822</td> <td>[Redacted]</td> <td>[Redacted]</td> <td>CPFN0000263808</td> <td>17/08/2016 02:17 PM</td> <td>COMMUNITY PSYCHIATRIC NURSING</td> </tr> <tr> <td>HMIRI00132516</td> <td>F. [Redacted]</td> <td>[Redacted]</td> <td>SURGC0000441830</td> <td>29/03/2017 08:21 AM</td> <td>CLINIC SURGICAL (PAKAR 2)</td> </tr> <tr> <td>HMIRI00137430</td> <td>N. [Redacted]</td> <td>[Redacted]</td> <td>EYEC0000446146</td> <td>03/04/2017 02:54 PM</td> <td>CLINIC EYE CLINIC (PAKAR 5)</td> </tr> <tr> <td>HMIRI00130874</td> <td>Y. [Redacted]</td> <td>[Redacted]</td> <td>EYEC0000447004</td> <td>04/04/2017 11:22 AM</td> <td>CLINIC EYE CLINIC (PAKAR 5)</td> </tr> <tr> <td>HMIRI00145675</td> <td>L. [Redacted]</td> <td>[Redacted]</td> <td>EYEC0000447314</td> <td>04/04/2017 03:38 PM</td> <td>CLINIC EYE CLINIC (PAKAR 5)</td> </tr> <tr> <td>HMIRI00167914</td> <td>N. [Redacted]</td> <td>[Redacted]</td> <td>BREAST CLI0000447385</td> <td>04/04/2017 04:39 PM</td> <td>BREAST CLINIC</td> </tr> <tr> <td>HMIRI00146030</td> <td>S. [Redacted]</td> <td>[Redacted]</td> <td>EYEC0000448689</td> <td>06/04/2017 08:42 AM</td> <td>CLINIC EYE CLINIC (PAKAR 5)</td> </tr> <tr> <td>HMIRI00147267</td> <td>F. [Redacted]</td> <td>[Redacted]</td> <td>EYEC0000452692</td> <td>11/04/2017 09:29 AM</td> <td>CLINIC EYE CLINIC (PAKAR 5)</td> </tr> <tr> <td>HMIRI00185006</td> <td>T. [Redacted]</td> <td>[Redacted]</td> <td>EYEC0000453053</td> <td>11/04/2017 12:05 PM</td> <td>CLINIC EYE CLINIC (PAKAR 5)</td> </tr> <tr> <td>HMIRI00154729</td> <td>L. [Redacted]</td> <td>[Redacted]</td> <td>ORTHOCC0000454647</td> <td>13/04/2017 09:05 AM</td> <td>CLINIC ORTHOPEDIC (PAKAR 2)</td> </tr> </tbody> </table> <p>ii. VAS screen</p>  <p><b>PHARMACY VALUE ADDED SERVICE</b></p> <p>Mykad: [Redacted] Age: 53 Years 02 Months 27 Days Gender: Female MRN: HMIRI0025131</p> <p>Address: [Redacted] Phone And Email: [Redacted] Diagnosis: [Redacted] No known Allergies</p> <p>Height: [Redacted] cm Weight: [Redacted] kg BMI/BSA: 0/0 m<sup>2</sup> Update (Last Updated: ) Nationality: Warganegara</p> <p>Encounter No: 0667 Admission Date: 19/02/2018 Attending Practitioner: Dr. F. [Redacted] Visit Location: WARD FEMALE MEDICAL Rx No: FMW0000734688</p> <p><b>VALUE ADDED SERVICES</b></p> <p>Next Collection Mode: Normal Collection Dispense At: Pharmacy Counter</p> <p>Clinic TCA: [Redacted] No. of Days: 0</p> <p>Next Collection Date: 29/03/2018 Total Patient: 0</p> <p>Method of Service Application: Call Next Collection Location: PHARMACY OUTPATIENT</p> <p>Source of Information: [Redacted]</p> <p><b>PRESCRIPTION</b></p> <table border="1"> <thead> <tr> <th>Drug Name</th> <th>Dosage Form</th> <th>Drug Route</th> <th>Dose</th> <th>Frequency</th> <th>Duration</th> <th>Order Qty</th> <th>Balance Qty</th> <th>Start Date Time</th> <th>End Date Time</th> <th>Status</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Folic Acid 5 mg Tablet</td> <td>Oral Tablet</td> <td>Oral</td> <td>5 mg</td> <td>OD</td> <td>44 Days</td> <td>44 tablet</td> <td>30 tablet</td> <td>20/03/2018 05:00 PM</td> <td>03/05/2018 05:00 PM</td> <td>Partially Dispensed</td> <td></td> </tr> </tbody> </table>		MRN	Patient Name	IC No/Other Identification	Prescription No	Order Date Time	Order Location	HMIRI00142822	[Redacted]	[Redacted]	CPFN0000263808	17/08/2016 02:17 PM	COMMUNITY PSYCHIATRIC NURSING	HMIRI00132516	F. [Redacted]	[Redacted]	SURGC0000441830	29/03/2017 08:21 AM	CLINIC SURGICAL (PAKAR 2)	HMIRI00137430	N. [Redacted]	[Redacted]	EYEC0000446146	03/04/2017 02:54 PM	CLINIC EYE CLINIC (PAKAR 5)	HMIRI00130874	Y. [Redacted]	[Redacted]	EYEC0000447004	04/04/2017 11:22 AM	CLINIC EYE CLINIC (PAKAR 5)	HMIRI00145675	L. [Redacted]	[Redacted]	EYEC0000447314	04/04/2017 03:38 PM	CLINIC EYE CLINIC (PAKAR 5)	HMIRI00167914	N. [Redacted]	[Redacted]	BREAST CLI0000447385	04/04/2017 04:39 PM	BREAST CLINIC	HMIRI00146030	S. [Redacted]	[Redacted]	EYEC0000448689	06/04/2017 08:42 AM	CLINIC EYE CLINIC (PAKAR 5)	HMIRI00147267	F. [Redacted]	[Redacted]	EYEC0000452692	11/04/2017 09:29 AM	CLINIC EYE CLINIC (PAKAR 5)	HMIRI00185006	T. [Redacted]	[Redacted]	EYEC0000453053	11/04/2017 12:05 PM	CLINIC EYE CLINIC (PAKAR 5)	HMIRI00154729	L. [Redacted]	[Redacted]	ORTHOCC0000454647	13/04/2017 09:05 AM	CLINIC ORTHOPEDIC (PAKAR 2)	Drug Name	Dosage Form	Drug Route	Dose	Frequency	Duration	Order Qty	Balance Qty	Start Date Time	End Date Time	Status	Remarks	Folic Acid 5 mg Tablet	Oral Tablet	Oral	5 mg	OD	44 Days	44 tablet	30 tablet	20/03/2018 05:00 PM	03/05/2018 05:00 PM	Partially Dispensed	
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HMIRI00142822	[Redacted]	[Redacted]	CPFN0000263808	17/08/2016 02:17 PM	COMMUNITY PSYCHIATRIC NURSING																																																																																						
HMIRI00132516	F. [Redacted]	[Redacted]	SURGC0000441830	29/03/2017 08:21 AM	CLINIC SURGICAL (PAKAR 2)																																																																																						
HMIRI00137430	N. [Redacted]	[Redacted]	EYEC0000446146	03/04/2017 02:54 PM	CLINIC EYE CLINIC (PAKAR 5)																																																																																						
HMIRI00130874	Y. [Redacted]	[Redacted]	EYEC0000447004	04/04/2017 11:22 AM	CLINIC EYE CLINIC (PAKAR 5)																																																																																						
HMIRI00145675	L. [Redacted]	[Redacted]	EYEC0000447314	04/04/2017 03:38 PM	CLINIC EYE CLINIC (PAKAR 5)																																																																																						
HMIRI00167914	N. [Redacted]	[Redacted]	BREAST CLI0000447385	04/04/2017 04:39 PM	BREAST CLINIC																																																																																						
HMIRI00146030	S. [Redacted]	[Redacted]	EYEC0000448689	06/04/2017 08:42 AM	CLINIC EYE CLINIC (PAKAR 5)																																																																																						
HMIRI00147267	F. [Redacted]	[Redacted]	EYEC0000452692	11/04/2017 09:29 AM	CLINIC EYE CLINIC (PAKAR 5)																																																																																						
HMIRI00185006	T. [Redacted]	[Redacted]	EYEC0000453053	11/04/2017 12:05 PM	CLINIC EYE CLINIC (PAKAR 5)																																																																																						
HMIRI00154729	L. [Redacted]	[Redacted]	ORTHOCC0000454647	13/04/2017 09:05 AM	CLINIC ORTHOPEDIC (PAKAR 2)																																																																																						
Drug Name	Dosage Form	Drug Route	Dose	Frequency	Duration	Order Qty	Balance Qty	Start Date Time	End Date Time	Status	Remarks																																																																																
Folic Acid 5 mg Tablet	Oral Tablet	Oral	5 mg	OD	44 Days	44 tablet	30 tablet	20/03/2018 05:00 PM	03/05/2018 05:00 PM	Partially Dispensed																																																																																	
<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on Search in VAS listing, record will be query on patient record that has VAS.</li> <li>Click on Save button to save the new VAS information.</li> </ul>																																																																																										
<b>Cross References</b>	None.																																																																																										



3.2.5.12.2 Application Business Rules

No.	Name	Description
1.	Record listing	By default, record will be listed for all partial dispense. Record will be listed and search only for a partial dispense record that still active. User shall be able to add in VAS for the next collection mode.
2.	VAS information	User shall be able to edit the patient record for next collection and add in VAS information.

3.2.5.12.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>VAS Listing</b>				
1.	Patient Name	Record shall be search based on the input criteria of patient name.	No	Search field
2.	Prescription Number	VAS record shall be search based on the prescription number.	No	Search field
3.	MRN	VAS record shall be search based on the MRN number entered by user.	No	Search field
4.	IC Number/Other Identification No.	VAS record shall be search based on the IC number or other identification number entered by user.	No	Search field
<b>VAS Screen</b>				
1.	Next Collection Mode	Default value will show the current value of next collection mode set at dispensing screen.	Yes	Drop down list
2.	Clinic TCA	Default value display the clinic TCA set at dispensing stage, if any. If no date for clinic TCA set at dispensing stage, this column will display as blank.	No	Calendar date in dd/mm/yyyy
3.	Next Collection Date	Display the next collection date as set in dispensing stage.	No	Calendar date in dd/mm/yyyy
4.	Method of Service Application	User shall be able to update/add in method of service application from a data consists of Call, Email, Fax, In Person and SMS.	No	Drop down list
5.	Dispense At	Default value will display the Dispense Method set at dispensing stage. User shall be able to update/add in value of Dispense at from a data consists of Pharmacy Counter, Bedside or Drive Through Counter.	No	Drop down list
6.	Next Collection Location	Default value will display next collection location as set in dispensing stage. User shall be able to edit for next collection location which consists of dispensing location.	Yes	Drop down list
7.	Source of Information	Source of information consists a value of Banner, Brochure, Friends, Radio and TV. This field use to update.	No	Drop don list

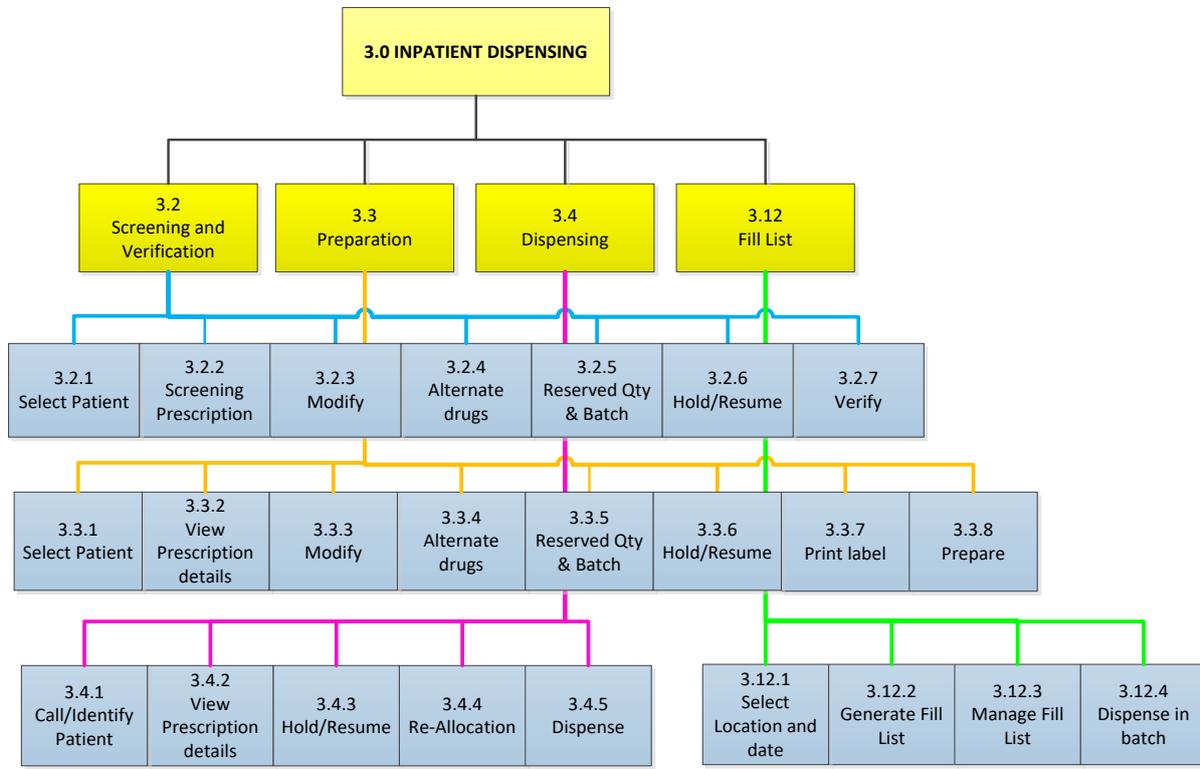


## 3.2.6 Integration

No.	Name	Description
1.	IWP	<p>To send out SPUB form and to receive in SPUB form through IWP.</p> <ul style="list-style-type: none"><li>• Once sending out SPUB record, it will go through IWP before the record received by the receiving facility and record will be updated as successfully send.</li><li>• Once the receiving facility received the SPUB, status acknowledge will be updated again to IWP.</li></ul>

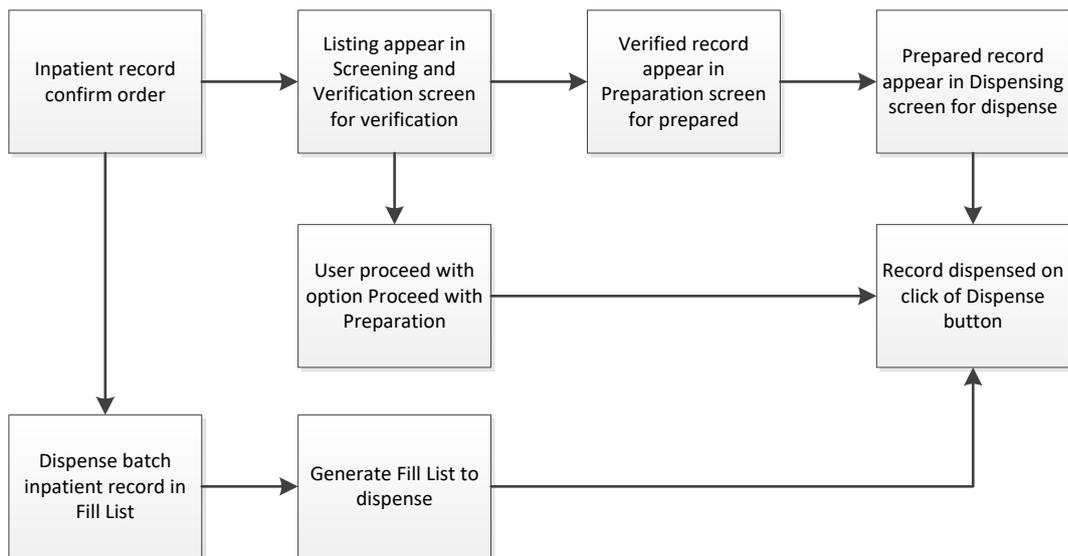
### 3.3 Inpatient Dispensing

#### 3.3.1 Overview for Inpatient Dispensing



IP.OV1: Inpatient Dispensing

#### 3.3.2 Block Diagram

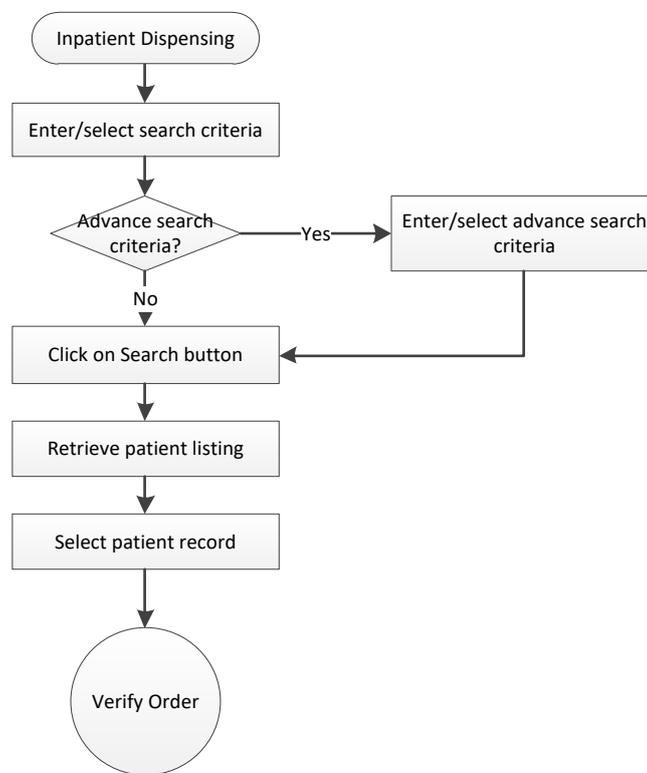


IP.BD1: Inpatient Block Diagram

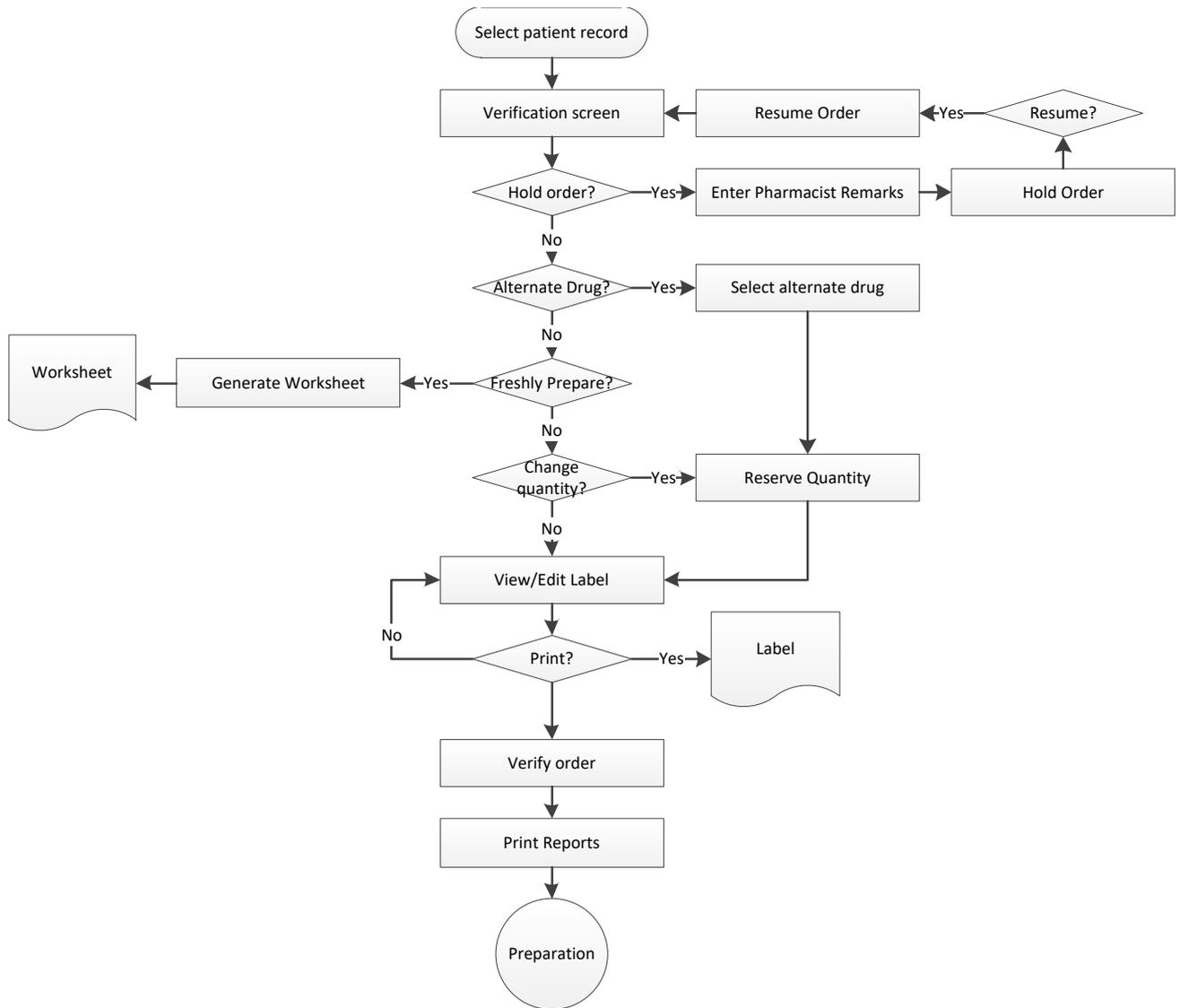
### 3.3.3 Purpose

Inpatient dispensing screen allows Pharmacist to make unit dose dispensing for a selected patient. For Full Based, once inpatient order has been confirmed by the doctor, record will appear inside Screening and after verify, appear inside Preparation screen. Once prepared, pharmacist then can proceed with the dispensing. For Pharmacy Based, which usually inpatient order are being transcribe through Record Prescription by pharmacist, once confirm the order, record will appear at Screening and Verification stage but still under Medication order screen. After record has been verified, it will appear at Preparation screen. Verified order will be prepared at Preparation stage. After record are prepared, Pharmacist then can proceed with the dispensing.

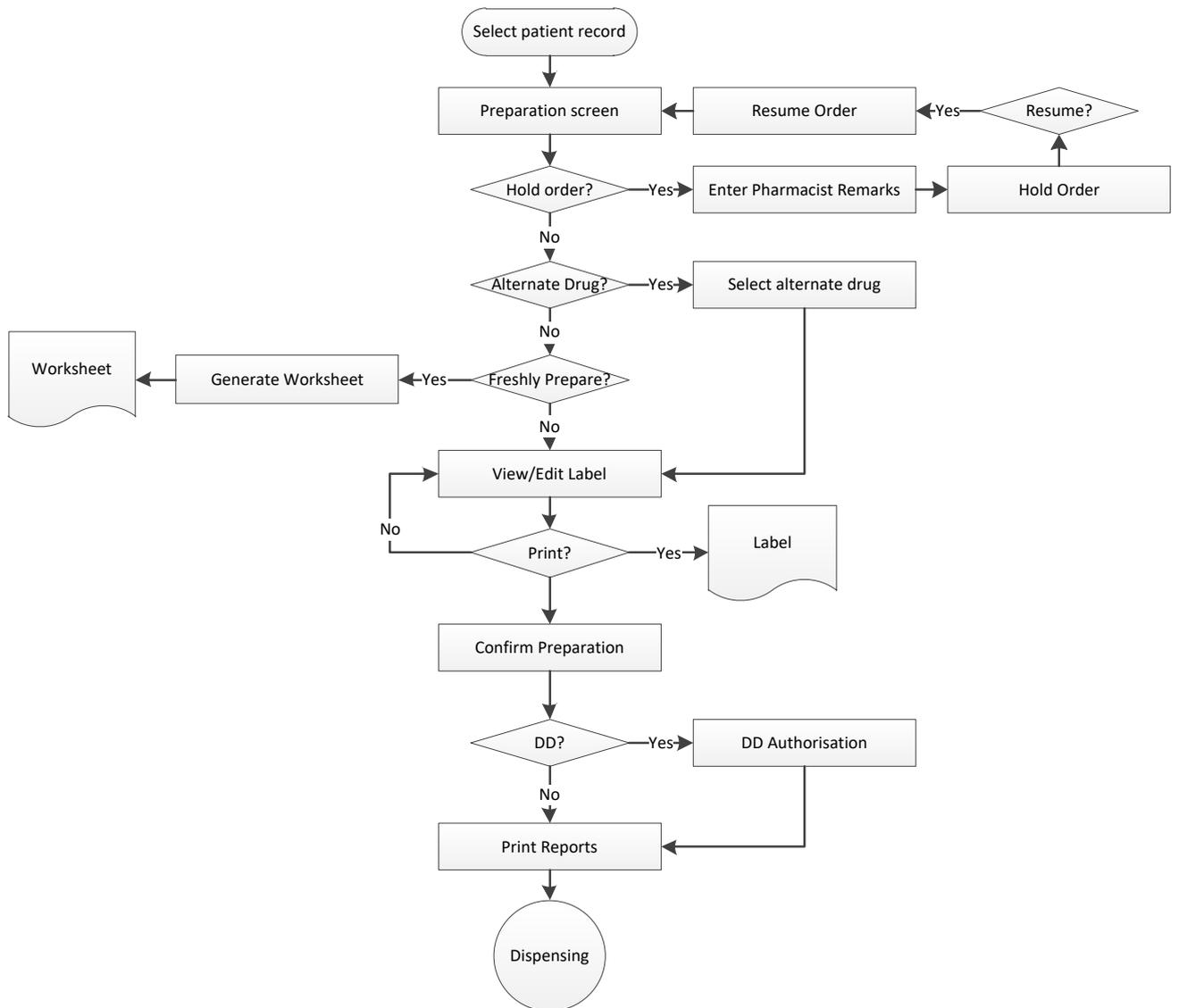
### 3.3.4 Screen Navigation



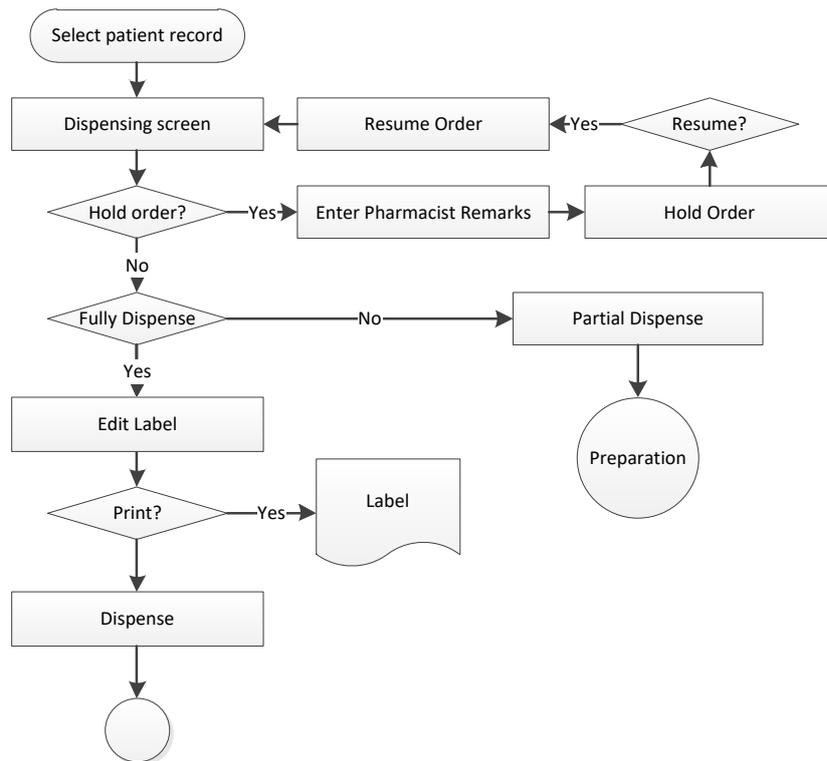
IP.SND1: Patient Listing



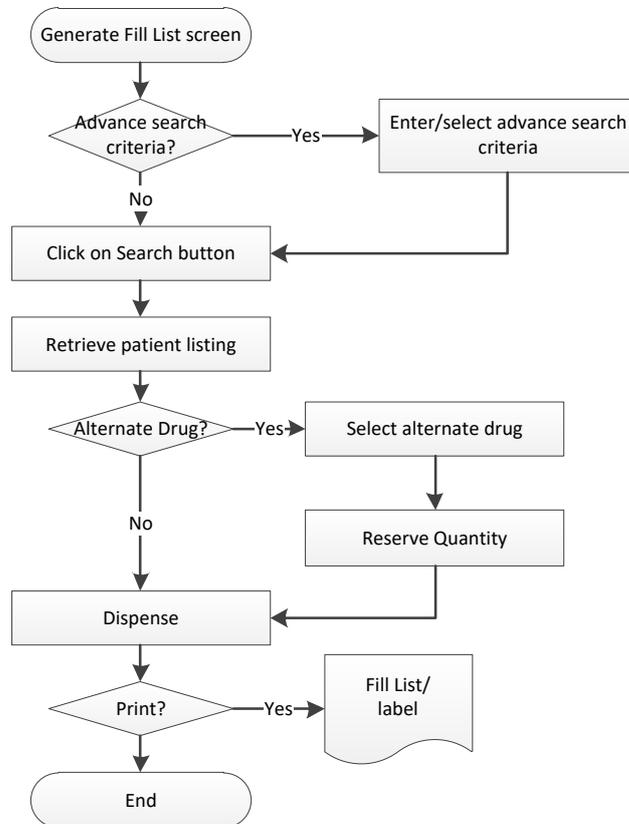
IP.SND2: Inpatient Screening and Verification



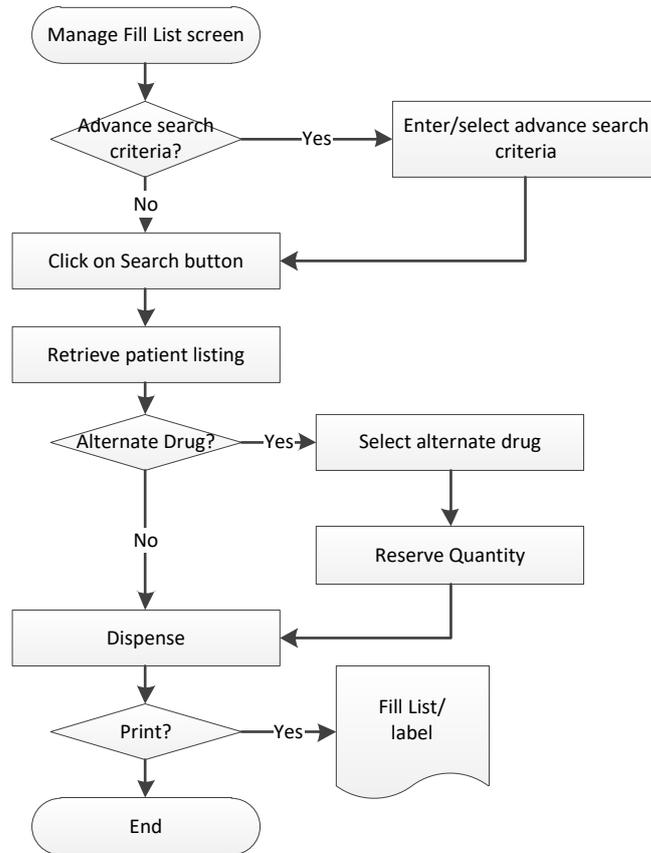
IP.SND3: Inpatient Preparation of order



IP.SND4: Inpatient Dispensing of order



IP.SND5: Generate Fill List

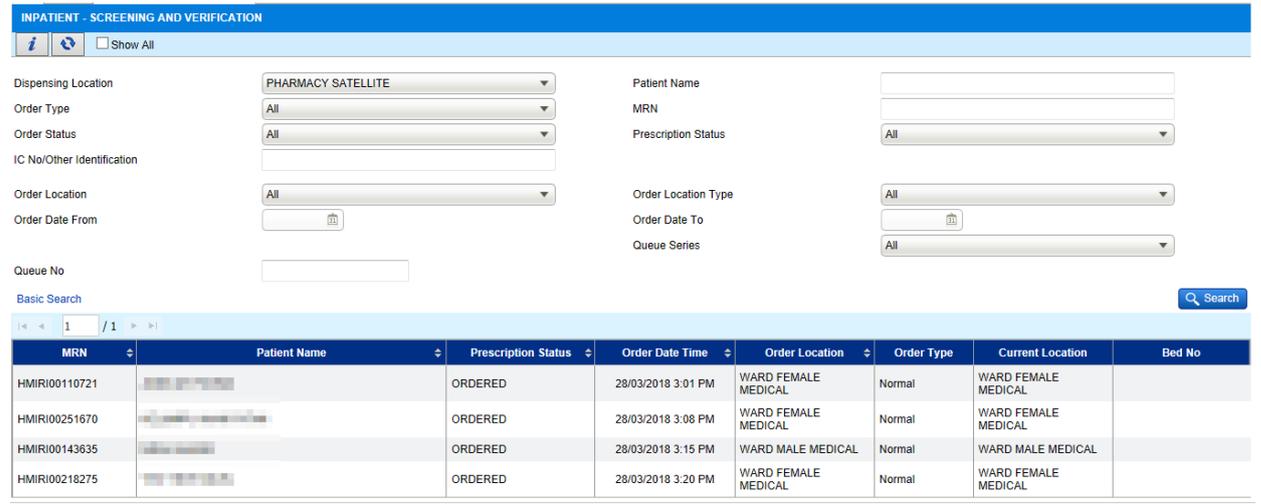


IP.SND6: Manage Fill List

### 3.3.5 Detail Functionality and Screen

#### 3.3.5.1 Screening and Verification Listing

##### 3.3.5.1.1 Screen Design

<b>ID</b>	SV.SD1																																								
<b>Description</b>	Screening and Verification Listing																																								
<p><b>Diagram</b></p> <p>Screening and Verification Listing</p>  <table border="1"> <thead> <tr> <th>MRN</th> <th>Patient Name</th> <th>Prescription Status</th> <th>Order Date Time</th> <th>Order Location</th> <th>Order Type</th> <th>Current Location</th> <th>Bed No</th> </tr> </thead> <tbody> <tr> <td>HMIRI00110721</td> <td>[REDACTED]</td> <td>ORDERED</td> <td>28/03/2018 3:01 PM</td> <td>WARD FEMALE MEDICAL</td> <td>Normal</td> <td>WARD FEMALE MEDICAL</td> <td></td> </tr> <tr> <td>HMIRI00251670</td> <td>[REDACTED]</td> <td>ORDERED</td> <td>28/03/2018 3:08 PM</td> <td>WARD FEMALE MEDICAL</td> <td>Normal</td> <td>WARD FEMALE MEDICAL</td> <td></td> </tr> <tr> <td>HMIRI00143635</td> <td>[REDACTED]</td> <td>ORDERED</td> <td>28/03/2018 3:15 PM</td> <td>WARD MALE MEDICAL</td> <td>Normal</td> <td>WARD MALE MEDICAL</td> <td></td> </tr> <tr> <td>HMIRI00218275</td> <td>[REDACTED]</td> <td>ORDERED</td> <td>28/03/2018 3:20 PM</td> <td>WARD FEMALE MEDICAL</td> <td>Normal</td> <td>WARD FEMALE MEDICAL</td> <td></td> </tr> </tbody> </table>		MRN	Patient Name	Prescription Status	Order Date Time	Order Location	Order Type	Current Location	Bed No	HMIRI00110721	[REDACTED]	ORDERED	28/03/2018 3:01 PM	WARD FEMALE MEDICAL	Normal	WARD FEMALE MEDICAL		HMIRI00251670	[REDACTED]	ORDERED	28/03/2018 3:08 PM	WARD FEMALE MEDICAL	Normal	WARD FEMALE MEDICAL		HMIRI00143635	[REDACTED]	ORDERED	28/03/2018 3:15 PM	WARD MALE MEDICAL	Normal	WARD MALE MEDICAL		HMIRI00218275	[REDACTED]	ORDERED	28/03/2018 3:20 PM	WARD FEMALE MEDICAL	Normal	WARD FEMALE MEDICAL	
MRN	Patient Name	Prescription Status	Order Date Time	Order Location	Order Type	Current Location	Bed No																																		
HMIRI00110721	[REDACTED]	ORDERED	28/03/2018 3:01 PM	WARD FEMALE MEDICAL	Normal	WARD FEMALE MEDICAL																																			
HMIRI00251670	[REDACTED]	ORDERED	28/03/2018 3:08 PM	WARD FEMALE MEDICAL	Normal	WARD FEMALE MEDICAL																																			
HMIRI00143635	[REDACTED]	ORDERED	28/03/2018 3:15 PM	WARD MALE MEDICAL	Normal	WARD MALE MEDICAL																																			
HMIRI00218275	[REDACTED]	ORDERED	28/03/2018 3:20 PM	WARD FEMALE MEDICAL	Normal	WARD FEMALE MEDICAL																																			
<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on Search button to search inpatient record based on input filter criteria.</li> <li>Double click on patient record to open the Screening and Verification screen.</li> <li>Click on Basic Search link to view basic search criteria or Advance Search link to filter with advance information.</li> </ul>																																								
<b>Cross References</b>	<b>Inpatient Order</b> – PhIS_CPS_SDD_OM_v1.3.																																								

##### 3.3.5.1.2 Application Business Rules

No.	Name	Description
1.	Screening and Verification Listing	<ul style="list-style-type: none"> <li>This screen will allow Pharmacist to search for a patient medication order and perform screening. The module is controlled by user access rights. Only Pharmacists and/or Assistant Pharmacists are allowed to screen the medication order.</li> <li>Pharmacy screening and verification is mandatory for all orders before the pharmacist can proceed with the preparation process</li> <li>Screenings and Verification list screen displayed for user to select patient record and verify the order. Listing is sorted in ascending order based on order date.</li> <li>By default, patient's record is displayed based on the order date as below:</li> <li>All record should be displayed after confirm order from Medication</li> </ul>



No.	Name	Description
		<p>Order (Full Based) or Record Prescription (Pharmacy Based).</p> <ul style="list-style-type: none"> <li>Partial dispense and In Progress record will also be listed</li> <li>All type of record which dispensing location is outpatient, will be displayed here</li> <li>Uncollected record will also appear in this listing if user search by 'Hold' status.</li> </ul>
2.	Refresh List	Click on the Refresh button, system will reset all searched records and searching criteria to default value.
3.	Search	Record will be search by input criteria. Searching in Screening and Verification list are based on record status with Ordered, Hold status and Partial Dispense. For inpatient record listing, record does not need to be Acknowledged.

