

MINISTRY OF HEALTH



User Guide

Pharmacy Management and Dispensing module

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This document is about how to use the **OpenMRS module** that manages the Drugs from the main store of the Health Facility to the internal Pharmacy, explaining the usage of it, different report that are made from the main store to the supplier and from the pharmacy to the Internal store.

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Pharmacy Management and Dispensing

User Guide

Introduction

The HIV Data Entry Module is for pharmacist and the ones in charge of the main drug store for their better management of drugs, by reporting on drug consumption and dispensing, and by keeping the inventory history of the main store or the internal pharmacy.

Overview

This is module to help in management of drugs in health facilities. Every health facility has a stock of drugs that helps in drugs distribution to patients that visit the Health facility seeking treatment.

The Rwanda Drug, Consumables and Equipments Central Procurement Agency (CAMERWA) is a non-profit entity to act as the central procurement body for drugs, consumables and equipment in the country.

In order to keep the better management of drugs the health facility need an harmonized way of managing the drugs in itself and the channels that it goes through from Request to CAMERWA to health facility and its pharmacies by knowing the received quantity from CAMERWA , distributed quantity and so on.

Module features

1) Login page

This is the first page you see on the very first use of OpenMRS, and this is where you have to enter the system by specifying correctly your privileges (username and password).



Figure 1. Login page

2) Username and password

This is the security page, and once you enters the wrong username or password, you will have to correct it before you can log in, otherwise, you will have to check on the system administrator in order to get help.



Figure 2. Login page with Username and Password

- 1) Where we enter the *username*
- 2) Where we enter the *password*

3) My Profile

On *My profile* page squared by a red rectangle, you need to set your *location* from the green rectangle first, for the Drug Store Management and Dispensing module to work properly and save using the blue squared button.

4) Activities page

Figure 3. Activities page

On this **Home [1]** link, you will find in a listing of different modules a tree namely **Pharmacy Management Store [2]**, you will see that it has four links {(1) Distribution pharmacy Management, (2) Configuration, (3) Pharmacy Store Management, (4) Drug Store Alert}.

a) Drug Store Management Page

On this page you see 3 different Links:

- Drug Requisition (Store)
- Find the order
- Return Form

b) Drug Store Alert Page

On this page you see 2 different Links:

- Store Alert
- Expiration Drug Alert

c) Pharmacy Management Page

On this page you see 6 different Links:

- Requisition Form (Pharmacy)
- Find Pharmacy Order
- Pharmacy Report
- Drug Dispensing
- Order List

- Consumable Dispensing

- Pharmacy Location Management

On this page you see 2 different Links:

- View Pharmacy
- Add Pharmacy

5) Drug Store Management page

The page corresponding to the link **Requisition Form (Store)** [1] is a form used by the staff in charge of the Health Facility Main Store to request for drugs to CAMERWA or borrowing from another Health Facility where the first field **Fosa Name** [2] is for location, that you set on the page **My Profile** previously, second field **Destination** [3] is where you are going to make your request for the drugs order, **Supporting Program** [4] it is not optional, **Month** [5] is for the day you made your request(optional), **Designation** [6] to choose the drugs you want to request, and again it possible to choose from this **Consumable Products** [8] tab as many consumable as you will need in your Health Facility **Quantity Requested** [7] the quantity in bottles.

Requisition Form (Store) [1] [Find the Order](#) | [Return Form](#)

Health Facility Requisition Form

From [2]

To [3]

Supporting Program [4]

Month [5]

[8]

Designation	Quantity Requested	
<input type="text" value="Halothane"/> [6]	<input type="text" value="349"/> [7]	X
<input type="text" value="Lidocaine"/>	<input type="text" value="788"/>	X

Figure 4. Drug Store Management page

6) Find Command Drug page

This page *Find Command Drug* [1] will help to search for orders you have made, using those three criteria, *Fosa Name* [2], *Supporting Program* [3] and, or *Month* [4]. Then you click on *Find* [5].

Requisition Form (Store) **Find the Order** [1] Return Form

Find the Order

Health Facility [2]

Supporting Program [3]

Month [4]

Find [5]

Figure 5. Find Command Drug page

When clicked on the find button above, you will find all the orders you have made, depending on your search criteria, under *Status* [1] column you will see the status of the order, you will see completed if the order has already been completed, else it will be incomplete. To see the order you will have to click on the link [2]

