

User's Guide 1.11.0

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Open Hospital

1 Abstract

OH - Open Hospital (<https://www.open-hospital.org/>) is a free and open-source Electronic Health Record (EHR) software application. Open Hospital is deployed as a desktop application that can be used in a standalone, single user mode (PORTABLE mode) or in a client / server network configuration (CLIENT mode), where multiple clients and users connect to the same database server.

Open Hospital is developed in Java and it is based on open-source tools and libraries; it runs on any computer, requires low resources and is designed to work without an internet connection.

Open Hospital is the first of a set of software applications that ISF [1: Informatici Senza Frontiere - <https://www.informaticisenzafrontiere.org>] has developed to support the information management and the activities of hospitals and health centers in the simplest manner possible, by providing tools for the administrative operations (like registering patients, manage laboratory analysis and pharmaceutical stocks) and to produce detailed statistics and reports. It was first deployed in 2006 at the St. Luke Hospital in Angal (Uganda) and it is now used in dozens of different locations around the world.

2 Introduction

Open Hospital features include:

- Pharmacy management

- Laboratory management
- OPD management
- Patient admission and discharge management
- Pregnancy management
- Malnutrition control management
- Vaccines database
- Patient billing support
- Therapy management
- Appointment scheduling
- Internal communication
- Statistics and printing

This document describes how all the above-mentioned items work and provides specific guidance for the user.



The reader will not find in this manual the information about installation or configuration of the Open Hospital software, nor how to administer it; that information is provided in the *Administrator's Guide* supplied with the software.

3 Useful Information about this User Manual

3.1 Help

- The **Help** function available on the bottom of the main MENU of Open Hospital provides access to this document offline.

3.2 Legend

In this document the following conventions are used:

- When in the text of this document a word written in bold and highlighted in grey – like **Pharmacy** or **New** – indicates a function of the application and it is also called a “button”. **Pharmacy** is a button.
- When text is written in bold Italic (as an example, **Laboratory Browser**) it indicates the screen with the name “Laboratory Browser” (see example below). Each screen of the application is called a window. **Laboratory Browser** is a window.
- When text is written in bold as - **Search patient visits** – it indicates a function of the application, or an area of the window (for example, **Data table**).
- Each button always has a single letter with an underscore. The functionality offered by the button is made available by pressing the “Alt” key and at the same time the “underlined” key (in the example of **Pharmacy**, press “Alt” and “P”). This behavior is common throughout the

application and allows the user to operate (almost) without the use of the mouse. In this document, the “Alt” key and the “P” key will be indicated as “Alt + P”.

Click with the mouse on the button or press "Alt + P" to enter the Pharmacy



- Each screen of the application is a called “window”. Most complex windows of the application are composed of more than one area. Areas can be a **Selection panel**, a **Data table**, or a **Buttons panel** (see *Laboratory Browser* window below).