3.3.5.1.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Dispensing Location	Screening and Verification listing shall be retrieved record from dispensing location set by user.	Yes	Drop down list (search field)
2.	Order Type	Default value set to All and shall be retrieve from database for all order type. Other value of Order Type = Normal, Discharge, SPUB, Referred Patient.	No	Drop down list (search field)
3.	Order Status	Default value set to All and shall be retrieve from database for all order status. Other value of Order Status = New Order, Partial Supply.	No	Drop down list (search field)
4.	IC No/Other Identification	Shall retrieve value of patient IC number or other identification number.	No	Text box (search field)
5.	Order Location	By default, location is default to user's login location. The listed location values are based on the user's granted location as setup in User Profile screen.	No	Drop down list (search field)
6.	Order Date From	Search on the 'date from' when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
7.	Order Date To	Search on the end of order date when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
8.	Queue No	Search on the queue number of the patient record.	No	Text field (searching field)
9.	Patient Name	Screening and Verification listing shall be retrieved	No	Text field

No.	Name	Description	Mandatory	Format
		from the database for all registered patients with visit based on matching Patient Name.		(searching field)
10.	MRN	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching MRN.	No	Text field (searching field)
11.	Prescription Status	Search on the status of the prescription either Hold or Expired. Hold status will include record with Ordered Hold and Expired will show a record with inpatient visit still open but drug order has been expired.	No	Drop down list (searching field)
12.	Order Location Type	Default value set to All and shall be retrieved from the database for all order location type. Other Order Location Type types = Clinic, ER, Daycare, Nursing Unit, Pharmacy.	No	Drop down list (search field)
13.	Queue Series	Type of queue series which consist from Normal, Express, Special and Others.	No	Drop down list

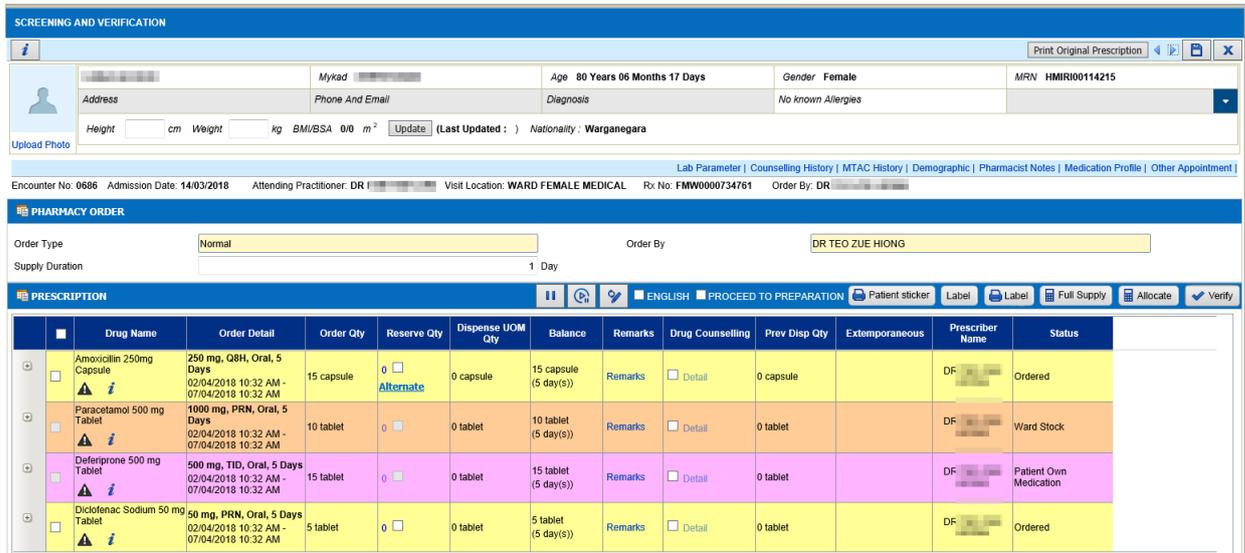
### 3.3.5.2 Screening and Verification Screen

#### 3.3.5.2.1 Screen Design

<b>ID</b>	SV.SD2
<b>Description</b>	Screening and Verification screen

**Diagram**

*i. Screening and Verification screen (Full Based)*



The screenshot displays the 'SCREENING AND VERIFICATION' interface. At the top, there are fields for patient identification: Mykad, Age (80 Years 06 Months 17 Days), Gender (Female), and MRN (HMIR00114215). Below this, there are sections for 'PHARMACY ORDER' and 'PRESCRIPTION'. The 'PRESCRIPTION' section contains a table with the following data:

Drug Name	Order Detail	Order Qty	Reserve Qty	Dispense UOM Qty	Balance	Remarks	Drug Counselling	Prev Disp Qty	Extemporaneous	Prescriber Name	Status
Amoxicillin 250mg Capsule	250 mg, Q8H, Oral, 5 Days 02/04/2018 10:32 AM - 07/04/2018 10:32 AM	15 capsule	0 <input type="checkbox"/> Alternate	0 capsule	15 capsule (5 day(s))	Remarks <input type="checkbox"/> Detail	<input type="checkbox"/> Detail	0 capsule		DF [Name]	Ordered
Paracetamol 500 mg Tablet	1000 mg, PRN, Oral, 5 Days 02/04/2018 10:32 AM - 07/04/2018 10:32 AM	10 tablet	0 <input type="checkbox"/>	0 tablet	10 tablet (5 day(s))	Remarks <input type="checkbox"/> Detail	<input type="checkbox"/> Detail	0 tablet		DF [Name]	Ward Stock
Deferiprone 500 mg Tablet	500 mg, TID, Oral, 5 Days 02/04/2018 10:32 AM - 07/04/2018 10:32 AM	15 tablet	0 <input type="checkbox"/>	0 tablet	15 tablet (5 day(s))	Remarks <input type="checkbox"/> Detail	<input type="checkbox"/> Detail	0 tablet		DF [Name]	Patient Own Medication
Diclofenac Sodium 50 mg Tablet	50 mg, PRN, Oral, 5 Days 02/04/2018 10:32 AM - 07/04/2018 10:32 AM	5 tablet	0 <input type="checkbox"/>	0 tablet	5 tablet (5 day(s))	Remarks <input type="checkbox"/> Detail	<input type="checkbox"/> Detail	0 tablet		DF [Name]	Ordered



### 3.3.5.3 Screening and Verification stage (Pharmacy Based)

PRESCRIPTION											
<span>PROCEED TO PREPARATION</span> <span>ENGLISH</span> <span>Prescription</span> <span>Patient sticker</span> <span>Label</span> <span>Label</span> <span>Allocate</span> <span>Full Supply</span> <span>Verify</span>											
Supply Duration: 1 Day Next Collection Location: [Dropdown]											
	Drug Name	Order Details	Order Qty	Reserve Qty	Dispense UOM Qty	Balance	Remarks	Counselling Indication	Extemporaneous	Original Prescriber	Status
<input type="checkbox"/>	Perindopril 4 mg Tablet	4 mg, OD, Oral, 7 Days 04/04/2018 04:19 PM - 11/04/2018 04:19 PM	7 tablet	0 <input type="checkbox"/>	0 tablet	7 tablet (7 day(s))	Remarks	<input type="checkbox"/> Detail		DR [Redacted]	Ordered
<input type="checkbox"/>	Metformin HCl 500 mg Tablet	500 mg, BID, Oral, 7 Days 04/04/2018 04:20 PM - 11/04/2018 04:20 PM	14 tablet	0 <input type="checkbox"/> Alternate	0 tablet	14 tablet (7 day(s))	Remarks	<input type="checkbox"/> Detail		DR [Redacted]	Ordered
<input type="checkbox"/>	Enalapril 20 mg Tablet	20 mg, OD, Oral, 7 Days 04/04/2018 04:20 PM - 11/04/2018 04:20 PM	7 tablet	0 <input type="checkbox"/> Alternate(C)	0 tablet	7 tablet (7 day(s))	Remarks	<input type="checkbox"/> Detail		DR [Redacted]	Ordered

#### ii. Hold Screen

HOLD ORDER - PHARMACIST REMARKS			
Drug Name	Reason	Other Reason	Remark
Alprostadil 500mcg/ml Inj	Intervention		Hold drugs due to reason

#### iii. Resume Screen

HOLD ORDER - PHARMACIST REMARKS				
Drug Name	Reason	Other Reason	Remark	Action Taken
Alprostadil 500mcg/ml Inj	Intervention		Hold drugs due to reason	resume back the drugs

#### iv. Intervention Screen

INTERVENTION											
<span>Modify with Reason</span> <span>Reason only</span> <span>Modify without Reason</span>											
PHARMACY REMARKS											
Selection	Intervention Reason	Remarks	Intervention Accepted	Intervention Not Accepted							
<input checked="" type="checkbox"/>	Authenticity	intervention due to error	<input type="radio"/>	<input checked="" 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"/>							
MODIFY ORDER											
Drug Name	Dosage	Route	Frequency	Duration	Prescribed Qty	Start Date	End Date	Reasons			
Alprostadil 500mcg/ml Inj	500 mcg	Intravenous Infusion	Single Dose	7 Days	1 amp	02/04/2018 10:29	09/04/2018 10:29 AM				
Metronidazole 200 mg Tablet	200 mg	Oral	Q8H	7 Days	21 tablet	02/04/2018 10:29	09/04/2018 10:29 AM				
MODIFY ORDER											
Drug Name	Dosage	Route	Frequency	Duration	Prescribed Qty	Start Date	End Date	Reasons			
Amoxicillin 250mg Capsule	250 mg	Oral	Q8H	5 Days	50 Capsule	02/04/2018 10:32	07/04/2018 10:32 AM				
Sr No.	Reason	Remark									
1	Drug Interaction	test									
2	Contraindication	test									
3	Authenticity	test									



v. Remarks screen

**PHARMACIST REMARK**

Prescriber Remark

Order Stage

Pharmacist Remark \* Drug authorisation is required. Please enter remarks to proceed with verification

Verification Stage drug remarks|at screening stage for inpatient

**DRUG REMARKS HISTORY (METRONIDAZOLE 200 MG TABLET)**

Prescriber Remark	Prescriber Name	Start Date	End Date	Pharmacist Remark	Stage	Rx
No Records Found!			No Records Found!			

vi. Alternate screen

**ALTERNATE DRUG DETAILS**

Location PHARMACY SATELLITE

Ordered Drug Code J01CA04012C1001XX

Ordered Drug Desc Amoxicillin 250mg Capsule

Order Detail 250 mg, Q8H, 5 Days

Dosage Form Oral Capsule

Route Oral

Supply Duration 1 days Date From 02/04/2018 to 03/04/2018

**BATCH DETAIL**

No	Drug Name	Dosage Form	Route	Qty per dose	Batch	Expiry Date	Available Qty	SKU	Allocation Qty	Select
1	Amoxicillin Trihydrate 125 mg/5 ml Syrup	Oral Solution	Oral	1 ml	16K0496	31/10/2018	24000 ml		3	<input checked="" type="checkbox"/>
				0 ml	16K0470	31/10/2018	12000 ml		0	<input type="checkbox"/>

Reason

Remark

vii. Drug Counselling

**COUNSELLING INDICATION**

Counselling Indication test counselling

Cancelled

Cancelled By System Administrator

Cancelled Reason



viii. Item Batch Details

**ITEM BATCH DETAILS**

Drug Code	P01AB01000T1001XX	Default SKU	tablet
Drug Name	Metronidazole 200 mg Tablet	Dispense UOM	tablet
Order Detail	200 mg, Q8H, 7 Days, 02/04/2018 - 09/04/2018	Supply Duration	1 days Date From 03/04/2018 to 04/04/2018

**BATCH DETAIL**

Batch No	Expiry Date	Available Qty	UOM Qty	Allocated Qty
17F201	30/04/2020	4000	3 tablet	3
Total Available Qty		4000	Total Allocated Qty	
		3		

ix. Original Prescription

**Ministry of Health, Malaysia  
Hospital Miri**

Patient Name : ██████████	Patient ID : ██████████
Age : 80 Years 06 Months 17 Days	MRN : HMIRI00114215
Gender : Female	Prescription # : FMW0000734761
Height/Weight/BSA : █/█/█	Order Date/Time : 02/04/2018 10:32 AM
Room No/Bed No : █/█	Location : WARD FEMALE MEDICAL
Diagnosis : ddd	Allergy :

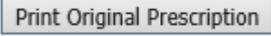
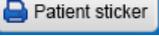
Drug Name	Route	Dose	Frequency	Start Date	End Date	Duration	Prescribed Qty	Prescription Status	Prescriber Name
Amoxicillin 250mg Capsule	Oral	250 mg	Q8H	02/04/2018	07/04/2018	5 Days	15 capsule	Ordered	DR ██████████
Paracetamol 500 mg Tablet	Oral	1000 mg	PRN	02/04/2018	07/04/2018	5 Days	10 tablet	Ordered	DR ██████████
Deferiprone 500 mg Tablet	Oral	500 mg	TDS (3 times a day)	02/04/2018	07/04/2018	5 Days	15 tablet	Patient Own Medication	DR ██████████
Diclofenac Sodium 50 mg Tablet	Oral	50 mg	PRN	02/04/2018	07/04/2018	5 Days	5 tablet	Ordered	DR ██████████

**Notes**

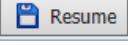
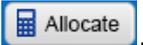
- Click on Print Original Prescription to print the Original Prescription form.
- Click on arrow next previous to open next patient in screening list.
- Click on Save button to save any changes done on the patient record.
- Click on available link to open and view the related records in related screen.
- Click on Verify to verify the order.
- Click on Allocate button to allocate the supply quantity based on supply duration.
- Drug label can be printed directly or preview first than print.
- Click on 'Allocate' button to do auto allocation.
- Click on 'Full Supply' button to do fully supply.
- Click on icon HOLD to hold the drug order.
- Click on icon RESUME to resume the hold drug.

	<ul style="list-style-type: none"> <li>• Click on icon INTERVENTION  to modify the order.</li> <li>• Click on 'Alternate' or 'Alternate(C)' to alternate the drug order.</li> <li>• Click on 'Reserve Qty number' to do manual allocation.</li> <li>• Ticked on 'Proceed to Preparation' to proceed the drug order to preparation stage.</li> <li>• Click on 'Remarks' to insert pharmacist remarks at Screening and Verification stage.</li> </ul>
<b>Cross References</b>	Confirm Drug Order – PHIS_CPS_SDD_OM_v1.3.

3.3.5.3.1 Application Business Rules

No.	Name	Description
1.	Record Status	<ul style="list-style-type: none"> <li>• Screening and Verification screen allows pharmacist to screen and verify medication orders made by doctors. All medication orders shall be screened for completeness and appropriateness. This process is mandatory for all orders.</li> <li>• Record with status Ordered, Ordered/Hold or Partial Dispense will be listed inside Screening and Verification list for inpatient order.</li> <li>• Normal drug will be highlight with yellow color and user able to verify, prepare and dispense the order.</li> <li>• For 'Ward Stock', all links related to that drug will be disabled except for Drug Counselling and counselling details. The row will be highlighted in light brown.</li> <li>• For 'Patient Own Medication', all links related to that drug will be disabled except for Drug Counselling and counselling details. The row will be highlighted in light pink.</li> <li>• Alert - if there is an interaction between the selected drugs then this  icon will feature next to the interacting drugs. When a drug is added, the interaction with already selected drug is checked in MIMS drug database based on the results of the same the alert will be shown. Clicking on the  icon will show the drug interaction message.</li> </ul>
2.	Printing	<ul style="list-style-type: none"> <li>• User able to print the original prescription record when click on  button in Full Based or click on  button in Pharmacy Based.</li> <li>• Prescriber name with designation and department will be displayed at each of drug name.</li> <li>• Print drug label only for a drug with allocated quantity. User shall be able to directly print the drug label directly  or click on  button to preview first before print. Editing on drug label for certain field is allowed before print in preview label.</li> <li>• Printing of Patient Sticker , direct print available at Dispensing screen.</li> </ul>
3.	Reserve Quantity	<ul style="list-style-type: none"> <li>• Quantity to be reserved for this order. By default this value will be 0.</li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>• If Reserve Qty display in red text <b>0</b>, it means no stock available.</li> <li>• User shall be able to dispense the quantity with 0 allocation by ticked on the checkbox <b>0</b> <input checked="" type="checkbox"/>.</li> </ul>
4.	Alternate Drug	<ul style="list-style-type: none"> <li>• Pharmacists and pharmacy assistants will have the ability to select different available strength of the same drug.</li> <li>• System will show alternate drug with different strengths and dosages form within the same administration route of the same drug.</li> <li>• If drug detail information display <b>Alternate</b>, it means the alternate drug must be from the same strength.</li> <li>• If drug display as <b>Alternate(C)</b>, it means the alternate drug can be a combination of two drugs with different strength.</li> <li>• The alternate drug will be shown based on the validation that the drug must contain the same generic name and the same route of administration. (Only tablet, capsule and syrup etc. which can be taken orally for a given generic name may become alternate drugs for each other but NOT the Injection form of the same generic).</li> <li>• Alternate drug list will contain the following information:             <ol style="list-style-type: none"> <li>No – running no</li> <li>Drug name</li> <li>Form</li> <li>Route</li> <li>Batch No - Available batch no</li> <li>Expiry Date - Batch expiry date</li> <li>Available Qty – Quantity available for selected batch</li> <li>UOM</li> <li>Allocate Qty – Quantity to be reserved from selected batch. Allocated quantity cannot be more than the available quantity and order quantity. This field allows number only with a capacity of 10 digits.</li> <li>Select – Checkbox for user to select the alternate drug</li> </ol> </li> <li>• This screen will show the selected drug info and a list of alternate drugs available for user to choose.</li> </ul>
5.	Hold drug	<ul style="list-style-type: none"> <li>• System provided the functionality for Pharmacist to hold the medication orders and entry for any relevant reasons.</li> <li>• User shall be able to select multiple drugs and hold. Select multiple checkbox and then click on HOLD  icon. Another pop-up windows will appear. User cannot hold again the existing hold drugs where alert will be displayed.</li> <li>• Enter the hold reason and click on  to save hold. Record will be updated to hold.</li> </ul>
6.	Resume drug	<ul style="list-style-type: none"> <li>• User shall be able to select multiple drugs and resume. Select multiple checkbox and then click on RESUME  icon. Another pop-up windows will appear. User cannot resume the normal drugs (without</li> </ul>

No.	Name	Description
		<p>hold status) where alert will be displayed.</p> <ul style="list-style-type: none"> <li>Enter the resume reason and click on  to save resume. Drug records will be resume back to original status.</li> </ul>
7.	Drug Intervention	<ul style="list-style-type: none"> <li>User shall be able to intervene the existing drug order. Select multiple checkbox and then click on INTERVENTION  icon. Another pop-up windows will appear. Once intervene is done, drug details will be highlighted in blue color with a link on detail information.</li> <li>User must add in intervention reason first before do intervene on the drug details. Intervention reason should be save FIRST before intervene the drugs details.</li> <li>User shall be able to save the intervention reason by clicks on 'Save' button.</li> <li>'Confirm' button used to confirm on the intervention. It will appear after intervention reason is saved.</li> <li>User shall be able to click on the link (  ) and see the history of the intervention records done earlier.</li> <li>User can choose selected drug by clicks on add icon (  ) to add in different reason for each drugs. The selected drug name will appear at the top of the intervention reason.</li> <li>Reset button  used to reset back the selected drug name from Drug name and Order Details text box.</li> </ul>
8.	Allocation of the drugs	<ul style="list-style-type: none"> <li>User shall be able to do full supply for the record by click on Full Supply  button. Full amount of allocation will be calculated into the drug order.</li> <li>User shall be able to do auto allocation by click on Allocate button . The reserve quantity will be auto calculated based on supply duration entered. Reserve quantity will be auto allocate based on this formula (Supply duration x frequency) .</li> </ul>
9.	Verification	<ul style="list-style-type: none"> <li>This process is mandatory for all prescriptions received before user can proceed with preparation.</li> <li>Click on the patient MRN from the patient listing, verification screen will be displayed with the selected patient and prescription information.</li> <li>User shall be able to click on  button to verify the order.</li> <li>User able to proceed to Preparation screen if ticked on 'Proceed to Preparation' checkbox. Once ticked, it will bypass the verification process and record will be updated to Verify automatically.</li> </ul>
10.	Link	<p>Few text link to open another screen which related to the patient record available at Acknowledgment screen:</p> <ul style="list-style-type: none"> <li>Lab Parameter (for search and view only)</li> <li>Counselling History (for search and view only)</li> <li>MTAC History (for search and view only)</li> </ul>



No.	Name	Description
		<ul style="list-style-type: none"> <li>Demographic (view and update field for address and phone number only)</li> <li>Pharmacist Notes (for search and view only)</li> <li>Medication Profile (for search and view only)</li> <li>Other Appointment (view only)</li> </ul>

3.3.5.3.2 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Screening and Verification screen</b>				
1.	Order Type	Default value are based on type of order. If for new order, Order Type will be default to 'Normal' and it is discharge order, default value will be defaulted to 'Discharge'.	Yes	Read only
2.	Supply Duration	Number of days to supply the medication for inpatient. Default value will be set to 1 day. User able to change it but if change to other value, we need to click on Allocate button once again for recalculate the reserve quantity.	Yes	Text field
3.	Order By	Stated name of the original prescriber name that create the order.	Yes	Read only
4.	Reserve Qty	Display the amount for dispense. By default it will show the amount as '0' until user clicks on Allocate button or Verify button. Amount will be calculated based on supply duration value.	Yes	Number
5.	Remarks	Remarks entered by pharmacist at Screening stage. Once click on Remarks link, another screen will pop up and user should be able to enter.	No	Text field
6.	Drug Counselling: Details	By default, the Details link is dimmed until user tick on the checkbox. Once the checkbox is ticked, Details link will be enable and user should be able to open Drug Counselling screen.	No	Link to another screen
7.	Extemporaneous: Details	By default, the Details link is dimmed until user tick on the checkbox. Once the checkbox is ticked, Details link will be enable and user should be able to open Extemporaneous screen.	No	Link to another screen
<b>Hold Screen</b>				
1.	Drug Name	By default it will display the drug name of the selected drug. It is non editable field.	Yes	Read only
2.	Reason	Reason of hold in drop down value (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)	Yes	Drop down

No.	Name	Description	Mandatory	Format
3.	Other Reason	User shall be able to enter remarks for hold if choose 'Others' from drop down value of Reason.	No	Text field
4.	Remarks	User shall be able to enter remarks of drug hold.	No	Text field
<b>Resume Screen</b>				
1.	Drug Name	Display the drug name selected to resume. It is non editable field.	Yes	Read only
2.	Reason	Show the reason of the hold drug which going to be resumed. It is non editable field.	No	Read only
3.	Other Reason	Show the other reason of the hold drug which going to be resumed. It is non editable field.	No	Read only
4.	Remarks	Show any remarks entered by user during at hold drug stage. If during hold drug, this remarks is entered, it will be display in resume screen. It is non editable field.	No	Read only
5.	Action Taken	Entered by user during resume of the drug. It is a free text field.	No	Text field
<b>Intervention</b>				
1.	Drug Name	By default it will display 'All Drugs' which means the intervention reason selected will apply to all selected drugs. It will display a specific drug name if user wish to enter intervention reason for a specific drug by click on (+) icon.	No	Read only
2.	Order Details	By default it will be blank. It will display drug order details if user wish to enter intervention reason for a specific drug by click on (+) icon.	No	Read only
3.	Selection	A checkbox use to select multiple reason for intervention. User able to select multiple reason and save these reasons for the selected drug(s).	Yes	Check box
4.	Intervention Reason	Display the intervention reason. These reason will be updated into the selected drug(s) records. Intervention reason dataset as below: <ul style="list-style-type: none"> <li>• Authenticity</li> <li>• Contraindication</li> <li>• Drug Interaction</li> <li>• Inappropriate Dose</li> <li>• Inappropriate Drug</li> <li>• Inappropriate Duration</li> <li>• In appropriate Frequency</li> <li>• Incompatibility</li> <li>• Others</li> <li>• Polypharmacy</li> <li>• Suggest to Monitor Vital Sign/Lab Result</li> <li>• Wrong patient</li> </ul>	Yes	Dataset



No.	Name	Description	Mandatory	Format
5.	Remarks	A free text field for user to enter remarks for each intervention reason.	No	Text field
6.	Intervention Accepted	Select the radio button if intervention reason and remarks are being accepted.	No	Radio button
7.	Intervention Not Accepted	Select the radio button if intervention reason and remarks is not accepted.	No	Radio button
8.	Modify Order: Drug Name	Display the name of the drug(s) selected by user before clicks on Intervention icon. It is non editable.	Yes	Read only
9.	Dosage	User shall be able to change the current dosage to a new dosage of the drugs.	Yes	Text field
10.	Route	Display the route of the selected drug. It is non editable field	Yes	Read only
11.	Frequency	User shall be able to change the current frequency to a new drug frequency.	Yes	Drop down list
12.	Duration	User shall be able to change the current duration to a new drug duration.	Yes	Text field
13.	Prescribe Qty	User shall be able to change the current quantity to a new reserve quantity.	Yes	Text field
14.	Start Date	User shall be able to change the current start date to a new start date.	Yes	Calendar format in dd/mm/yyyy
15.	End Date	Display the end date of the drug order based on duration and start date. Date will be auto calculated and it is non editable field.	Yes	Read only
16.	Reason	There will be 2 icons display in this column, which is add icon (+) used to select a specific drugs and the drug name will be display at Drug Name column. Another icon (💬) is use to open another pop-up screen that will display the intervention reason for each drugs. The table consists of Serial Number, Reason and Remarks of the intervention. It is for display purpose only.	No	Icon
<b>Remarks</b>				
1.	Prescriber Remarks: Order Stage	By default it will display prescriber remarks at order stage, if any. If no remarks entered by prescriber, this field remain blank and it is non editable field.	No	Read only
2.	Remarks: Verification Stage	User or pharmacist shall be able to enter a pharmacist remarks before done verification. This remarks will be save as a verification remarks by pharmacist and user able to view back this remarks at Medication Profile screen through Additional Info link.	No	Text field
<b>Alternate</b>				
1.	Location	By default it will display the current dispensing location of the order. It is non editable field.	Yes	Read only

No.	Name	Description	Mandatory	Format
2.	Ordered Drug Code	By default it will display the drug ordered drug code which taken from the inventory. It is non editable field.	Yes	Read only
3.	Ordered Drug Desc	By default it will display the description name of the ordered drug. It is non editable field.	Yes	Read only
4.	Order Detail	By default it will display the details ordered of the drug. It is non editable field.	Yes	Read only
5.	Dosage Form	By default it will display the dosage form of the ordered drug. It is non editable field.	Yes	Read only
6.	Route	By default it will display the route of the ordered drug. It is non editable field.	Yes	Read only
7.	Supply Duration(days)	User shall be able to allocate the supply duration for the alternate drug in number of days.	Yes	Text field
8.	Date From To	User shall be able to edit on current start date/end date display or change the start date/end date for the alternate drug.	Yes	Calendar format in dd/mm/yyyy
9.	Drug Name	By default it will display the drug details. It is non editable field.	Yes	Read only
10.	Dosage Form	By default it will display the dosage form of the alternate drug. It is non editable field.	Yes	Read only
11.	Route	By default it will display the route of the alternate drug. It is non editable field.	Yes	Read only
12.	Qty per dose	User shall be able to enter the amount of quantity per dose. Once quantity per dose is entered, allocation quantity will be auto calculated.	Yes	Text field
13.	Batch	By default it will display the batch number from where stock is taken for the alternate drug.	Yes	Read only
14.	Expiry Date	By default it will display the expiry date of the batch item. It is non editable field.	Yes	Read only
15.	Available Qty	By default it will display the available stock quantity of the item batch. It is non editable field.	Yes	Read only
16.	SKU	By default it will display the SKU of the alternate drug. It is non editable field.	Yes	Read only
17.	Allocation Qty	User shall be able to enter or edit on the allocation quantity calculated earlier.	Yes	Text field
18.	Select	The select checkbox will be auto ticked if user entered quantity per dose for the selected alternate drug before save the alternate information. User able to select alternate drug from multiple batch item.	Yes	Check box
19.	Reason	User shall be able to enter reason for alternate drugs..	No	Text field
20.	Remarks	User shall be able to enter the remarks of the alternate drugs.	No	Text field



No.	Name	Description	Mandatory	Format
<b>Item Batch Details</b>				
1.	Drug Code	By default it will display the drug code for the selected drug. It is non editable field.	Yes	Read Only
2.	Drug Name	By default it will display the drug name of the selected item batch. It is non editable field.	Yes	Read Only
3.	Order Details	By default it will display the order details of the ordered drug. It will display dosage, frequency, duration, start date and end date. It is non editable field.	Yes	Read Only
4.	Default SKU	By default it will display the SKU for the ordered drug. It is non editable field.	Yes	Read Only
5.	Dispense UOM	By default it will display the default dispense UOM for the ordered drug. User shall be able to select the dispense UOM that has been set for the drug only.	Yes	Drop down
6.	Supply Duration	By default, supply duration for inpatient order is set to 1 day. User shall be able to change the supply duration in Item Batch Details screen. Once user change on supply duration value, end date will be recalculated back.	Yes	Text field
7.	Date From To	User shall be able to edit on current start date/end date display or change the start date/end date for the alternate drug.	Yes	Read only
8.	Batch No	By default, it will display the Batch No for the selected ordered drug. It is non editable field.	Yes	Read only
9.	Expiry Date	By default it will display the expiry date of the item batch. It is non editable field.	Yes	Read only
10.	Available Qty	By default it will display the available quantity for the selected item batch. The value will be reduce once user entered a value at UOM quantity column. It is non editable field.	Yes	Read only
11.	UOM Qty	By default it will display the amount of UOM quantity based on the supply duration entered above. User shall be able to change back the amount of UOM quantity.	Yes	Text field
12.	Allocated Qty	By default it will display the amount of allocated quantity and value shall be same as amount entered for UOM quantity.	Yes	Read only
13.	Total Available Qty	By default it will display the total available quantity for the item batch. It is non editable field.	Yes	Read only
14.	Total Allocated Qty	By default it will display the total allocated quantity for the item batch. It is non editable field.	Yes	Read only
<b>Drug Counselling</b>				
1.	Counselling Indication	User shall be able to enter the counselling indicator in a free text. <i>Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation.</i>	No	Text field



No.	Name	Description	Mandatory	Format
2.	Cancelled	User shall be able to tick on the cancelled checkbox. Once ticked, another fields Cancelled By and Cancelled Reason will appear. Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation	No	Checkbox
3.	Cancelled By	By default it will display the login name of the person user id. It is non editable field. Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation	Yes	Read only
4.	Cancelled Reason	User shall be able to enter the cancelled reason in free text format. Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation	No	Text field

### 3.3.5.4 Preparation Listing Screen

#### 3.3.5.4.1 Screen Design

<b>ID</b>	PR.SD1
<b>Description</b>	Preparation Listing
<p><b>Diagram</b></p> <p>Preparation Listing</p>	
<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on Search button to search inpatient record based on input filter criteria.</li> <li>Double click on patient record to open the Preparation screen.</li> <li>Click on Basic Search link to view basic search criteria or Advance Search link to filter with advance information.</li> </ul>
<b>Cross References</b>	None.

3.3.5.4.2 Application Business Rules

No.	Name	Description
1.	Preparation Listing	<ul style="list-style-type: none"> <li>Preparation screen allows Pharmacist to do preparation and filling on medication orders made by doctors. All verified orders will be checked for completeness and appropriateness. This process is mandatory for all verified order.</li> <li>Preparation list screen displayed for user to select patient record and prepared the order. Listing is sorted in ascending order based on order date.</li> <li>By default, patient's record is displayed based on the order date as below: <ul style="list-style-type: none"> <li>i. All record should be displayed after verification done at Screening and Verification screen.</li> <li>ii. Partial dispense and In Progress record will be listed</li> <li>iii. All type of record which dispensing location is inpatient, will be displayed here</li> <li>iv. Uncollected record will also appear in this listing if user search by 'Hold' status.</li> </ul> </li> </ul>
2.	Refresh List	Click on the Refresh button, system will reset all searched records and searching criteria to default value.
3.	Search	Record will be search by input criteria. Searching in Preparation list are based on record status with Verified, Hold and Partial Dispense.

3.3.5.4.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Preparation Listing</b>				
1.	Dispensing Location	Preparation listing shall be retrieved record from dispensing location set by user.	Yes	Drop down list (search field)
2.	Order Type	Default value set to All and shall be retrieve from database for all order type. Other value of Order Type = Normal, Discharge, SPUB, Referred Patient.	No	Drop down list (search field)
3.	Order Status	Default value set to All and shall be retrieve from database for all order status. Other value of Order Status = New Order, Partial Supply.	No	Drop down list (search field)
4.	IC No/Other Identification	Shall retrieve value of patient IC number or other identification number.	No	Text box (search field)
5.	Order Location	By default, location is default to user's login location. The listed location values are based on the user's granted location as setup in User Profile screen.	No	Drop down list (search field)
6.	Order Date From	Search on the 'date from' when user create the order.	No	Calendar in format dd/mm/yyyy (searching)

No.	Name	Description	Mandatory	Format
				field)
7.	Order Date To	Search on the end of order date when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
8.	Next Supply From	Search on record which match with the next supply date from.	No	Calendar in format dd/mm/yyyy (searching field)
9.	Next Supply To	Search on record which match with the next supply date to.	No	Calendar in format dd/mm/yyyy (searching field)
10.	Patient Name	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching Patient Name.	No	Text field (searching field)
11.	MRN	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching MRN.	No	Text field (searching field)
12.	Prescription Status	Search on the status of the prescription either Hold or Expired. Hold status will include record with Ordered Hold and Expired will show a record with inpatient visit still open but drug order has been expired.	No	Drop down list (searching field)
13.	Order Location Type	Default value set to All and shall be retrieved from the database for all order location type. Other Order Location Type types = Clinic, ER, Daycare, Nursing Unit, Pharmacy.	No	Drop down list (search field)
14.	Bed No	Record will be search based on value input for bed number.	No	Text field (searching field)

### 3.3.5.5 Preparation Screen

#### 3.3.5.5.1 Screen Design

<b>ID</b>	PR.SD2
<b>Description</b>	Preparation screen
<b>Diagram</b>	
i. <i>Preparation Screen</i>	



**PREPARATION**

L:  Mykad:  Age: 80 Years 06 Months 18 Days Gender: Female MRN: HMIR00114215  
 Address:  Phone And Email:  Diagnosis:  No known Allergies  
 Height:  cm Weight:  kg BMI/BSA: 0/0 m<sup>2</sup>  (Last Updated: ) Nationality: Warganegara

Lab Parameter | Counselling History | MTAC History | Demographic | Pharmacist Notes | Medication Profile | Other Appointment  
 Encounter No: 0686 Admission Date: 14/03/2018 Attending Practitioner: DR  Visit Location: WARD FEMALE MEDICAL Rx No: FMW000734761 Order By: DR

**PHARMACY ORDER**

Supply Duration: 1 Day Next Collection Location: PHARMACY SATELLITE

Drug Name	Order Detail	Order Qty	Reserve Qty	Dispense UOM Qty	Balance	Remarks	Drug Counselling	Prev Disp Qty	Extemporaneous	Prescriber Name	Status
Amoxicillin 250mg Capsule	250 mg, Q8H, Oral, 5 Days 02/04/2018 10:32 AM - 07/04/2018 10:32 AM	15 capsule	0 <input type="checkbox"/> Alternate	0 capsule	13 capsule (1 day(s))	Remarks <input type="button" value="Detail"/>	<input type="checkbox"/>	0 capsule		DR <input type="text"/>	Verified
Amoxicillin Trihydrate 125 mg/5 ml Syrup			18 ml								
Paracetamol 500 mg Tablet	1000 mg, PRN, Oral, 5 Days 02/04/2018 10:32 AM - 07/04/2018 10:32 AM	10 tablet	0 <input type="checkbox"/>	0 tablet	10 tablet (4 day(s))	Remarks <input type="button" value="Detail"/>	<input type="checkbox"/>	0 tablet		DR <input type="text"/>	Ward Stock
Deferiprone 500 mg Tablet	500 mg, TID, Oral, 5 Days 02/04/2018 10:32 AM - 07/04/2018 10:32 AM	15 tablet	0 <input type="checkbox"/>	0 tablet	15 tablet (4 day(s))	Remarks <input type="button" value="Detail"/>	<input type="checkbox"/>	0 tablet		DR <input type="text"/>	Patient Own Medication
Diclofenac Sodium 50 mg Tablet	50 mg, PRN, Oral, 5 Days 02/04/2018 10:32 AM - 07/04/2018 10:32 AM	5 tablet	1 <input type="checkbox"/>	1 tablet	4 tablet (3 day(s))	Remarks <input type="button" value="Detail"/>	<input type="checkbox"/>	0 tablet		DR <input type="text"/>	Verified

ii. Hold Screen

**HOLD ORDER - PHARMACIST REMARKS**

Drug Name	Reason	Other Reason	Remark
Alprostadil 500mcg/ml Inj	Intervention		Hold drugs due to reason

iii. Resume Screen

**HOLD ORDER - PHARMACIST REMARKS**

Drug Name	Reason	Other Reason	Remark	Action Taken
Alprostadil 500mcg/ml Inj	Intervention		Hold drugs due to reason	resume back the drugs

iv. Intervention Screen

**INTERVENTION**

**PHARMACY REMARKS**

Drug Name: All Drugs Order Detail:

Selection	Intervention Reason	Remarks	Intervention Accepted	Intervention Not Accepted
<input checked="" type="checkbox"/>	Authenticity	intervention due to error	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Contraindication	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Drug Interaction	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Dose	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Drug	<input type="text"/>	<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Inappropriate Duration	<input type="text"/>	<input type="radio"/>	<input type="radio"/>

**MODIFY ORDER**

Drug Name	Dosage	Route	Frequency	Duration	Prescribed Qty	Start Date	End Date	Reasons
Alprostadil 500mcg/ml Inj	500 mcg	Intravenous Infusion	Single Dose	7 Days	1 amp	02/04/2018 10:29	09/04/2018 10:29 AA	<input type="button" value="+"/>
Metronidazole 200 mg Tablet	200 mg	Oral	Q8H	7 Days	21 tablet	02/04/2018 10:29	09/04/2018 10:29 AA	<input type="button" value="+"/>



Drug Name	Dosage	Route	Frequency	Duration	Prescribed Qty	Start Date	End Date	Reasons
Amoxicillin 250mg Capsule	250 mg	Oral	Q8H	5 Days	50 Capsule	02/04/2018 10:32 AM	07/04/2018 10:32 AM	

Sr No.	Reason	Remark
1	Drug Interaction	test
2	Contraindication	test
3	Authenticity	test

v. Remarks screen

**PHARMACIST REMARK**

Prescriber Remark

Order Stage

Pharmacist Remark

Verification Stage

Preparation Stage: pharmacist remarks entered at Preparation stage

**DRUG REMARKS HISTORY (AMOXICILLIN 250MG CAPSULE)**

Prescriber Remark	Prescriber Name	Start Date	End Date	Pharmacist Remark	Stage	Rx
No Records Found!						

vi. Alternate screen

**ALTERNATE DRUG DETAILS**

Location: PHARMACY SATELLITE

Ordered Drug Code: J01CA04012C1001XX

Ordered Drug Desc: Amoxicillin 250mg Capsule

Order Detail: 250 mg, Q8H, 5 Days

Dosage Form: Oral Capsule

Route: Oral

Supply Duration: 1 days Date From 02/04/2018 to 03/04/2018

**BATCH DETAIL**

No	Drug Name	Dosage Form	Route	Qty per dose	Batch	Expiry Date	Available Qty	SKU	Allocation Qty	Select
1	Amoxicillin Trihydrate 125 mg/5 ml Syrup	Oral Solution	Oral	1 ml	16K0496	31/10/2018	24000 ml		3	<input checked="" type="checkbox"/>
				0 ml	16K0470	31/10/2018	12000 ml		0	<input type="checkbox"/>

Reason

Remark

vii. Drug Counselling

**COUNSELLING INDICATION**

Counselling Indication: test counselling

Cancelled

Cancelled By: System Administrator

Cancelled Reason



viii. Item Batch Details

**ITEM BATCH DETAILS**

Drug Code: P01AB01000T1001XX      Default SKU: tablet

Drug Name: Metronidazole 200 mg Tablet      Dispense UOM: tablet

Order Detail: 200 mg, Q8H, 7 Days, 02/04/2018 - 09/04/2018      Supply Duration: 1 days Date From: 03/04/2018 to 04/04/2018

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**BATCH DETAIL**

1 / 1

Batch No	Expiry Date	Available Qty	UOM Qty	Allocated Qty
17F201	30/04/2020	4000	3 tablet	3

Total Available Qty: 4000      Total Allocated Qty: 3

ix. Extemporaneous

**EXTEMPORANEOUS**

Preparation Done By:  Pharmacist  Patient      Worksheet ID: [ ]

Preparation Name: Enalapril Suspension 0.1mg/mL(water)      Concentration: 0.1 mg /ml

Dosage: 100 ml

Item	Item Name	Quantity	UOM
Active Ingredient	Enalapril 10 mg Tablet		1 tablet
Vehicle	Distilled Water	100	ml

Storage Condition and Procedures in Local Language

Storage Condition: Room Temperature      Expiry: 14 Days

References: Extemporaneous Formulation, MOH 2015      Formulation Remarks: [ ]

Procedures(Preparation by Pharmacist):  
 1. Crush tablets in a mortar to make fine powders.  
 2. Levigate powders with small amount of distilled water until homogenous.  
 3. Make up to the final volume using distilled water.