Requisition Form (Store) **Find the Order** | Return Form

Find the Order

Health Facility

Supporting Program

Month

Find

Show 10 entries

No	Fosa Name/ Pharmacy	Supporting Program	Month	Status [1]
1.	Hop Gisenyi	Adelie	2011-10-06	Completed
2.	Gisenyi Pharmacy	Adelie	2011-12-01	Completed
3.	Gisenyi Pharmacy	GF	2012-02-28	Completed
4.	Gisenyi Pharmacy	GF	2012-02-29	Incomplete
5.	Gisenyi Pharmacy	gj	2012-02-29	Completed
6.	Hop Gisenyi	GF	2012-02-29	Incomplete
7.	Hop Gisenyi	gf	2012-03-05	Incomplete
8.	formation pharma	GF	2012-03-14	Incomplete [2]
9.	formation pharma	GF	2012-03-14	Completed

Showing 1 to 9 of 9 entries

Figure 6. found page

After clicking on the link you will be taken to a page which has this kind of table, to complete according to what you get from the order you made; you click on the button **Incomplete [1]**, **Edit[2]** to edit in case there is an error.

Requisition Form (Store) | [Find the Order](#) | [Return Form](#)

REPORT AND REQUISITION FORM FOR HEALTH FACILITIES

Fosa Name/ Pharmacy: Hop Gisenyi Supporting Program: gf
 District: Rubavu Month: 2012-03-05
 Province: Western Province/Uburengerazuba

Edit	PRODUCT NAME	UNITY	STOCK ON HAND AT THE BEGINNING OF THE MONTH	QUANTITIES RECEIVED DURING THE MONTH	QUANTITIES DISPENSED DURING THE MONTH	LOSSES AND ADJUSTMENT		Physical count	NUMBER OF DAYS OF STOCK OUT DURING THE MONTH	ADJUSTED MONTHLY CONSUMPTION G=[C/(30-F)]x 30	MAXIMUM QUANTITY H=(2xG)	QUANTITY TO ORDER I=H-E	QUANTITY RECEIVED	Status
			A	B	C	D-	D+							
Drugs														
	Halothane		0	34	2	10	-	4	11	3	6	2	34	
	Ether anesthésique		7	0	0	0	-	7	5	0	0	-7	[1]	
Consumable														
	Gants chirurgicaux stériles en latex N 6 paire UU		0	0	0	0	-	0	31	0	0	0		

Figure 7. Report and Requisition Form

After clicking on the incomplete button you will be prompted a window where you will have to fill those three fields **Given Quantity [1]**, the quantity you have been given, **lot Number [2]** and last the **Expiration Date [3]**. After completing all those three fields, click on the button **Update**.

Given Quantity 1

lot Number 2

Expiration Date (dd/mm/yyyy) 3

Figure 8. Order completion pop up

After updating you will find the page updated.

7) Weekly Report page

Store Run out [1] and Expiration Date Alert [2] page

Store Run Out		Expiration Date Alert	
No	Drug	Consumed	In Store
1	Didanosine(400) 3		17
2	Zidovudine(300) 3		14

Figure 9. Store run out and Expiration Date alert

8) View Pharmacy

The view pharmacy page is where you see the available pharmacy, you can click on the name of the pharmacy [1] to modify the name if you wish, and you can delete if you made a mistake by using the red cross [2].

[View Pharmacy](#) | [Add Pharmacy](#)

Show

10

 entries

Search:

Nº	drugstoremgt.name	Location	Delete
1	CS Musha Pharmacy/Rwamagana	CS Musha/Rwamagana	
2	Pharmacy C.R Africa H.A	C.R Africa Humain Action	
3	ARBEF Pharmacy 5	ARBEF Butare	

Showing 1 to 3 of 3 entries

Figure 10. View Pharmacy Page

9) Add Pharmacy

Add Pharmacy [1] page, helps you create a pharmacy if you haven't created one for your Health Facility, and this point is need whenever you will need to make a drug requisition from the internal Pharmacy to the Internal Store (Internal Requisition). You will need the first field **pharmacy [2]** is filled by default depending on what you put on your profile, and the second one is **Location [3]** where for your Health Facility. And last is the button **Submit [4]** where you have to click to create your Pharmacy

The screenshot shows the 'Add Pharmacy' page. At the top, there is a navigation bar with two links: 'View Pharmacy' and 'Add Pharmacy'. The 'Add Pharmacy' link is highlighted and has a circled number '1' next to it. Below the navigation bar, there are two input fields. The first field is labeled 'Pharmacy' and contains the text 'CS Musha Pharmacy/Rv'. It has a circled number '2' next to it. The second field is labeled 'Location' and contains the text 'CS Musha/Rwamagana'. It has a dropdown arrow on the right and a circled number '3' next to it. At the bottom of the form, there is a 'Submit' button with a circled number '4' next to it.

Figure 11. Add Pharmacy page

For the pharmacy Management you will make same move you made while making Drug requisition for the Store.