Laboratory Browser				
Select an exam	DATE	PATIENT	EXAM	RESULT
All	15/03/2021	Jeffreys Rita	3.1 Blood Slide (Malaria)	NEGATIVE
	15/03/2021	Jeffreys Rita	3.2 Blood Slide (OTHERS, E.G. TRIUPHANOSOMIAS, MICRIFILARIA, LEISHMANIA, BORRELIA)	NEGATIVE
	15/03/2021	Depuy Darrell	7.3.3 GOT	<= 50 (NORMAL)
	15/03/2021	Depuy Darrell	7.3.4 ALT/GPT	
	15/03/2021	Curtis Courson	8.1 OCCULT BLOOD	
	15/03/2021	Nieves Julietta	3.1 Blood Slide (Malaria)	
	15/03/2021	Nieves Julietta	3.21 Trypanosomiasis	
	15/03/2021	Nieves Julietta	3.6 CSF WET PREP	
	15/03/2021	Sara Hucklington	5.4 LEISMANIA	
	15/03/2021	Sara Hucklington	7.4.1 CREATININA	
	15/03/2021	Eddings Carmine	1.5 ESR	
	15/03/2021	Geremia Dickinson	2.1 Grouping	
	15/03/2021	Geremia Dickinson	7.4.1 CREATININA	
	15/03/2021	Kenty Willis	3.1 Blood Slide (Malaria)	
	15/03/2021	Kenty Willis	4.6 OTHER C&S	
	15/03/2021	Bumpers Ferdinand	2.2 Comb's Test	
	15/03/2021	Bumpers Ferdinand	3.1 Blood Slide (Malaria)	
	15/03/2021	Mary Garrington	URINALYSIS	Multiple results
	23/11/2020	Quinlan Coors	7.1 PROTEIN	NEGATIVE
	23/11/2020	Quinlan Coors	7.2 SUGAR	NEGATIVE
	21/11/2020	Robert Kittelson	1.4 Film Comment	NORMAL
	21/11/2020	Robert Kittelson	1.6 Sickling Test	0
	21/11/2020	Robert Kittelson	2.1 HEMOGLOBIN AND SENSITIVITY (C&S) FOR HAEMOPHILUS INFUENZA TYPE B	NEGATIVE
	21/11/2020	Janusz Lawrenz	1.4 Film Comment	POSITIVE
	21/11/2020	Vincent Arata	2.1 OTHER C&S	0
	21/11/2020	Vincent Arata	5.4 LEISMANIA	NEGATIVE
	21/11/2020	Vincent Arata	6.4 HEPATITIS	NEGATIVE
	21/11/2020	Genna Susterlind	6.4 HEPATITIS	NEGATIVE
	21/11/2020	Genna Susterlind	6.5 OTHERS E.G. BRUCELLA, RHEUMATOID FACTOR, WEIL FELIX	NEGATIVE
	21/11/2020	Jestine Dacruz	5.5 ZN	NEGATIVE
	21/11/2020	Stanton Durrah	7.4.1 CREATININA	< 1.4 (NORMAL)
	21/11/2020	Stanton Durrah	7.4.2 UREA	10-55 (NORMAL)
	20/11/2020	Carmelina Rauch	1.2 WBC Count	4000 - 7000 (NORMAL)
	20/11/2020	Carmelina Rauch	5.5 ZN	NEGATIVE
	20/11/2020	Carmelina Rauch	5.6 WAYSON	NEGATIVE
	20/11/2020	Vanish Katrina	3.1 Blood Slide (Malaria)	

- To highlight an entry (for example, a single line in a **Data table**) click the mouse on the entry. The entry (the entire line) is then highlighted in blue. This behavior is valid throughout the application (see example below):

Pharmaceutical Browser

TYPE	CODE	DESCRIPTION	PcsPck	STOCK	CRIT. LEVEL	OUT OF STOCK
Laboratory		4 Dimethyl Aminobenzaldehyde	0	0	0	✓
Drugs		Acetazolamide 250mg Tab	0	0	0	✓
Laboratory		Acetic Acid Glacial 1 ltr	0	0	0	✓
Laboratory		Aceton 99% ltr	0	0	0	✓
Drugs		Acyclovir cream	0	320	2	✗
Drugs		Acyclovir 200mg Tab	0	1,210	0	✗
Surgery		Adhesive Tape 2.5cm x 5m	0	20	0	✗
Surgery		Adhesive Tape 7.5cm x 5m	0	0	0	✗
Drugs		Adrenalin 1mg / 1ml Amp	0	0	0	✓
Surgery		Air ring set 43x5cm rubber with pump	0	0	0	✗
Surgery		Airway Guedel Size 0	0	0	0	✗
Surgery		Airway Guedel Size 00	0	0	0	✗
Surgery		Airway Guedel Size 1	0	0	0	✓
Surgery		Airway Guedel Size 2	0	0	0	✓
Surgery		Airway Guedel Size 3	0	0	0	✗
Drugs		Albendazole 200mg Tab	0	37,200	450	✗
Drugs		Albendazole 400mg Tab	0	0	0	✓
Drugs		Aminophylline 25mg/ml 1.0ml Amp	0	190	0	✗
Drugs		Aminophylline 100mg Tab	0	8,981	0	✗
Drugs		Amitriptyline 25mg Tab	0	5,600	0	✗
Laboratory		Amonium Oxalate	0	0	0	✓
Drugs		Amoxycillin /Clavulanate 375mg Tab	0	0	0	✗
Drugs		Amoxycillin 125mg/5ml Powd. Susp 100ml	0	180	0	✗
Drugs		Amoxycillin 250mg Caps	0	56,080	0	✗
Drugs		Amphotericin B 50mg Vial	0	0	0	✓
Drugs		Ampicillin 500mg Vial	0	650	0	✗
Chemical		Anti Serum A 10ml	0	0	0	✓

Select type ALL | New | Edit | Delete | Export | Stock | StockCard | Order | Expiring | AMC | Close

Entry (line) is highlighted.