Procedures(Preparation by Patient): [ ]

Preparation Remarks: [ ]

x. Worksheet



EXTEMPORANEOUS WORKSHEET (PARTIAL)

MINISTRY OF HEALTH
HOSPITAL MIRI

Date of preparation : 03/04/2018 Worksheet Id: 18-04-0070
MRN HMIRI00236205 Name
ID No
Order Location WARD FEMALE MEDICAL Rx. No. FMW0000734766
Order Date 03/04/2018 Ordered By DR

Table with columns: No, ROA, Preparation Name, Dose, Total Dose, Item Name, Volume/Qty Required, Batch No, Expiry Date, Storage. Includes Enalapril 10 mg Tablet and Distilled Water.

Remarks: Instruction: 1. Crush tablets in a mortar to make fine powders. 2. Levigate powders with small amount of distilled water until homogenous. 3. Make up to the final volume using distilled water.

Reference: Extemporaneous Formulation, MOH 2015

Worksheet generated by Worksheet & label checked by Prepared by Final Product Checked by
Date: 03/04/2018 Date: 03/04/2018 Date: Date:

xi. CP4

CP4 Medication Profile form with fields for Reference Number, Interventions/Requests Encountered, and Assessment of Understanding & Compliance To Medicine Therapy.

xii. Invoice



INVOICE			
MRN	HMIRI00236205		
Patient Name	CHOK LI HIONG		
Visit Date	13/01/2018		
[ 1 - 3 / 3 ]			
S.L.No.	Drug Name	Quantity	Amount
1	Methotrexate 2.5 mg Tablet	2	0.94
2	Amlodipine 10 mg Tablet	1	0.10
3	Enalapril 10 mg Tablet	1	0.10

## xiii. Invoice Printing

**KEMENTERIAN KESIHATAN MALAYSIA**  
**Hospital Miri**  
**Invoice**

Invoice No. : 03/04/2018\_867558

Date : 03/04/2018

MRN : HMIRI00236205

Patient Name : CI

No	Drug Name	Quantity	Amount
1	Methotrexate 2.5 mg Tablet	2	0.94
2	Amlodipine 10 mg Tablet	1	0.10
3	Enalapril 10 mg Tablet	1	0.10
Total : RM			1.14

## xiv. Fill List

**KEMENTERIAN KESIHATAN MALAYSIA**  
**Hospital Miri**

Patient Name : CHOK LI HIONG Patient ID :  
 Nursing Unit From : WARD FEMALE MEDICAL Date : 03/04/2018 16:51  
 Room/Bed No : /

Fill Date	Drug	Dose	Route	Freq Code	Qty Reqd	Fill Uom	Supply Date	Supply Duration	Batch ID	Expiry Date
03/04/18	Enalapril 10 mg Tablet	10mg	ORAL	OD (once daily)	1	tablet	03/04/2018 2.39 PM	1	EC17J014	17/04/18
03/04/18	Methotrexate 2.5 mg Tablet	2mg	ORAL	2 times a week	2	tablet	03/04/2018 2.40 PM	1	F628A	31/01/20
03/04/18	Amlodipine 10 mg Tablet	10mg	ORAL	OM (every morning)	1	tablet	03/04/2018 2.41 PM	1	D70757	16/09/20

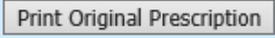
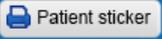
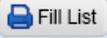
Collected By:

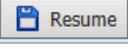
Dispensed By:

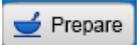
<b>Notes</b>	<ul style="list-style-type: none"> <li>• Click on Print Original Prescription to print the Original Prescription form.</li> <li>• Click on Fill List, the patient drug details ordered will be opened and able to print out.</li> <li>• Click on CP4, screen of CP4 will be opened.</li> <li>• Click on arrow next previous to open next patient in screening list.</li> <li>• Click on Save button to save any changes done on the patient record.</li> <li>• Click on available link to open and view the related records in related screen.</li> <li>• Click on Prepare button to prepare the order.</li> <li>• Click on Allocate button to allocate the supply quantity based on supply duration.</li> <li>• Drug label can be printed directly or preview first than print.</li> <li>• Click on 'Allocate' button to do auto allocation.</li> <li>• Click on 'Full Supply' button to do fully supply.</li> <li>• Click on Patient Sticker to print the sticker.</li> <li>• Click on Balance Medication Sheet button to print the BMS.</li> <li>• Click on Worksheet is applicable, to print the worksheet.</li> <li>• Click on Invoice to print the invoice form.</li> <li>• Click on icon HOLD  to hold the drug order.</li> <li>• Click on icon RESUME  to resume the hold drug.</li> <li>• Click on icon INTERVENTION  to modify the order.</li> <li>• Click on 'Alternate' or 'Alternate(C)' to alternate the drug order.</li> <li>• Click on 'Reserve Qty' value to do manual allocation.</li> <li>• Click on 'Remarks' to insert pharmacist remarks at Screening and Verification stage.</li> </ul>
<b>Cross References</b>	CP4 – refer to PHIS_CPS_SDD_CP4_v1.3

3.3.5.5.2 Application Business Rules

No.	Name	Description
1.	Preparation Record Status	<ul style="list-style-type: none"> <li>• Preparation screen allows Pharmacist to do preparation and filling on medication orders made by doctors. All verified orders will be checked for completeness and appropriateness. This process is mandatory for all verified order.</li> <li>• This screen is for the pharmacist to prepare the verified prescriptions.</li> <li>• This process is mandatory for all verified prescription before user can proceed with the dispensing process.</li> <li>• Click on the patient's MRN from the patient listing and the preparation screen will be displayed with the selected patient and prescription information.</li> <li>• Patient banner will be displayed at the top of the screen.</li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>Record with status Verify, Verify/Hold or Partial Dispense will be listed inside Preparation list for inpatient order.</li> <li>Normal drug will be highlight with yellow color and user able to verify, prepare and dispense the order.</li> <li>For 'Ward Stock', all links related to that drug will be disabled except for Drug Counselling and counselling details. The row will be highlighted in light brown.</li> <li>For 'Patient Own Medication', all links related to that drug will be disabled except for Drug Counselling and counselling details. The row will be highlighted in light pink.</li> <li>Alert - if there is an interaction between the selected drugs then this  icon will feature next to the interacting drugs. When a drug is added, the interaction with already selected drug is checked in MIMS drug database based on the results of the same the alert will be shown. Clicking on the  icon will show the drug interaction message.</li> </ul>
2.	Printing	<ul style="list-style-type: none"> <li>User able to print the original prescription record when click on  button. Prescriber name with designation and department will be displayed at each of drug name.</li> <li>Print drug label only for a drug with allocated quantity. User shall be able to directly print the drug label directly  or click on  button to preview first before print. Editing on drug label for certain field is allowed before print in preview label.</li> <li>Printing of Patient Sticker , direct print available at Dispensing screen.</li> <li>Worksheet button  will be able to open a worksheet form if there are any extemporaneous drug in the order and user able to print it with direct print or preview print.</li> <li>Invoice will be printed through Invoice screen. Refer to section 3.2.5.11 for more details.</li> <li>Balance Medication Sheet will be printed if user click on  button for preview print or  for direct print.</li> <li>On click of Fill List  button, user shall be able to print the inpatient order for the patient.</li> </ul>
3.	Reserve Quantity	<ul style="list-style-type: none"> <li>Quantity to be reserved for this order. By default this value will be 0.</li> <li>If Reserve Qty display in red text , it means no stock available.</li> <li>User shall be able to dispense the quantity with 0 allocation by ticked on the checkbox .</li> <li>Reserve Quantity value is being set at Screening or Preparation stage once record is being verified or prepared.</li> <li>However, user shall be able to de-allocate back the reserve quantity</li> </ul>

No.	Name	Description
		using Item Batch Details screen.
4.	Alternate Drug	<ul style="list-style-type: none"> <li>Pharmacists and pharmacy assistants will have the ability to select different available strength of the same drug.</li> <li>System will show alternate drug with different strengths and dosages form within the same administration route of the same drug.</li> <li>If drug detail information display as <b>Alternate</b>, it means the alternate drug must be from the same strength.</li> <li>If drug display as <b>Alternate(C)</b>, it means the alternate drug can be a combination of 2 drugs with different strength.</li> <li>User able to click on the alternate link to open the alternate screen.</li> </ul>
5.	Hold drug	<ul style="list-style-type: none"> <li>User shall be able to select multiple drugs and hold. Select multiple checkbox and then click on HOLD  icon. Another pop-up windows will appear. User cannot hold again the existing hold drugs where alert will be displayed.</li> <li>Enter the hold reason and click on  to save hold. Record will be updated to hold.</li> </ul>
6.	Resume drug	<ul style="list-style-type: none"> <li>User shall be able to select multiple drugs and resume. Select multiple checkbox and then click on RESUME  icon. Another pop-up windows will appear. User cannot resume the normal drugs (without hold status) where alert will be displayed.</li> <li>Enter the resume reason and click on  to save resume. Drug records will be resume back to original status.</li> </ul>
7.	Drug Intervention	<ul style="list-style-type: none"> <li>User shall be able to intervene the existing drug order. Select multiple checkbox and then click on INTERVENTION  icon. Another pop-up windows will appear. Once intervene is done, drug details will be highlighted in blue color with a link on detail information.</li> <li>User must add in intervention reason first before do intervene on the drug details. Intervention reason should be save FIRST before intervene the drugs details.</li> <li>User shall be able to save the intervention reason by clicks on 'Save' button.</li> <li>'Confirm' button used to confirm the intervene. It will appear after intervention reason is saved.</li> <li>User shall be able to click on the link (  ) and see the history of the intervention records done earlier.</li> <li>User can choose selected drug by clicks on add icon (  ) to add in different reason for each drugs. The selected drug name will appear at the top of the intervention reason.</li> <li>Reset button  used to reset back the selected drug name from</li> </ul>

No.	Name	Description
		Drug name and Order Details text box.
8.	Allocation of the drugs	<ul style="list-style-type: none"> <li>User shall be able to do full supply for the record by click on Full Supply  button. Full amount of allocation will be calculated into the drug order.</li> <li>User shall be able to do auto allocation by click on Allocate button . The reserve quantity will be auto calculated based on supply duration entered. Reserve quantity will be auto allocate based on this formula (Supply duration x frequency)</li> </ul>
9.	Preparation	<ul style="list-style-type: none"> <li>This process is mandatory for all verified prescriptions before user can proceed with dispensing.</li> <li>User shall be able to click on Prepare button  to prepare the order and send the record to dispensing stage.</li> <li>User able to proceed to dispensing screen once record has been prepared.</li> </ul>
10.	Link	<p>Few text link to open another screen which related to the patient record available at Acknowledgment screen:</p> <ul style="list-style-type: none"> <li>Lab Parameter (for search and view only)</li> <li>Counselling History (for search and view only)</li> <li>MTAC History (for search and view only)</li> <li>Demographic (view and update field for address and phone number only)</li> <li>Pharmacist Notes (for search and view only)</li> <li>Medication Profile (for search and view only)</li> <li>Other Appointment (view only)</li> </ul>
11.	CP4	Once click on CP4 button  , a CP4 screen will appear. Refer to PhIS_CPS_SDD_WP_v1.3.
12.	Extemporaneous	<ul style="list-style-type: none"> <li>Extemporaneous Details link  <b>Detail</b> will enable if user ticked on the checkbox and value entered for Extemporaneous drugs.</li> <li>User shall be able to edit back on the extemporaneous details.</li> <li>User should be able to view and print Worksheet from the Extemporaneous details link.</li> </ul>

### 3.3.5.5.3 Input Validation Rules

No.	Name		Mandatory	Format
<b>Preparation Screen</b>				
1.	Supply Duration	By default it will display supply duration to 1 day. User shall be able to change the supply duration default value. If this value change, reserve quantity drugs will be deallocate.	Yes	Text field



No.	Name		Mandatory	Format
2.	Next Collection Location	By default it will show a value of 'Pharmacy Counter'. User shall be able to set on next dispensing counter for the next dispensing cycle.	Yes	Drop down list
3.	Remarks	Remarks entered by pharmacist at Screening stage. Once click on Remarks link, another screen will pop up and user should be able to enter.	No	Text field
4.	Drug Counselling: Details	By default, the Details link is dimmed until user tick on the checkbox. Once the checkbox is ticked, Details link will be enable and user should be able to open Drug Counselling screen.	No	Link to another screen
5.	Extemporaneous: Details	By default, the Details link is dimmed until user tick on the checkbox. Once the checkbox is ticked, Details link will be enable and user should be able to open Extemporaneous screen.	No	Link to another screen
<b>Hold Screen</b>				
1.	Drug Name	By default it will display the drug name of the selected drug. It is non editable field.	Yes	Read only
2.	Reason	Reason of hold in drop down value (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	Yes	Drop down
3.	Other Reason	User shall be able to enter remarks for hold if choose 'Others' from drop down value of Reason.	No	Text field
4.	Remarks	User shall be able to enter remarks of drug hold.	No	Text field
<b>Resume Screen</b>				
1.	Drug Name	Display the drug name selected to resume. It is non editable field.	Yes	Read only
2.	Reason	Show the reason of the hold drug which going to be resumed. It is non editable field.	No	Read only
3.	Other Reason	Show the other reason of the hold drug which going to be resumed. It is non editable field.	No	Read only
4.	Remarks	Show any remarks entered by user during at hold drug stage. If during hold drug, this remarks is entered, it will be display in resume screen. It is non editable field.	No	Read only
5.	Action Taken	Entered by user during resume of the drug. It is a free text field.	No	Text field
6.	Drug Name	By default it will display the drug name of the selected drug. It is non editable field.	Yes	Read only
<b>Intervention</b>				
1.	Drug Name	By default it will display 'All Drugs' which means the intervention reason selected will apply to all selected drugs. It will display a specific drug name if user wish	No	Read only

No.	Name		Mandatory	Format
		to enter intervention reason for a specific drug by click on (+) icon.		
2.	Order Details	By default it will be blank. It will display drug order details if user wish to enter intervention reason for a specific drug by click on (+) icon.	No	Read only
3.	Selection	A checkbox use to select multiple reason for intervention. User able to select multiple reason and save these reasons for the selected drug(s).	Yes	Check box
4.	Intervention Reason	Display the intervention reason. These reason will be updated into the selected drug(s) records. Intervention reason dataset as below: <ul style="list-style-type: none"> <li>• Authenticity</li> <li>• Contraindication</li> <li>• Drug Interaction</li> <li>• Inappropriate Dose</li> <li>• Inappropriate Drug</li> <li>• Inappropriate Duration</li> <li>• In appropriate Frequency</li> <li>• Incompatibility</li> <li>• Others</li> <li>• Polypharmacy</li> <li>• Suggest to Monitor Vital Sign/Lab Result</li> <li>• Wrong patient</li> </ul>	Yes	Dataset
5.	Remarks	A free text field for user to enter remarks for each intervention reason.	No	Text field
6.	Intervention Accepted	Select the radio button if intervention reason and remarks are being accepted.	No	Radio button
7.	Intervention Not Accepted	Select the radio button if intervention reason and remarks is not accepted.	No	Radio button
8.	Modify Order: Drug Name	Display the name of the drug(s) selected by user before clicks on Intervention icon. It is non editable.	Yes	Read only
9.	Dosage	User shall be able to change the current dosage to a new dosage of the drugs.	Yes	Text field
10.	Route	Display the route of the selected drug. It is non editable field	Yes	Read only
11.	Frequency	User shall be able to change the current frequency to a new drug frequency.	Yes	Drop down list
12.	Duration	User shall be able to change the current duration to a new drug duration.	Yes	Text field
13.	Prescribe Qty	User shall be able to change the current quantity to a new reserve quantity.	Yes	Text field
14.	Start Date	User shall be able to change the current start date to a new start date.	Yes	Calendar format in



No.	Name		Mandatory	Format
				dd/mm/yyyy
15.	End Date	Display the end date of the drug order based on duration and start date. Date will be auto calculated and it is non editable field.	Yes	Read only
16.	Reason	There will be 2 icons display in this column, which is add icon (+) used to select a specific drugs and the drug name will be display at Drug Name column. Another icon (🗨️) is use to open another pop-up screen that will display the intervention reason for each drugs. The table consists of Serial Number, Reason and Remarks of the intervention. It is for display purpose only.	No	Icon
<b>Remarks</b>				
1.	Prescriber Remarks: Order Stage	By default it will display prescriber remarks at order stage, if any. If no remarks entered by prescriber, this field remain blank and it is non editable field.	No	Read only
2.	Remarks: Verification Stage	User or pharmacist shall be able to enter a pharmacist remarks before done verification. This remarks will be save as a verification remarks by pharmacist and user able to view back this remarks at Medication Profile screen through Additional Info link.	No	Text field
<b>Alternate</b>				
1.	Location	By default it will display the current dispensing location of the order. It is non editable field.	Yes	Read only
2.	Ordered Drug Code	By default it will display the drug ordered drug code which taken from the inventory. It is non editable field.	Yes	Read only
3.	Ordered Drug Desc	By default it will display the description name of the ordered drug. It is non editable field.	Yes	Read only
4.	Order Detail	By default it will display the details ordered of the drug. It is non editable field.	Yes	Read only
5.	Dosage Form	By default it will display the dosage form of the ordered drug. It is non editable field.	Yes	Read only
6.	Route	By default it will display the route of the ordered drug. It is non editable field.	Yes	Read only
7.	Supply Duration(days)	User shall be able to allocate the supply duration for the alternate drug in number of days.	Yes	Text field
8.	Date From To	User shall be able to edit on current start date/end date display or change the start date/end date for the alternate drug.	Yes	Calendar format in dd/mm/yyyy
9.	Drug Name	By default it will display the drug details. It is non editable field.	Yes	Read only
10.	Dosage Form	By default it will display the dosage form of the alternate drug. It is non editable field.	Yes	Read only
11.	Route	By default it will display the route of the alternate drug.	Yes	Read only



No.	Name		Mandatory	Format
		It is non editable field.		
12.	Qty per dose	User shall be able to enter the amount of quantity per dose. Once quantity per dose is entered, allocation quantity will be auto calculated.	Yes	Text field
13.	Batch	By default it will display the batch number from where stock is taken for the alternate drug.	Yes	Read only
14.	Expiry Date	By default it will display the expiry date of the batch item. It is non editable field.	Yes	Read only
15.	Available Qty	By default it will display the available stock quantity of the item batch. It is non editable field.	Yes	Read only
16.	SKU	By default it will display the SKU of the alternate drug. It is non editable field.	Yes	Read only
17.	Allocation Qty	User shall be able to enter or edit on the allocation quantity calculated earlier.	Yes	Text field
18.	Select	The select checkbox will be auto ticked if user entered quantity per dose for the selected alternate drug before save the alternate information. User able to select alternate drug from multiple batch item.	Yes	Check box
19.	Reason	User shall be able to enter reason for alternate drugs..	No	Text field
20.	Remarks	User shall be able to enter the remarks of the alternate drugs.	No	Text field
<b>Item Batch Details</b>				
1.	Drug Code	By default it will display the drug code for the selected drug. It is non editable field.	Yes	Read Only
2.	Drug Name	By default it will display the drug name of the selected item batch. It is non editable field.	Yes	Read Only
3.	Order Details	By default it will display the order details of the ordered drug. It will display dosage, frequency, duration, start date and end date. It is non editable field.	Yes	Read Only
4.	Default SKU	By default it will display the SKU for the ordered drug. It is non editable field.	Yes	Read Only
5.	Dispense UOM	By default it will display the default dispense UOM for the ordered drug. User shall be able to select the dispense UOM that has been set for the drug only.	Yes	Drop down
6.	Supply Duration	By default, supply duration for inpatient order is set to 1 day. User shall be able to change the supply duration in Item Batch Details screen. Once user change on supply duration value, end date will be recalculated back.	Yes	Text field
7.	Date From To	User shall be able to edit on current start date/end date display or change the start date/end date for the alternate drug.	Yes	Read only
8.	Batch No	By default, it will display the Batch No for the selected ordered drug. It is non editable field.	Yes	Read only

No.	Name		Mandatory	Format
9.	Expiry Date	By default it will display the expiry date of the item batch. It is non editable field.	Yes	Read only
10.	Available Qty	By default it will display the available quantity for the selected item batch. The value will be reduce once user entered a value at UOM quantity column. It is non editable field.	Yes	Read only
11.	UOM Qty	By default it will display the amount of UOM quantity based on the supply duration entered above. User shall be able to change back the amount of UOM quantity.	Yes	Text field
12.	Allocated Qty	By default it will display the amount of allocated quantity and value shall be same as amount entered for UOM quantity.	Yes	Read only
13.	Total Available Qty	By default it will display the total available quantity for the item batch. It is non editable field.	Yes	Read only
14.	Total Allocated Qty	By default it will display the total allocated quantity for the item batch. It is non editable field.	Yes	Read only
<b>Drug Counselling</b>				
1.	Counselling Indication	User shall be able to enter the counselling indicator in a free text. <i>Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation.</i>	No	Text field
2.	Cancelled	User shall be able to tick on the cancelled checkbox. Once ticked, another fields Cancelled By and Cancelled Reason will appear. <i>Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation</i>	No	Checkbox
3.	Cancelled By	By default it will display the login name of the person user id. It is non editable field. <i>Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation</i>	Yes	Read only
4.	Cancelled Reason	User shall be able to enter the cancelled reason in free text format. <i>Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation</i>	No	Text field
<b>Extemporaneous</b>				
1.	Preparation Done By	Preparation Done By radio button is to be selected either by Pharmacist or by Patient. Default value is Preparation Done by Pharmacist.	Yes	Radio button
2.	Preparation Name	Preparation Name will display a list of available extemporaneous preparation formula as setup in drug master.	Yes	Search
3.	Worksheet ID	Worksheet ID field is displayed only when preparation is done by pharmacist. Value is auto-generated by system once user saves the extemporaneous record and auto generated based on the format as below: Current Year-Current Month-Running Number Example: 14-06-0010 The running number is up to 4 integer values and	No	Read only

No.	Name		Mandatory	Format
		should reset monthly. Each month should generate the running number separately.		
4.	Concentration	Concentration field will be auto-populated based on the selected extemporaneous preparation.	Yes	Read only
5.	Dosage in (ml)	<p>Dosage is displayed based on the calculation as below:</p> <p>i. If the ordered Dosage is by drug strength UOM:  <math display="block">\text{Dosage (in ml)} = \frac{\text{Ordered Dosage}}{\text{Extemporaneous Concentration}}</math></p> <p>ii. If the ordered Dosage is by drug Quantity UOM:  <math display="block">\text{Dosage (in ml)} = \frac{(\text{Ordered Dosage} * \text{Order or Alternate drug Strength value})}{\text{Extemporaneous Concentration}}</math></p> <p>Value is auto-calculated and not editable.            Dosage UOM is hardcoded to ml (millilitre).</p>	Yes	Read only
6.	Active Ingredient: Item Name	Item Name for Active Ingredient will display value based on the ordered drug. If drug is alternate to another drug, the alternate drug name will be displayed. Value is read-only	Yes	Read only
7.	Active Ingredient: Quantity	Quantity for Active Ingredient will display value based on the drug allocated quantity as per allocation in the verification or preparation screen. Once user change the allocation, value in this field will update based on the latest allocation value. This field is read-only.	Yes	Read only
8.	Active Ingredient: UOM	Quantity UOM for Active Ingredient will display based on the ordered drug SKU UOM in drug master. If drug is alternate to another drug, the alternate drug SKU UOM will be displayed. Value is read-only.	Yes	Read only
9.	Vehicle: Item Name	Item Name for Vehicle will display value based on the selected extemporaneous preparation as setup in drug master. Value is read-only.	Yes	Read only
10.	Vehicle: Quantity and UOM	<p>Vehicle Quantity is displayed based on the calculation as below:</p> <p><i>Total Allocated Dose = Order or Alternate drug strength value * Allocated Qty (as per allocation in Verification or Preparation screen)</i></p> <p><i>Vehicle Quantity = Total Allocated Dose / Extemporaneous Concentration (Round up to the next integer, no decimal value)</i></p> <p><i>Value is auto-calculated but still allowed to edit.</i></p> <p><i>Vehicle UOM is auto-default to ml (millilitre) but still allowed to edit.</i></p> <p>Both fields are mandatory.</p>	Yes	Read only
11.	Storage Condition and Procedures in	This checkbox is for user to change the displayed Storage Condition and Procedures (Preparation by Pharmacist) values from english to local language (malay). Once user select the checkbox, system will	No	Checkbox

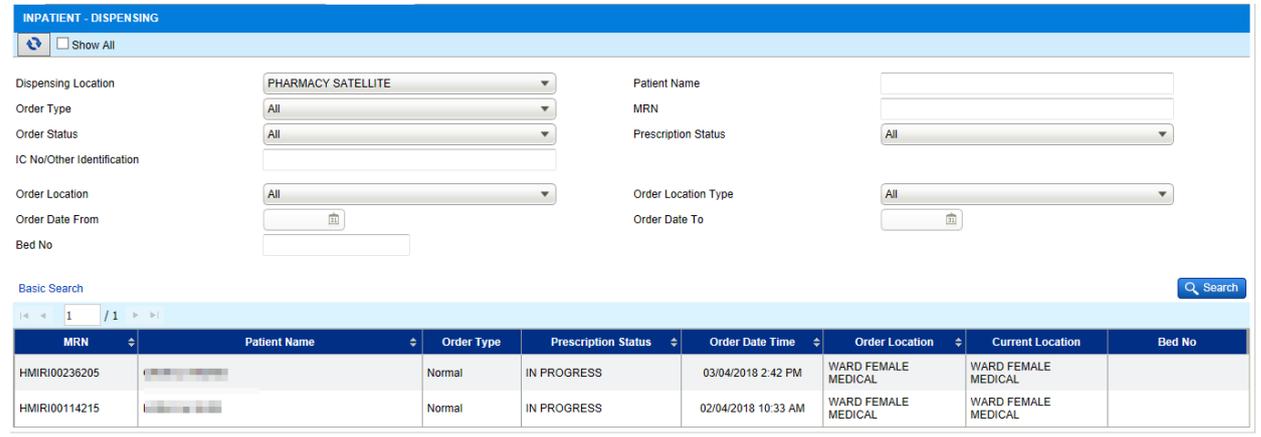


No.	Name		Mandatory	Format
	Local Language	display the local language value for the fields above as setup in drug master. This function is optional for user to select.		
12.	Storage Condition	Storage Condition is displayed based on the selected extemporaneous preparation based on the value setup in drug master. Field value will be displayed in english by default, once user select the Storage Condition and Procedures in Local Language checkbox, value will be displayed in local language (if any). This field is read-only.	No	Read only
13.	Expiry	Expiry is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field value will be used to auto generate the preparation expiry date in drug label. This field is numeric only with no decimal value. This field is mandatory.	Yes	Text field
14.	References	References field is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field is read-only.	No	Read only
15.	Formulation Remarks	References field is displayed based on the selected extemporaneous preparation based on the remarks value setup in drug master (if any). This field is read-only.	No	Read only
16.	Procedures (Preparation by Pharmacist)	Procedures (Preparation by Pharmacist) field will disable when preparation by patient radio button is selected. Field will enable only when preparation by pharmacist radio button is selected.	No	Read only
17.	Procedures (Preparation by Patient)	Procedures (Preparation by Patient) field is displayed based on the default format as below, but value is still editable:  <i>Cara Penyediaan:</i> <ol style="list-style-type: none"> <li>8. <i>Ambil (A) (Ordered or Alternate Drug Name).</i></li> <li>9. <i>Hancurkan (Ordered or Alternate Drug Name).</i></li> <li>10. <i>Tambah (B) ML (Extemporaneous Vehicle).</i></li> <li>11. <i>Tambah (Additional Item Quantity) ML (Additional Item Name).</i></li> <li>12. <i>Larutkan supaya sekata.</i></li> <li>13. <i>Sukat dan minum (Dosage in ml) ML.</i></li> <li>14. <i>Buat bancuhan baru setiap hari.</i></li> </ol> A = Ordered Dose / Ordered or Alternate drug strength value -> round up to the next integer. B = [A * (Ordered or Alternate drug strength)] / Extemporaneous Concentration -> round up to the next integer.  The procedure is displayed only in malay, no english	No	Read only

No.	Name		Mandatory	Format
		version for the patient procedures. For instruction no. 4, will only be displayed if additional item is available in the extemporaneous preparation.		
18.	Preparation Remarks	Remark is to be entered in the textbox. Maximum of 250 characters capacity. This field is not mandatory.	No	Text field

### 3.3.5.6 Dispensing Listing Screen

#### 3.3.5.6.1 Screen Design

<b>ID</b>	DS.SD1
<b>Description</b>	Dispensing Listing
<p><b>Diagram</b></p> <p>Dispensing Listing Screen</p>  <p>The screenshot shows a web interface for 'INPATIENT - DISPENSING'. It includes a 'Show All' checkbox, several dropdown menus for filters (Dispensing Location, Order Type, Order Status, IC No/Other Identification, Order Location, Order Location Type), and date pickers for 'Order Date From' and 'Order Date To'. There is a 'Patient Name' and 'MRN' input field, and a 'Prescription Status' dropdown. A 'Basic Search' link and a search button are also present. Below the filters is a table with columns: MRN, Patient Name, Order Type, Prescription Status, Order Date Time, Order Location, Current Location, and Bed No. Two records are shown with MRN values HMIRI00236205 and HMIRI00114215.</p>	
<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on Search button to search inpatient record based on input filter criteria.</li> <li>Double click on patient record to open the Dispensing screen.</li> <li>Click on Basic Search link to view basic search criteria or Advance Search link to filter with advance information.</li> </ul>
<b>Cross References</b>	None

#### 3.3.5.6.2 Application Business Rules

No.	Name	Description
1.	Dispensing Listing	<ul style="list-style-type: none"> <li>Dispensing list screen displayed for user to select patient record and dispense the order. Listing is sorted in ascending order based on order date.</li> <li>By default, patient's record is displayed based on the order date as below:</li> <li>All record should be displayed after user prepared the order.</li> <li>Partial dispense and In Progress record will also be listed</li> <li>All type of record which dispensing location is inpatient, will be</li> </ul>



No.	Name	Description
		displayed here.
2.	Refresh List	Click on the Refresh button, system will reset all searched records and searching criteria to default value.
3.	Search	Record will be search by input criteria. Searching in Dispensing list are based on record status with Prepared, Prepared Hold and Partial Dispense.

3.3.5.6.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Dispensing Location	Preparation listing shall be retrieved record from dispensing location set by user.	Yes	Drop down list (search field)
2.	Order Type	Default value set to All and shall be retrieve from database for all order type. Other value of Order Type = Normal, Discharge, SPUB, Referred Patient.	No	Drop down list (search field)
3.	Order Status	Default value set to All and shall be retrieve from database for all order status. Other value of Order Status = New Order, Partial Supply.	No	Drop down list (search field)
4.	IC No/Other Identification	Shall retrieve value of patient IC number or other identification number.	No	Text box (search field)
5.	Order Location	By default, location is default to user's login location. The listed location values are based on the user's granted location as setup in User Profile screen.	No	Drop down list (search field)
6.	Order Date From	Search on the 'date from' when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
7.	Order Date To	Search on the end of order date when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
8.	Next Supply From	Search on record which match with the next supply date from.	No	Calendar in format dd/mm/yyyy (searching field)
9.	Next Supply To	Search on record which match with the next supply date to.	No	Calendar in format dd/mm/yyyy (searching field)
10.	Patient Name	Screening and Verification listing shall be retrieved	No	Text field

No.	Name	Description	Mandatory	Format
		from the database for all registered patients with visit based on matching Patient Name.		(searching field)
11.	MRN	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching MRN.	No	Text field (searching field)
12.	Prescription Status	Search on the status of the prescription either Hold or Expired. Hold status will include record with Ordered Hold and Expired will show a record with inpatient visit still open but drug order has been expired.	No	Drop down list (searching field)
13.	Order Location Type	Default value set to All and shall be retrieved from the database for all order location type. Other Order Location Type types = Clinic, ER, Daycare, Nursing Unit, Pharmacy.	No	Drop down list (search field)
14.	Bed No	Record will be search based on value input for bed number.	No	Text field (searching field)

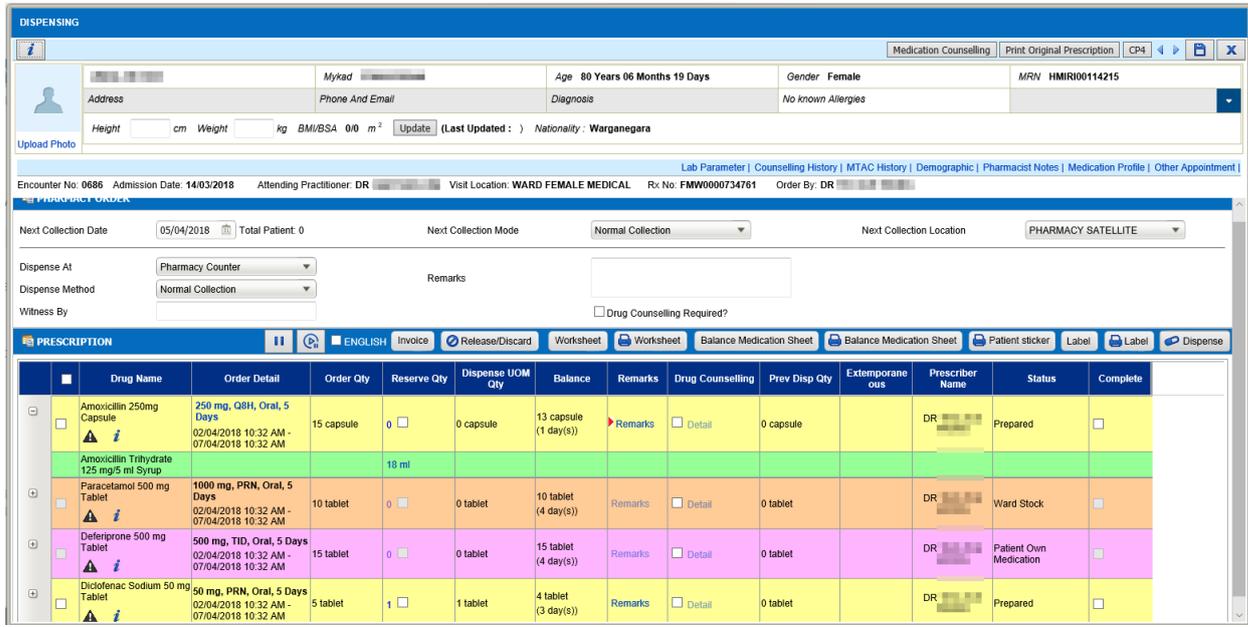
### 3.3.5.7 Dispensing Screen

#### 3.3.5.7.1 Screen Design

<b>ID</b>	DS.SD2
<b>Description</b>	Dispensing Screen

**Diagram**

*i. Dispensing Screen*



The screenshot shows a software interface for dispensing. At the top, there are navigation buttons like 'Medication Counselling', 'Print Original Prescription', and 'CP4'. Below that is a patient information section with fields for Mykad, Age (80 Years 06 Months 19 Days), Gender (Female), MRN (HMIR00114215), Address, Phone And Email, Diagnosis, and No known Allergies. There are also fields for Height, Weight, BMI/BSA, and Nationality (Warganegara). Below this is a section for 'ENCOUNTER ORDER' with fields for Next Collection Date (05/04/2018), Total Patient (0), Next Collection Mode (Normal Collection), and Next Collection Location (PHARMACY-SATELLITE). There are also dropdowns for Dispense At (Pharmacy Counter) and Dispense Method (Normal Collection). A toolbar contains buttons for 'PRESCRIPTION', 'ENGLISH', 'Invoice', 'Release/Discard', 'Worksheet', 'Balance Medication Sheet', 'Patient sticker', 'Label', and 'Dispense'. The main part of the screen is a table with columns: Drug Name, Order Detail, Order Qty, Reserve Qty, Dispense UOM Qty, Balance, Remarks, Drug Counselling, Prev Disp Qty, Extemporaneous, Prescriber Name, Status, and Complete. The table lists four items: Amoxicillin 250mg Capsule (13 capsules, Prepared), Amoxicillin Trihydrate 125 mg/5 ml Syrup (18 ml), Paracetamol 500 mg Tablet (10 tablets, Ward Stock), and Difenprone 500 mg Tablet (15 tablets, Patient Own Medication). The last item, Diclofenac Sodium 50 mg Tablet (4 tablets, Prepared), is also listed.