10) Pharmacy Management

Under Pharmacy Management you will see different functionalities that will help a pharmacist to better manage the drugs, under pharmacy management we have five pages in which the first **Drug Requisition (Pharmacy) [2]** is for Internal Requisition, the second **Find Pharmacy Order [3]** will help you to see which one of your order is completed or not, the third **Weekly Report [4]** page will help in generating report on how the drugs have been consumed, the fourth **Drug Adherence[5]** is page for Drugs dispensing to patients and the last **Order List [6]** is a display of Dispenses that has been made.



Figure 12. Pharmacy Management Left Side Menu

a) Drug Requisition (Pharmacy) Page

This page is for internal requisition from the pharmacy to the internal store, it is completed the same way as we did on 5) *Drug Requisition (Store)*, sometime the **From [2]** is empty, due to the reason that you didn't create a pharmacy, and to create it you have to do the steps you made on while adding on 10) *Add Pharmacy*, then coming back to this page you will see that the **From [2]** field has been completed by the pharmacy you just created, the field **Supporting Program [3]** is not optional, but the field **Month [4]** must be field or it will not accept to save the form. Again you will have to expand the **consumable products [5]** part using this **add button [6]**, to add as many **designation [7]** and **Quantity Requested [8]** as you want to request from your store or you can **cancel [9]** some may be you added mistakenly.

Figure 13. Drug Requisition (pharmacy)

b) Find Pharmacy Order Page

This page **Find Pharmacy Order [1]** is to see if you order has been completed, in the first field **Fosa Name [2]**, you have to choose you pharmacy, the field **Supporting Program [3]** is optional and the last field **Month [4]**, this one is required, for the date you made your order.

[Drug Requisition \(Pharmacy\)](#) | [Find Pharmacy Order](#) | [Weekly Report](#) | [Drug Adherence](#) | [Order List](#)

Find Pharmacy Drug Order

Fosa Name: [2]
 Supporting Program: [3]
 Month: [4]
 Find

Show 10 entries Search:

No	Fosa Name/ Pharmacy	Supporting Program	Month	Status
1.	CS Musha Pharmacy/Rwamagana	GF	2011-06-28	Completed
2.	CS Musha Pharmacy/Rwamagana	GF	2011-09-01	Incomplete

Showing 1 to 2 of 2 entries

Figure 14. Find Pharmacy Order page

c) Distribution Pharmacy Report Page

This page **Pharmacy Report** [1] is for a report on a period between **From** [3] and **To** [4] fields but in a **Pharmacy**[2].

[Requisition Form \(Pharmacy\)](#) | [Find Pharmacy Order](#) | [Pharmacy Report](#) | [Drug Dispensing](#) | [Order List](#) | [Consumable dispensing](#)

Pharmacy Report [2]
 Pharmacy: Gisenyi Pharmacy [2] From: 03/10/2011 [3] To: 15/03/2012 [4]
 Find

(From: 03/10/2011 To: 15/03/2012) Gisenyi Pharmacy

Show 10 entries Search:

N°	Drug	Units	Stock on hand at the beginning	Quantity received during the period	Quantity dispensed during the period	Physical count
1.	Ether anesthésique		0	5	4	1
2.	Charbon activé	mg	0	22	4	8

Showing 1 to 2 of 2 entries

Figure 15. Weekly Report page

d) Drug Adherence Page

This page **Drug Adherence** [1] is a page you will use if you want to dispense some drugs to a patient, but first you have to use the button **Select** [2] to find a patient you want to dispense, if that patient has no regimen you will see a similar message in red saying that “**You need to give a regimen first, to the patient or there no such drugs in the pharmacy!!**” to the image on the **Figure 17** then you will have to proceed on steps on the **Figure 19**, else you will be prompted regimens that a patient has been prescribed like on the image **Figure 18**. If you don't see any regimen like on the **Figure 17**, you will need to use **Drug Order**[2] under patient dashboard, but first you will have to find the patient when clicked on the link **Find/Create Patient**[1] on the **Figure 19** to give regimen first to the patient and then click on the button **create**[3], you will be prompted a popup window to fill in the order, you will see that now he can have some regimen prescribed to the patient.

[Requisition Form \(Pharmacy\)](#) |
 [Find Pharmacy Order](#) |
 [Pharmacy Report](#) |
 [Drug Dispensing](#) |
 [Order List](#) |
 [Consumable dispensing](#)

Drug Dispensing

Patient	Pharmacy	Visit Date	Weight	Next Visit Date
Select	-- Select --			(dd/mm/yyyy)

[2]

Drugs

Save

Figure 16. Drug Adherence empty page

[Requisition Form \(Pharmacy\)](#) |
 [Find Pharmacy Order](#) |
 [Pharmacy Report](#) |
 [Drug Dispensing](#) |
 [Order List](#) |
 [Consumable dispensing](#)

Drug Dispensing

Patient	Pharmacy	Visit Date	Weight	Next Visit Date
	Change Gisenyi Pharmacy			(dd/mm/yyyy)

Drugs

You need to give a regimen first, to the patient or there no such drugs in the pharmacy!!