4 Run the Application

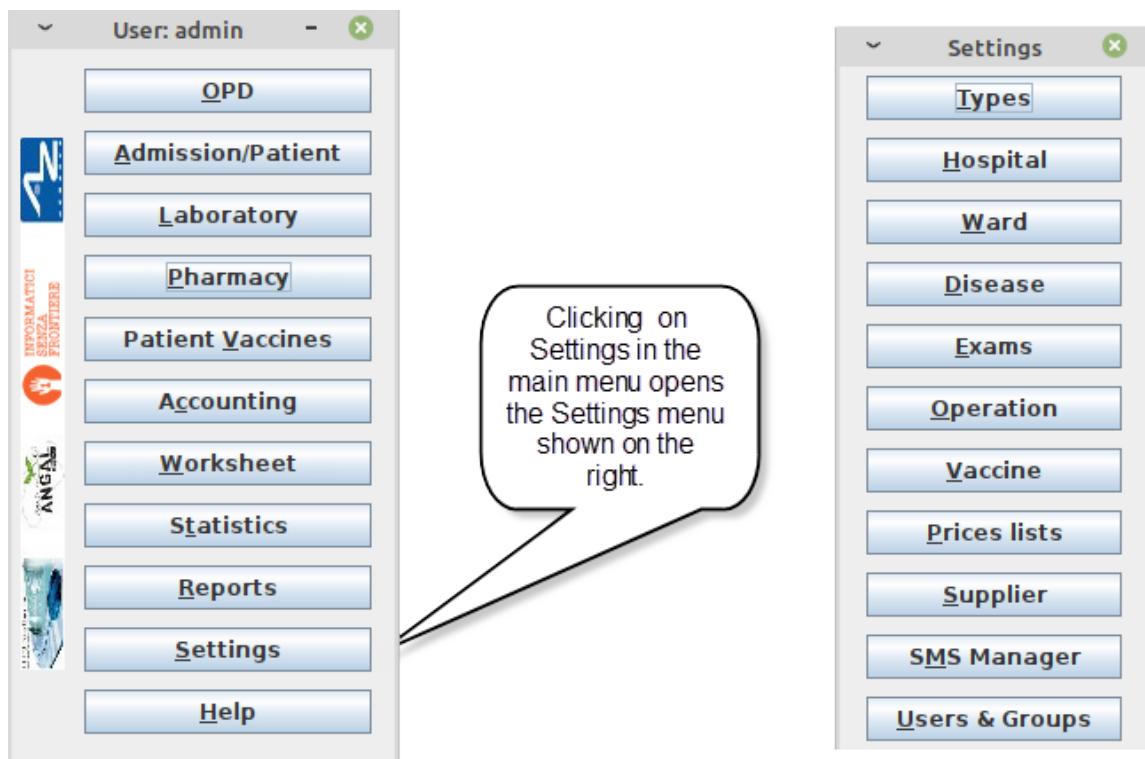
To run Open Hospital, double-click the program icon on the desktop; an information image (splash image) appears for a few seconds and then the main *menu* of the OH application is shown.

If no desktop shortcut is present, open the folder where the software has been installed and double-click on the platform specific startup script (oh.bat on Windows / oh.sh on Linux).