*ii. Hold (Countercheck)*



**COUNTERCHECK**

Hold

Drug Name	Reason	Correction Required
Amoxicillin 250mg Capsule		<input type="checkbox"/>

1 / 1

Drug Name	Reason	Selection
Amoxicillin 250mg Capsule	Not Filled	<input type="checkbox"/>

iii. Resume (Countercheck)

**COUNTERCHECK**

Resume

Drug Name	Reason	Selection
Amoxicillin 250mg Capsule	Not Filled	<input checked="" type="checkbox"/>

1 / 1 [ 1 - 1 / 1 ]

iv. Item Batch Details

**ITEM BATCH DETAILS**

Drug Code: J01CA04012C1001XX  
 Drug Name: Amoxicillin 250mg Capsule  
 Order Detail: 250 mg, Q8H, 5 Days, 02/04/2018 - 07/04/2018

Default SKU: capsule  
 Dispense UOM: capsule  
 Supply Duration: 1 days Date From 04/04/2018 to 05/04/2018

**BATCH DETAIL**

Batch No	Expiry Date	Available Qty	UOM Qty	Allocated Qty
16G0273	31/07/2019	2500	3 capsule	3
16L0521	30/11/2019	10000	0 capsule	0
Total Available Qty		12500	Total Allocated Qty	
			3	

v. Drug Counselling: Details

**COUNSELLING INDICATION**

📄 🔄 ✕

Counselling Indication

Cancelled

Cancelled By

Cancelled Reason

vi. *Extemporaneous*

**EXTEMPORANEOUS**

📄 🔄 ✕

Preparation Done By  Pharmacist  Patient      Worksheet ID

Preparation Name       Concentration   /ml

Dosage  ml

Item	Item Name	Quantity	UOM
Active Ingredient	Enalapril 10 mg Tablet		1 tablet
Vehicle	Distilled Water	<input style="width: 50px;" type="text" value="100"/>	<input style="width: 50px;" type="text" value="ml"/>

Storage Condition and Procedures in Local Language

Storage Condition       Expiry  Days

References       Formulation Remarks

Procedures(Preparation by Pharmacist)

Procedures(Preparation by Patient)

Preparation Remarks

vii. *Release/Discard*

**RELEASE/DISCARD BATCH**

📄 🔄 ✕

IC No/Other Identification

Drug Name  🔍 Search

New Record(s) [ 1 - 3 / 3 ]

MRN	Patient Name	Medication Order No	Drug Name	Prepared Qty	Preparation Date	Status	Reason for Release/Discard	Remark
<input checked="" type="checkbox"/> HMIRI00236205	§	FMW0000734766	Methotrexate 2.5 mg Tablet	2 tablet	04/04/2018	Prepared	<input style="width: 50px;" type="text" value="Intervention"/>	<input style="width: 50px;" type="text"/>
<input type="checkbox"/> HMIRI00236205	§	FMW0000734766	Enalapril 10 mg Tablet	1 tablet	04/04/2018	Prepared	<input style="width: 50px;" type="text"/>	<input style="width: 50px;" type="text"/>
<input type="checkbox"/> HMIRI00236205	§	FMW0000734766	Amlodipine 10 mg Tablet	1 tablet	04/04/2018	Prepared	<input style="width: 50px;" type="text"/>	<input style="width: 50px;" type="text"/>

viii. Invoice

INVOICE			
MRN	HMIRI00114215		
Patient Name	[REDACTED]		
Visit Date	14/03/2018		
[ 1 - 1 / 1 ]			
S.L.No.	Drug Name	Quantity	Amount
1	Diclofenac Sodium 50 mg Tablet	1	0.10

ix. Invoice Printing

**KEMENTERIAN KESIHATAN MALAYSIA**  
**Hospital Miri**  
**Invoice**

Invoice No. : 03/04/2018\_867557

Date : 03/04/2018

MRN : HMIRI00114215

Patient Name : [REDACTED]

No	Drug Name	Quantity	Amount
1	Diclofenac Sodium 50 mg Tablet	1	0.10
Total : RM			0.10

x. BMS Printing

**KEMENTERIAN KESIHATAN MALAYSIA**  
**HOSPITAL MIRI**  
**BALANCE MEDICATION SHEET**

No Preskripsi	: FMW000734761	Tarikh Preskripsi	: 02/04/2018
Nama	: [REDACTED]	No K/P	: [REDACTED]
Umur	: 81 Years, 19 Days 15/09/1937	MRN	: HMIRI00114215
Lokasi	: WARD FEMALE MEDICAL		
Alahan	:	Berat	:
Diagnosis	: ddd	BMI/BSA	: /
		Dipreskrib oleh	: DR [REDACTED]
		Temujanji Klinik	:

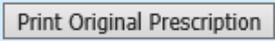
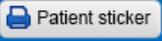
Bil	Maklumat Preskripsi			Maklumat Pendispensan											
	Nama Ubat	Maklumat Dos	Kuantiti Ubat	Tarikh:	TCA		05/04/2018		Tarikh:	TCA		Tarikh:	TCA		
				Kuantiti	Baki	F	D	Kuantiti	Baki	F	D	Kuantiti	Baki	F	D
1	Amoxicillin 250mg Capsule	250 mg, Q8H , 5 Days, Oral	15 capsule	0	15										
2	Paracetamol 500 mg Tablet	1000 mg, PRN , 5 Days, Oral	10 tablet	0	10										
3	Diclofenac Sodium 50 mg Tablet	50 mg, PRN , 5 Days, Oral	5 tablet	1	4										

xi. Worksheet Printing

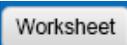
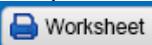
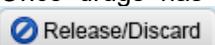


EXTEMPORANEOUS WORKSHEET (PARTIAL)									
MINISTRY OF HEALTH HOSPITAL MIRI									
Date of preparation : 04/04/2018					Worksheet Id: 18-04-0070				
MRN	HMIRI00236205				Name	C [REDACTED]			
ID No	[REDACTED]				Rx. No.	FMW0000734766			
Order Location	WARD FEMALE MEDICAL				Ordered By	DR [REDACTED]			
Order Date	03/04/2018								
No	ROA	Preparation Name	Dose	Total Dose	Material Used				Storage
					Item Name	Volume/Qty Required	Batch No	Expiry Date	
1.	Oral	Enalapril Suspension 0.1 mg/mL(water) Expiry Date : 17/04/2018	10mg (100ML)	10mg (100ml)	Enalapril 10 mg Tablet	1 tablet	EC17J014	31/08/2020	Room Temperature.
					Distilled Water	100 ml			
Remarks:					<b>Instruction:</b> 1. Crush tablets in a mortar to make fine powders. 2. Levigate powders with small amount of distilled water until homogenous. 3. Make up to the final volume using distilled water.				
Reference: Extemporaneous Formulation, MOH 2015									
Worksheet generated by [REDACTED]			Worksheet & label checked by [REDACTED]			Prepared by [REDACTED]		Final Product Checked by [REDACTED]	
Date: 04/04/2018			Date: 04/04/2018			Date:		Date:	
<b>Notes</b>					<ul style="list-style-type: none"> <li>Click on Print Original Prescription to print the Original Prescription form.</li> <li>Click on Medication Counselling to open the medication counselling order screen.</li> <li>Click on CP4 to open CP4 screen.</li> <li>Click on arrow next previous to open next patient in screening list.</li> <li>Click on Save button to save any changes done on the patient record.</li> <li>Click on available link to open and view the related records in related screen.</li> <li>Click on Dispense button to dispense the order.</li> <li>Click on Label to print the drug label through direct printing or preview printing.</li> <li>Click on Patient Sticker to print the sticker.</li> <li>Click on Balance Medication Sheet button to print the BMS.</li> <li>Click on Worksheet is applicable, to print the worksheet.</li> <li>Click on Release/Discard button to release the allocated quantity.</li> <li>Click on Invoice to print the invoice form.</li> <li>Click on icon HOLD  to hold the drug order.</li> <li>Click on icon RESUME  to resume the hold drug.</li> <li>Click on 'Reserve Qty' value to re-allocate the reserve quantity.</li> <li>Click on 'Remarks' link to insert the pharmacist remarks at Dispensing stage.</li> </ul>				

3.3.5.7.2 Application Business Rules

No.	Name	Description
1.	Record Status	<ul style="list-style-type: none"> <li>Record with status Prepare, Prepare Hold or Partial Dispense will be listed inside Preparation list for inpatient order.</li> <li>Normal drug will be highlight with yellow color and user able to verify, prepare and dispense the order.</li> <li>Ward stock drug will be highlight with brown color and record will not going to dispense. Status of the drug will show as 'Ward Stock'</li> <li>Own Medication drug will be highlight with pink color and record will not going to dispense. Status of the drug will show as 'Patient Own Medication'.</li> </ul>
2.	Printing	<ul style="list-style-type: none"> <li>User able to print the original prescription record when click on  button. Prescriber name with designation and department will be displayed at each of drug name.</li> <li>Print drug label only for a drug with allocated quantity. User shall be able to directly print the drug label directly  or click on  button to preview first before print. Editing on drug label for certain field is allowed before print in preview label.</li> <li>Printing of Patient Sticker , direct print available at Dispensing screen.</li> <li>Worksheet button   will be able to open a worksheet form if there are any extemporaneous drug in the order and user able to print it with direct print or preview print.</li> <li>Invoice will be printed through Invoice screen. Refer to section 3.2.5.11 for more details.</li> <li>Balance Medication Sheet will be printed if user click on  button for preview print or  for direct print.</li> </ul>
3.	Reserve Quantity	<ul style="list-style-type: none"> <li>Quantity to be reserved for this order. By default this value will be 0.</li> <li>If Reserve Qty display in red text , it means no stock available.</li> <li>User shall be able to dispense the quantity with 0 allocation by ticked on the check box .</li> <li>Reserve Quantity value is being set at Screening or Preparation stage once record is being verified or prepared.</li> <li>However, user shall be able to de-allocate back the reserve quantity using Item Batch Details screen.</li> </ul>
4.	Hold drug at countercheck	<ul style="list-style-type: none"> <li>User shall be able to select multiple drugs and hold. Select multiple checkbox and then click on HOLD  icon. Another pop-up windows will appear. User cannot hold again the existing hold drugs where alert will be displayed.</li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>Enter the hold reason and then click on Add  button. Record will be inserted into a table form.</li> <li>User shall be able to add in multiple hold reason for the same drugs.</li> <li>Once these hold reason is added at the table form, there is checkbox  at Selection column <input type="checkbox"/> that user has to choose and then click on Hold  button to confirm and hold the drugs.</li> </ul>
5.	Resume drug at countercheck	<ul style="list-style-type: none"> <li>User shall be able to select multiple drugs and resume. Select multiple checkbox and then click on RESUME  icon. Another pop-up windows will appear.</li> <li>At Resume countercheck screen, it will display a list of drug names and reason.</li> <li>There is a checkbox at Selection column  that user has to choose and then click on Resume  button to confirm and resume the drugs.</li> </ul>
6.	Dispensing	<ul style="list-style-type: none"> <li>On click of Dispense  button, record will be dispense.</li> <li>Before record is dispense, it will check on available quantity and if available quantity is zero in stock, alert message to hold or dispense with zero quantity will appear.</li> <li>Drug withhold status will not be dispense.</li> <li>Ward stock and own medication will not dispense. Record status remain as 'Ward Stock' and 'Own Medication'.</li> </ul>
7.	Link	<p>Few text link to open another screen which related to the patient record available at Acknowledgment screen:</p> <ul style="list-style-type: none"> <li>Lab Parameter (for search and view only)</li> <li>Counselling History (for search and view only)</li> <li>MTAC History (for search and view only)</li> <li>Demographic (view and update field for address and phone number only)</li> <li>Pharmacist Notes (for search and view only)</li> <li>Medication Profile (for search and view only)</li> <li>Other Appointment (view only)</li> </ul>
8.	CP4	<p>Once click on CP4 button , a CP4 screen will appear. Refer to PHIS_CPS_SDD_WP_v1.3.</p>
9.	Extemporaneous	<ul style="list-style-type: none"> <li>Extemporaneous Details link  <b>Detail</b> will enable if user ticked on the checkbox and value entered for Extemporaneous drugs.</li> <li>At dispensing, user should be able to view back on the extemporaneous details. No editing is allowed at dispensing stage for</li> </ul>

No.	Name	Description
		<p>extemporaneous drug.</p> <ul style="list-style-type: none"> <li>User also able to print the Worksheet from the Extemporaneous details link or through a worksheet button  .</li> </ul>
10.	Release and Discard	<ul style="list-style-type: none"> <li>User shall be able to do de-allocation or release back on the stock allocated for the drug at dispensing screen.</li> <li>Before click on Release/Discard button at this screen, user have to select on the record by tick on the checkbox <input type="checkbox"/> available at the left of the drugs name. Click on this checkbox <input checked="" type="checkbox"/> if user wants to select all drugs display in the listing.</li> <li>Once drugs has been selected, click on Release/Discard button  to deallocate back the stock.</li> </ul>

### 3.3.5.7.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Dispensing Screen</b>				
1.	Next Collection Date	By default it will show the next collection date based on the supply duration set earlier. User shall be able to change the date for next collection.	No	Calendar format in dd/mm/yyyy
2.	Next Collection Mode	By default it will show the next collection mode as a current collection mode. User still able to change the value. There was a selection of next collection mode which are by Appointment Card, Email and Take, Fax and Take, Normal Collection, SMS and Take, Telephone and Take, UMP and others.	Yes	Drop down list
3.	Next Collection Location	By default it will show the next collection location as a current collection location. User still able to change the value. The next collection location will consists an inpatient dispense location.	Yes	Drop down list
4.	Dispense At	By default it will display 'Pharmacy Counter' as the current dispensing. User shall be able to change the value to Bedside or Drive Through.	Yes	Drop down list
5.	Dispense Method	By default it will show the current dispense method as 'Normal Collection'. User shall be able to change the current dispense method to Direct Observe Therapy (DOT).	Yes	Drop down list
6.	Witness By	It is a free text field which user shall be able to enter a person's name that witness for the dispensing. Usually it will be a pharmacist's name	No	Text field
7.	Remarks	Pharmacist shall be able to enter remarks before proceed with dispensing.	No	Text field
8.	Drug Counselling Required?	User shall be able to tick on the checkbox if drug counselling is required. The value will reflect to drug counselling module. Refer to document	No	Check box



No.	Name	Description	Mandatory	Format
		PHIS_CPS_SDD_MC_v1.3 for more details.		
<b>Hold (Countercheck)</b>				
1.	Reason	Multiple or one drug can be selected through a checkbox list. The hold reason will be updated into the selected drug(s). Hold reason dataset: <ul style="list-style-type: none"> <li>• Intervention</li> <li>• Not Filled</li> <li>• Wrong Drug Filled</li> <li>• Wrong Label Information</li> <li>• Wrong Patient Label</li> <li>• Wrong Quantity Filled</li> <li>• Wrong Strength Filled</li> </ul>	Yes	Drop down list
2.	Correction Required	A checkbox to select either hold drug required correction or not.	Yes	Checkbox
3.	Selection	A checkbox to select the drugs for hold.	Yes	Checkbox
<b>Resume (Countercheck)</b>				
1.	Resume Selection	A checkbox to select which drug with a reason to resume.	No	Checkbox
<b>Item Batch Details</b>				
1.	Drug Code	By default it will display the drug code for the selected drug. It is non editable field.	Yes	Read Only
2.	Drug Name	By default it will display the drug name of the selected item batch. It is non editable field.	Yes	Read Only
3.	Order Details	By default it will display the order details of the ordered drug. It will display dosage, frequency, duration, start date and end date. It is non editable field.	Yes	Read Only
4.	Default SKU	By default it will display the SKU for the ordered drug. It is non editable field.	Yes	Read Only
5.	Dispense UOM	By default it will display the default dispense UOM for the ordered drug. User shall be able to select the dispense UOM that has been set for the drug only.	Yes	Drop down
6.	Supply Duration	By default, supply duration for inpatient order is set to 1 day. User shall be able to change the supply duration in Item Batch Details screen. Once user change on supply duration value, end date will be recalculated back.	Yes	Text field
7.	Date From To	User shall be able to edit on current start date/end date display or change the start date/end date for the alternate drug.	Yes	Read only
8.	Batch No	By default, it will display the Batch No for the selected ordered drug. It is non editable field.	Yes	Read only
9.	Expiry Date	By default it will display the expiry date of the item	Yes	Read only



No.	Name	Description	Mandatory	Format
		batch. It is non editable field.		
10.	Available Qty	By default it will display the available quantity for the selected item batch. The value will be reduce once user entered a value at UOM quantity column. It is non editable field.	Yes	Read only
11.	UOM Qty	By default it will display the amount of UOM quantity based on the supply duration entered above. User shall be able to change back the amount of UOM quantity.	Yes	Text field
12.	Allocated Qty	By default it will display the amount of allocated quantity and value shall be same as amount entered for UOM quantity.	Yes	Read only
13.	Total Available Qty	By default it will display the total available quantity for the item batch. It is non editable field.	Yes	Read only
14.	Total Allocated Qty	By default it will display the total allocated quantity for the item batch. It is non editable field.	Yes	Read only
<b>Drug Counselling</b>				
1.	Counselling Indication	User shall be able to enter the counselling indicator in a free text. <i>Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation.</i>	No	Text field
2.	Cancelled	User shall be able to tick on the cancelled checkbox. Once ticked, another fields Cancelled By and Cancelled Reason will appear. <i>Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation</i>	No	Checkbox
3.	Cancelled By	By default it will display the login name of the person user id. It is non editable field. <i>Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation</i>	Yes	Read only
4.	Cancelled Reason	User shall be able to enter the cancelled reason in free text format. <i>Refer to document PHIS_CPS_SDD_MC_v1.3.docx for more explanation</i>	No	Text field
<b>Extemporaneous</b>				
1.	Preparation Done By	Preparation Done By radio button is to be selected either by Pharmacist or by Patient. Default value is Preparation Done by Pharmacist.	Yes	Radio button
2.	Preparation Name	Preparation Name will display a list of available extemporaneous preparation formula as setup in drug master.	Yes	Search
3.	Worksheet ID	Worksheet ID field is displayed only when preparation is done by pharmacist. Value is auto-generated by system once user saves the extemporaneous record and auto generated based on the format as below: Current Year-Current Month-Running Number Example: 14-06-0010 The running number is up to 4 integer values and should reset monthly. Each month should generate the	No	Read only



No.	Name	Description	Mandatory	Format
		running number separately.		
4.	Concentration	Concentration field will be auto-populated based on the selected extemporaneous preparation.	Yes	Read only
5.	Dosage in (ml)	<p>Dosage is displayed based on the calculation as below:</p> <p>iii. If the ordered Dosage is by drug strength UOM:  <math display="block">\text{Dosage (in ml)} = \frac{\text{Ordered Dosage}}{\text{Extemporaneous Concentration}}</math></p> <p>iv. If the ordered Dosage is by drug Quantity UOM:  <math display="block">\text{Dosage (in ml)} = \frac{(\text{Ordered Dosage} * \text{Order or Alternate drug Strength value})}{\text{Extemporaneous Concentration}}</math></p> <p>Value is auto-calculated and not editable.            Dosage UOM is hardcoded to ml (millilitre).</p>	Yes	Read only
6.	Active Ingredient: Item Name	Item Name for Active Ingredient will display value based on the ordered drug. If drug is alternate to another drug, the alternate drug name will be displayed. Value is read-only	Yes	Read only
7.	Active Ingredient: Quantity	Quantity for Active Ingredient will display value based on the drug allocated quantity as per allocation in the verification or preparation screen. Once user change the allocation, value in this field will update based on the latest allocation value. This field is read-only.	Yes	Read only
8.	Active Ingredient: UOM	Quantity UOM for Active Ingredient will display based on the ordered drug SKU UOM in drug master. If drug is alternate to another drug, the alternate drug SKU UOM will be displayed. Value is read-only.	Yes	Read only
9.	Vehicle: Item Name	Item Name for Vehicle will display value based on the selected extemporaneous preparation as setup in drug master. Value is read-only.	Yes	Read only
10.	Vehicle: Quantity and UOM	<p>Vehicle Quantity is displayed based on the calculation as below:</p> <p><i>Total Allocated Dose = Order or Alternate drug strength value * Allocated Qty (as per allocation in Verification or Preparation screen)</i></p> <p><i>Vehicle Quantity = Total Allocated Dose / Extemporaneous Concentration (Round up to the next integer, no decimal value)</i></p> <p><i>Value is auto-calculated but still allowed to edit.</i></p> <p><i>Vehicle UOM is auto-default to ml (millilitre) but still allowed to edit.</i></p> <p>Both fields are mandatory.</p>	Yes	Read only
11.	Storage Condition and Procedures in	This checkbox is for user to change the displayed Storage Condition and Procedures (Preparation by Pharmacist) values from english to local language (malay). Once user select the checkbox, system will display the local language value for the fields above as	No	Checkbox



No.	Name	Description	Mandatory	Format
	Local Language	setup in drug master. This function is optional for user to select.		
12.	Storage Condition	Storage Condition is displayed based on the selected extemporaneous preparation based on the value setup in drug master. Field value will be displayed in english by default, once user select the Storage Condition and Procedures in Local Language checkbox, value will be displayed in local language (if any). This field is read-only.	No	Read only
13.	Expiry	Expiry is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field value will be used to auto generate the preparation expiry date in drug label. This field is numeric only with no decimal value. This field is mandatory.	Yes	Text field
14.	References	References field is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field is read-only.	No	Read only
15.	Formulation Remarks	References field is displayed based on the selected extemporaneous preparation based on the remarks value setup in drug master (if any). This field is read-only.	No	Read only
16.	Procedures (Preparation by Pharmacist)	Procedures (Preparation by Pharmacist) field will disable when preparation by patient radio button is selected. Field will enable only when preparation by pharmacist radio button is selected.	No	Read only
17.	Procedures (Preparation by Patient)	<p>Procedures (Preparation by Patient) field is displayed based on the default format as below, but value is still editable:</p> <p><i>Cara Penyediaan:</i></p> <ol style="list-style-type: none"> <li>1. <i>Ambil (A) (Ordered or Alternate Drug Name).</i></li> <li>2. <i>Hancurkan (Ordered or Alternate Drug Name).</i></li> <li>3. <i>Tambah (B) ML (Extemporaneous Vehicle).</i></li> <li>4. <i>Tambah (Additional Item Quantity) ML (Additional Item Name).</i></li> <li>5. <i>Larutkan supaya sekata.</i></li> <li>6. <i>Sukat dan minum (Dosage in ml) ML.</i></li> <li>7. <i>Buat bancuhan baru setiap hari.</i></li> </ol> <p>A = Ordered Dose / Ordered or Alternate drug strength value -&gt; round up to the next integer.            B = [A * (Ordered or Alternate drug strength)] / Extemporaneous Concentration -&gt; round up to the next integer.</p> <p>The procedure is displayed only in malay, no english version for the patient procedures.</p>	No	Read only



No.	Name	Description	Mandatory	Format
		For instruction no. 4, will only be displayed if additional item is available in the extemporaneous preparation.		
18.	Preparation Remarks	Remark is to be entered in the textbox. Maximum of 250 characters capacity. This field is not mandatory.	No	Text field
<b>Release/Discard</b>				
1.	IC No/Other Identification	User shall be able to enter the IC number or other identification number only for a selected patient that user choose from Single Stage Dispensing screen. Release/Discard screen is applicable for a pharmacist that has same dispense location as patient dispense location.	No	Search field
2.	Drug Name	User shall be able to search y specific drug name for the selected patient only. By default, list of the drugs will display a listing of drug order that belongs to the patient's name at single stage dispensing screen.	No	Search field
3.	MRN	MRN column will displayed the MRN number belongs to the patient. It is read only field in table form.	Yes	Read Only
4.	Patient Name	Display the patient name which user choose from the Single Stage screen. It is read only field in a table form.	Yes	Read Only
5.	Medication Order No	It shall display the prescription number of the order. It is read only field in a table form.	Yes	Read Only
6.	Drug Name	It shall display the list if drugs name within same prescription number. It is read only field in a table form.	Yes	Read Only
7.	Prepared Qty	It shall display the prepared quantity allocated. It is read only field in table form.	Yes	Read Only
8.	Preparation Date	It shall display the preparation date of the order. It is read only field in table form.	Yes	Read Only
9.	Status	It shall display the current status of the drug order. It is read only field in table form.	Yes	Read Only
10.	Reason for Release/Discard	User shall be able to add in reason for release/discard the drug order. This reason data consists of: Change of Regimen, Faulty Product, Intervention, Patient Refused, Uncollected and Wrong Allocation.	Yes	Drop down list
11.	Remarks	User shall be able to add in remarks if applicable.	No	Text field
<b>Invoice</b>				
1.	MRN	MRN number of the patient.	Yes	Read Only
2.	Patient Name	Display the patient name in full.	Yes	Read Only
3.	Visit Date	Display the visit date of the order.	Yes	Read Only
4.	S.L. No	The sequence number in numbering.	Yes	Read Only
5.	Drug Name	Display the list of drugs name from the same order.	Yes	Read Only
6.	Quantity	Display the quantity amount of the order.	Yes	Read Only
7.	Amount	Display the total amount of each drug (drug price x	Yes	Read Only



No.	Name	Description	Mandatory	Format
		quantity).		

3.3.5.8 Fill List Screen

3.3.5.8.1 Screen Design

<b>ID</b>	FL.SD1
<b>Description</b>	Fill List

Diagram

i. Generate Fill List

**GENERATE FILL LIST**

Dispense Location: PHARMACY SATELLITE | Supply Date From: 05/04/2018 11:26 AM  
 Nursing Unit: WARD FEMALE MEDICAL | Supply Date To: 06/04/2018 11:27 AM  
 No Of Days: 2 | Dispense At: Pharmacy Counter | Dispense Method: Normal Collection  
 Select/Deselect All |

Patient Name	Patient ID	MRN No	Gender	Age	Room/Bed No			
<input checked="" type="checkbox"/>		HMIRI00097243	M	13 Years 07 Months 30 Days				
<input checked="" type="checkbox"/>	02/04/2018	FMW0000734760	Metronidazole 200 mg Tablet	200 mg, Q8H, Oral, 7 Days	21	3	0	
<input checked="" type="checkbox"/>		HMIRI00097252	M	44 Years 05 Months 30 Days				
<input checked="" type="checkbox"/>	03/04/2018	FMW0000734765	Amoxicillin 250mg Capsule	250 mg, Q8H, Oral, 7 Days	21	3	0	
<input checked="" type="checkbox"/>	03/04/2018	FMW0000734765	Perindopril 8 mg Tablet	8 mg, 4XWK, Oral, 7 Days	4	1	0	
<input checked="" type="checkbox"/>		HMIRI00251618	F	81 Years 08 Months				
<input checked="" type="checkbox"/>	05/04/2018	FMW0000734624	Sterile Water for Injection 500mL	500 ml, OD, Intravenous Infusion, 5 Days	5	1	0	
<input checked="" type="checkbox"/>		HMIRI00114215	F	80 Years 06 Months 20 Days				

ii. Manage Fill List

**MANAGE FILL LIST**

Dispense Location: PHARMACY SATELLITE | Fill No: FMW/20180405/16  
 Nursing Unit: WARD FEMALE MEDICAL | Supply Date From: 05/04/2018 11:29 AM | Supply Date To: 06/04/2018 11:29 AM  
 No Of Days: 1 |  Dangerous Drug  Normal Drug

Patient Name	Patient ID	MRN No	Gender	Age	Room/Bed No			
<input type="checkbox"/>		HMIRI00097243	M	13 Years 07 Months 30 Days				
<input type="checkbox"/>	02/04/2018	FMW0000734760	Metronidazole 200 mg Tablet	200 mg, Q8H, Oral, 7 Days	21	3	0	
<input type="checkbox"/>		HMIRI00097252	M	44 Years 05 Months 30 Days				
<input type="checkbox"/>	03/04/2018	FMW0000734765	Amoxicillin 250mg Capsule	250 mg, Q8H, Oral, 7 Days	21	3	0	
<input type="checkbox"/>	03/04/2018	FMW0000734765	Perindopril 8 mg Tablet	8 mg, 4XWK, Oral, 7 Days	4	1	0	
<input type="checkbox"/>		HMIRI00251618	F	81 Years 08 Months				
<input type="checkbox"/>	05/04/2018	FMW0000734624	Sterile Water for Injection 500mL	500 ml, OD, Intravenous Infusion, 5 Days	5	1	0	
<input type="checkbox"/>		HMIRI00114215	F	80 Years 06 Months 20 Days				
<input type="checkbox"/>	02/04/2018	FMW0000734761	Diclofenac Sodium 50 mg Tablet	50 mg, PRN, Oral, 5 Days	5	1	1	04/04/2018 12:32:49 PM

iii. Fill No Search Window

FMW/20180405/16

**Fill No Search** X

Fill No	FMW/20180405/16	Nursing Unit	
Supply Date From	05/04/2018	Supply Date To	06/04/2018

1 / 1 [ 1 - 1 / 1 ]

Fill No	Nursing Unit	Supply Date From	Supply Date To
FMW/20180405/16	WARD FEMALE MEDICAL	05/04/2018 11:29:00 AM	06/04/2018 11:29:00 AM

iv. Fill List printing

**KEMENTERIAN KESIHATAN MALAYSIA**  
**Hospital Miri**

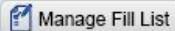
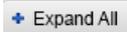
Nursing Unit From : WARD FEMALE MEDICAL      Date From : 05/04/2018 11:29 AM  
 Fill Process ID : FMW/20180405/16      Date To : 06/04/2018 11:29 AM  
 Fill Process Executed Date/Time : 05/04/2018 11:33 AM      Supply Duration : 1 days

Fill Date	Rx Date	Rx No	Drug	Dose	Route	Freq Code	Qty Reqd	Fill UOM	Batch ID	Expiry Date
Patient Name / ID / MRN : ██████████ / HMIRI0097243      Room/Bed No : /										
05/04/2018	02/04/2018	FMW0000734760	Metronidazole 200 mg Tablet	200 mg	ORAL	Q&H		3 tablet	17F201	30/04/2020
Patient Name / ID / MRN : ██████████ / HMIRI0097252      Room/Bed No : /										
05/04/2018	03/04/2018	FMW0000734765	Amoxicillin 250mg Capsule	250 mg	ORAL	Q&H		3 capsule	16G0273	31/07/2019
05/04/2018	03/04/2018	FMW0000734765	Perindopril 8 mg Tablet	8 mg	ORAL	4XWK		1 tablet	5000437	31/10/2019
Patient Name / ID / MRN : ██████████ / HMIRI0097252      Room/Bed No : /										
06/04/2018	12/03/2018	FMW0000734624	Sterile Water for Injection 500mL	500 ml	INF	OD		1 bott	435434	26/12/2020
Patient Name / ID / MRN : LI ██████████ / HMIRI00114215      Room/Bed No : /										
05/04/2018	02/04/2018	FMW0000734761	Diclofenac Sodium 50 mg Tablet	50 mg	ORAL	PRN		1 tablet	PDU 7006	29/02/2020

Collected By: \_\_\_\_\_      Dispensed By: \_\_\_\_\_

<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on Fill List button to query on inpatient record.</li> <li>Click on Save button to generate the fill list of inpatient.</li> <li>Click on Manage Fill List to print the fill list and print drug label.</li> <li>Click on Expanse All to view all drugs related to the patient.</li> <li>Click on Collapse All to minimise back the drugs list.</li> <li>Click on Search at Fill No search window, generated fill list record will be query based on the filter value.</li> </ul>
<b>Cross References</b>	None

3.3.5.8.2 Application Business Rules

No.	Name	Description
1.	Fill List	<ul style="list-style-type: none"> <li>This module will allow the user to generate or manage fill list for inpatient.</li> <li>The module is controlled by user access rights. Only Authorized users will be able to access this screen.</li> </ul>
2.	Generate Fill List	<ul style="list-style-type: none"> <li>Fill List is a screen where user able to dispense the inpatient record in a batch. Upon user generating the unit dose dispensing – fill list, the drugs can be prepared, packed and labelled individually and kept in the medication trolley for nurse to check and verify the details and items.</li> <li>To generate the fill list, user need to select the Dispense Location, Nursing Unit, Supply Date From and Supply Date To.</li> <li>After entering the required information, user can click on the  button to search for the information. System will compare the search criteria against medication order data. If user enters multiple criteria, the system will return the results based on selected criteria and user access data. If no criteria are entered, the system will return all information based on user access data only.</li> <li>User can view patient prescription by clicking the expand button for selected patient or click on the  button to view all prescription. Click on the collapse button  to hide the selected patient's active prescription list.</li> <li>A patient list will be retrieved and displayed based on the selected criteria. Then user shall be able to click on Save  button to generate the fill list.</li> </ul>
3.	Refresh List	Click on the Refresh button, system will reset all searched records and searching criteria to default value.
4.	Manage Fill List	<ul style="list-style-type: none"> <li>Once fill list is generated, user shall be able to manage the fill list.</li> <li>By default it will show a blank table form after user click on Manage Fill List  button. To display the record, user have to search on the generated fill list record.</li> <li>Searching are either by all the value below: <ul style="list-style-type: none"> <li>○ Fill No</li> <li>○ Nursing Unit</li> <li>○ Supply Date From</li> <li>○ Supply Date To</li> </ul> </li> <li>Once enter the searching value, user shall click on Search  button. A listing of generated fill list will appear and double click on the record to open the list in Manage Fill List screen.</li> <li>User can view patient prescription by clicking the expand button for selected patient or click on the  button to view all prescription. Click on the collapse button  to hide the selected patient's prescription list.</li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>User shall be able to print the fill list and drug label for each record by click on these 2 buttons,  .</li> </ul>
5.	Searching generated fill list	<ul style="list-style-type: none"> <li>Click on Search button  at Fill No field to find the generated fill list record. To display the record, user have to search on the generated fill list record.</li> <li>Searching are either by all the value below: <ul style="list-style-type: none"> <li>Fill No – generated fill list number</li> <li>Nursing Unit – nursing unit for the generated fill list</li> <li>Supply Date From – start date when the generate the fill list</li> <li>Supply Date To – end date of supply</li> </ul> </li> <li>Once enter the searching value, user shall click on Search  button. A listing of generated fill list will appear and double click on the record to open the list in Manage Fill List screen.</li> </ul>

### 3.3.5.8.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Generate Fill List</b>				
1.	Dispense Location	By default it will display the inpatient dispensing location. User shall be able to select any inpatient dispensing location for searching purpose.	Yes	Drop down (searching field)
2.	Nursing Unit	User shall be able to search on the inpatient nursing unit available at the facility.	Yes	Drop down (searching field)
3.	No of Days	By default number of days field will be shown 1 day. The number of days will be change automatically if user change on the supply date from and supply date to. It is non editable field.	Yes	Read only
4.	Select/Deselect All	By default, this checkbox will be ticked. Unticked the checkbox if user did not wants to select all patient name in the list after search to generate the fill list.	No	Checkbox
5.	Dispense At	By default it will show as 'Pharmacy Counter'. User able to choose other value to search on dispense location. The drop down list consist of Pharmacy Counter, Patient Bedside or Nursing Unit.	Yes	Drop down (searching field)
6.	Supply Date From	Supply Date From field will be enable after user choose on nursing unit. It will display the current date and time. User shall be able to change the Supply Date From to other date than current date.	Yes	Calendar format in dd/mm/yyyy (searching field)
7.	Supply Date To	Supply Date To field will be enable after user choose on nursing unit. User shall be able to enter the end of supply date and time.	Yes	Calendar format in dd/mm/yyyy (searching field)



No.	Name	Description	Mandatory	Format
8.	Dangerous Drug / Normal Drug	User shall be able to search record for dangerous drug or normal drug. By default the value will	Yes	Checkbox (searching field)
9.	Dispense Method	By default it will show dispense method as Normal Collection. User shall be able to change it to Direct Observe Therapy (DOT) as a search field for dispense method.	Yes	Drop down (searching field)
<b>Manage Fill List</b>				
1.	Dispense Location	By default it will show blank until user choose on generated fill list record from the Fill No searching screen. Once record is selected, it will display the dispense location for the record. It is non editable field.	Yes	Read only
2.	Nursing Unit	By default it will show blank until user choose on generated fill list record from the Fill No searching screen. Once record is selected, it will display the nursing unit for the record. It is non editable field.	Yes	Read only
3.	Supply Date From	By default it will show blank until user choose on generated fill list record from the Fill No searching screen. Once record is selected, it will display the 'supply date from' for the record. It is non editable field.	Yes	Read only
4.	Supply Date To	By default it will show blank until user choose on generated fill list record from the Fill No searching screen. Once record is selected, it will display the 'supply date to' for the record. It is non editable field.	Yes	Read only
5.	No of Days	By default it will show blank until user choose on generated fill list record from the Fill No searching screen. Once record is selected, it will display the number of days for the dispensing of the record. It is non editable field.	Yes	Read only
6.	Fill No	User shall be able to search on further for the generated fill list record. Clicks on Search button to open searching window which will consist of value below for: <ul style="list-style-type: none"> <li>• Fill No</li> <li>• Nursing Unit</li> <li>• Supply Date From</li> <li>• Supply Date To</li> </ul>	Yes	Searching field
7.	Dangerous Drug / Normal Drug	By default it will show blank until user choose on generated fill list record from the Fill No searching screen. Once record is selected, it will display the type of drug, whether the generated fill record is a dangerous drug or normal drug. It is non editable field.	Yes	Read only
<b>Fill No Search Window</b>				
1.	Fill No	Search on fill number for the generated fill list.	No	Text field (searching field)



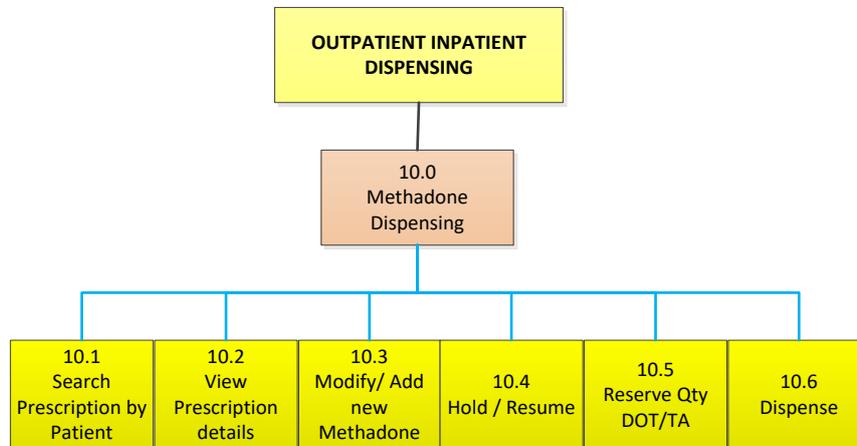
No.	Name	Description	Mandatory	Format
2.	Nursing Unit	Search on nursing unit for the generated fill list.	No	Text field (searching field)
3.	Supply Date From	Search by start supply date for the generated fill list.	No	Calendar format in dd/mm/yyyy (searching field)
4.	Supply Date To	Search by end date of supply for the generated fill list.	No	Calendar format in dd/mm/yyyy (searching field)

### 3.3.6 Integration

No.	Name	Description
1.	None	

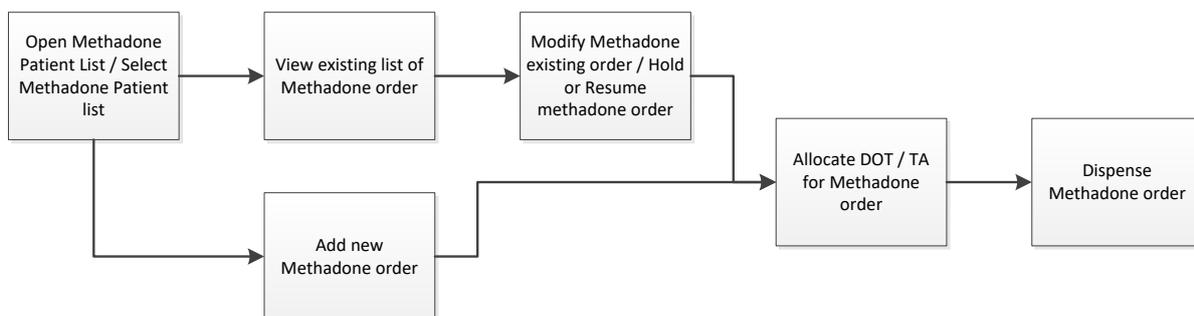
### 3.4 Methadone Dispensing

#### 3.4.1 Overview for Methadone Dispensing



MD.OV1: Methadone Dispensing

#### 3.4.2 Block Diagram

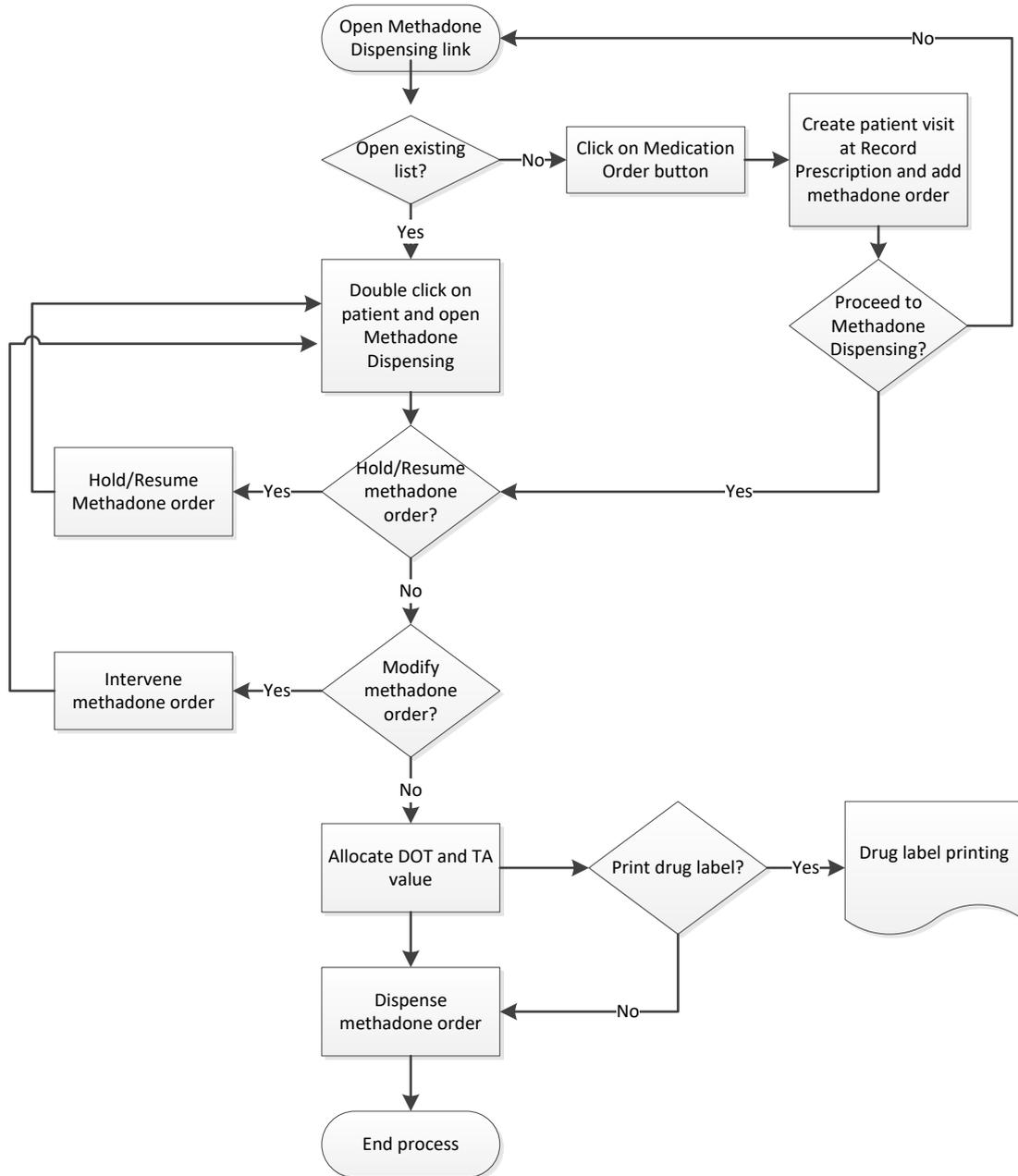


MD:BD1: Block Diagram of Methadone Dispensing

#### 3.4.3 Purpose

Methadone Dispensing module is used to dispense for methadone drug only. Once Methadone drug is being confirmed at Medication Order, the patient name will appear inside the Methadone Dispensing screen. User shall then able to open the patient record and dispense the methadone order through Direct Therapy Observation (DOT) or Take Away (TA). By default DOT = 1. User also shall be able to create new methadone order through a Medication Order link available at Methadone Dispensing screen.