Save

Figure 17. Drug Adherence page (patient with no regimen)

The field **Pharmacy** [3], is a select field where you have to choose your pharmacy name, the field **Visit Date** [4] is the date on which a patient visited the pharmacy, field **Weight** [5], is the current weight of the patient, **Number of Drug Remaining (ARV/ Bactrim)** [6] is the number of drugs remaining, **Next Visit Date** [7] is the date on which, the patient is appointed to come back on the pharmacy visit, last field is the **Quantity Requested** [8] which is the quantity in bottles that the pharmacist will give the patient.

[Drug Requisition \(Pharmacy\)](#) | [Find Pharmacy Order](#) | [Weekly Report](#) | **Drug Adherence** | [Order List](#)

Drug Adherence

Patient	Pharmacy	Visit Date	Weight	Number of Drug Remaining (ARV/Bactrim)	Next Visit Date
<div> <div>Change</div> <div>---</div> </div>	[3]	[4] (dd/mm/yyyy)	[5]	[6]	[7] (dd/mm/yyyy)

Drugs

Designation	Quantity Requested
1. Stavudine(30)	[8]
2. Lamivudine(150)	
3. Nevirapine(200)	
4. Cotrimoxazole(480)	
5. Stavudine(15)	
6. Lamivudine(150)	
7. Nevirapine(200)	

Save

Figure 18. Drug Adherence page (Patient with regimens)

Home | **Find/Create Patient** | Dictionary | Administration

[1]

13 yrs (01-Feb-1999)

BMI: ? (Weight: 56.0 kg , Height:) CD4: 456.0 | Regimen: Ether anesthésique

Last encounter: PEDSRETURN @ CS Mushishiro, 12-Oct-2011

Overview

Encounters

Demographics

Graphs

Form Entry

Drug Order

Data Entry

[2]

Show 10 entries

Search:

Drug Id	Drug	Dose	Units	Frequency	Quantity	Start Date	Stop Date	Edit	Stop
01/06/2011									
1	Ether anesthésique	300.0				01/06/2011			

Showing 1 to 1 of 1 entries

Create

[3]

Figure 19, Drug Order tab

e) Order List Page

This page is to display all patients that have been prescribed drugs.

Page | 15

[Drug Requisition \(Pharmacy\)](#) | [Find Pharmacy Order](#) | [Weekly Report](#) | [Drug Adherence](#) | [Order List](#)

Show entries

Search:

No	Date	Weight	Patient Name	Drug	Quantity	Pharmacist	In Store	Pharmacy	Next Visit Date
1	11/07/2011	65.0	[REDACTED]	Didanosine(400)	3	[REDACTED]	17	CS Musha Pharmacy/Rwamagana	04/08/2011
2	11/07/2011	65.0	[REDACTED]	Zidovudine(300)	2	[REDACTED]	15	CS Musha Pharmacy/Rwamagana	04/08/2011
3	19/07/2011	67.0	[REDACTED]	Zidovudine(300)	1	[REDACTED]	14	CS Musha Pharmacy/Rwamagana	06/10/2011

Showing 1 to 3 of 3 entries

Figure 20. Order List page

d) Consumable Dispensing Page

This form is to dispense consumable to provider. On the first field [1], the date on which the dispensing occurs; [2], the product to dispense; [3] the quantity to dispense; [4] the service in which the provider is working; [5] the provider who came to pick consumable.

[Requisition Form \(Pharmacy\)](#) | [Find Pharmacy Order](#) | [Pharmacy Report](#) | [Drug Dispensing](#) | [Order List](#) | [Consumable dispensing](#)

Bon de Sortie

Date [1]	Consommable [2]	Quantity [3]	Service [4]	Provider [5]
<input type="text" value="2012/01/01"/>	-- Consumable --	<input type="text" value="1"/>	-- Service --	-- Provider --

Add

Show entries

Search:

No	Date	Consumable	Quantity	Service	Provider	Edit
1.	23/01/2012	Fil résorbable synthétique catgut chromé 1/0 - 150 cm serti 1/2 O 37 mm	2	HOSPITALIZATION SERVICE	User Super	
2.	29/01/2012	Fil résorbable synthétique catgut plain 1/0-150 cm serti	3	HOSPITALIZATION SERVICE	Uwayezu Gilbert	

Showing 1 to 2 of 2 entries

Figure 21, Consumable Dispense page

e) Drug Order Page

11) Conclusion

Drug Store Management and Dispensing is to help the Pharmacist or Drug Store keeper in the workflow from the requisition to the dispensing of drugs by providing a user a flexible Graphical User interface and a better management.