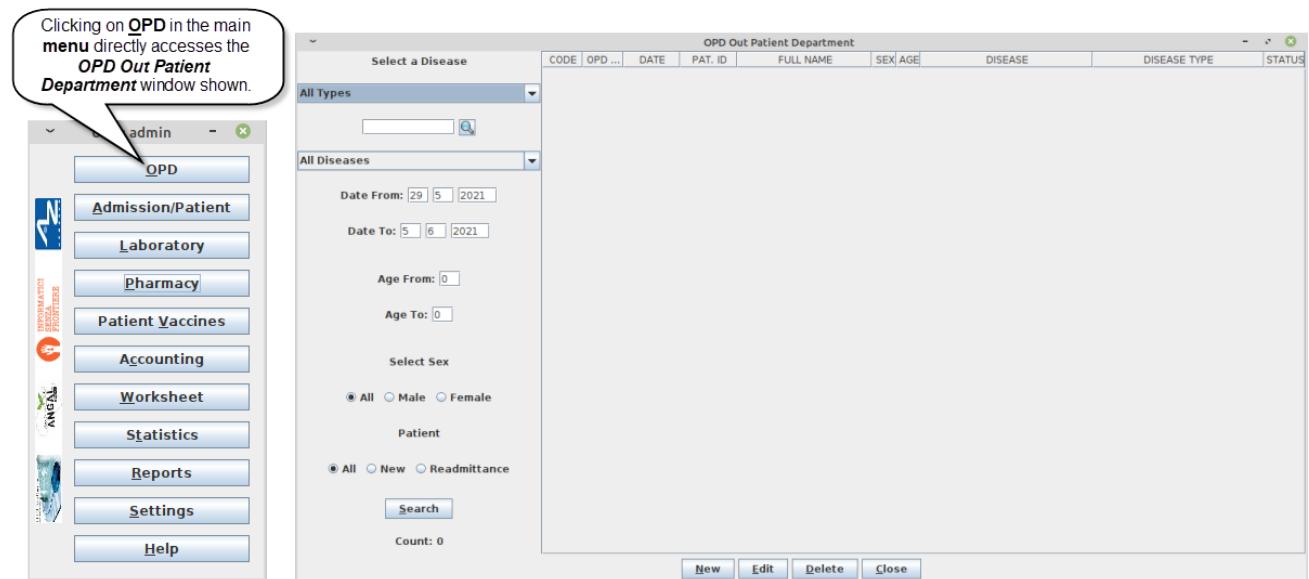
The default Main Menu of the application.



From the main menu it is possible to access functions and submenus. In the example below, selecting the **Settings** button leads to the OH settings submenu:



Some menu items lead directly to a specific function of the application (see the following example with the **OPD Out Patient Department** window):



5 Outpatient Department Management (OPD)

5.1 Main Characteristics

The function of the Out Patient Department (OPD) allows the recording of ambulatory patient visits, searching, reviewing, editing, and eventually deleting visits. In addition queries necessary for statistical purposes are available.

Click on the **OPD** button or press “Alt + O” in the main **menu** to access the OPD function.

Press the **OPD** button or “Alt + O”.



5.2 Functions of Out Patient Department

All functions available under **OPD** are accessible from the window **OPD Out Patient Department** shown below:

OPD Out Patient Department									
Select a Disease	CODE	OPD ...	DATE	PAT. ID	FULL NAME	SEX AGE	DISEASE	DISEASE TYPE	STATUS
All Types									
<input type="text"/>	<input type="button" value="Search"/>								
All Diseases									
Date From:	29	5	2021						
Date To:	5	6	2021						
Age From:	0								
Age To:	0								
Select Sex									
<input checked="" type="radio"/> All	<input type="radio"/> Male	<input type="radio"/> Female							
Patient									
<input checked="" type="radio"/> All	<input type="radio"/> New	<input type="radio"/> Readmittance							
<input type="button" value="Search"/>									
Count: 0									
<input type="button" value="New"/> <input type="button" value="Edit"/> <input type="button" value="Delete"/> <input type="button" value="Close"/>									

The following functions are available from the **Buttons panel** of the window **OPD Out Patient Department**:

- **New**: create a new patient visit.
- **Edit**: modify an existing patient visit.
- **Delete**: delete a patient visit.
- **Close**: exit from the **OPD Out Patient Department** function.

Furthermore, a search function (**Search**) is available using the **Selection panel** on the left side of the window.

5.2.1 Search Patient Visits (**Search**)

Queries about ambulatory patient visits can be done using the search criteria available on the **Selection panel** area of the window (on the left side of the window).

The following fields are available to select or narrow the resulting matches:

- **Disease type**: Allows for the selection by a specific disease type or all disease types
- **Disease**: Allows for the selection of a specific disease, or all diseases, or searching for partial matches by typing some letters in the search field
- **Date**: “Date From” and “Date To” allows for the selection of all visits occurring during the specified period
- **Age**: “Age From” and “Age To” allows for the selection of the patients by age
- **Sex**: Allows for the selection of patients by sex: All / Male / Female
- **Type of patient**: Allows for the selection of visits by type of attendance: All / New / Re-Attendance

After specifying the selection criteria, press the **Search** button. The counter at the bottom of the

window indicates how many visits match the specified criteria and the individual visit data is shown in the **Data table** area.