### 3.4.4 Screen Navigation

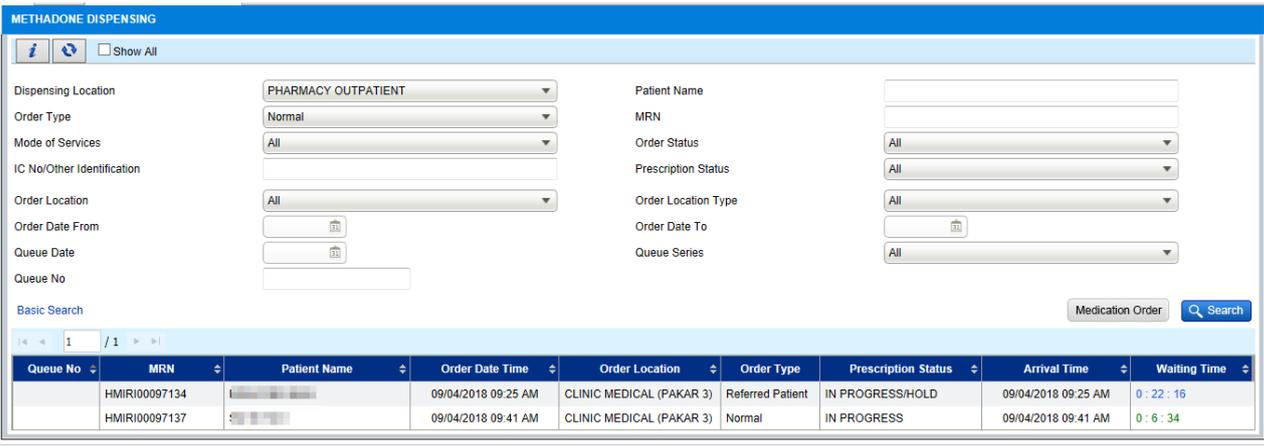


MD.SN1: Methadone Dispensing flow

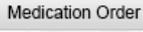
### 3.4.5 Detail Functionality and Screen

#### 3.4.5.1 Methadone Dispensing Listing

##### 3.4.5.1.1 Screen Design

<b>ID</b>	MD.SD1
<b>Description</b>	Methadone Dispensing Listing
<b>Diagram</b>	
<b>Notes</b>	<ul style="list-style-type: none"> <li>To display patient with methadone order.</li> <li>Double click on patient record to open methadone dispensing screen and to dispense the order.</li> <li>Basic search fields will consist of commonly used search options and advanced search section will list all other search options available.</li> <li>Listing patient with methadone drug order only will appear in this screen.</li> </ul>
<b>Cross References</b>	<b>Methadone Order</b> – refer to PhIS_CPS_SDD_OM_v1.3

##### 3.4.5.1.2 Application Business Rules

No.	Name	Description
1.	Record listing	<ul style="list-style-type: none"> <li>Record with methadone flag will appear inside this listing.</li> <li>Record will consist an order of one methadone drug only with status Acknowledge.</li> <li>This link shall be available and open by pharmacist that has a role for methadone dispensing.</li> <li>Methadone list will consists from both inpatient and outpatient order.</li> </ul>
2.	New methadone order	<ul style="list-style-type: none"> <li>User shall be able to create new methadone order from this screen by click on Medication Order  button.</li> <li>Once this button is click, Record Prescription will be opened for user to create new visit for new patient and then proceed with methadone drug order.</li> <li>Once record created in Record Prescription, user shall be able to go directly to Methadone Dispensing screen or go back to the methadone</li> </ul>

No.	Name	Description
		listing page.
3.	Refresh list	<ul style="list-style-type: none"> <li>Click on the Refresh button, system will reset all searched records and searching criteria to default value.</li> </ul>
4.	Search patient	<ul style="list-style-type: none"> <li>User shall be able to enter the searching value, then click on Search button . A listing of methadone list will appear and double click on the record to open the in Methadone Dispensing screen.</li> </ul>

3.4.5.1.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Methadone Dispensing Listing</b>				
1.	Dispensing Location	Preparation listing shall be retrieved record from dispensing location set by user.	Yes	Drop down list (search field)
2.	Order Type	Default value set to All and shall be retrieve from database for all order type. Other value of Order Type = Normal, Discharge, SPUB, Referred Patient.	No	Drop down list (search field)
3.	Mode of Service	Default value set to All and shall be retrieve from database for all mode of services. User shall be able to choose other type of Mode of Services such as Appointment Card, Email and Take, Fax and Take, Normal Collection, SMS and Take, Telephone and Take, UMP and Others.	No	Drop down list (search field)
4.	IC No/Other Identification	Shall retrieve value of patient IC number or other identification number.	No	Text box (search field)
5.	Order Location	By default, location is default to user's login location. The listed location values are based on the user's granted location as setup in User Profile screen.	No	Drop down list (search field)
6.	Order Date From	Search on the 'date from' when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
7.	Order Date To	Search on the end of order date when user create the order.	No	Calendar in format dd/mm/yyyy (searching field)
8.	Queue No	User shall be able to search the methadone listing by queue number and it is a free text field.	No	Text field (searching field)
9.	Queue Date	User shall be able to search on queue date.	No	Calendar in format dd/mm/yyyy



No.	Name	Description	Mandatory	Format
				(searching field)
10.	Patient Name	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching Patient Name.	No	Text field (searching field)
11.	MRN	Screening and Verification listing shall be retrieved from the database for all registered patients with visit based on matching MRN.	No	Text field (searching field)
12.	Order Status	By default value is set to All and shall retrieved		
13.	Prescription Status	Search on the status of the prescription either Hold or Expired. Hold status will include record with Ordered Hold and Expired will show a record with inpatient visit still open but drug order has been expired.	No	Drop down list (searching field)
14.	Order Location Type	Default value set to All and shall be retrieved from the database for all order location type. Other Order Location Type types = Clinic, ER, Daycare, Nursing Unit, Pharmacy.	No	Drop down list (search field)
15.	Queue Series	Default value set to All and shall be retrieved from the database for all queue series. Type of queue series which consist from Normal, Express, Special and Others.	No	Drop down list (searching field)

### 3.4.5.2 Methadone Dispensing Screen

#### 3.4.5.2.1 Screen Design

<b>ID</b>	MD.SD2
<b>Description</b>	Methadone Dispensing screen

#### Diagram

##### i. Methadone Dispensing

##### ii. Drug Counselling

##### iii. Intervention



**INTERVENTION**

*i* Confirm

**PHARMACY REMARKS**

Drug Name: Methadone 5mg/ml Syrup      Order Detail: 5 mg, OD, 60 Days

Selection	Intervention Reason	Remarks	Intervention Accepted	Intervention Not Accepted
<input checked="" type="checkbox"/>	ADR	intevention	<input checked="" type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Dose adjustment		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Drug Info		<input type="radio"/>	<input type="radio"/>
<input type="checkbox"/>	Side Effect		<input type="radio"/>	<input type="radio"/>

**MODIFY ORDER**

Drug: Methadone 5mg/ml Syrup      Dosage Form: Oral Solution

Dosage: 5 mg      Admin Route: Oral

Frequency: OD (once daily)      Duration: 60 Days

Order Quantity: 60 ml      Dispense Location: SATELLITE PHARMACY COUNTER

Start Date Time: 09/04/2018 10:25 AM      End Date Time: 08/06/2018 10:25 AM

Drug Remarks:      Drug Indication: -

iv. Hold

**HOLD ORDER - PHARMACIST REMARKS**

*i* Hold

Hold Reason: Contraindication

Other Reason:

Remarks: hold

v. Resume

**HOLD ORDER - PHARMACIST REMARKS**

*i* Resume

Hold Reason: Methadone 5mg/ml Syrup - Contraindication

Other Reason:

Remarks: hold

Action Taken:



vi. Counselling Reporting

**MEDICATION COUNSELLING REPORTING (INDIVIDUAL)**

Order Details | Lab Parameter | CP1 | CP4

Mykad: [Redacted] Age: 58 Years 04 Months 27 Days Gender: Female MRN: HMIR00152585

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

Height: [Redacted] cm Weight: [Redacted] kg BMI/BSA: 0.0 m<sup>2</sup> Update (Last Updated: ) Nationality: Warganegara

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

Counselling No: MC1800030442 Counselling Location: Methadone Pharmacy Counselling Topics: Methadone Replacement Therapy

**ASSESSMENT**

Body Weight: [Redacted]

**Social History**

Smoking:  Yes (Sticks/Day: [Redacted] For: [Redacted])  No  Ex-smoker  Second-hand Smoker  Planning To Get Pregnant

Alcohol Drinking:  Yes (Amount: [Redacted])  No  Ex-Alcoholic

Pregnancy:  Yes  No  Planning To Get Pregnant

Drug Abuse:  Yes [Redacted]  No

Diet & Lifestyle: [Redacted]

Education Level: [Redacted]

**Family History**

Marital Status: [Redacted] Family History Of Illness: [Redacted]

No. Of Children: [Redacted]

Lives With: [Redacted]

**Medical History**

+ Add

Comorbidity: [Redacted] History: [Redacted] No Records Found

Surgical History:  Yes  No

Diagnostic Test: [Redacted]

**Past Medication History**

Drug Name	Original Rx No	Order Details	Balance From Previous Supply	Medication Status	Source of Medication	Comments
No Records Found						

Non-Prescription Medication (Includes Herbal/Vitamin/Other Supplements)	Reason For Taking	Source of Medication	Balance/Comments
No Records Found			

Save & Continue

**REPORTING**

vii. MTAC Reporting



**MTAC REPORTING**

Order Details | Consent Form | Lab Parameter | CP1 | CP4 | Pharmaceutical Care Issue

Mykad: [Redacted] Age: 58 Years 04 Months 27 Days Gender: Female MRN: HMIR00152585

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

Height: [Redacted] cm Weight: [Redacted] kg BMI/BSA: 0/0 m<sup>2</sup> Update (Last Updated: ) Nationality: Warganegara

Encounter No: 0785 Visit Date: 09/04/2018 Attending Practitioner: [Redacted] Visit Location: CLINIC OTORHINOLARYNGOLOGY (PAKAR 5)

Type Of MTAC: Methadone Number Of MTAC Visit: 1

**ASSESSMENT**

**Social History**

Smoking:  Yes Sticks/Day [Redacted] For [Redacted]  No  Ex-smoker  Second-hand Smoker  Yes  No  Planning To Get Pregnant

Alcohol Drinking:  Yes Amount [Redacted]  No  Ex-Alcoholic

Pregnancy:  Yes  No  Planning To Get Pregnant

Drug Abuse:  Yes [Redacted]  No

Education Level: [Redacted] Diet & Lifestyle: [Redacted]

**Family History**

Marital Status: [Redacted] Family History Of Illness: [Redacted]

No. Of Children: [Redacted] Lives With: [Redacted]

**Medical History**

+ Add

Comorbidity: [Redacted] History: [Redacted] No Records Found!

Surgical History:  Yes  No

Diagnostic Test: N/A

**Past Medication History**

Medication (Specify Strength)	Original Rx No	Order Details	Balance From Previous Supply	Medication Status	Source of Medication	Comments
No Records Found!						
Non-Prescription Medication (Includes Herbal/Vitamin/Other Supplements)	Reason For Taking	Source of Medication	Balance/Comments			
No Records Found!						

Save & Continue

**SPECIFIC DETAILS**

**REPORTING**

Pharmacist Notes: [Redacted] Remarks: [Redacted]

Understanding: [Redacted] % Calculate Score

MTAC Consultation Status: [Redacted]

Adherence score: [Redacted]

Save Medication Order

viii. CP4

**CP4**

Medication Profile

Reference Number: [Redacted]

Refer To:  Inter-facility [Redacted]  Intra-facility - Select -

Methadone

**Assessment Of Understanding & Compliance To Medicine Therapy (not related if patient is not counselled)**

a) Patient is being counselled and understand about drug/medication aids that have been prescribed

Yes  No

b) Compliance Level About Drugs

Satisfactory  Not Satisfactory

c) Compliance Aids

Yes  Pill Box  Drug Leaflet  Others [Redacted]

No

**Interventions/Requests Encountered**

Drug Counselling and medication aids that have been prescribed

Evaluating compliance and understanding about drugs therapy that have been prescribed

Drugs Storage Issue

Therapeutic Monitoring [Redacted] (Drug)

Others [Redacted]

Print in Malay | Print in English



ix. Original Prescription printing

**Ministry of Health, Malaysia  
Hospital Miri**

Patient Name	: [REDACTED]	Patient ID	: [REDACTED]
Age	: 61 Years 24 Days	MRN	: HMIRI00097134
Gender	: Male	Prescription #	: MEDC0000734780
Height/Weight/BSA	: _/ _/ _	Order Date/Time	: 09/04/2018 09:25 AM
Room No/Bed No	: _/ _	Location	: CLINIC MEDICAL (PAKAR 3)
Diagnosis	:	Allergy	:

Drug Name	Route	Dose	Frequency	Start Date	End Date	Duration	Prescribed Qty	Prescription Status
Methadone 5mg/ml Syrup	Oral	5 mg	OD (once daily)	09/04/2018	09/05/2018	30 Days	30 ml	Acknowledged/Hold

Prescribed by : DR [REDACTED]  
 Designation : Pegawai Perubatan Pelatih  
 Department : Pathology

<b>Notes</b>	<ul style="list-style-type: none"> <li>To display patient with methadone order and to dispense the order.</li> <li>Click on Counselling Reporting button to open Counselling reporting screen.</li> </ul>
<b>Cross References</b>	<b>Counselling Reporting , CP4</b> – refer to PhIS_CPS_SDD_MC_v1.3 <b>MTAC Reporting</b> – refer to PhIS_CPS_SDD_MTAC_v1.3

3.4.5.2.2 Application Business Rules

No.	Name	Description
1.	Record Status	<ul style="list-style-type: none"> <li>Record with status methadone will appear at Methadone Dispensing with condition that the order consist only one methadone drug.</li> <li>User shall be able to see status of dispense either by DOT or TA or both under new column, DOT &amp; TA. This info enters by prescriber in order screen. It will show either 'DOT', 'TA' or 'DOT &amp; TA'.</li> <li>Missed dose column → no of dose missed by patient. To compare current date with 'next collection date' to get missed duration. Then, duration missed X frequency. Example as below:            Order start date = 01/08/2015 , Order end date = 30/10/2015            Dose = 5mg , OD            Next Collection Date = 16/08/2015 , patient supposed to come on 16/08/2015. Patient only turn up on 20/08/2015. (current date is 20/08/2015.)            Missed duration = 20/08/2015 – 16/08/2015 = 4 days            Missed dose = 4 days * OD = 4 doses  <b>**Prescription SPUB to other facility for certain duration will not be considered as missed dose.</b> </li> </ul>

No.	Name	Description
		<ul style="list-style-type: none"> <li>• Dangerous drug approval is required for new order only. For subsequent partial supply, the dangerous drug alert will not appear. However, if same user logout and login again, this alert will coming out again.</li> <li>• Patient Arrived checkbox will be auto ticked once user open the records.</li> </ul>
2.	Printing	<ul style="list-style-type: none"> <li>• User able to print the original prescription record when click on  button. Prescriber name with designation and department will be displayed at each of drug name.</li> <li>• Print drug label only for a drug with allocated quantity. User shall be able to directly print the drug label directly  or click on  button to preview first before print. Editing on drug label for certain field is allowed before print in preview label.</li> </ul>
3.	Reserve Quantity	<ul style="list-style-type: none"> <li>• Quantity to be reserved for this order. By default system will set DOT =1.</li> <li>• If Reserve Qty display in red text , it means no stock available.</li> <li>• User shall be able to insert value for DOT</li> <li>• However, user shall be able to de-allocate back the reserve quantity using Item Batch Details screen.</li> </ul>
4.	Hold drug	<ul style="list-style-type: none"> <li>• User shall be able to hold Methadone drug order. Right click on this icon  and another pop-up window (Hold screen) will appear. User cannot hold against the existing hold drugs. Alert will be displayed.</li> <li>• Enter the Hold Reason, Other reason (if choose Hold Reason=Others) and Remarks if applicable.</li> <li>• User shall be able to add in multiple hold reason for the same drugs.</li> <li>• User shall then click on Hold  button to confirm and hold the drugs.</li> </ul>
5.	Resume drug	<ul style="list-style-type: none"> <li>• User shall be able to hold Methadone drug order. Right click on this icon  and another pop-up window (Hold screen) will appear. User cannot hold against the existing hold drugs. Alert will be displayed.</li> <li>• Enter the Other Reason (if choose Hold Reason=Others), Remarks and Action Taken if applicable.</li> <li>• Then click on Resume  button to confirm and resume the drugs.</li> </ul>
6.	Drug Intervention	<ul style="list-style-type: none"> <li>• User shall be able to intervene Methadone drug order. Right click on this icon  and another pop-up window (Intervention screen) will appear.</li> <li>• Once intervene is done, drug details will be highlighted in blue color with a link on detail information.</li> <li>• User must add in intervention reason first before do intervene on the drug details. Intervention reason should be save FIRST before intervene the drugs details.</li> <li>• User shall be able to save the intervention reason by clicks on 'Save'</li> </ul>

No.	Name	Description
		 Save button. <ul style="list-style-type: none"> <li>'Modify Order'  button used to do intervention on the drug. Once this button is clicks, drug details will appear below of the screen.</li> <li>Once intervene is done, click on  button to save the changes. User shall be able to change on dosage, quantity, duration and frequency only.</li> </ul>
7.	Dispense methadone	<ul style="list-style-type: none"> <li>On click of Dispense  button, record will be dispense.</li> <li>Before record is dispense, it will check on available quantity and if available quantity is zero in stock, alert message to hold or dispense with zero quantity will appear.</li> <li>Drug withhold status will not be dispense.</li> </ul>
8.	Link	<p>Few text link to open another screen which related to the patient record available at Acknowledgment screen:</p> <ul style="list-style-type: none"> <li>Lab Parameter (for search and view only)</li> <li>Counselling History (for search and view only)</li> <li>MTAC History (for search and view only)</li> <li>Demographic (view only)</li> <li>Pharmacist Notes (for search and view only)</li> <li>Medication Profile (for search and view only)</li> <li>Other Appointment (view only)</li> </ul>

#### 3.4.5.2.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Methadone Dispensing screen</b>				
1.	Patient Arrived	To tick if wants to indicate that the patient has arrived at the counter.	No	Checkbox
2.	Queue Series	This field will show the queue series in a drop down combo box based on the 'Queue Series' values configured in the system parameter table: <ul style="list-style-type: none"> <li>New Prescription</li> <li>Express</li> <li>Partial Dispense</li> </ul>	Yes	Read only
3.	Arrival Time	Arrival time will appear once user ticked on Patient Arrived checkbox.	No	Read only
4.	Waiting Time	Waiting time will be displayed if Patient Arrived checkbox is checked.	No	Read only
5.	Collector Name	The name of the medicine collector which can be a different person from patient.	No	Text field
6.	Relationship	Refer to collector relationship with the patient which consist of (Child, Extended Family, Father, Foster	No	Drop down list



No.	Name	Description	Mandatory	Format
		Child, Friend, Grandparent, Guardian, Mother, Others, Patient, Sibling, Spouse, Step Child, Unknown).		
7.	Clinic TCA	Default value display the clinic TCA set at dispensing stage, if any. If no date for clinic TCA set at dispensing stage, this column will display as blank.	No	Calendar format in dd/mm/yyyy
8.	Next Collection Date	Display the next collection date as set in dispensing stage.	Yes	Calendar format in dd/mm/yyyy
9.	Current Collection Mode	By default it will display the current mode of collection. Non editable.	Yes	Read only
10.	Next Collection Mode	By default it will display same mode as Current Collection Mode. Refer to next collection mode under VAS (Appointment Card, Email and Take, Fax and Take, Normal Collection, Others, SMS and Take, Telephone and Take, UMP)	Yes	Drop down
11.	SPUB	To create SPUB Out. Ticked on SPUB checkbox, SPUB R1 Form button will be enable and user shall be able to open SPUB R1 Form screen to create SPUB Out.	No	Checkbox
12.	M1M	User shall be able to tick on this checkbox to indicate that the patient is under M1M program. It will only reflect to the reporting purpose.	No	Checkbox
13.	Supply Duration	By default, supply duration for inpatient order is set to 1 day. User shall be able to change the supply duration in Item Batch Details screen. Once user change on supply duration value, end date will be recalculated back.	Yes	Text field
14.	Queue No. Called Time	Queue time will appear after user ticked on Patient Arrived and then click on Called Patient button. Time will be capture when this actions is take.	No	Read only
15.	Patient Called	User shall be able to update the prescription to Uncollected if this checkbox is ticked. Used when pharmacist already call the patient but the patient did not turn up.	No	Check box
16.	Dispense At	By default it will show as 'Pharmacy Counter'. User able to choose other value to search on dispense location. The drop down list consist of Pharmacy Counter, Patient Bedside or Nursing Unit.	Yes	Drop down
17.	Next Collection Location	By default it will show the next collection location as a current collection location. User still able to change the value. The next collection location will consists an inpatient dispense location.	Yes	Drop down
18.	Witness By	It is a free text field which user shall be able to enter a person's name that witness for the dispensing. Usually it will be a pharmacist's name	No	Text field



No.	Name	Description	Mandatory	Format
19.	Remarks	Pharmacist shall be able to enter remarks before proceed with dispensing.	No	Text field
20.	Drug Counselling Required	Tick on this checkbox is patient need drug counselling. This value will reflect at medication counselling	No	Checkbox
21.	Dose Checking: Adverse Drug Reaction Monitoring	Tick on this checkbox if patient need monitoring on adverse drug reaction.	No	Checkbox
22.	Dose Checking: Drug Information	Tick on this checkbox if need drug information.	No	Checkbox
23.	Dose Checking: Drug Interaction Monitoring	Tick on this checkbox if patient need monitoring on drug interaction.	No	Checkbox
24.	Dose Checking: Type of side effect	Tick on this checkbox if patient has side effect.	No	Checkbox
25.	DOT	Direct Observation Therapy is dose that user should give to patient and should take by patient in front of pharmacist. Default value will always be '1' dose.	Yes	Text field
26.	TA	Take Away is the dosage that patient can bring back home.	No	Text field
27.	Remarks	Pharmacist Remarks enter by pharmacist during dispensing.	No	Link
28.	Drug Counselling	Tick on the checkbox if patient need drug counselling.	No	Checkbox
29.	Complete	Tick on Complete checkbox to make full supply of the order.	No	Checkbox
<b>Intervention</b>				
1.	Drug Name	By default it will display the selected drug for intervene.	Yes	Text field
2.	Order Details	By default it will display drug order details of the selected drug.	Yes	Text field
3.	Selection: Intervention Reason	A checkbox use to select multiple reason for intervention. User able to select multiple reason and save these reasons for the selected drug(s).	Yes	Checkbox with value
4.	Intervention Reason	Display the intervention reason. These reason will be updated into the selected drug(s) records. Intervention reason dataset as below: <ul style="list-style-type: none"> <li>ADR</li> </ul>	No	Text field



No.	Name	Description	Mandatory	Format
		<ul style="list-style-type: none"> <li>Dose Adjustment</li> <li>Drug Info</li> <li>Side Effect</li> </ul>		
5.	Remarks	A free text field for user to enter remarks for each intervention reason.	Yes	Checkbox
6.	Intervention Accepted	Select the radio button is intervention reason and remarks are being accepted.	No	Checkbox
7.	Intervention Not Accepted	Select the radio button if intervention reason and remarks are being accepted.	No	Checkbox
<b>Modify:</b>				
8.	Drug	Display the name of the drug(s) selected by user before clicks on Intervention icon. It is non editable.	Yes	Read only
9.	Dosage	User shall be able to change the current dosage to a new dosage of the drugs.	Yes	Text field
10.	Frequency	User shall be able to change the current frequency to a new drug frequency.	Yes	Drop down
11.	Order Quantity	User shall be able to change the current quantity to a new reserve quantity.	Yes	Text field
12.	Start Date Time	User shall be able to change the current start date to a new start date.	Yes	Calendar format in dd/mm/yyyy
13.	End Date Time	Display the end date of the drug order based on duration and start date. Date will be auto calculated and it is non editable field.	Yes	Calendar format in dd/mm/yyyy
14.	Drug Remarks	User shall be able to change the current duration to a new drug duration.	No	Read only
15.	Dosage Form	By default it will display the drug dosage form and it is non editable field.	Yes	Read only
16.	Admin Route	Display the route of the selected drug. It is non editable field	Yes	Read only
17.	Duration	By default it will display the current duration of order and user able to change it.	Yes	Text field
18.	Dispense Location	By default it will display the current dispense location.	Yes	Read only
19.	Drug Indication	By default it will display the drug indication. If no drug indication in database, it will display as '-'	Yes	Read only
<b>Hold</b>				
1.	Hold Reason	User able to select hold reason from these dataset: <ul style="list-style-type: none"> <li>Authenticity</li> <li>Contraindication</li> <li>Drug Interaction</li> <li>Inappropriate Dose</li> </ul>	Yes	Drop down



No.	Name	Description	Mandatory	Format
		<ul style="list-style-type: none"> <li>Inappropriate Drug</li> <li>Inappropriate Duration</li> <li>Inappropriate Frequency</li> <li>Incompatibility</li> <li>Intervention</li> <li>Others</li> <li>Patient Refused</li> <li>Polypharmacy</li> <li>Suggest to Monitor Vital Signs/Lab Result</li> <li>Wrong Patient</li> </ul>		
2.	Other Reason	This text box will enable if user choose Hold Reason = Others	No	Text field
3.	Remarks	Free text field for user to enter remarks hold.	No	Text field
<b>Resume</b>				
4.	Hold Reason	By default it display hold reason selected during hold. It is non editable field.	Yes	Read only
5.	Other Reason	By default it will display other reason entered during hold.	No	Read only
6.	Remarks	A free text field for user to enter resume remarks.	No	Text field
7.	Action Taken	A free text field for user to enter resume action taken..	No	Text field
<b>CP4</b>				
1.	Reference Number	Reference number related to the CP4 form generated by system. It shall display CP4/<running number>	Yes	Read only
2.	Methadone	User shall be able to tick if patient is taken methadone drug.	No	Checkbox
3.	Inter Facility	Show a value refer to which inter facility. By default, it will show the existing inter facility, if any.	No	Search window
4.	Intra Facility	Show a value refer to which intra facility. By default it will be blank.	No	Search window
5.	Assessment Of Understanding & Compliance To Medicine Therapy	A set of questionnaire which consists of few question for a patient which has not been counselled. Consists of 3 questionnaire with selection of radio button and checkboxes.	No	Other
6.	Interventions/ Request Encounter	Display a selection of intervention or request encounter. User able to choose multiple or one only.	No	Checkbox

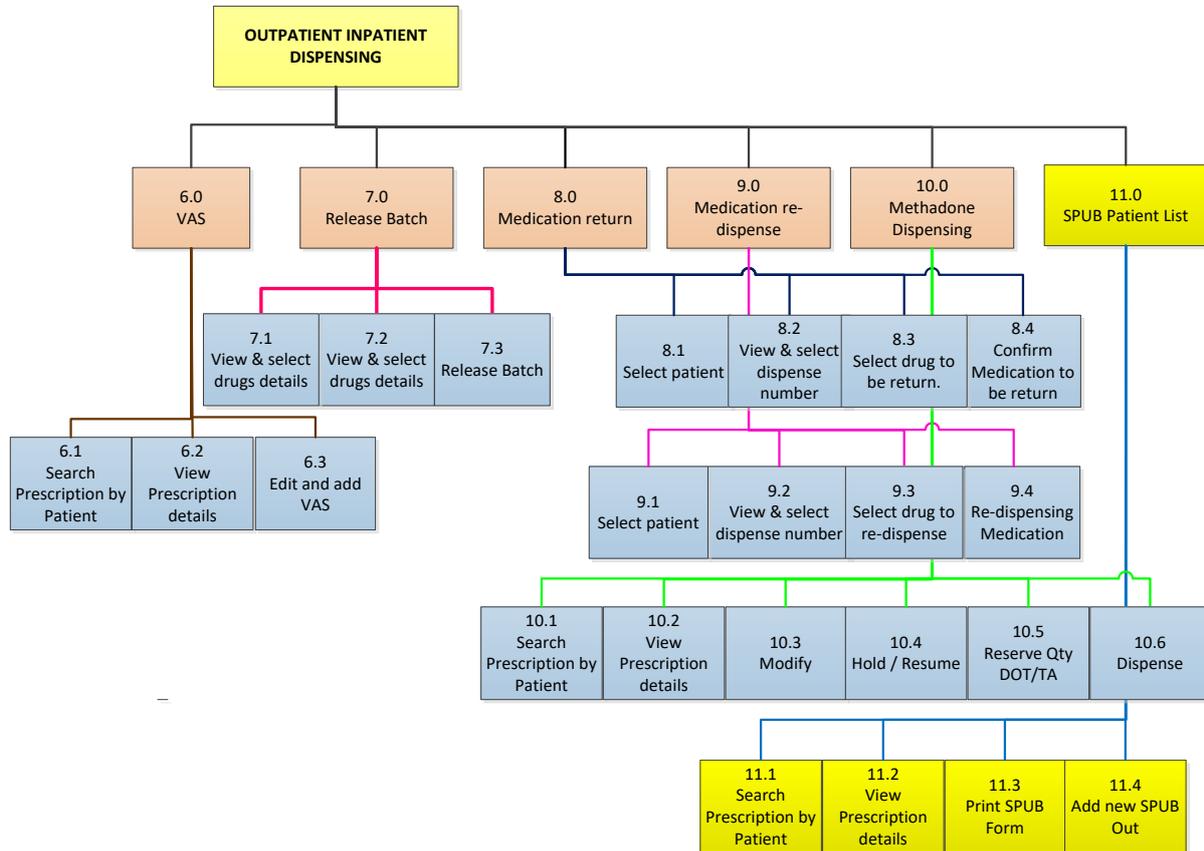
3.4.6 Integration

None.

### 3.5 SPUB Patient List

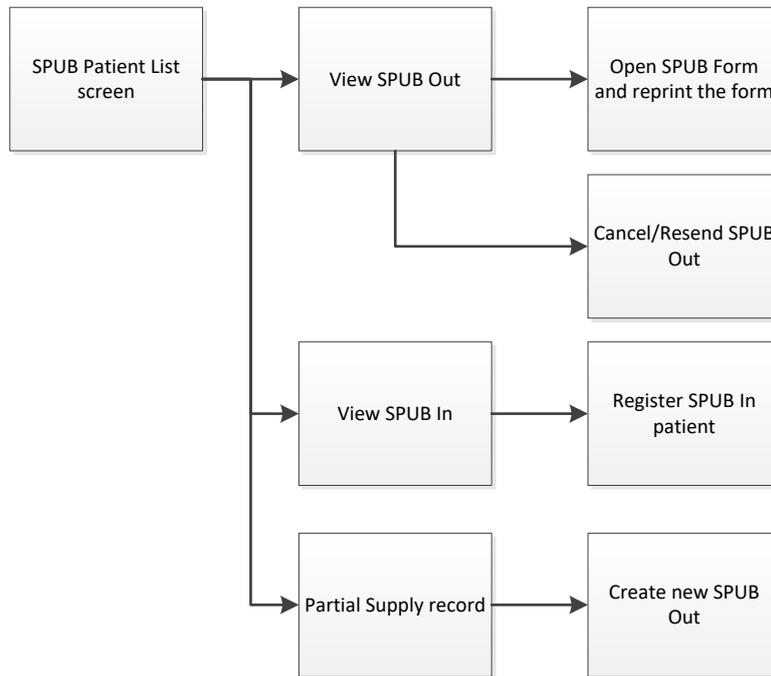
SPUB Patient List screen will display all SPUB Out an SPUB In records. User shall be able to create new SPUB Out record from the partial dispense record through this screen.

#### 3.5.1 Overview for SPUB Patient List



SP.OV1: Overview of SPUB Patient List

### 3.5.2 Block Diagram

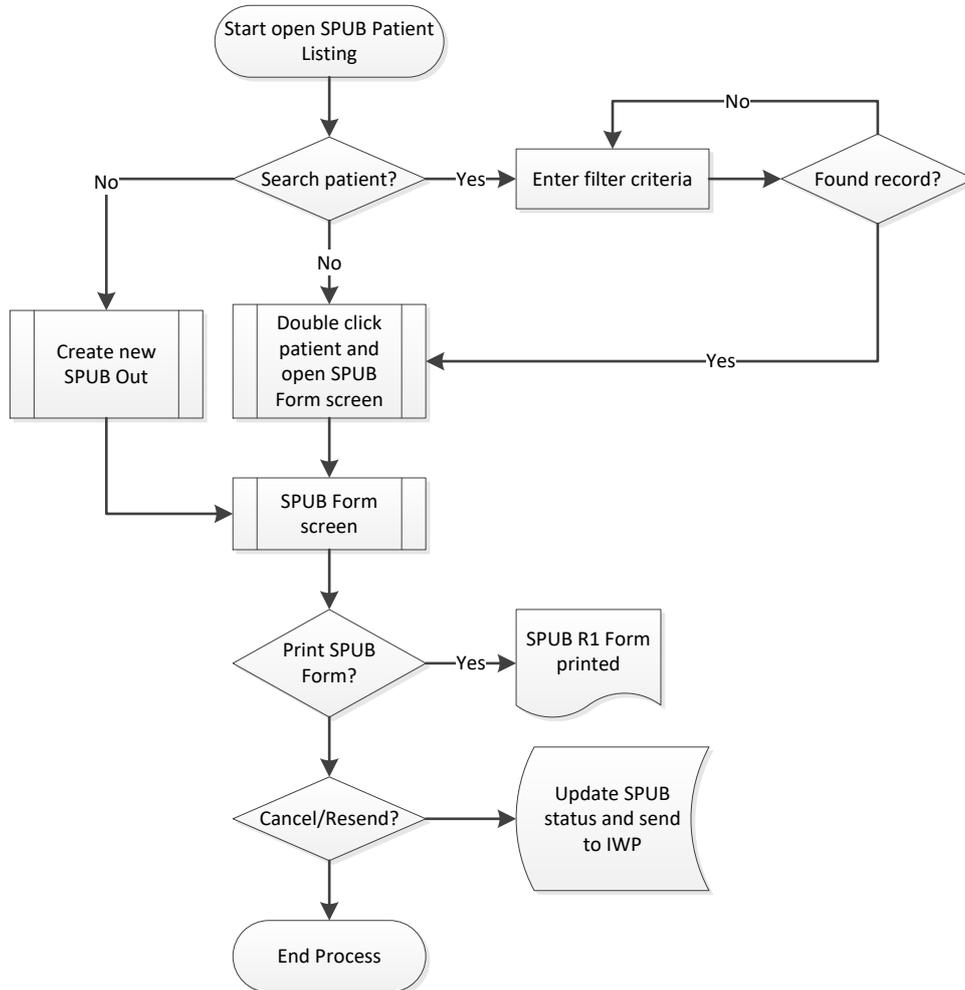


SP.BD1: Block Diagram for SPUB Patient List

### 3.5.3 Purpose

The main purpose of SPUB Patient list screen is to display back all SPUB Out record send to referred facility with the status of sending, whether successfully send or send to fail. It will go through IWP integration for the sending and receiving of SPUB. Status of sending and receiving will be displayed in this screen. User shall also able to cancel or resend back the failed sending SPUB using Cancel or Resend button.