The example below shows all the visits for patients with *asthma* disease admitted in the period from 29-5-2020 until 5-6-2021; all ages, all sexes, and all patient types are included.

The screenshot shows the OPD Out Patient Department window. On the left, there is a sidebar with a dropdown menu "Select a Disease" containing "All Types" and a list of diseases including "Asthma". Below this are filters for "Age To:", "Select Sex" (radio buttons for All, Male, Female), "Patient" (radio buttons for All, New, Readmittance), and a "Search" button. The main area is titled "OPD Out Patient Department" and contains a table with columns: CODE, OPD..., DATE, PAT. ID, FULL NAME, SEX AGE, DISEASE, DISEASE TYPE, and STATUS. A red box highlights the "DISEASE" column, and an arrow points from the sidebar's "Asthma" selection to this column. The table data includes:

CODE	OPD...	DATE	PAT. ID	FULL NAME	SEX AGE	DISEASE	DISEASE TYPE	STATUS
400	392	23/11/20	470	Leddy Everette	M 44	Asthma	4.NON-COMMUNICABLE DISEASES	New
257	250	03/11/20	246	Fredrickson Denna	M 4	Asthma	4.NON-COMMUNICABLE DISEASES	New
158	151	02/11/20	365	Reardon Mora	F 54	Asthma	4.NON-COMMUNICABLE DISEASES	Read...
41	38	02/11/20	108	Ivery Hyman	F 30	Asthma	4.NON-COMMUNICABLE DISEASES	Read...
22	20	02/11/20	85	Mack Threadgill	F 31	Asthma	4.NON-COMMUNICABLE DISEASES	Read...
3	2	02/11/20	51	Olivia Abramowitz	M 62	Asthma	4.NON-COMMUNICABLE DISEASES	Read...

Below this table is another table titled "OPD Out Patient Department" with columns: AT. ID, FULL NAME, SEX AGE, DISEASE, DISEASE TYPE, and STATUS. A red box highlights the "DISEASE" column, and an arrow points from the sidebar's "Asthma" selection to this column. The table data includes:

AT. ID	FULL NAME	SEX AGE	DISEASE	DISEASE TYPE	STATUS
470	Leddy Everette	M 44	Asthma	4.NON-COMMUNICABLE DISEASES	New
246	Fredrickson Denna	M 4	Asthma	4.NON-COMMUNICABLE DISEASES	New
365	Reardon Mora	F 54	Asthma	4.NON-COMMUNICABLE DISEASES	Read...
108	Ivery Hyman	F 30	Asthma	4.NON-COMMUNICABLE DISEASES	Read...
85	Mack Threadgill	F 31	Asthma	4.NON-COMMUNICABLE DISEASES	Read...
51	Olivia Abramowitz	M 62	Asthma	4.NON-COMMUNICABLE DISEASES	Read...

At the bottom of each table are buttons for New, Edit, Delete, and Close.

5.2.2 Create a New Patient Visit (New)

Press the New button in the **OPD Out Patient Department** window to access the **New OPD Registration** window shown below.

New OPD Registration

New Admittance Referral Referred To

Admittance Date:

Disease Type:

Diagnosis:

Diagnosis n.2 (full list):

Diagnosis n.3 (full list):

Age:

Sex: Male Female

To record a visit, enter data into the following fields:

- **Type of attendance:** This field is not meant to distinguish whether an individual is new or not in the ambulatory (that is, whether this is the absolute first time they have entered the ambulatory). The NEW ATTENDANCE selection indicates whether the patient comes to the ambulatory to report a new health issue or new disease for which no care has been previously addressed or recorded. This could be their initial visit or their n-th time in the ambulatory, it does not matter with regards to this field. If this visit is for an issue or disease previously addressed the field is not selected and records are created for the patient with regards to the follow-up care and instructions for recovery.

Example: A patient comes to the ambulatory because they report a cut; this event is recorded as NEW ATTENDANCE and the doctor sutures the wound and invites the patient to come back ten days later; when the same patient comes back after ten days to have his/her stitches removed, a new OPD record is then created but without the NEW ATTENDANCE flag set.