### 3.5.4 Screen Navigation



SP.SN1: SPUB Patient List flow



3.5.5 Detail Functionality and Screen

3.5.5.1 SPUB Patient List

3.5.5.1.1 Screen Design

<b>ID</b>	SP.SD1
<b>Description</b>	SPUB Patient List

**Diagram**

i. SPUB Patient List

Original MRN	New MRN	Prescription No	Patient Name	IC No/Other Identification	SPUB No	SPUB Order Date	SPUB To/From	SPUB Type	SPUB Sending Status	SPUB Registered	SPUB Receiving Status
HKLM00103836	HKLM00103836	KP30000362610	[REDACTED]	[REDACTED]	HKLMSPUB_00009119	06/03/2018 12:51 PM	Klinik Kesihatan Serdang	Referred	✓	Registered	
HKLM00104786	HKLM00104786	KP50000213036	[REDACTED]	[REDACTED]	HKLMSPUB_00005499	05/03/2017 10:44 AM	Klinik Kesihatan Lunas	Referred	✗	Open	
HKLM00085610	HKLM00085610	KP30000324049	[REDACTED]	[REDACTED]	HKLMSPUB_00008215	10/12/2017 12:31 PM	Klinik Kesihatan Karangan	Referred	✓	Registered	
HKLM00081623	HKLM00081623	KP20000297103	[REDACTED]	[REDACTED]	HKLMSPUB_00007577	09/10/2017 10:07 AM	Klinik Kesihatan Padang Serai	Referred	✓	Open	
HKLM00083008	HKLM00083008	KP20000365895	[REDACTED]	[REDACTED]	HKLMSPUB_00009201	13/03/2018 11:29 AM	Klinik Kesihatan Malau	Referred	✓	Open	
HBUK00001175	HKLM00093859	OPD0000009921	[REDACTED]	[REDACTED]	11-08050025SPUB_0000184	20/12/2016 2:55 PM	Hospital Bahagia Ulu Kinta	Received			
HKLM00126402	HKLM00126402	KP30000253626	[REDACTED]	[REDACTED]	HKLMSPUB_00006533	19/06/2017 10:06 AM	Klinik Kesihatan Taman Selasih	Referred	✓	Open	
HKLM00076274	HKLM00076274	KP30000280694	[REDACTED]	[REDACTED]	HKLMSPUB_00006739	10/07/2017 1:34 PM	Klinik Kesihatan Seberang Java	Referred	✓	Registered	

ii. Partial Supply listing – create New SPUB Out

Patient MRN	Patient Name	ID No	Prescription No
HKLM00072920	U. [REDACTED] Al [REDACTED]	[REDACTED]8	KP50000236282
HKLM00154011	M. [REDACTED] Al [REDACTED]	[REDACTED]8	KP50000237572
HKLM00077393	R. [REDACTED]	[REDACTED]42	KP50000236196
HKLM00078521	Kl [REDACTED] N. [REDACTED]	[REDACTED]2	KP50000236468
HKLM00154018	M. [REDACTED]	[REDACTED]3	KP50000237595
HKLM00070847	G. [REDACTED]	[REDACTED]0	KP50000240286
HKLM00075668	W. [REDACTED]	[REDACTED]8	KP50000233608
HKLM00073695	R. [REDACTED]	[REDACTED]9	KP50000238898
HKLM00153887	Zl [REDACTED]	[REDACTED]11	KP20000237156
HKLM00078743	N. [REDACTED]	[REDACTED]8	KP30000038003



iii. SPUB Form Screen – New SPUB Out

**SPUB FORM**

Mykad: [redacted] Age: 37 Years 04 Months 22 Days Gender: Male MRN: HKLM00067156

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

Height: 168 cm Weight: 92 kg BMI/BSA: 32.6 / 2.07 m<sup>2</sup> (Last Updated: 25/03/2018) Nationality: Warganegara

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**PHARMACY ORDER**

SPUB No: [redacted]

Referred From: Hospital Kulim Referred To: [redacted]

Contact Person / Office: System Administrator Contact Person / Office: [redacted]

Contact no / Ext No: 044272733 Contact no / Ext No: [redacted]

Fax No: [redacted] Fax No: [redacted]

Next Collection Date: 24/04/2018  Counselling Provided

Remarks: [redacted] Previous SPUB Referred To: [redacted]

Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Disp Qty	Prev Disp Qty	Bal Qty	Remarks
KP30000371569	25/03/2018	Metformin HCl 500 mg Tablet	1000 mg, BD (twice daily), Oral Tablet, Oral, 25/03/2018 (5 Months)	600 tablet	120 tablet	120 tablet	480 tablet	Remark
KP30000371569	25/03/2018	Gliclazide 80 mg Tablet	160 mg, BD (twice daily), Oral Tablet, Oral, 25/03/2018 (5 Months)	600 tablet	120 tablet	120 tablet	480 tablet	Remark
KP30000371569	25/03/2018	Atorvastatin 40 mg Tablet	80 mg, ON (every night), Oral Tablet, Oral, 25/03/2018 (5 Months)	300 tablet	60 tablet	60 tablet	240 tablet	Remark
KP30000371569	25/03/2018	Bisoprolol Fumarate 2.5 mg Tablet	1.25 mg, OM (every morning), Oral Tablet, Oral, 25/03/2018 (5 Months)	75 tablet	15 tablet	15 tablet	60 tablet	Remark
KP30000371569	25/03/2018	Ramipril 5 mg Tablet	5 mg, OD (once daily), Oral Tablet, Oral, 25/03/2018 (5 Months)	150 tablet	30 tablet	30 tablet	120 tablet	Remark

iv. Resend SPUB Out

**SPUB FORM** Resend

Mykad: [redacted] Age: 68 Years 07 Months 10 Days Gender: Male MRN: HKLM00147763

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

Height: 165 cm Weight: 80 kg BMI/BSA: 29.4 / 1.91 m<sup>2</sup> (Last Updated: 10/10/2017) Nationality: Warganegara

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**PHARMACY ORDER**

SPUB No: HKLMS PUB\_00005594

Referred From: Hospital Kulim Referred To: Klinik Kesihatan Padang Serai

Contact Person / Office: [redacted] Contact Person / Office: [redacted]

Contact no / Ext No: 044272733 Contact no / Ext No: [redacted]

Fax No: [redacted] Fax No: [redacted]

Next Collection Date: 13/04/2017  Counselling Provided

Remarks: [redacted] Previous SPUB Referred To: [redacted]

Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Disp Qty	Prev Disp Qty	Bal Qty	Remarks
W80000217253	14/03/2017	Amlodipine 10 mg Tablet	5 mg, OM (every morning), Oral Tablet, Oral, 14/03/2017 (112 Days)	56 tablet	15 tablet	15 tablet	41 tablet	Remark

v. Cancel SPUB Out

**SPUB FORM** Cancel SPUB

Mykad: [redacted] Age: 62 Years 09 Months 18 Days Gender: Male MRN: HKLM00105376

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

Height: [redacted] cm Weight: [redacted] kg BMI/BSA: 0.0 m<sup>2</sup> (Last Updated: ) Nationality: Warganegara

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**PHARMACY ORDER**

SPUB No: HKLMS PUB\_00005835

Referred From: Hospital Kulim Referred To: Klinik Kesihatan Taman Selasih

Contact Person / Office: [redacted] Contact Person / Office: [redacted]

Contact no / Ext No: 044272733 Contact no / Ext No: [redacted]

Fax No: [redacted] Fax No: [redacted]

Next Collection Date: 09/05/2017  Counselling Provided

Remarks: [redacted] Previous SPUB Referred To: [redacted]

Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Disp Qty	Prev Disp Qty	Bal Qty	Remarks
KP20000227260	10/04/2017	Latanoprost 0.005% Eye Drops	1 drop, ON (every night), Ophthalmic Drop(s), Eye Right, 10/04/2017 (60 Days)	2 bott	1 bott	1 bott	1 bott	Remark

vi. Resend Registered Status



**SPUB FORM**

[Resend Register Status]

Mykad: [REDACTED] Age: 39 Years 11 Months 17 Days Gender: Male MRN: HMIR00132556

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

Height: 173 cm Weight: 85 kg BMI/BSA: 28.4 / 2.02 m<sup>2</sup> Update (Last Updated: 05/12/2017) Nationality: Warganegara

**PHARMACY ORDER**

SPUB No: HUSSPUB\_00010940

Referred From: Hospital Umum Sarawak Referred To: Hospital Mini

Contact Person / Office: [REDACTED] Contact Person / Office: [REDACTED]

Contact no / Ext No: 082276666 Contact no / Ext No: [REDACTED]

Fax No: [REDACTED] Fax No: [REDACTED]

Next Collection Date: 17/07/2017  Counselling Provided

Remarks: [REDACTED] Previous SPUB Referred To: [REDACTED]

Rx No	Rx Date	Drug Name	Order Detail	Order Qty	Disp Qty	Prev Disp Qty	Bal Qty	Remarks
PHARMOPD000521409	04/07/2017	Morphine HCl 10 mg/5 ml Syrup	10 mg, Q4H - PRN, Oral Solution, Oral, 20/06/2017 (89 Days)	2000 ml	0 ml	0 ml	2000 ml	Remark

<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on 'Search' button to search for a record.</li> <li>Click on 'Add' icon to create new patient for SPUB.</li> <li>Click on 'Draft' button to save SPUB Out record.</li> <li>Click on 'Send' button to send SPUB Out online or offline.</li> <li>Click on 'Edit' icon to edit on created SPUB.</li> <li>Click on 'Print' icon to print back SPUB R1 Form.</li> <li>Click on 'Cancel SPUB' button to cancel the SPUB Out.</li> <li>Click on 'Resend' button to resend back the SPUB Out which has status of failed in sending and still not registered in receiving facility.</li> <li>Click on 'Resend Sending Status' to send back the failed registered status (SPUB Out Online) to sending facility through IWP, which successfully registered at the facility but failed to update status to register.</li> </ul>
	<p><b>Cross References</b> None</p>

3.5.5.1.2 Application Business Rules

Below are the application business rules for SPUB Patient Listing screen

No	Name	Description
1.	SPUB Patient listing	<p>Display record of SPUB which facility send out or receiving in. The listing will display based in these conditions:</p> <ol style="list-style-type: none"> <li>View list of SPUB patient received               <ol style="list-style-type: none"> <li>It will consists of SPUB received through online or manual (offline)</li> <li>Patient has been registered at receiving facility with visit type=SPUB</li> <li>Order has been transcribe at receiving facility</li> </ol> </li> <li>View list of SPUB patient referred               <ol style="list-style-type: none"> <li>It will consists of SPUB referred through online or offline (receiving facility not using PhIS and form need to be printed out)</li> </ol> </li> </ol>

No	Name	Description																																
		<p>c. Refer SPUB patient to other facility</p> <ul style="list-style-type: none"> <li>i. User able to refer patient with partial supply prescription and add new SPUB Out</li> <li>ii. Apply to all normal prescription and discharge medication</li> <li>iii. Prescription still active</li> </ul>																																
2.	SPUB Status	<p>There are few status column available in this screen which are:</p> <ul style="list-style-type: none"> <li>• SPUB Sending status</li> <li>• SPUB Registered status</li> <li>• SPUB Received status</li> </ul> <p>Status as below:</p> <table border="1"> <thead> <tr> <th>SPUB Sending Status</th> <th>SPUB Registered</th> <th>SPUB Receiving</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>✓</td> <td>Open</td> <td>NA</td> <td>Online SPUB Out record successfully send but haven't registered in receiving facility</td> </tr> <tr> <td>✓</td> <td>Registered</td> <td>NA</td> <td>Online SPUB Out Record successfully send and has been registered by receiving facility</td> </tr> <tr> <td>✗</td> <td>Open</td> <td>NA</td> <td>Online SPUB Out which failed to send – user able to cancel this SPUB through SPUB Form screen. Once cancel, user also able to resend back this SPUB. If sending facility Cancel the SPUB, receiving facility not</td> </tr> <tr> <td>✗</td> <td>Open</td> <td>NA</td> <td>Offline SPUB Out which has been created manually. User need to print the SPUB R1 Form manually.</td> </tr> <tr> <td>NA</td> <td>Open</td> <td>blank</td> <td>Online SPUB In record received by facility and has not been registered yet</td> </tr> <tr> <td>NA</td> <td>Registered</td> <td>✓</td> <td>Online SPUB In record received by facility and has been registered</td> </tr> <tr> <td>NA</td> <td>Registered</td> <td>✗</td> <td>Received online SPUB In but the registered status failed to send back to sending facility. User able to resend back the registered status to sending facility</td> </tr> </tbody> </table>	SPUB Sending Status	SPUB Registered	SPUB Receiving	Description	✓	Open	NA	Online SPUB Out record successfully send but haven't registered in receiving facility	✓	Registered	NA	Online SPUB Out Record successfully send and has been registered by receiving facility	✗	Open	NA	Online SPUB Out which failed to send – user able to cancel this SPUB through SPUB Form screen. Once cancel, user also able to resend back this SPUB. If sending facility Cancel the SPUB, receiving facility not	✗	Open	NA	Offline SPUB Out which has been created manually. User need to print the SPUB R1 Form manually.	NA	Open	blank	Online SPUB In record received by facility and has not been registered yet	NA	Registered	✓	Online SPUB In record received by facility and has been registered	NA	Registered	✗	Received online SPUB In but the registered status failed to send back to sending facility. User able to resend back the registered status to sending facility
SPUB Sending Status	SPUB Registered	SPUB Receiving	Description																															
✓	Open	NA	Online SPUB Out record successfully send but haven't registered in receiving facility																															
✓	Registered	NA	Online SPUB Out Record successfully send and has been registered by receiving facility																															
✗	Open	NA	Online SPUB Out which failed to send – user able to cancel this SPUB through SPUB Form screen. Once cancel, user also able to resend back this SPUB. If sending facility Cancel the SPUB, receiving facility not																															
✗	Open	NA	Offline SPUB Out which has been created manually. User need to print the SPUB R1 Form manually.																															
NA	Open	blank	Online SPUB In record received by facility and has not been registered yet																															
NA	Registered	✓	Online SPUB In record received by facility and has been registered																															
NA	Registered	✗	Received online SPUB In but the registered status failed to send back to sending facility. User able to resend back the registered status to sending facility																															

No	Name	Description			
		NA	Registered	NA	Offline SPUB In created in facility manually. User need to print the SPUB R1 Form manually.
3.	New SPUB Out	<ul style="list-style-type: none"> <li>User able to create new SPUB Out record through Add function (+).</li> <li>User need to search on the partial supply record from the patient list through this search function   </li> <li>Once choose on the patient MRN, click on Add icon above and new SPUB Form will be opened. Enter the SPUB details and save as draft.</li> </ul>			
4.	Cancel SPUB Out	User shall be able to cancel the SPUB Out Online record which successfully send but has not yet registered at the receiving facility. This is for a case that user might send to wrong facility.			
5.	Resend SPUB Out	User shall be able to resend the SPUB Out Online record which has failed in sending status. It is for a case that IWP might be down or any internet problem.			
6.	Resend Registered Status (SPUB In)	User shall be able to resend the registered status for SPUB IN Online record. This is for a case that receiving SPUB In has been registered but failed to send back the registered status to the sending facility. Issue might be IWP down or internet problem.			

3.5.5.1.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>SPUB Patient Listing</b>				
1.	SPUB No.	User shall be able to search by SPUB Number. Record will query for a data that matched with the input by user from the database for SPUB record.	No	Text field (Search field)
2.	Patient Name	User shall be able to search by patient name. Record will query for a data that matched with the input by user from the database for SPUB record.	No	Text field (Search field)
3.	Original MRN	User shall be able to search by original MRN number created in the facility. Record will query for a data that matched with the input by user from the database for SPUB record.	No	Text field (Search field)
4.	New MRN	User shall be able to search by new MRN number created in the facility. Record will query for a data that matched with the input by user from the database for SPUB record.	No	Text field (Search field)
5.	IC No/Other Identification	User shall be able to search by IC number or other identification number. Record will query for a data that matched with the input by user from the database for SPUB record.	No	Text field (Search field)



No.	Name	Description	Mandatory	Format
6.	SPUB Type	By default it will show all type of SPUB (All). User shall be able to drill down the filter either to see all Received (SPUB In), Referred (SPUB Out) or by both (All).	Yes	Drop down (search field)
7.	SPUB From Facility	Search field on facility name. User shall be able to search on facility name using a search screen (pop up).	No	Search field
8.	SPUB To Facility	Search field on facility name. User shall be able to search on facility name using a search screen (pop up).	No	Search field
9.	Send/Received Date From	User shall be able to search on received date from the calendar function.	No	Calendar format in dd/mm/yyyy (Search field)
10.	Send/Received Date To	User shall be able to search on received date from the calendar function.	No	Calendar format in dd/mm/yyyy (Search field)
<b>New SPUB</b>				
1.	Search field	Field for user to enter the MRN number and click on search function to search on specific patient name. It became mandatory if user wants to add new SPUB record.	Yes	Text field (Search function)
2.	Patient MRN	Appear in Search screen (popup) is user click on search function. User shall be able to search patient by patient MRN.	No	Text field (Search function)
3.	ID Number	Appear in Search screen (popup) is user click on search function. User shall be able to search patient by IC number or other identification number.	No	Text field (Search function)
4.	Patient Name	Appear in Search screen (popup) is user click on search function. User shall be able to search patient by patient name.	No	Text field (Search function)
<b>SPUB Form</b>				
1.	SPUB No	System will auto generate the SPUB number once user create a draft SPUB Out record. It will show as blank first before user click on Draft button. This field is a mandatory but non editable field.	Yes	Read only
2.	Referred From	For SPUB Out, this field will auto populate the current facility's name. For SPUB IN, user need to choose the correct facility name from search function.	Yes	Search field
3.	Contact Person/Office	Name of the contact officer.	No	Text field
4.	Contact no/ Ext no	Contact number of the facility.	No	Text field
5.	Fax Number	Fax number of the facility.	No	Text field
6.	Remarks	Enter any remarks, if available.		



No.	Name	Description	Mandatory	Format
7.	Referred To	For SPUB In, this field will auto populate the current facility's name. For SPUB Out, user need to choose the correct facility name from search function.	No	Text field
8.	Contact Person/Office	Name of the contact officer.	No	Text field
9.	Contact No/Ext no	Contact number of the facility.	No	Text field
10.	Fax No	Fax number of the facility.	No	Text field
11.	Counselling Provided	A checkbox where user shall be able to tick if required counselling/	No	Check box
12.	Previous SPUB Referred To	Display the previous SPUB record, if any. If no previous record, it will display blank text field and it is non-editable field.	No	Read only

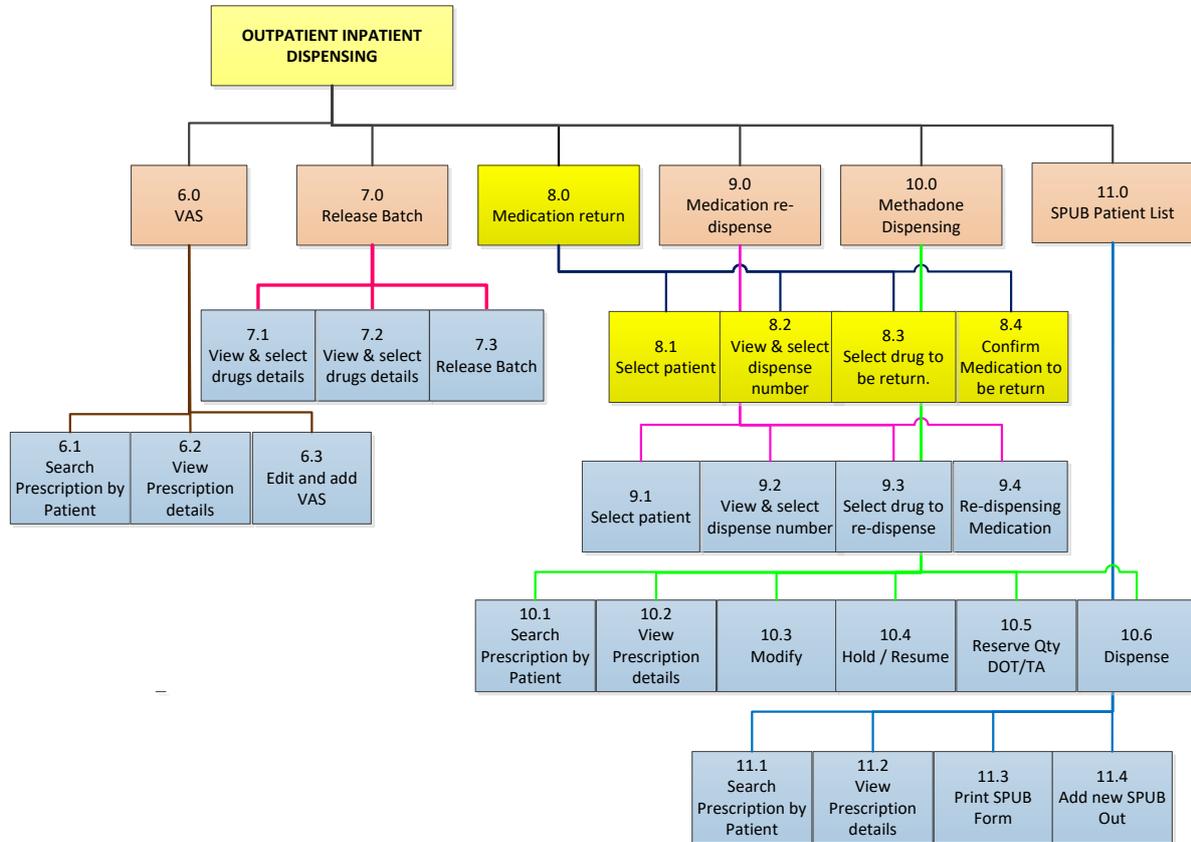
### 3.5.6 Integration

No.	Name	Description
1.	IWP	<ul style="list-style-type: none"><li>Once SPUB Out is created, PhIS will send the SPUB record to IWP.</li><li>IWP will then send the SPUB record to the referred facility online.</li><li>Once received by the referred facility and after the record has been registered, and acknowledgment of the registered status will be send back to IWP and IWP will update back to the sending facility (online).</li><li>If sending status is failed, user shall be able to see the status of failed under column "SPUB Sending Status" for SPUB Out and "SPUB Receiving Status" for SPUB In.</li></ul>

### 3.6 Medication Return

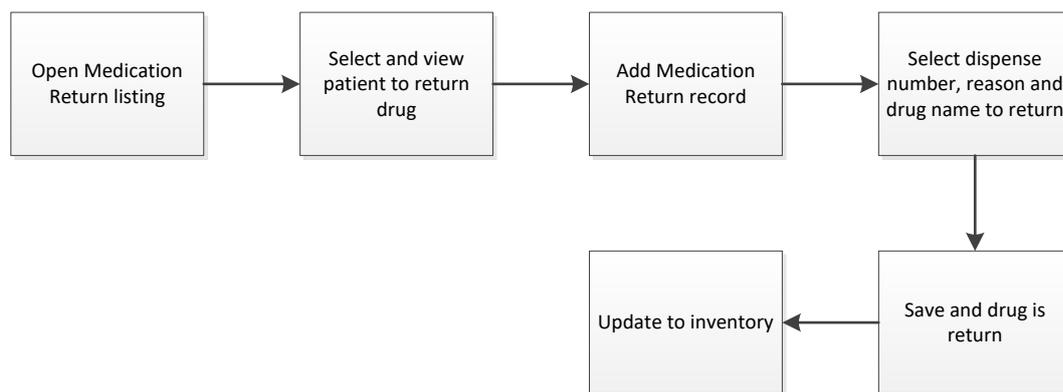
Medication Return screen allows the pharmacist to return unused drugs back to inventory.

#### 3.6.1 Overview for Medication Return



MR.OV1: Medication Return Overview

#### 3.6.2 Block Diagram



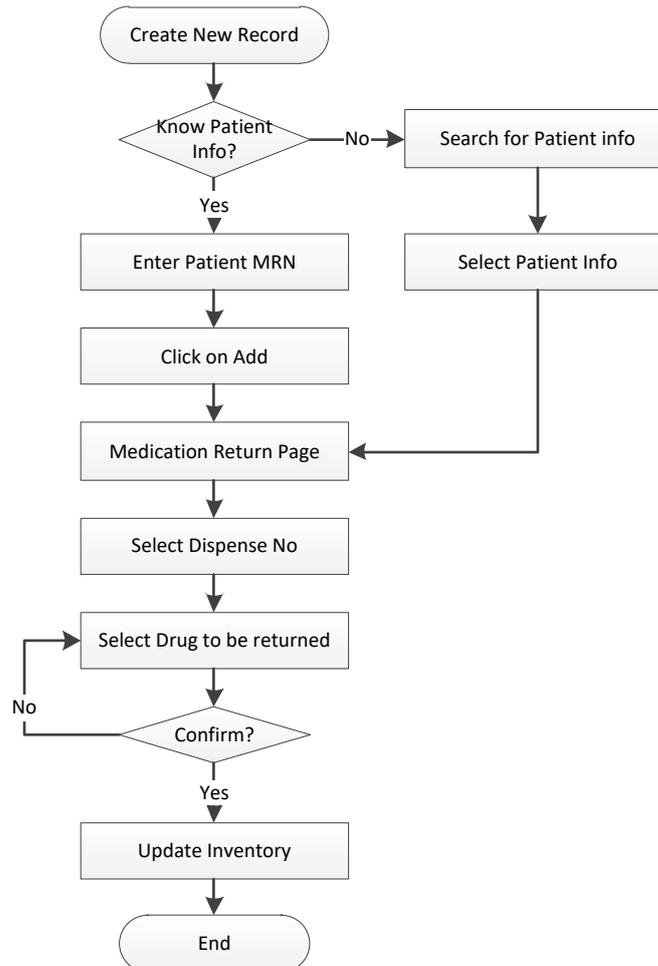
MR.BD1: Block Diagram for Medication Return flow

### 3.6.3 Purpose

Medication Return screen allows the pharmacist to return unused drugs back to inventory. This screen allows the user to return any unused drugs back to inventory. The module is controlled by user access rights. Only Authorized users will be able to access this screen. This screen will allow the user to choose two options:

- Create New Record
- Confirm Online Request

### 3.6.4 Screen Navigation



MR.SN1: Medication Return flow



### 3.6.5 Detail Functionality and Screen

#### 3.6.5.1 Medication Return Listing

##### 3.6.5.1.1 Screen Design

<b>ID</b>	MR.SD1
<b>Description</b>	Medication Return Listing

**Diagram**

i. Medication Return Listing

**MEDICATION RETURN**

Show All +

Patient Name  Patient MRN   
 Medication Return No  IC No/Other Identification   
 Date Return  Search

[ 1 - 3 / 3 ]

Return No	MRN	Patient Name	IC No/Other Identification	Encounter No	Status	Requested By
0012/2018	HMIRI00097243	A		0693	Requested	
0009/2017	HMIRI00121573	N		0213	Confirmed	
0011/2018	HMIRI00145581	W		0319	Requested	

ii. Submit new Medication Return

**MEDICATION RETURN**

[Close]

Request No  Patient MRN   
 Status   
 Remarks

**MEDICATION RETURN DRUGS**

No Record Found

Dispense No	Drug Name	Dispensed Qty	Requested Return Qty	Return Qty
-------------	-----------	---------------	----------------------	------------

iii. Confirm Medication Return

**MEDICATION RETURN**

[Close]

Mykad  Age 45 Years 01 Months 02 Days Gender Female MRN HMIRI00098830  
 Address  Phone And Email  Diagnosis  No known Allergies  
 Height  cm Weight  kg BMI/BSA 0/0 m<sup>2</sup>  (Last Updated : ) Nationality : Warganegara

Encounter No: 0815 Visit Date: 27/04/2018 Attending Practitioner: Visit Location: ACUTE PAIN SERVICE Medication Profile

Request No  Patient MRN   
 Status   
 Remarks

**MEDICATION RETURN DRUGS**

Dispense No	Drug Name	Dispensed Qty	Requested Return Qty	Return Qty
010517_00004	Ranitidine 150 mg Tablet	10	2	2

iv. View existing patient

**MEDICATION RETURN**

Submit

<b>Mykad</b> [redacted]	<b>Age</b> 13 Years 08 Months 21 Days	<b>Gender</b> Male	<b>MRN</b> HMIRI00097243
<b>Address</b> [redacted]	<b>Phone And Email</b> [redacted]	<b>Diagnosis</b> [redacted]	<b>No known Allergies</b>
<b>Height</b> [ ] cm <b>Weight</b> [ ] kg <b>BMI/BSA</b> 0/0 m <sup>2</sup> <span style="font-size: small;">Update (Last Updated : )</span> <b>Nationality</b> : Warganegara			

Encounter No: 0693 Admission Date: 15/03/2018 Attending Practitioner: DR [redacted] Visit Location: WARD FEMALE MEDICAL

<b>Request No</b> 0012/2018	<b>Patient MRN</b> HMIRI00097243
<b>Status</b> Requested	
<b>Remarks</b>	

**MEDICATION RETURN DRUGS**

1 / 1
[1 - 3 / 3]

Dispense No	Drug Name	Dispensed Qty	Requested Return Qty	Return Qty
031518_00756	Simvastatin 40 mg Tablet	1	1	1
031518_00756	Simvastatin 40 mg Tablet	1	1	1
031518_00756	Simvastatin 40 mg Tablet	1	1	1

v. Add Medication Return on existing patient

**MEDICATION RETURN DRUG**

**RETURN DRUG**

<b>Dispense No</b> 031518_00756	<b>Drug Name</b> Ascorbic Acid 100 mg
<b>Reason</b> Excess Supply	<b>Request Return Qty</b> 0 tablet
	<b>Previous Dispense Qty</b> 0 tablet

**RECEIVE RETURN QUANTITY**

<b>Return Qty</b> 0 tablet	<b>Batch No</b>
<b>Discard Qty</b> 0	

**Notes**

- Click on 'Search' button search for patient record.
- Click on 'Add' button at Medication Listing page to add new patient with new medication return record.
- Click on 'Submit' button from new medication return screen to submit the record to pharmacist.
- Click on 'Confirm' button to confirm the new medication return record.
- Click on 'Add' button at existing patient record to create medication return record on existing listing.
- Click on 'Save' button to save the medication return record.

**Cross References**

None

3.6.5.1.2 Application Business Rules

Below are the application business rules for Medication Return screen

No	Name	Description
1.	Medication Return listing	<ul style="list-style-type: none"> <li>• This screen allows the user to return any unused drugs back to inventory. The module is controlled by user access rights. Only Authorized users will be able to access this screen.</li> <li>• This screen will allow the user to choose two options:               <ul style="list-style-type: none"> <li>○ Create New Record</li> <li>○ Confirm Online Request</li> </ul> </li> <li>• Enter Medical Record Number (MRN) in the search field and then click on the search icon  to search for the patient. This will open the Search Patient popup screen.</li> <li>• User can further search the patient by entering search criteria and clicking on  button. System will compare search criteria against existing patient data.</li> <li>• By default this screen will allow user to search by the following criteria:               <ol style="list-style-type: none"> <li>i. MRN – Patient listing is retrieved from the database for all registered patients based on matching MRN and under the care of the user accessing the screen.</li> <li>ii. Patient Name – Patient listing is retrieved from the database for all registered patients based on matching Patient Name and under the care of the user accessing the screen.</li> <li>iii. IC No. – Patient listing is retrieved from the database for all registered patients based on matching IC No. The IC no. will be defaulted from the Patient Management system.</li> <li>iv. Date Return – Patient listing is retrieved from the database for all registered patients based on return date.</li> <li>v. Medication Return No – Patient Listing is retrieved from the database for all registered patients based on matching medication return number.</li> </ol> </li> <li>• After required information is entered; user can click on  button to search the information. If user enters multiple criteria; System will return the value based on selected criteria.</li> </ul>
2.	New Medication Return record	<ul style="list-style-type: none"> <li>• New medication return record can be added from Medication Return listing page.</li> <li>• Clicks on the 'Add'  icon, it will open the new Medication Return to search on new patient name.</li> <li>• Choose on the patient name which listed by visit and then click Submit  button to send the new medication return record to pharmacist.</li> </ul>

No	Name	Description
3.	Add new medication return on existing patient	<ul style="list-style-type: none"> <li>• Double clicks on patient name from the listing and it will open Medication Return screen.</li> <li>• User shall be able to view the existing medication return record or add new medication return record.</li> <li>• Click on 'Add'  icon to create new record or double click on medication return record to view the existing one.</li> <li>• Choose on the patient name at Medication Return listing and pharmacist will be able to confirm record by click on Confirm button  for the return drug.</li> </ul>

### 3.6.5.1.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Medication Return Listing</b>				
1.	Patient Name	User shall be able to search the record by patient name. System will search on the record that matched with the input criteria.	No	Text field (search field)
2.	Medication Return No	User shall be able to search the record by medication return number. System will search on the record that matched with the input criteria.	No	Text field (search field)
3.	Date Return	User shall be able to search the record by the return date. System will search on the record that matched with the input criteria.	No	Calendar format in dd/mm/yyyy (search field)
4.	Patient MRN	User shall be able to search the record by patient MRN number. System will search on the record that matched with the input criteria.	No	Text field (search field)
5.	IC No/Other Identification	User shall be able to search the record by IC number or other identification number. System will search on the record that matched with the input criteria.	No	Text field (search field)
<b>New Medication Return</b>				
1.	Request No	It will auto generate the request number every time user click on 'Add' function from the patient list screen. It is non editable field.	Yes	Read only
2.	Status	By default it will auto update the status to 'Draft' for a new record of medication return. It is non editable field.	Yes	Read only
3.	Patient MRN	User shall be able to search on new patient name using Search function. Another pop up screen will appear which user able to search other patient by MRN or patient name.	Yes	Search field
4.	Remarks	User shall be able to enter any remarks if any.	No	Text field
<b>Add Medication Return</b>				

No.	Name	Description	Mandatory	Format
1.	Return Drug: Dispense No	A drop down value from the existing dispense number of the selected patient. User shall be able to choose which dispense number to return the drug.	Yes	Drop down
2.	Return Drug: Reason	User shall be able to choose reason for drug return, from these dataset: Change of Regimen, Excess Supply, Patient Deceased and Patient Discharged.	Yes	Drop down
3.	Return Drug: Drug Name	User shall be able to search on specific drug for return. Click on search button to select the drug name and batch number.	Yes	Search field
4.	Return Drug: Request Return Qty	User shall be able to enter the quantity for return drug. UOM unit will follow the setting SKU in drug master	Yes	Text field
5.	Return Drug: Previous Dispense Qty	Value will auto populate once user enter the request return quantity. It will check the previous dispense quantity for the selected drug.	Other	Read only
6.	Received Return Qty: Return Qty	Receive quantity of the drug return and will be filled in by pharmacist.	Yes	Text field
7.	Received Return Qty: Discard Qty	The amount of discard quantity. Once user filled in the return quantity, this field will auto populate the discard quantity. It is non-editable field.	Yes	Read only
8.	Received Return Qty: Batch No	User shall be able to choose on which batch number available for the drug return. It is non-editable field.	Yes	Read only

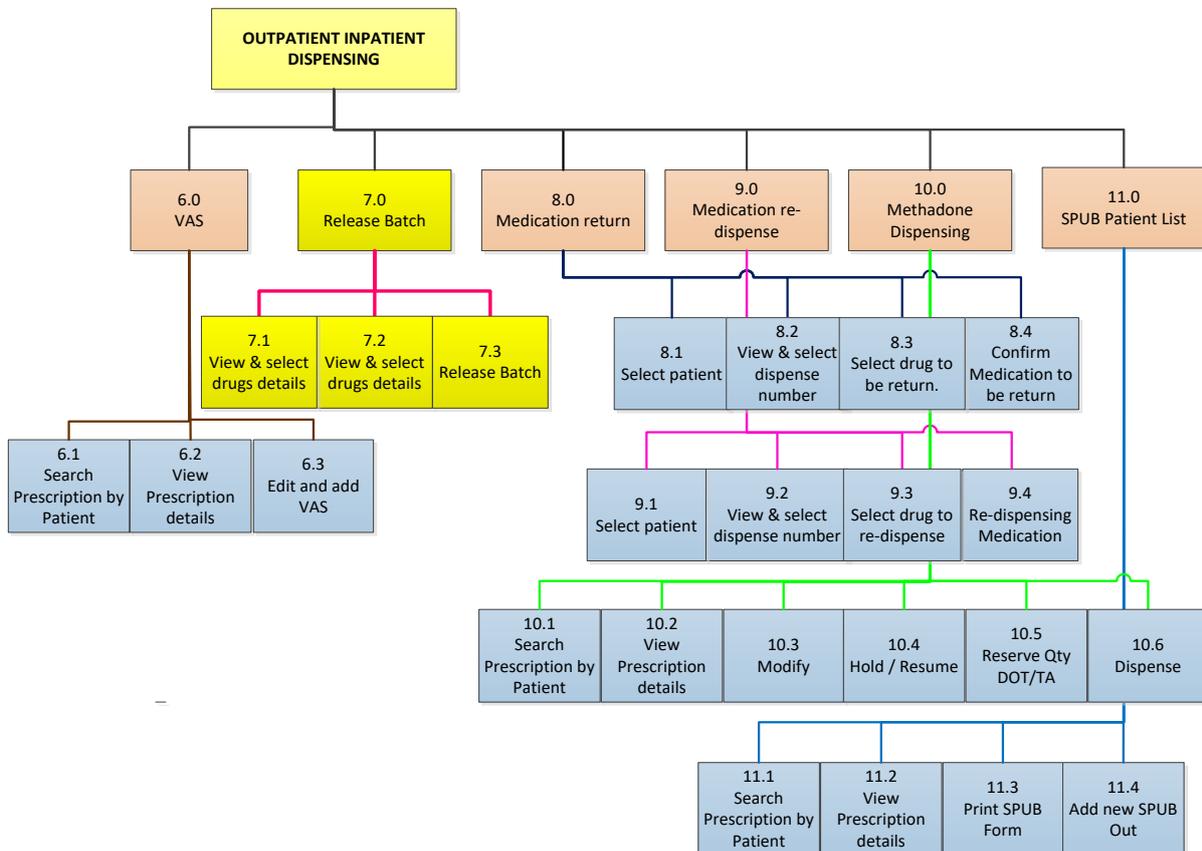
### 3.6.6 Integration

No.	Name	Description
1.	Internal	<ul style="list-style-type: none"> <li>Send record internally between modules (pharmacy to inventory) by nurse when submit new medication return to pharmacist.</li> <li>Pharmacist able to confirm on the request.</li> <li>Inventory stock will be added after confirm.</li> </ul>

### 3.7 Release/Discard Batch

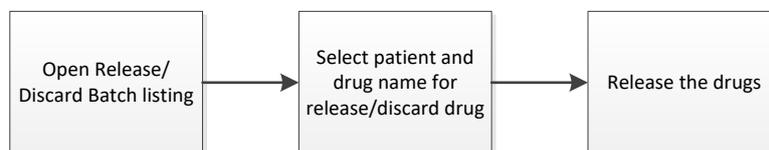
Release/Discard Batch screen allows the pharmacist to return any uncollected medication to inventory.

#### 3.7.1 Overview for Release Discard



RD:OV1: Release/Discard Batch

#### 3.7.2 Block Diagram

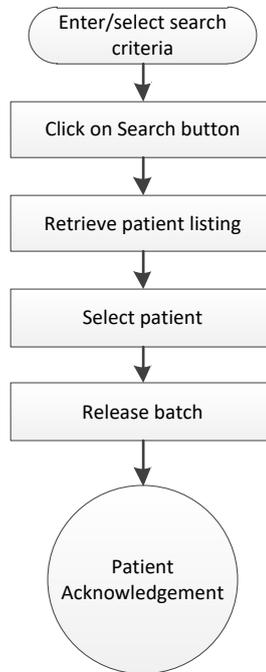


RD:BD1: Block Diagram for Release/Batch

#### 3.7.3 Purpose

Release/Discard Batch screen allows the pharmacist to return any uncollected medication to inventory. Once release, user can view back the patient at Acknowledgment screen.

### 3.7.4 Screen Navigation

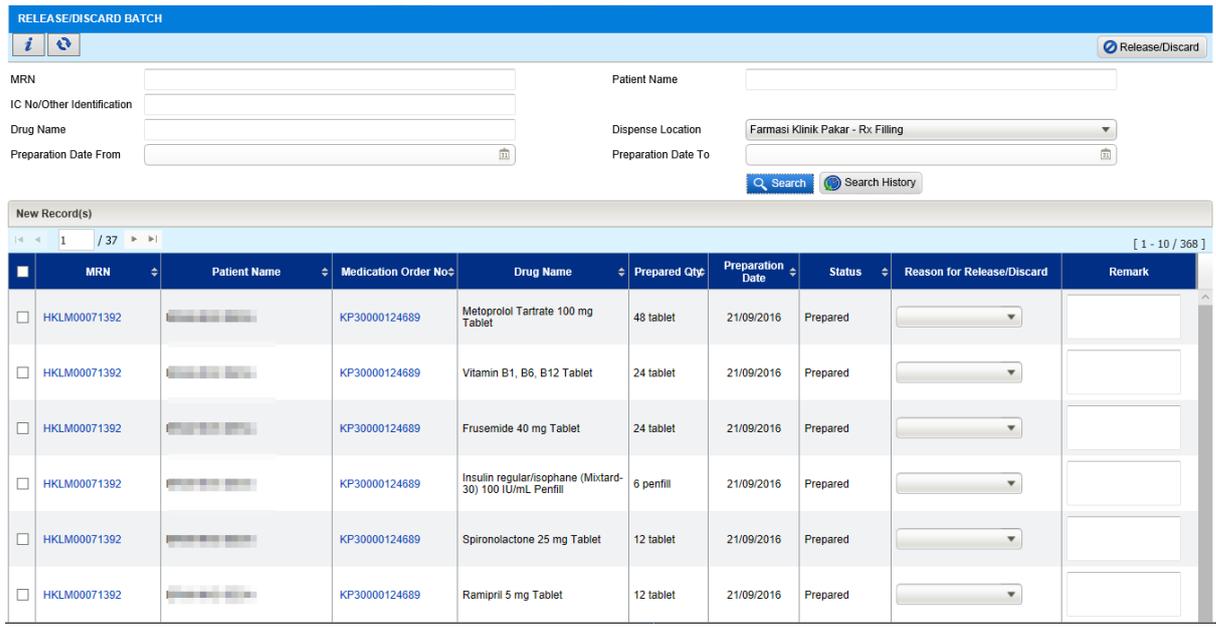
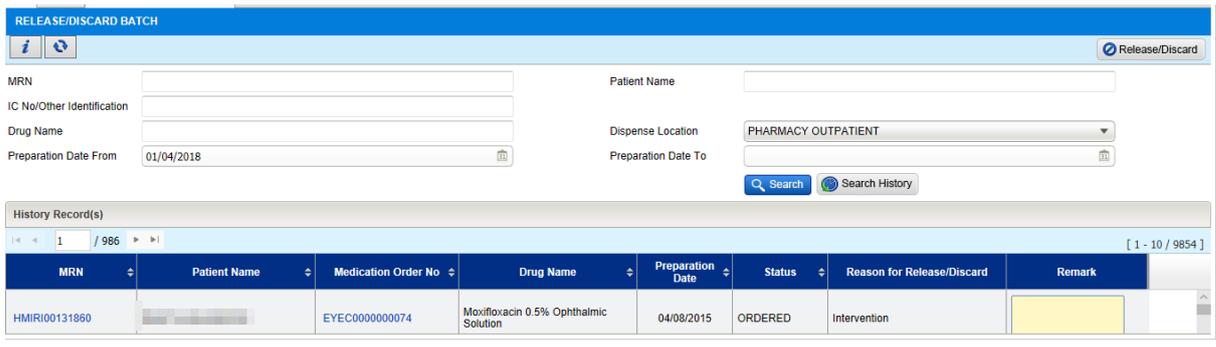


RD:SN1: Release/Discard Batch flow

### 3.7.5 Detail Functionality and Screen

#### 3.7.5.1 Release/Discard Screen

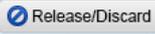
##### 3.7.5.1.1 Screen Design

<b>ID</b>	MR.SD1																																																															
<b>Description</b>	Release Discard Screen																																																															
<b>Diagram</b>																																																																
i. Release/Discard listing																																																																
 <p><b>RELEASE/DISCARD BATCH</b></p> <p>MRN: <input type="text"/> Patient Name: <input type="text"/>          IC No/Other Identification: <input type="text"/>          Drug Name: <input type="text"/> Dispense Location: Farmasi Klinik Pakar - Rx Filling          Preparation Date From: <input type="text"/> Preparation Date To: <input type="text"/></p> <p>Search Search History Release/Discard</p> <p>New Record(s) [ 1 - 10 / 368 ]</p> <table border="1"> <thead> <tr> <th>MRN</th> <th>Patient Name</th> <th>Medication Order No</th> <th>Drug Name</th> <th>Prepared Qty</th> <th>Preparation Date</th> <th>Status</th> <th>Reason for Release/Discard</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>HKLM00071392</td> <td></td> <td>KP30000124689</td> <td>Metoprolol Tartrate 100 mg Tablet</td> <td>48 tablet</td> <td>21/09/2016</td> <td>Prepared</td> <td></td> <td></td> </tr> <tr> <td>HKLM00071392</td> <td></td> <td>KP30000124689</td> <td>Vitamin B1, B6, B12 Tablet</td> <td>24 tablet</td> <td>21/09/2016</td> <td>Prepared</td> <td></td> <td></td> </tr> <tr> <td>HKLM00071392</td> <td></td> <td>KP30000124689</td> <td>Frusemide 40 mg Tablet</td> <td>24 tablet</td> <td>21/09/2016</td> <td>Prepared</td> <td></td> <td></td> </tr> <tr> <td>HKLM00071392</td> <td></td> <td>KP30000124689</td> <td>Insulin regular/isophane (Mixtard-30) 100 IU/mL Penfil</td> <td>6 penfil</td> <td>21/09/2016</td> <td>Prepared</td> <td></td> <td></td> </tr> <tr> <td>HKLM00071392</td> <td></td> <td>KP30000124689</td> <td>Spironolactone 25 mg Tablet</td> <td>12 tablet</td> <td>21/09/2016</td> <td>Prepared</td> <td></td> <td></td> </tr> <tr> <td>HKLM00071392</td> <td></td> <td>KP30000124689</td> <td>Ramipril 5 mg Tablet</td> <td>12 tablet</td> <td>21/09/2016</td> <td>Prepared</td> <td></td> <td></td> </tr> </tbody> </table>		MRN	Patient Name	Medication Order No	Drug Name	Prepared Qty	Preparation Date	Status	Reason for Release/Discard	Remark	HKLM00071392		KP30000124689	Metoprolol Tartrate 100 mg Tablet	48 tablet	21/09/2016	Prepared			HKLM00071392		KP30000124689	Vitamin B1, B6, B12 Tablet	24 tablet	21/09/2016	Prepared			HKLM00071392		KP30000124689	Frusemide 40 mg Tablet	24 tablet	21/09/2016	Prepared			HKLM00071392		KP30000124689	Insulin regular/isophane (Mixtard-30) 100 IU/mL Penfil	6 penfil	21/09/2016	Prepared			HKLM00071392		KP30000124689	Spironolactone 25 mg Tablet	12 tablet	21/09/2016	Prepared			HKLM00071392		KP30000124689	Ramipril 5 mg Tablet	12 tablet	21/09/2016	Prepared		
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ii. History Listing																																																																
 <p><b>RELEASE/DISCARD BATCH</b></p> <p>MRN: <input type="text"/> Patient Name: <input type="text"/>          IC No/Other Identification: <input type="text"/>          Drug Name: <input type="text"/> Dispense Location: PHARMACY OUTPATIENT          Preparation Date From: 01/04/2018 Preparation Date To: <input type="text"/></p> <p>Search Search History Release/Discard</p> <p>History Record(s) [ 1 - 10 / 9854 ]</p> <table border="1"> <thead> <tr> <th>MRN</th> <th>Patient Name</th> <th>Medication Order No</th> <th>Drug Name</th> <th>Preparation Date</th> <th>Status</th> <th>Reason for Release/Discard</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>HMIRI00131860</td> <td></td> <td>EYEC0000000074</td> <td>Moxifloxacin 0.5% Ophthalmic Solution</td> <td>04/08/2015</td> <td>ORDERED</td> <td>Intervention</td> <td></td> </tr> </tbody> </table>		MRN	Patient Name	Medication Order No	Drug Name	Preparation Date	Status	Reason for Release/Discard	Remark	HMIRI00131860		EYEC0000000074	Moxifloxacin 0.5% Ophthalmic Solution	04/08/2015	ORDERED	Intervention																																																
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<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on 'Search' button to display the patient list.</li> <li>Click on 'Search History' button to display the history list of drug release.</li> <li>Click on 'Release/Discard' button to release the drugs.</li> </ul>																																																															
<b>Cross References</b>	OP.SD3:Dispensing screen																																																															



## 3.7.5.1.2 Application Business Rules

Below are the application business rules for Release/Discard screen

No	Name	Description
1.	Release/Discard Listing	<ul style="list-style-type: none"> <li>This screen will allow the user to release the drug reserved for the patient back into inventory. The module is controlled by user access rights. Only Authorized users will be able to access this screen.</li> <li>This list will contain a list of drugs with 'Uncollected', 'Prepared' or 'Hold' status. User needs to release this drug in order for it to be available in the drug inventory list. The status of allocated (reserved quantity) will change to available quantity.</li> <li>User can search this list using the following criteria: <ul style="list-style-type: none"> <li>i. MRN – MRN shall be retrieved from the database for all registered patients.</li> <li>ii. Patient Name – Listing will be searched on data that matches the input of patient name.</li> <li>iii. Preparation Date From and To – Range of prepared date. Prepared Date To can be NULL or must be greater than Prepared Date From.</li> <li>iv. Drug Name – List of active drugs for this pharmacy</li> <li>v. IC No/Other Identification – Listing will be searched based on matching input of ID number.</li> <li>vi. Dispense Location - Dispense Location will be a drop-down where user will be able to select the Dispense location. The Dispense location will be set up through the Pharmacy Dispense location master</li> </ul> </li> <li>After entering the required information, user can click on  button to search for the information. System will compare the search criteria against 'Prepared', 'Hold' or 'Uncollected' order data. If user enters multiple criteria, system will return the results based on selected criteria and user access data. If no criteria entered, system will return all information based on user access data only.</li> <li>Patient list with drugs to be released will be retrieved and displayed based on selected criteria when user clicks on  button.</li> </ul>
2.	Release/Discard	<ul style="list-style-type: none"> <li>Select the patient and drug name, and then click on  button to release the drug that has been reserved.</li> <li>User must select one of the reasons to proceed.</li> <li>The reserved drugs will be released back to the inventory list.</li> <li>Status of the order will be changed back to the status of this order before the acknowledgement stage.</li> </ul>
3.	Refresh List	Click on Refresh button, listing will be refreshed back to blank.

3.7.5.1.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Release/Discard Search</b>				
1.	MRN	User shall be able to enter the patient MRN number to search on specific record. Record will be listed based on matching MRN number.	No	Text field (search field)
2.	Patient Name	User shall be able to enter the patient name to search on specific record. Record will be listed based on matching with patient name.	No	Text field (search field)
3.	IC No/Other Identification	User shall be able to enter the patient IC or other identification number to search on specific record. Record will be listed based on matching number.	No	Text field (search field)
4.	Drug Name	User shall be able to enter the drug name to search on specific record. Record will be listed based on matching drug name.	No	Text field (search field)
5.	Dispense Location	User shall be able to select on the dispense location from drop down value. The dataset of dispense location will be display based on granted location of the user.	Yes	Drop down (search field)
6.	Preparation Date To	User shall be able to enter the patient MRN number to search on specific record. Record will be listed based on matching MRN number.	No	Calendar format in dd/mm/yyyy (search field)
7.	Preparation date From	User shall be able to enter the patient MRN number to search on specific record. Record will be listed based on matching MRN number.	No	Calendar format in dd/mm/yyyy (search field)
<b>Release/Discard</b>				
8.	Reason for Release/Discard	User shall be able to enter the reason of release/discard.	Yes	Drop down
9.	Remarks	User shall be able to enter remarks if applicable.	No	Text field

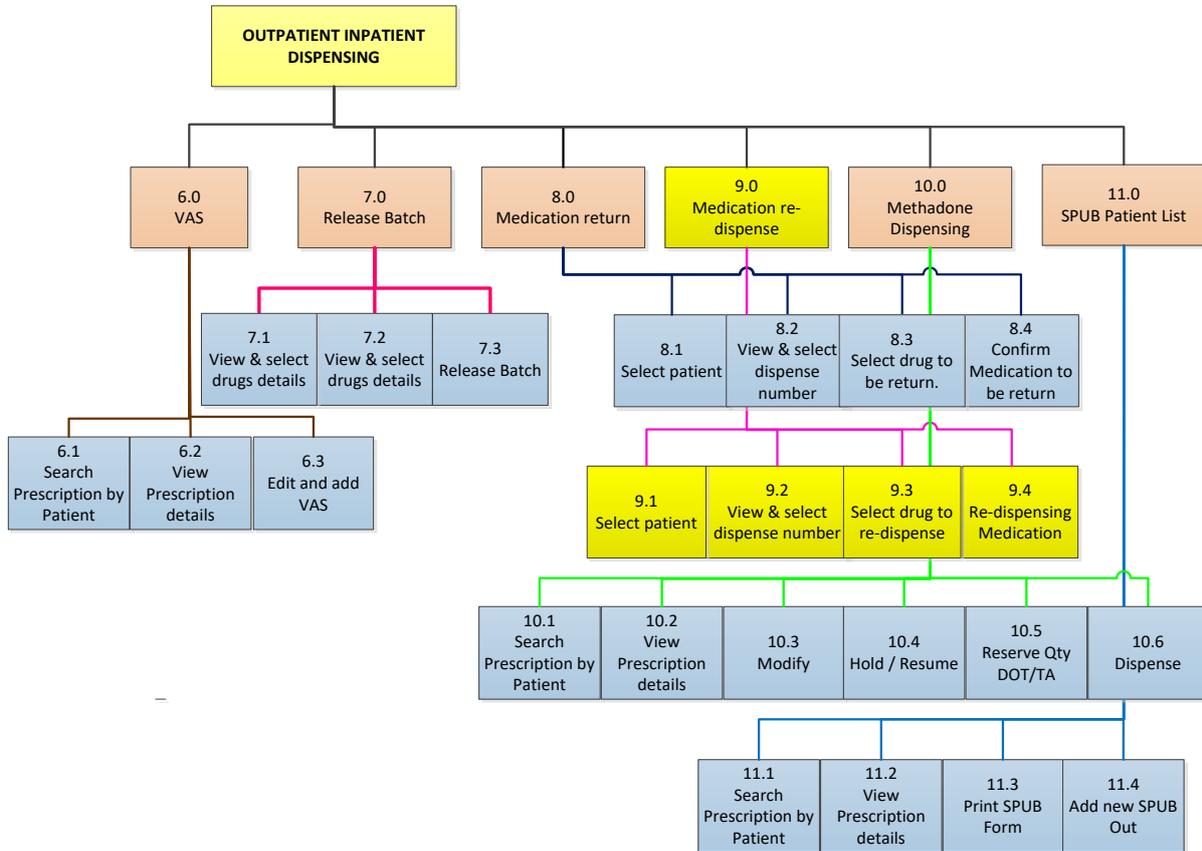
3.7.6 Integration

No.	Name	Description
1.	Internal	<ul style="list-style-type: none"> <li>Integration between pharmacy module and inventory module.</li> <li>Once user click on Release/Discard button, inventory table will be updated.</li> <li>Once drug has been release, status will of stock will be updated into inventory module.</li> </ul>

### 3.8 Re-Dispensing

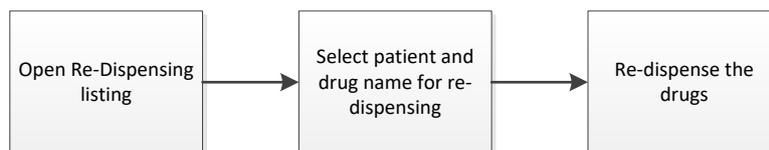
Re-Dispensing allow pharmacist to re-dispense the spilled, broken or lost medication.

#### 3.8.1 Overview for Re-Dispensing



MRD:OV1: Re-Dispensing overview

#### 3.8.2 Block Diagram

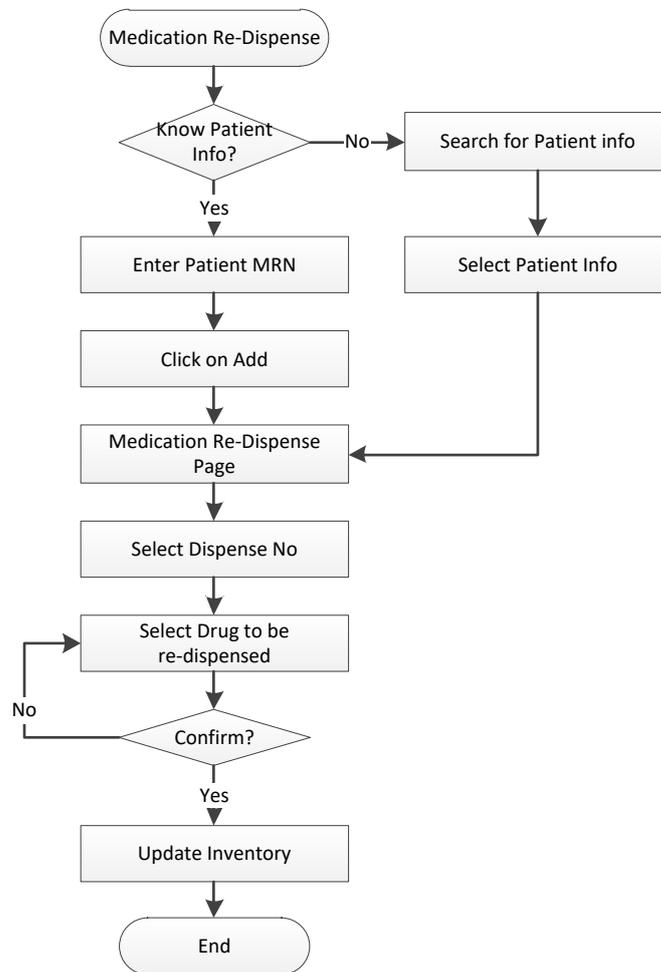


MRD:BD1: Re-Dispensing Block Diagram

#### 3.8.3 Purpose

Medication Re-Dispensing screen allows the pharmacist to re-dispense a medication order medication to the patient due to spilled, broken or lost. The order will be dispensed to the patient once prepared.

### 3.8.4 Screen Navigation

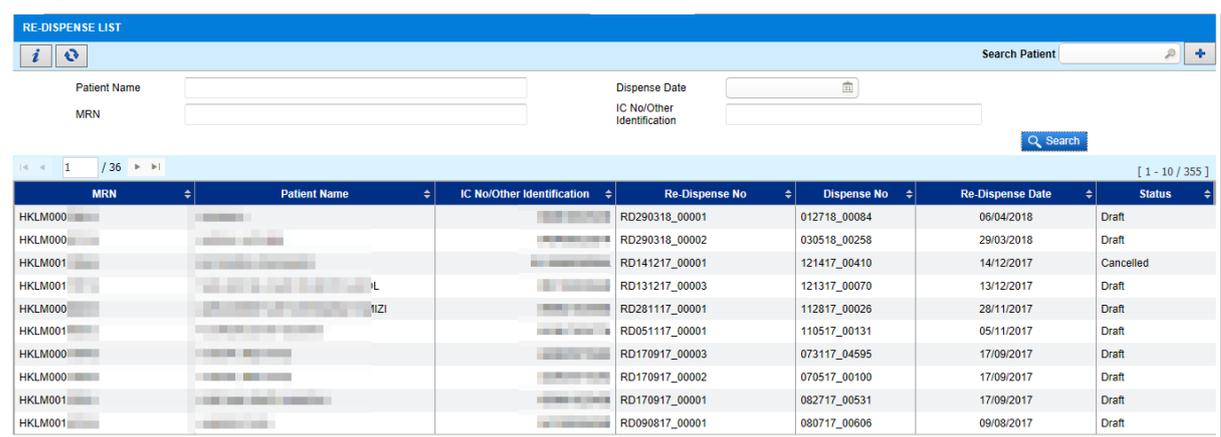


MRD:SN1 Re-Dispensing flow

### 3.8.5 Detail Functionality and Screen

#### 3.8.5.1 Re-Dispensing Listing

##### 3.8.5.1.1 Screen Design

<b>ID</b>	MRD.SD1																																																																													
<b>Description</b>	Re-Dispensing Listing																																																																													
<b>Diagram</b>	 <p>The screenshot shows a web application interface titled 'RE-DISPENSE LIST'. It features a search bar at the top right labeled 'Search Patient'. Below the search bar are input fields for 'Patient Name', 'MRN', 'Dispense Date', and 'IC No/Other Identification'. A 'Search' button is located to the right of these fields. Below the search area is a data table with the following columns: MRN, Patient Name, IC No/Other Identification, Re-Dispense No, Dispense No, Re-Dispense Date, and Status. The table contains 10 rows of data.</p> <table border="1"> <thead> <tr> <th>MRN</th> <th>Patient Name</th> <th>IC No/Other Identification</th> <th>Re-Dispense No</th> <th>Dispense No</th> <th>Re-Dispense Date</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>HKLM000</td> <td></td> <td></td> <td>RD290318_00001</td> <td>012718_00084</td> <td>06/04/2018</td> <td>Draft</td> </tr> <tr> <td>HKLM000</td> <td></td> <td></td> <td>RD290318_00002</td> <td>030518_00258</td> <td>29/03/2018</td> <td>Draft</td> </tr> <tr> <td>HKLM001</td> <td></td> <td></td> <td>RD141217_00001</td> <td>121417_00410</td> <td>14/12/2017</td> <td>Cancelled</td> </tr> <tr> <td>HKLM001</td> <td></td> <td></td> <td>RD131217_00003</td> <td>121317_00070</td> <td>13/12/2017</td> <td>Draft</td> </tr> <tr> <td>HKLM000</td> <td></td> <td></td> <td>RD281117_00001</td> <td>112817_00026</td> <td>28/11/2017</td> <td>Draft</td> </tr> <tr> <td>HKLM001</td> <td></td> <td></td> <td>RD051117_00001</td> <td>110517_00131</td> <td>05/11/2017</td> <td>Draft</td> </tr> <tr> <td>HKLM000</td> <td></td> <td></td> <td>RD170917_00003</td> <td>073117_04595</td> <td>17/09/2017</td> <td>Draft</td> </tr> <tr> <td>HKLM000</td> <td></td> <td></td> <td>RD170917_00002</td> <td>070517_00100</td> <td>17/09/2017</td> <td>Draft</td> </tr> <tr> <td>HKLM001</td> <td></td> <td></td> <td>RD170917_00001</td> <td>082717_00531</td> <td>17/09/2017</td> <td>Draft</td> </tr> <tr> <td>HKLM001</td> <td></td> <td></td> <td>RD090817_00001</td> <td>080717_00606</td> <td>09/08/2017</td> <td>Draft</td> </tr> </tbody> </table>	MRN	Patient Name	IC No/Other Identification	Re-Dispense No	Dispense No	Re-Dispense Date	Status	HKLM000			RD290318_00001	012718_00084	06/04/2018	Draft	HKLM000			RD290318_00002	030518_00258	29/03/2018	Draft	HKLM001			RD141217_00001	121417_00410	14/12/2017	Cancelled	HKLM001			RD131217_00003	121317_00070	13/12/2017	Draft	HKLM000			RD281117_00001	112817_00026	28/11/2017	Draft	HKLM001			RD051117_00001	110517_00131	05/11/2017	Draft	HKLM000			RD170917_00003	073117_04595	17/09/2017	Draft	HKLM000			RD170917_00002	070517_00100	17/09/2017	Draft	HKLM001			RD170917_00001	082717_00531	17/09/2017	Draft	HKLM001			RD090817_00001	080717_00606	09/08/2017	Draft
MRN	Patient Name	IC No/Other Identification	Re-Dispense No	Dispense No	Re-Dispense Date	Status																																																																								
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<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on 'Search' button to search record.</li> <li>Click on 'Add' button to add new record for re-dispensing.</li> </ul>																																																																													
<b>Cross References</b>	<p>OP:SD3 Outpatient Dispensing</p> <p>IP:SD3 Inpatient Dispensing</p>																																																																													

##### 3.8.5.1.2 Application Business Rules

Below are the application business rules for Re-Dispensing Listing screen

No	Name	Description
1.	Re-Dispensing Listing	<ul style="list-style-type: none"> <li>This screen will allow the user to re-issue medication to the patient due to spilled, broken or lost. The module is controlled by user access rights. Only Authorized users will be able to access this screen.</li> <li>This screen will allow the user to choose from the following options: <ul style="list-style-type: none"> <li>a. Medication Re-Dispense</li> <li>b. Issue Quota Drugs to Other Facility</li> </ul> </li> <li>Enter Medical Record Number (MRN) in the search field and then click on the search icon  to search for the patient. This will open the Search Patient popup screen.</li> <li>User can further search for the patient by entering search criteria and click on  button. System will compare search criteria against existing patient data.</li> </ul>
2.	Search record	<ul style="list-style-type: none"> <li>The screen will have a search filter and search listing</li> </ul>

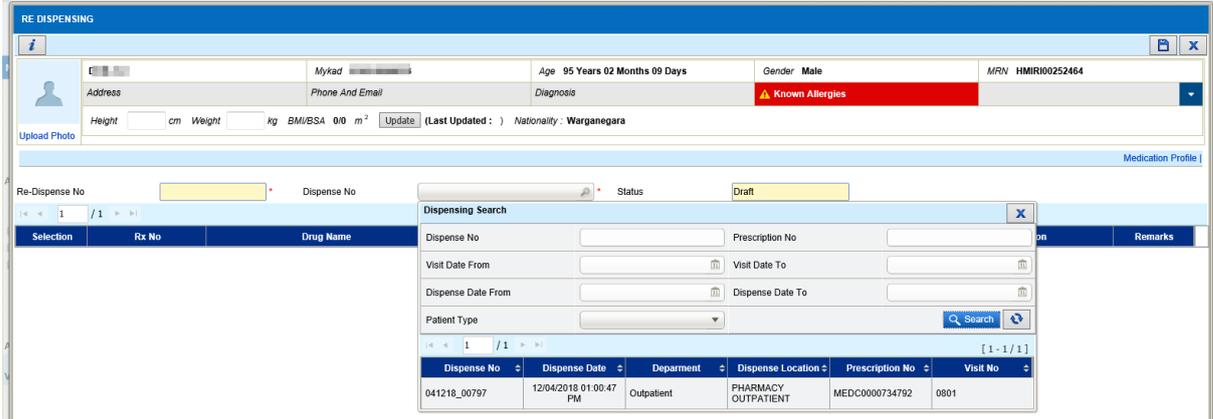
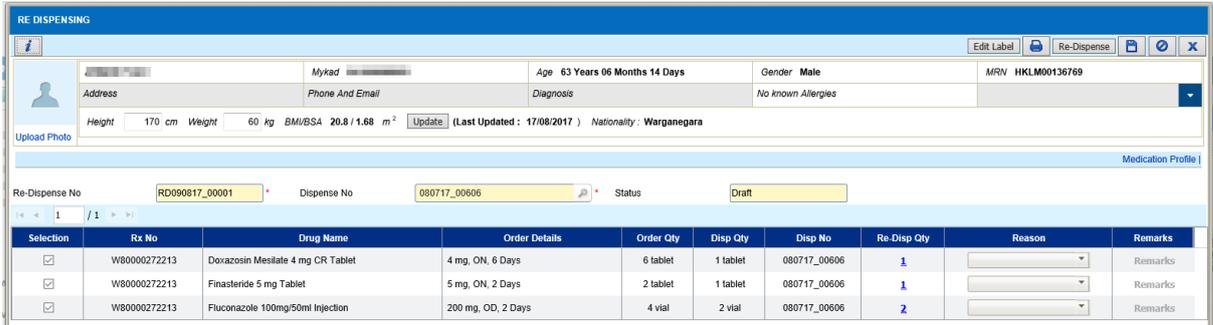
No	Name	Description
		<ul style="list-style-type: none"> <li>By default this screen will allow the user to search with the following criteria:               <ol style="list-style-type: none"> <li>MRN – Patient listing is retrieved from the database for all registered patients based on matching MRN and under the care of the user accessing the screen.</li> <li>Patient Name – Patient listing is retrieved from the database for all registered patients based on matching Patient Name and under the care of the user accessing the screen.</li> <li>IC No. – Patient listing is retrieved from the database for all registered patients based on matching IC No. The IC no. will be defaulted from the Patient Management system.</li> <li>Telephone No – Patient listing is retrieved from the database for all registered patients based telephone no, this will be an optional filtering, and the patients listed will be under the care of the user accessing the screen.</li> </ol> </li> <li>After required information is entered; user can click on  button to search the information. If user enters multiple criteria; System will return the value based on selected criteria.</li> <li>The patient listing will be shown below the search filter.</li> <li>Clicking on the 'record' will select the Patient and open the new Medication Re-Dispense screen. This screen will be displayed with the selected patient's information.</li> </ul>
3.	Refresh List	Click on Refresh button, listing will be refresh back to blank.

3.8.5.1.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Patient Name	User shall be able to enter the patient name to search on specific record. Record will be listed based on matching patient name.	No	Text field (search field)
2.	MRN	User shall be able to enter the patient MRN number to search on specific record. Record will be listed based on matching MRN number.	No	Text field (search field)
3.	IC No/Other Identification	User shall be able to enter the IC or other identification number to search on specific record. Record will be listed based on matching number.	No	Text field (search field)
4.	Dispense Date	User shall be able to enter the dispense date to search on specific record. Record will be listed based on matching date.	No	Calendar format in dd/mm/yyyy (search field)

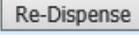
### 3.8.5.2 Re-Dispensing Screen

#### 3.8.5.2.1 Screen Design

<b>ID</b>	MR.SD1
<b>Description</b>	Re-Dispensing Screen
<p><b>Diagram</b></p> <p>i. Search Dispense Number</p>  <p>ii. Re-Dispensing screen</p> 	
<b>Notes</b>	<ul style="list-style-type: none"> <li>• Click on 'Search' button to search the dispense number of the selected patient.</li> <li>• Click on 'Save' button to save the re-dispensing record.</li> <li>• Click on 'Edit Label' button to edit on the drug label information.</li> <li>• Click on 'Print' button to directly print drug label.</li> <li>• Click on 'Re-Dispense' button to re-dispense the drugs.</li> </ul>
<b>Cross References</b>	MRD.SD1 Re-Dispensing Listing screen

#### 3.8.5.2.2 Application Business Rules

Below are the application business rules for Re-Dispensing screen

No	Name	Description
1.	Re-Dispense record	<ul style="list-style-type: none"> <li>• User is required to enter the following information to complete the dispensing process:               <ol style="list-style-type: none"> <li>i. Re-Dispense No – This is a read-only field. By default it will be blank. Re-dispense No will be auto generated once user select the dispense number from listing.</li> <li>ii. Dispense No - List of Patient Dispense Record will popped up once user choose the dispense number from the search indo. User need to search on the dispense number by clicks on the search (  ) icon.</li> <li>iii. Status will update to 'Draft' for first time re-dispensing.</li> <li>iv. Then user need to select a record of dispense. By default, it will select all record.</li> <li>v. Enter the reason for the selected drugs and remarks if any.</li> </ol> </li> <li>• After required information is entered; user can click on the  button to do re-dispensing.</li> <li>• User also shall be able to print drug label and edit drug label  .</li> </ul>
2.	Search dispense number	<ul style="list-style-type: none"> <li>• The screen will have a search filter and search listing on dispense record of the selected patient.</li> <li>• User can enter the following criteria:               <ol style="list-style-type: none"> <li>i. Dispense No – Dispense record is retrieved from the database for all dispense number based on matching number and under the care of the user accessing the screen.</li> <li>ii. Prescription No – Prescription number is retrieved from the database for all prescription number based on matching number.</li> <li>iii. Visit Date From/To. – Dispense record is retrieved from the database for all visit date from/to that matching with the input criteria.</li> <li>iv. Dispense Date From/To – Dispense record is retrieved from the database for all dispense date from/to that matching with the input criteria.</li> <li>v. Patient Type - Dispense record is retrieved from the database for the patient type that matching with the input criteria.</li> </ol> </li> <li>• After required information is entered; user can click on  button to search the information. If user enters multiple criteria; System will return the value based on selected criteria.</li> </ul>
3.	Refresh list	Click on Refresh button, listing will be refresh back to blank.



3.8.5.2.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
<b>Re-Dispensing</b>				
1.	Re-Dispensing No	Re-dispensing number will auto populate once user has select the dispense number from the search list. It is non-editable field.	Yes	Read only
2.	Dispense No	User shall be able to select on the dispense number from search screen.	Yes	Search field
3.	Status	Status will be auto update as 'Draft' when first time user create re-dispensing record.	Yes	Read only
4.	Reason	This field will show a list of active reasons in a drop down combo box as configured in 'Reason' master table as below: <ul style="list-style-type: none"> <li>• Spilled</li> <li>• Broken</li> <li>• Lost</li> <li>• Others – Remarks link will enable</li> </ul>	Yes	Drop down
5.	Remarks	User shall be able to enter any remarks, if applicable.	No	Text field
<b>Dispensing Search</b>				
6.	Dispense No	User shall be able to enter the dispense number to search on specific record. Record will be listed based on matching number.	No	Text field (search field)
7.	Prescription No	User shall be able to enter the prescription number to search on specific record. Record will be listed based on matching number.	No	Text field (search field)
8.	Visit Date From	User shall be able to enter the visit date (from) to search on specific record. Record will be listed based on matching date.	No	Calendar format in dd/mm/yyyy (search field)
9.	Visit Date To	User shall be able to enter the visit date (to) to search on specific record. Record will be listed based on matching date.	No	Calendar format in dd/mm/yyyy (search field)
10.	Dispense Date From	User shall be able to enter the dispense date (from) to search on specific record. Record will be listed based on matching date.	No	Calendar format in dd/mm/yyyy (search field)
11.	Dispense Date To	User shall be able to enter the dispense date (to) to search on specific record. Record will be listed based on matching date.	No	Calendar format in dd/mm/yyyy (search field)



No.	Name	Description	Mandatory	Format
12.	Patient Type	User shall be able to select the patient type from drop down value to search on specific record. Record will be listed based on matching date.	No	Drop down (search field)

### 3.8.6 Integration

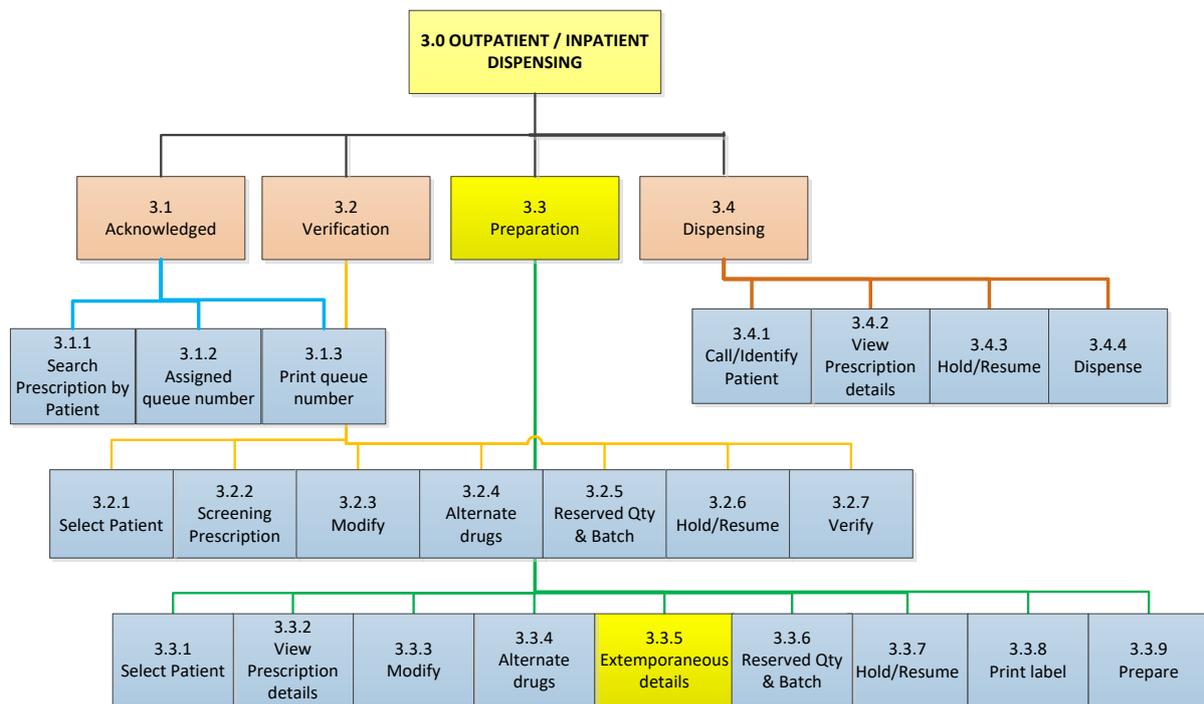
No.	Name	Description
1.	Internal	<ul style="list-style-type: none"><li>• Integration between pharmacy module and inventory module.</li><li>• Once user click on Re-Dispensing button, inventory table will be updated.</li><li>• Once drug has been re-dispense, status will of stock will be updated into inventory module.</li><li>• Stock adjustment to inventory module internally.</li></ul>

### 3.9 Extemporaneous

Extemporaneous screen is for user to do compounding for the ordered tablet drugs. Drugs are allowed to do extemporaneous when the compounded item flag in drug master is selected and extemporaneous details is also setup in Drug Master.

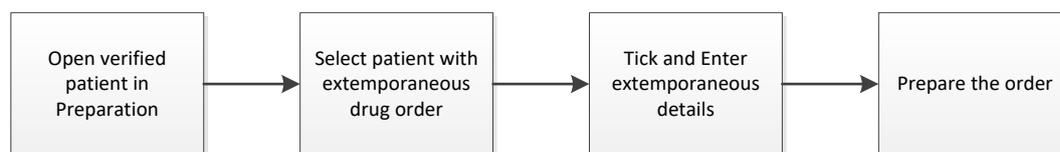
Extemporaneous details checkbox is displayed only in Preparation screen or when user clicks Proceed to 'Dispense' flag. Extemporaneous function is divided into two categories; Preparation done by pharmacist or Preparation done by patient. Once extemporaneous details are saved, user is able to print the worksheet, ingredient label and patient label.

#### 3.9.1 Overview for Extemporaneous



EXMP.OV1: Overview of Extemporaneous function

#### 3.9.2 Block Diagram

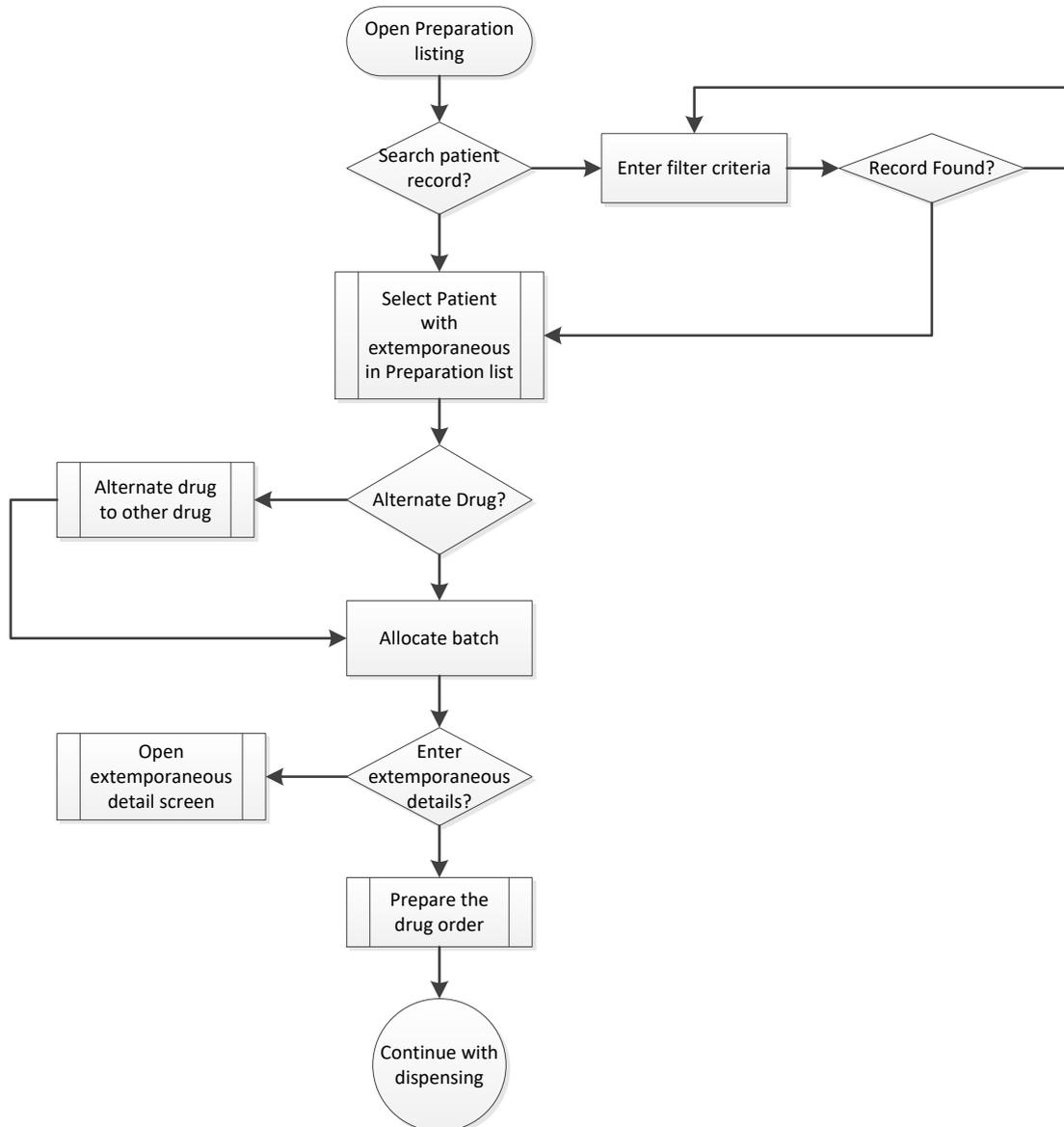


EXMP.BD1: Extemporaneous Block Diagram

#### 3.9.3 Purpose

The main purpose of extemporaneous is for user to do compounding for the ordered tablet drugs. Drugs are allowed to do extemporaneous when the compounded item flag in drug master is selected and extemporaneous details is also setup in Drug Master.