- **Admittance Date:** The date on which the patient is seen for the recorded activity.
- **Disease Type:** By selecting a *Disease Type*, the first diagnosis list will contain only related diseases. The second and third list continues to contain all diseases.



Disease Types are defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter._

- **Diagnosis:** A maximum of three diseases can be diagnosed per each attendance (“new attendance” or “re-attendance” does not matter in this context). Normally the patient reports at least one visit reason but it may happen that during the same visit the doctor finds other concurrent pathologies thus it is possible to record up to a maximum of three (the first being the only one mandatory) diagnoses.

It is possible to use filters to find diseases more easily. To do so, enter a text fragment in the search field that is part of the disease name. The closer the search text comes to the name of the disease being searched, the more precise the search is.

*Example: In the **OPD Out Patient Department** window only the first diagnosis and its type are shown, but all the corresponding data is stored and available in reports and for searching.*

- **Age:** The patient's age; the valid age range is 0-200.
- **Sex:** The patient's sex; either male or female.

When finished entering data, the **Buttons panel** has the following choices:

- **OK:** confirm and record the patient's visit.
- **Cancel:** close the window and return to the **OPD Out Patient Department** window.

5.2.3 Modify a Recorded Patient Visit (**Edit**)

In order to modify a visit, first highlight it in the **OPD Out Patient Department** window. Once highlighted, press the **Edit** button. When the **Edit OPD Registration** window is shown, all the data can be changed or modified.

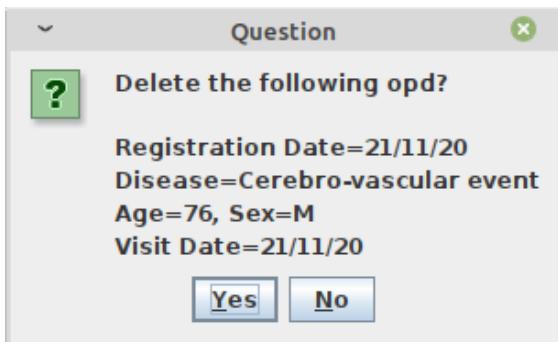
The screenshot shows the 'Edit OPD Registration' window. At the top, there are three checkboxes: 'New Admittance' (checked), 'Referral', and 'Referred To'. Below this is the 'Admittance Date' field containing '03/11/20'. The 'Disease Type' dropdown is set to '2. OTHER INFECTIOUS/COMMUNICABLE DISEASES'. The 'Diagnosis' field contains 'Eye Infection'. There are two more diagnosis fields below it, both empty. The 'Age:' field is set to '30'. The 'Sex:' field has 'Male' selected. At the bottom are 'OK' and 'Cancel' buttons.

Once the data have been inserted, the **Buttons panel** shows the following choices:

- **OK:** confirm new values (all the previous values will be lost).
- **Cancel:** close the window and return to the **OPD Out Patient Department** window without applying any changes.

5.2.4 Delete a Recorded Patient Visit (**Delete**)

In order to delete a visit, first highlight it in the **OPD Out Patient Department** window. Once highlighted, press the **Delete** button. The highlighted record is shown in a confirmation dialog: now the record can be deleted. Deleted records are no longer available.



The **Buttons panel** shows the following choices:

- **Yes**: confirm the deletion of the visit.
- **No**: close the window and return to the *OPD Out Patient Department* window without deleting the visit.

5.3 OPD Extended

The OPD functionality can be extended by changing the *OPD_EXTENDED* flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

5.3.1 Additional Features

Press the New button in the *OPD Out Patient Department* window to access the *New OPD Registration* window shown below.