### 3.9.4 Screen Navigation



EXMP.SN1: Extemporaneous Flow



3.9.5 Detail Functionality and Screen

3.9.5.1 Extemporaneous (Preparation by Pharmacist)

3.9.5.1.1 Screen Design

<b>ID</b>	EXMP.SD1
<b>Description</b>	Extemporaneous (Preparation by Pharmacist)

**Diagram**

i. Extemporaneous Flag

ii. Extemporaneous Screen



**EXTEMPORANEOUS**

Preparation Done By  Pharmacist  Patient Worksheet ID

Preparation Name  \* Concentration   /ml

Dosage  ml

Item	Item Name	Quantity	UOM
Active Ingredient	Allopurinol 300 mg Tablet		1 tablet
Vehicle	Ora-Sweet® : Ora-Plus® (1:1)	<input type="text" value="15"/>	<input type="text" value="millilitre"/>

Storage Condition and Procedures in Local Language

Storage Condition  Expiry  Days

References  Formulation Remarks

Procedures(Preparation by Pharmacist)

Procedures(Preparation by Patient)

Preparation Remarks

iii. Extemporaneous Screen after Saving

**EXTEMPORANEOUS**

Preparation Done By  Pharmacist  Patient Worksheet ID

Preparation Name  \* Concentration   /ml

Dosage  ml

Item	Item Name	Quantity	UOM
Active Ingredient	Allopurinol 300 mg Tablet		1 tablet
Vehicle	Ora-Sweet® : Ora-Plus® (1:1)	<input type="text" value="15"/>	<input type="text" value="millilitre"/>

Storage Condition and Procedures in Local Language

Storage Condition  Expiry  Days

References  Formulation Remarks

Procedures(Preparation by Pharmacist)

Procedures(Preparation by Patient)

Preparation Remarks

<b>Notes</b>	<ul style="list-style-type: none"> <li>• Click on 'Extemporaneous' checkbox to display the Extemporaneous screen.</li> <li>• Select the 'Preparation Name' to load data from Drug Master.</li> <li>• Click on 'Cancel' button to reset the record.</li> <li>• Click on 'Save' button to save the new record.</li> <li>• Click on 'Generate Worksheet' button to print the worksheet.</li> <li>• Click on 'Edit' button to edit the record.</li> <li>• Click on 'Delete' button to remove and cancel the extemporaneous preparation.</li> </ul>
<b>Cross References</b>	None.

3.9.5.1.2 Application Business Rules

Below are the application business rules for Extemporaneous screen

No	Name	Description
1.	New extemporaneous – Preparation by Pharmacist record.	<p>Before creating the extemporaneous record, medication order must already exist in Outpatient or Inpatient Pharmacy module. When ordering, user will order the drug specified as Compounded Item in Drug Master. For example, user will order tablet drugs where later the tablet will be used as one of the raw material in extemporaneous screen in pharmacy preparation screen.</p> <p>Once order is created and record is displayed in Verification screen, the extemporaneous checkbox will only be displayed if user selects the Proceed to Dispense checkbox, if not, user can proceed by clicking the Verify button and record will flow to Preparation screen. The extemporaneous flag will be displayed in Preparation screen. Should not display the checkbox for own medication drug and ward stock drug.</p> <p>User is required to allocate the batch quantity before creating new extemporaneous record.</p> <p>Create new extemporaneous record by selecting the extemporaneous checkbox and the screen will be displayed. By default, preparation done by pharmacist is selected. Select the preparation name and all related data will be displayed based on the setup in Drug Master.</p>
2.	Save extemporaneous record.	On click of the Save button, record will be saved, worksheet ID will be auto-generated and user is allowed to print the Extemporaneous Worksheet. Record is still editable once user already saves the record.
3.	Delete extemporaneous record.	On click of the Delete button, system will remove the saved extemporaneous record. User then allowed to proceed with preparation without any extemporaneous preparation.

No	Name	Description
4.	Validation – Preparation expiry date.	<p>Once user save the extemporaneous record, system will auto-generate the preparation expiry date based on the extemporaneous preparation expiry (days) value. This value will then be displayed on the drug label.</p> <p>i. In the case of the selected batch expiry date is less than the auto-generated preparation date: System will prompt user options where system will update the preparation expiry date based on the selected batch expiry date. If user didn't want to proceed, system will clear the extemporaneous screen.</p> <p>ii. In the case of the supply end date (based on the allocation) is more than the auto-generated preparation expiry date: System will display a prompt message that the supply end date is more than the auto-generated preparation expiry date and user is given options whether to proceed or not. If user proceeds, user can proceed with the extemporaneous preparation, if not, system will clear the extemporaneous screen.</p> <p>User able to edit the expiry (days) value, but should not be more than the formula set in Drug Master. Alert message will display ('Expiry Date cannot be more than the formulation expiry') if user edit the value to be more than the expiry set in Drug Master.</p>

### 3.9.5.1.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Preparation Done By	Preparation Done By radio button is to be selected either by Pharmacist or by Patient. Default value is Preparation Done by Pharmacist. This field is mandatory.	Yes	Radio button
2.	Preparation Name	Preparation Name will display a list of available extemporaneous preparation formula as setup in drug master. This field is mandatory.	Yes	Text field
3.	Worksheet ID	Worksheet ID field is displayed only when preparation is done by pharmacist. Value is auto-generated by system once user saves the extemporaneous record and auto generated based on the format as below: Current Year-Current Month-Running Number Example: 14-06-0010 The running number is up to 4 integer values and should reset monthly. Each month should generate the running	Yes	Read only

No.	Name	Description	Mandatory	Format
		number separately. This field is read-only.		
4.	Concentration	Concentration field will be auto-populated based on the selected extemporaneous preparation. This field is read-only.	Yes	Read only
5.	Concentration UOM	Concentration UOM field will be auto-populated based on the selected extemporaneous preparation. This field is read-only.	Yes	Read only
6.	Dosage (in ml) and UOM	Dosage is displayed based on the calculation as below: iii. If the ordered Dosage is by drug strength UOM: $\text{Dosage (in ml)} = \frac{\text{Ordered Dosage}}{\text{Extemporaneous Concentration}}$ iv. If the ordered Dosage is by drug Quantity UOM: $\text{Dosage (in ml)} = \frac{\text{Ordered Dosage} * \text{Order or Alternate drug Strength value}}{\text{Extemporaneous Concentration}}$ Value is auto-calculated and not editable. Dosage UOM is hardcoded to ml (millilitre).	Yes	Read only
7.	Active Ingredient: Item Name	Item Name for Active Ingredient will display value based on the ordered drug. If drug is alternate to another drug, the alternate drug name will be displayed. Value is read-only.	Yes	Discrete
8.	Active Ingredient: Quantity	Quantity for Active Ingredient will display value based on the drug allocated quantity as per allocation in the verification or preparation screen. Once user change the allocation, value in this field will update based on the latest allocation value. This field is read-only.	Yes	Discrete
9.	Active Ingredient: UOM	Quantity UOM for Active Ingredient will display based on the ordered drug SKU UOM in drug master. If drug is alternate to another drug, the alternate drug SKU UOM will be displayed. Value is read-only.	Yes	Discrete
10.	Vehicle: Item Name	Item Name for Vehicle will display value based on the selected extemporaneous preparation as setup in drug master. Value is read-only.	Yes	Discrete
11.	Vehicle: Quantity and UOM	Vehicle Quantity is displayed based on the calculation as below: $\text{Total Allocated Dose} = \text{Order or Alternate drug strength value} * \text{Allocated Qty (as per allocation in Verification or Preparation screen)}$ $\text{Vehicle Quantity} = \frac{\text{Total Allocated Dose}}{\text{Extemporaneous Concentration (Round up to the next integer, no decimal value)}}$ Value is auto-calculated but still allowed to edit.	Yes	Other



No.	Name	Description	Mandatory	Format
		Vehicle UOM is auto-default to ml (millilitre) but still allowed to edit. Both fields are mandatory.		
12.	Additional Item: Item Name	Item Name for Additional Item will display value based on the selected extemporaneous preparation as setup in drug master. Value is only displayed when there is additional item in drug master. Value is not mandatory and editable.	No	Discrete
13.	Additional Item: Quantity	User is required to enter value in Quantity for Additional Item. Field is only displayed when there is additional item in drug master. This field is integer only. Value is not mandatory and editable by user.	No	Range
14.	Additional Item: UOM	User is required to select value for Quantity UOM for Additional Item. Field is only displayed when there is additional item in drug master. Field values are displayed based on the UOM maintenance screen. Value is not mandatory and editable by user.	No	Discrete
15.	Storage Condition and Procedures in Local Language	This checkbox is for user to change the displayed Storage Condition and Procedures (Preparation by Pharmacist) values from english to local language (malay). Once user select the checkbox, system will display the local language value for the fields above as setup in drug master. This function is optional for user to select.	No	Checkbox
16.	Storage Condition	Storage Condition is displayed based on the selected extemporaneous preparation based on the value setup in drug master. Field value will be displayed in english by default, once user select the Storage Condition and Procedures in Local Language checkbox, value will be displayed in local language (if any). This field is read-only.	Yes	Discrete
17.	Expiry	Expiry is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field value will be used to auto generate the preparation expiry date in drug label. This field is numeric only with no decimal value. This field is mandatory.	No	Range
18.	References	References field is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field is read-only.	No	Discrete
19.	Formulation Remarks	References field is displayed based on the selected extemporaneous preparation based on the remarks value setup in drug master (if any). This field is read-only.	No	Discrete





<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on Worksheet button to view and print the worksheet.</li> </ul>
<b>Cross References</b>	EXMP.SND2: Extemporaneous (Preparation by Pharmacist).

3.9.5.2.2 Application Business Rules

Below are the application business rules for Extemporaneous screen

No	Name	Description
1.	Generate worksheet.	Button Generate Worksheet will enable only after user save extemporaneous record for preparation by pharmacist. Click on the Generate Worksheet button and user will be able to view and print the Extemporaneous Worksheet.
2.	Date of Preparation	Date of Preparation field will be displayed based on the current system date.
3.	Worksheet ID	Worksheet ID. This field will be auto-generated as displayed in Worksheet ID field on the extemporaneous screen.
4.	MRN, Name and ID No	Patient MRN, Name and ID No will display based on the patient registration details. For ID No, if IC number is empty in patient details, value should retrieve from other identification number field.
5.	Rx No, Order Location, Ordered By, Ordered Date	Rx No, Order Location, Ordered By, Ordered Date will display based on the medication order prescription details.
6.	ROA	Route of Administration will display based on the the order details.
7.	Preparation Name	Preparation name will display based on the selected extemporaneous preparation. Display format is as below: [Preparation Name] Expiry Date: [Expiry Date] Eg: Allopurinol Suspension 20mg/ml (A) Expiry Date: 10/08/2014 Expiry Date is displayed based on the preparation expiry date as calculated based on the expiry (days) field on the extemporaneous screen.
8.	Dose	Dose will display based on the ordered dose value. Value displayed is numeric only with up to 4 decimal values for Dosage and integer for Dosage in ml. Display format is as below: [Ordered Dose] ([Dosage in ML as displayed in extemporaneous screen]) Eg: 300mg (15ML)
9.	Total Dose	Total Dose will display based on the ordered dose multiply with frequency and duration value. Value displayed is numeric only with up to 4 decimal values for Dosage and integer for Vehicle Quantity. Display format is as below:



No	Name	Description
		[Ordered Dose * Frequency: No of Admin * Ordered Duration] ([Vehicle Quantity as displayed in extemporaneous screen]) Eg: 600mg (30ML)
10.	Item Name	Item Name will display based on the ordered drug name. If alternate drug is used, the alternate drug name will be displayed.
11.	Volume/Qty Required	For Active Ingredient: Drug Name, Volume/Qty Required will display the allocation quantity and UOM for the ordered or alternate drug. For Vehicle: Drug Name, Volume/Qty Required will display the vehicle quantity and UOM as displayed on the extemporaneous screen.
12.	Batch No & Expiry Date	Batch No and Expiry Date will display based on the selected batch number in allocation only for the active ingredient. For vehicle item, no value will be displayed since no allocation is done for vehicle item.
13.	Storage	Storage will display value based on the storage condition value as saved in extemporaneous screen.
14.	Remarks	Remarks will display value based on the preparation remarks value as saved in extemporaneous screen.
15.	Instruction	Instruction will display value based on the Procedures (Preparation by Pharmacist) value as saved in extemporaneous screen.
16.	Reference	Reference will display value based on the references value as saved in extemporaneous screen.
17.	Worksheet Generated By	Worksheet generated by is displayed based on the current user first name and last name as setup in user profile.
18.	Worksheet & Label Checked By	Worksheet & Label Checked By. This field will display the user first name and last name as entered in Checked By prompt screen once user clicks on the Prepare button.
19.	Prepared By and Final Product Checked By	These values are to be manually signed by user.

#### 3.9.5.2.3 Input Validation Rules

None.



3.9.5.3 Extemporaneous (Preparation by Patient)

3.9.5.3.1 Screen Design

<b>ID</b>	EXMP.SD3
<b>Description</b>	Extemporaneous (Preparation by Patient)

Diagram

i. Extemporaneous Flag

**PREPARATION**

Print Original Prescription CP4

Mykad: [Redacted] 3 Age: 28 Years 03 Months 26 Days Gender: Male MRN: HMR00098140

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

Height: [Redacted] cm Weight: [Redacted] kg BMI/BSA: 0.0 m<sup>2</sup> Update (Last Updated: ) Nationality: Warganegara

Encounter No: 0682 Visit Date: 13/03/2018 Attending Practitioner: DR [Redacted] Visit Location: CLINIC MEDICAL (PAKAR 3) Rx No: MEDC000734632 Order By: DR T [Redacted]

**PHARMACY ORDER**

Patient Arrived Queue Series: Normal Queue No: [Redacted] Arrival Time: [Redacted] Waiting Time: [Redacted] Collector Name: [Redacted] Relationship: Patient

Clinic TCA: [Redacted] No. of Days: 0 Current Collection Mode: Normal Collection  SPUB SPUB R1 Form

Next Collection Date: 26/03/2018 Total Patient: 41 Next Collection Mode: Normal Collection Dispense At: Pharmacy Counter

Supply Duration: 10 Days Next Collection Location: PHARMACY OUTPATIENT Adherence Score: MPR

**PRESCRIPTION**

Drug Name	Order Detail	Order Qty	Reserve Qty	Dispense UOM Qty	Balance	Remarks	Drug Counselling	Prev Disp Qty	Extemporaneous	Prescriber Name	Status
Amlodipine 10 mg Tablet	5 mg, BID, Oral, 20 Days 13/03/2018 05:03 PM - 02/04/2018 05:03 PM	20 tablet	10 <input type="checkbox"/> Alternate(C)	10 tablet	10 tablet (8 day(s))	Remarks	<input type="checkbox"/> Detail	0 tablet	<input type="checkbox"/> Detail	DR [Redacted]	Verified
Perindopril 4 mg Tablet	4 mg, 4XWK, Oral, 20 Days 13/03/2018 05:04 PM - 02/04/2018 05:04 PM	12 tablet	8 <input type="checkbox"/> Alternate(C)	8 tablet	4 tablet (8 day(s))	Remarks	<input type="checkbox"/> Detail	0 tablet		DR [Redacted]	Verified
Amlodipine 5 mg and Valsartan 160 mg Tablet	1 tablet, OM, Oral, 20 Days 13/03/2018 05:04 PM - 02/04/2018 05:04 PM	20 tablet	0 <input type="checkbox"/>	0 tablet	20 tablet (18 day(s))	Remarks	<input type="checkbox"/> Detail	0 tablet		DR [Redacted]	Cancelled
Amoxicillin 250mg Capsule	250 mg, Q8H, Oral, 20 Days 13/03/2018 05:04 PM - 02/04/2018 05:04 PM	60 capsule	30 <input type="checkbox"/> Alternate	30 capsule	30 capsule (8 day(s))	Remarks	<input type="checkbox"/> Detail	0 capsule		DR [Redacted]	Verified

ii. Extemporaneous Screen

**EXTEMPORANEOUS**

Print Ingredient Label Generate Worksheet

Preparation Done By:  Pharmacist  Patient

Preparation Name: Allopurinol Suspension 20mg/mL(F) \* Concentration: 20 milligram /ml

Dosage: 15 ml

Item	Item Name	Quantity	UOM
Active Ingredient	Allopurinol 300 mg Tablet		1 tablet
Vehicle	MethylCellulose 1% : Syrup Simplex (1:1)	15	millilitre

Storage Condition and Procedures in Local Language

Storage Condition: Refrigerate (preferable) or at room temperature. Protect from light. Expiry: 56 Days

References: Calgary Pharmacy Compounding Manual, 2008 Formulation Remarks

Procedures(Preparation by Pharmacist)

Procedures(Preparation by Patient):  
 1. Ambil 1 Allopurinol 300 mg Tablet.  
 2. Hancurkan Allopurinol 300 mg Tablet.  
 3. Tambah 15 millilitre MethylCellulose 1% : Syrup Simplex (1:1).

Preparation Remarks

iii. Extemporaneous Screen after Saving

**EXTEMPORANEOUS**

Print Ingredient Label
Generate Worksheet

Preparation Done By  Pharmacist  Patient

Preparation Name  \* Concentration  milligram /ml

Dosage  ml

Item	Item Name	Quantity	UOM
Active Ingredient	Allopurinol 300 mg Tablet		1 tablet
Vehicle	MethylCellulose 1% : Syrup Simplex (1:1)	<input type="text" value="15"/>	<input type="text" value="millilitre"/>

Storage Condition and Procedures in Local Language

Storage Condition  Expiry  Days

References  Formulation Remarks

Procedures(Preparation by Pharmacist)

Procedures(Preparation by Patient)

Preparation Remarks

<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on 'Extemporaneous' checkbox to display the Extemporaneous screen.</li> <li>Select the 'Preparation Name' to load data from Drug Master.</li> <li>Click on 'Cancel' button to reset the record.</li> <li>Click on 'Save' button to save the new record.</li> <li>Click on 'Print Ingredient Label' button to print the label.</li> <li>Click on 'Edit' button to edit the record.</li> <li>Click on 'Delete' button to remove and cancel the extemporaneous preparation.</li> </ul>
<b>Cross References</b>	None

3.9.5.3.2 Application Business Rules

Below are the application business rules for Extemporaneous (Preparation by Patient) screen

No	Name	Description
1.	New extemporaneous – Preparation by Patient record.	Before creating the extemporaneous record, medication order must already exist in Outpatient or Inpatient Pharmacy module. When ordering, user will order the drug specified as Compounded Item in Drug Master. For example, user will order tablet drugs where later the tablet will be used as one of the raw material in

No	Name	Description
		<p>extemporaneous screen in pharmacy preparation screen.</p> <p>Once order is created and record is displayed in Verification screen, the extemporaneous checkbox will only be displayed if user selects the Proceed to Dispense checkbox, if not, user can proceed by clicking the Verify button and record will flow to Preparation screen. The extemporaneous flag will be displayed in Preparation screen. Should not display the checkbox for own medication drug and ward stock drug.</p> <p>User is required to allocate the batch quantity before creating new extemporaneous record.</p> <p>Create new extemporaneous record by selecting the extemporaneous checkbox and the screen will be displayed. By default, preparation done by pharmacist is selected. Select the Preparation Done by Patient radio button and select the preparation name and all related data will be displayed based on the setup in Drug Master.</p>
2.	Save extemporaneous record.	On click of the Save button, record will be saved, and user is allowed to print the Ingredient Label. Record is still editable once user already saves the record.
3.	Delete extemporaneous record.	On click of the Delete button, system will remove the saved extemporaneous record. User then allowed to proceed with preparation without any extemporaneous preparation.
4.	Validation – Preparation expiry date.	<p>Once user save the extemporaneous record, system will auto-generate the preparation expiry date based on the extemporaneous preparation expiry (days) value. This value will then be displayed on the drug label.</p> <p>i. In the case of the selected batch expiry date is less than the auto-generated preparation date: System will prompt user options where system will update the preparation expiry date based on the selected batch expiry date. If user didn't want to proceed, system will clear the extemporaneous screen.</p> <p>In the case of the supply end date (based on the allocation) is more than the auto-generated preparation expiry date: System will display a prompt message that the supply end date is more than the auto-generated preparation expiry date and user is given options whether to proceed or not. If user proceeds, user can proceed with the extemporaneous preparation, if not, system will clear the extemporaneous screen.</p>
5.	Validation – Round up Order Qty	Once user save the extemporaneous record, system will check on round up quantity based on the extemporaneous drug master value. This value will then be displayed on the drug label.

### 3.9.5.3.3 Input Validation Rules

No.	Name	Description	Mandatory	Format
1.	Preparation Done By	Preparation Done By radio button is to be selected either by Pharmacist or by Patient. Default value is Preparation	Yes	Radio button



No.	Name	Description	Mandatory	Format
		Done by Pharmacist. Select Preparation Done by Patient. This field is mandatory.		
2.	Preparation Name	Preparation Name will display a list of available extemporaneous preparation formula as setup in drug master. This field is mandatory.	Yes	Drop down
3.	Worksheet ID	Worksheet ID field is hidden when Preparation Done by Patient is selected.	Yes	Read only
4.	Concentration	Concentration field will be auto-populated based on the selected extemporaneous preparation. This field is read-only.	Yes	Read only
5.	Concentration UOM	Concentration UOM field will be auto-populated based on the selected extemporaneous preparation. This field is read-only.	Yes	Read only
6.	Dosage (in ml) and UOM	<p>Dosage is displayed based on the calculation as below:</p> <p>i. If the ordered Dosage is by drug strength UOM:  <math display="block">\text{Dosage (in ml)} = \frac{\text{Ordered Dosage}}{\text{Extemporaneous Concentration}}</math></p> <p>ii. If the ordered Dosage is by drug Quantity UOM:  <math display="block">\text{Dosage (in ml)} = \frac{\text{Ordered Dosage} * \text{Order or Alternate drug Strength value}}{\text{Extemporaneous Concentration}}</math></p> <p>Value is auto-calculated and not editable.            Dosage UOM is hardcoded to ml (millilitre).</p>	Yes	Read only
7.	Active Ingredient: Item Name	Item Name for Active Ingredient will display value based on the ordered drug. If drug is alternate to another drug, the alternate drug name will be displayed. Value is read-only.	Yes	Discrete
8.	Active Ingredient: Quantity	Quantity for Active Ingredient will display value based on the drug allocated quantity as per allocation in the verification or preparation screen. Once user change the allocation, value in this field will update based on the latest allocation value. This field is read-only.	Yes	Discrete
9.	Active Ingredient: UOM	Quantity UOM for Active Ingredient will display based on the ordered drug SKU UOM in drug master. If drug is alternate to another drug, the alternate drug SKU UOM will be displayed. Value is read-only.	Yes	Discrete
10.	Vehicle: Item Name	Item Name for Vehicle will display value based on the selected extemporaneous preparation as setup in drug master. Value is read-only.	Yes	Discrete
11.	Vehicle: Quantity and UOM	<p>Vehicle Quantity is displayed based on the calculation as below:</p> $\text{Total Allocated Dose} = \text{Order or Alternate drug strength value} * \text{Allocated Qty (as per allocation in Verification or$	Yes	Other



No.	Name	Description	Mandatory	Format
		Preparation screen) Vehicle Quantity = Total Allocated Dose / Extemporaneous Concentration (Round up to the next integer, no decimal value) Value is auto-calculated but still allowed to edit. Vehicle UOM is auto-default to ml (millilitre) but still allowed to edit. Both fields are mandatory.		
12.	Additional Item: Item Name	Item Name for Additional Item will display value based on the selected extemporaneous preparation as setup in drug master. Value is only displayed when there is additional item in drug master. Value is not mandatory and editable.	No	Discrete
13.	Additional Item: Quantity	User is required to enter value in Quantity for Additional Item. Field is only displayed when there is additional item in drug master. This field is integer only. Value is not mandatory and editable by user.	No	Range
14.	Additional Item: UOM	User is required to select value for Quantity UOM for Additional Item. Field is only displayed when there is additional item in drug master. Field values are displayed based on the UOM maintenance screen. Value is not mandatory and editable by user.	No	Discrete
15.	Storage Condition and Procedures in Local Language	This checkbox is for user to change the displayed Storage Condition and Procedures (Preparation by Pharmacist) values from english to local language (malay). Once user select the checkbox, system will display the local language value for the fields above as setup in drug master. This function is optional for user to select.	No	Checkbox
16.	Storage Condition	Storage Condition is displayed based on the selected extemporaneous preparation based on the value setup in drug master. Field value will be displayed in english by default, once user select the Storage Condition and Procedures in Local Language checkbox, value will be displayed in local language (if any). This field is read-only.	Yes	Discrete
17.	Expiry	Expiry is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field value will be used to auto generate the preparation expiry date in drug label. This field is numeric only with no decimal value. This field is mandatory.	No	Range
18.	References	References field is displayed based on the selected extemporaneous preparation based on the value setup in drug master. This field is read-only.	No	Discrete
19.	Formulation Remarks	References field is displayed based on the selected extemporaneous preparation based on the remarks value setup in drug master (if any). This field is read-only.	No	Discrete



No.	Name	Description	Mandatory	Format
20.	Procedures (Preparation by Pharmacist)	Procedures (Preparation by Pharmacist) field will disable when preparation by patient radio button is selected. Field will enable only when preparation by pharmacist radio button is selected.	No	Discrete
21.	Procedures (Preparation by Patient)	<p>Procedures (Preparation by Patient) field is displayed based on the default format as below, but value is still editable:</p> <p>Cara Penyediaan:</p> <ol style="list-style-type: none"> <li>1. Ambil (A) (Ordered or Alternate Drug Name).</li> <li>2. Hancurkan (Ordered or Alternate Drug Name).</li> <li>3. Tambah (B) ML (Extemporaneous Vehicle).</li> <li>4. Tambah (Additional Item Quantity) ML (Additional Item Name).</li> <li>5. Larutkan supaya sekata.</li> <li>6. Sukat dan minum (Dosage in ml) ML.</li> <li>7. Buat bancuhan baru setiap hari.</li> </ol> <p>A = Ordered Dose / Ordered or Alternate drug strength value -&gt; round up to the next integer.            B = [A * (Ordered or Alternate drug strength)] / Extemporaneous Concentration -&gt; round up to the next integer.</p> <p>The procedure is displayed only in Malay, no English version for the patient procedures.            For instruction no. 4, will only be displayed if additional item is available in the extemporaneous preparation.</p>	Yes	Range
22.	Preparation Remarks	Remark is to be entered in the textbox. Maximum of 250 characters capacity. This field is not mandatory.	Yes	Text field

3.9.5.4 **Extemporaneous Ingredient Label**

3.9.5.4.1 *Screen Design*

<b>ID</b>	EXMP.SD4																				
<b>Description</b>	Extemporaneous Ingredient Label																				
<b>Diagram</b>	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td colspan="2" style="text-align: center;">Allopurinol 300 mg Tablet</td> </tr> <tr> <td colspan="2" style="text-align: center;">1 tab</td> </tr> <tr> <td style="text-align: center;">Batch No: 13L040</td> <td style="text-align: center;">Exp Date: 10/08/2014</td> </tr> <tr> <td style="text-align: center;">SAFURINOL</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: center;">Ubat Terkawal</td> </tr> <tr> <td colspan="2" style="text-align: center;">MethylCellulose 1% : Syrup</td> </tr> <tr> <td colspan="2" style="text-align: center;">15 ml</td> </tr> <tr> <td style="text-align: center;">Batch No: -</td> <td style="text-align: center;">Exp Date: -</td> </tr> <tr> <td style="text-align: center;">-</td> <td></td> </tr> <tr> <td colspan="2" style="text-align: center;">Ubat Terkawal</td> </tr> </table>	Allopurinol 300 mg Tablet		1 tab		Batch No: 13L040	Exp Date: 10/08/2014	SAFURINOL		Ubat Terkawal		MethylCellulose 1% : Syrup		15 ml		Batch No: -	Exp Date: -	-		Ubat Terkawal	
Allopurinol 300 mg Tablet																					
1 tab																					
Batch No: 13L040	Exp Date: 10/08/2014																				
SAFURINOL																					
Ubat Terkawal																					
MethylCellulose 1% : Syrup																					
15 ml																					
Batch No: -	Exp Date: -																				
-																					
Ubat Terkawal																					
<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on the Print button to view and print the ingredient label.</li> </ul>																				
<b>Cross References</b>	EXMP.SD1: Extemporaneous (Preparation by Pharmacist) EXMP.SD3: Extemporaneous (Preparation by Patient)																				

3.9.5.4.2 *Application Business Rules*

Below are the application business rules for Extemporaneous Ingredient Label screen

No	Name	Description
1.	View and Print Ingredient Label	Ingredient Label is printed for user to paste to each raw material before giving them to patients. Ingredient Label can only be printed after user saves the extemporaneous preparation by patient record. If record is not yet saved, button will be disabled.



No	Name	Description
		Once user save the record and click on the Print Ingredient Label button, ingredient label which includes the active ingredient label and vehicle label is displayed in pdf format. Label will not be generated for Additional Item (if any). User can print the ingredient label using the browser print function.
<b>Ingredient Label (Active Ingredient)</b>		
2.	Item Name	This field will display the Active Ingredient: Item Name.
3.	Quantity	This field will display the Quantity required for the Active Ingredient as displayed on the Extemporaneous screen.
4.	Batch No & Expiry	This field will display the selected batch number and expiry date based on the allocation in verification or preparation screen.
5.	Manufacturer	This field will display the batch manufacturer name based on the selected batch in batch allocation.
6.	Ubat Terkawal	Hardcoded.
<b>Ingredient Label (Vehicle)</b>		
7.	Item Name	This field will display the Vehicle: Item Name.
8.	Quantity	This field will display the Quantity required for the Vehicle as displayed on the Extemporaneous screen.
9.	Batch No, Expiry Date & Manufacturer	No value will be displayed since no allocation is done for vehicle item.
10.	Ubat Terkawal	Hardcoded.

#### 3.9.5.4.3 Input Validation Rules

None



### 3.9.5.5 Extemporaneous Drug Label

#### 3.9.5.5.1 Screen Design

<b>ID</b>	EXMP.SD5
<b>Description</b>	Extemporaneous Drug Label

#### Diagram

##### i. Print Drug Label button

The screenshot shows the 'PREPARATION' and 'PHARMACY ORDER' sections of the software. The 'PHARMACY ORDER' section has a toolbar with buttons for 'Invoice', 'Worksheet', 'Balance Medication Sheet', 'Label', 'Full Supply', 'Allocate', and 'Prepare'. The 'Label' button is highlighted, indicating the 'Print Drug Label' function.

##### ii. Edit Label screen

The 'DRUG LABEL' screen shows the following details for an Allopurinol Suspension 20mg/mL:

- Drug Name:** Allopurinol Suspension 20mg/mL
- Dose:** 15 ML
- Dosage Form:** Oral Tablet
- Frequency:** Daily
- Duration:** 1 Days
- Administration Instruction:** Take with / without food
- Indication:** Antigout Preparations
- Cautionary:** (Empty field)
- Special Instruction:** (Empty field)
- Expiry Date:** 06/08/2014
- Batch No.:** 13L040
- Supply Start Date:** 07/06/2014
- Supply End Date:** 08/06/2014
- Price:** 1.00
- No of Label To Print:** 1

##### iii. Drug Label (Outpatient)



HOSPITAL PAKAR SULTANAH FATIMAH, MUAR (Tel: 069521901)		
<b>JASMINE LOW JIA MIN</b>		
HPSF00000249	KLINIK PAKAR PERUBATAN	11/06/2014
<b>8 ML</b>	<b>Diambil bersama /tanpa makanan</b>	
<b>1 Kali Sehari</b>		
<b>Allopurinol Suspension 20mg/mL</b>		
Gaut	225 ml	RM3.00
11/06/14 - 11/07/14	BN:13L040	EXP:10/08/2014
<b>UBAT TERKAWAL JAUHI DARIPADA KANAK-KANAK</b>		

iv. Drug Label (Inpatient)

HOSPITAL PAKAR SULTANAH FATIMAH, MUAR					
<b>NUR HIDAYAH BINTI JALALUDIN</b>					
HPSF00005994		WAD 8 (MED - L), 56		11/06/2014	
15 ML	Dimakan	1 Kali Sehari			
<b>Allopurinol Suspension 20mg/mL</b>					
07/06	08/06	09/06	10/06	11/06	
1 tab/day			RM1.00		
BN: 13L040			EXP: 06/08/2014		
<b>UBAT TERKAWAL JAUHI DARIPADA KANAK-KANAK</b>					

v. Patient's Instruction (Only for Preparation by Patient)

HOSPITAL PAKAR SULTANAH FATIMAH, MUAR	
<b>Cara Penyediaan:</b>	
1. Ambil 1 Allopurinol 300 mg Tablet.	
2. Hancurkan Allopurinol 300 mg Tablet.	
3. Tambah 15 millilitre MethylCellulose 1% : Syrup Simplex (1:1).	
4. Larutkan supaya sekata.	
5. Sukat dan minum 15 ML.	
6. Buat bancuhan baru setiap hari.	
<b>UBAT TERKAWAL JAUHI DARIPADA KANAK-KANAK</b>	

<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on the Label button in Verification, Preparation or Dispensing to view and print the ingredient label.</li> </ul>
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<b>Cross References</b>	EXMP.SD1: Extemporaneous (Preparation by Pharmacist) EXMP.SD3: Extemporaneous (Preparation by Patient)
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#### 3.9.5.5.2 Application Business Rules

Below are the application business rules for Extemporaneous Drug Label screen

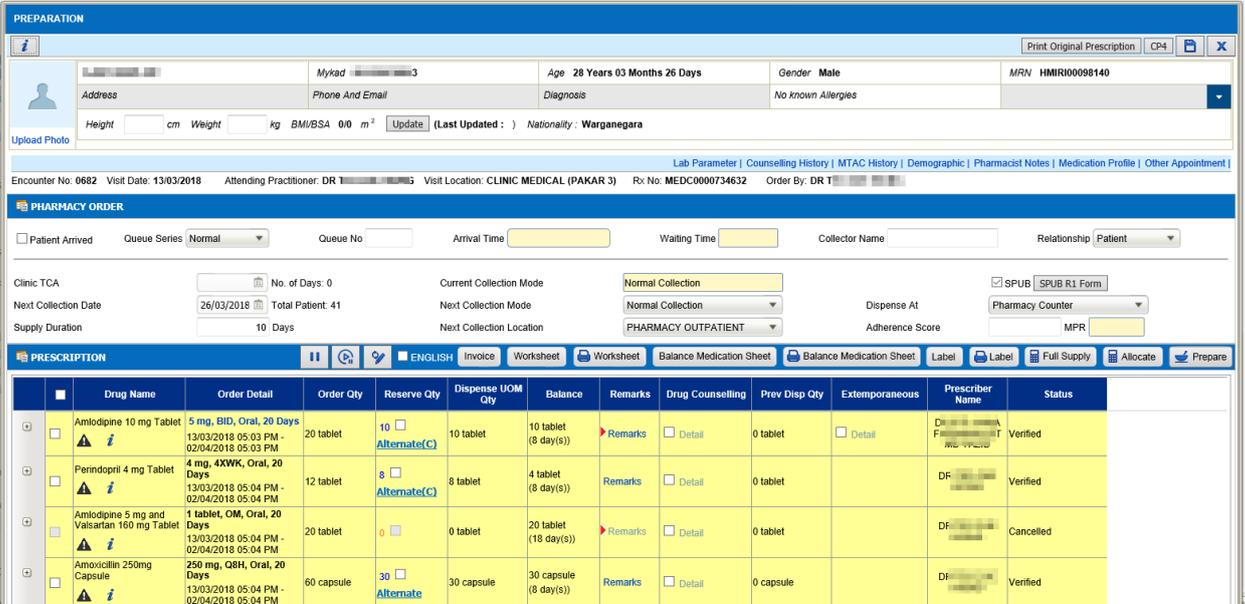
No	Name	Description
1.	View and Print Drug Label	<p>Drug Label is printed for user to paste to the final product bottle. This label will be printed for both preparation done by pharmacist and patient.</p> <p>When the drug is extemporaneous drug, the outpatient or inpatient drug label will be updated as below:</p> <ul style="list-style-type: none"><li>i. Drug Name will display the extemporaneous preparation name.</li><li>ii. Dose will display the dosage in ml value as displayed on the extemporaneous screen.</li><li>iii. Expiry Date will auto-calculate based on the extemporaneous preparation expiry in days.</li></ul> <p>For extemporaneous preparation done by patient, additional label with the preparation instructions will be printed together with the drug label as a second page.</p>

#### 3.9.5.5.3 Input Validation Rules

None.

### 3.9.5.6 Extemporaneous Checked By

#### 3.9.5.6.1 Screen Design

<b>ID</b>	EXMP.SD6
<b>Description</b>	Extemporaneous Checked By
<b>Diagram</b>	 <p>The screenshot shows the 'PHARMACY ORDER' interface. At the top, there's a 'PREPARATION' header with a patient ID 'Mykad' and age '28 Years 03 Months 26 Days'. Below this are fields for Address, Phone And Email, Diagnosis, Gender (Male), and MRN (HMIR00098140). A 'PHARMACY ORDER' section includes 'Patient Arrived', 'Queue Series' (Normal), 'Queue No', 'Arrival Time', 'Waiting Time', 'Collector Name', and 'Relationship' (Patient). There are also fields for 'Clinic TCA', 'No. of Days' (0), 'Current Collection Mode' (Normal Collection), 'Next Collection Date' (26/03/2018), 'Total Patient' (41), 'Supply Duration' (10 Days), 'Next Collection Location' (PHARMACY OUTPATIENT), 'Dispense At' (Pharmacy Counter), and 'Adherence Score' (MPR). A 'PRESCRIPTION' table is visible at the bottom with columns: Drug Name, Order Detail, Order Qty, Reserve Qty, Dispense UOM Qty, Balance, Remarks, Drug Counselling, Prev Disp Qty, Extemporaneous, Prescriber Name, and Status. The table lists four prescriptions: Amiodipine 10 mg Tablet, Perindopril 4 mg Tablet, Amiodipine 5 mg and Valsartan 160 mg Tablet, and Amoxicillin 250mg Capsule.</p>
<b>Notes</b>	<ul style="list-style-type: none"> <li>Click on the Prepare button once extemporaneous record already saved.</li> </ul>
<b>Cross References</b>	<p>EXMP.SD1: Extemporaneous (Preparation by Pharmacist)  EXMP.SD3: Extemporaneous (Preparation by Patient)</p>

#### 3.9.5.6.2 Application Business Rules

Below are the application business rules for Extemporaneous Drug Label screen

No	Name	Description
1.	Extemporaneous Checked By	Once user saves the extemporaneous details for any of the drug in the prescription and click on the Prepare button, system will prompt the Extemporaneous Checked By screen for user to enter username and password to proceed. The same user first name and last name then will be displayed in the worksheet under Worksheet and Label Checked By field. Only user with the access right can enter the username and password in this screen.

#### 3.9.5.6.3 Input Validation Rules

None.



### 3.9.6 Integration

None.

## 4. References

Document	Description/ Expansion
PhIS_CPS_SDD_OM_v1.3	System Design Document for Order Management module
PhIS_CPS_SDD_WP_v1.3	System Design Document for Ward Pharmacy module
PhIS_CPS_SDD_General_v1.3	System Design Document for General module
PhIS_CPS_SDD_MTAC_v1.3	System Design Document for MTAC module
PhIS_CPS_SDD_MC_v1.3	System Design Document for Medication Counselling module

## 5. Acronyms

Item	Description
URS	User Requirement Specification
SDD	System Design Documentation
SPUB	<i>Sistem Pendispensan Ubat-Ubatan Bersepadu</i> (Integrated Drug Dispensing System)
IWP	Integration Web Portal
KPK	<i>Ketua Penolong Pengarah</i>
IV	Intravenous
CDR	Cytotoxic Drug Reconstitution
MTAC	Medication Therapy Adherence Clinic
PN	Parenteral Nutrition
TDM	Therapeutic Drug Monitoring
MAR	Medication Administration Record
URS	User Requirement Specification

## 6. Appendix