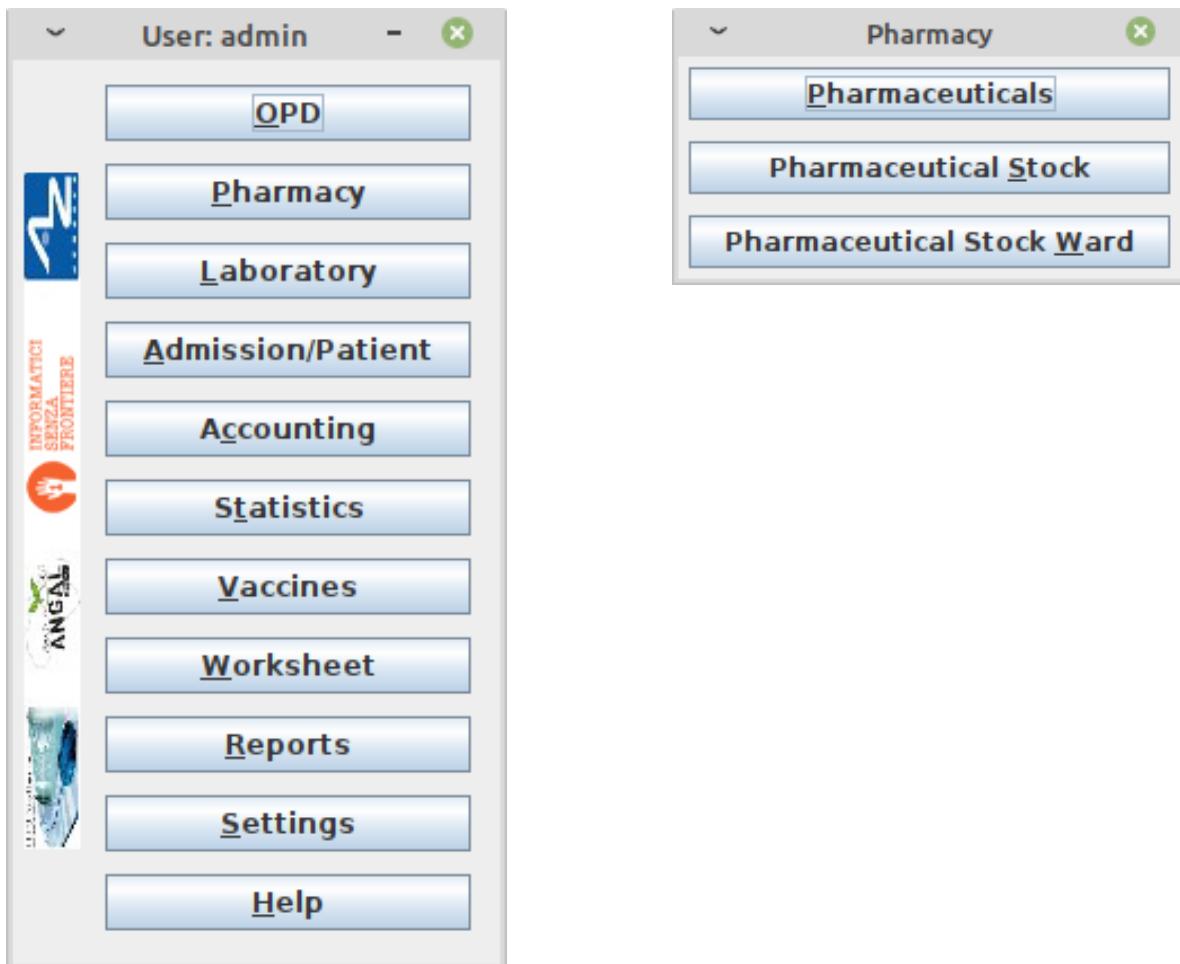
The OPD Extended module affords the following additional features:

- Calendar to choose the visit date (1);
- the OPD number now is visible (2): it is the progressive number per year automatically set by the system, changes to the value can be made as needed. The OPD number **MUST** be unique for each year.
- Registered Patient (3): before choosing a disease, first select a patient from the drop-down list (this is **required**); to find a patient use the search field nearby by typing part of the patient's name or code; this improves the reliability of reports and statistics, and therefore is a service to the patient by knowing his/her history.
- Once the patient is selected and a previous OPD visit is found, special fields are populated with the most recent visit of the patient (4), his/her personal data (5), and the Re-Attendance checkbox will be selected automatically upon selection of the main (first) disease (6);
- It is now possible to set the next appointment date (7). This automatically schedules a visit visible in **Therapy Management**.
- if a new attendance for this patient is required set the "New Admittance" check box and proceed normally.
- If editing an old OPD it is possible to change everything except the patient, which the OPD refers to, and the "New Admittance" check box.
- In the case the selected patient personal data need to be updated, it is possible to click on the Edit icon  near his/her name; a new window shows the patient personal information ready for modification.
- In the case the patient is not yet registered, the <**new patient**> entry can be selected to register a new patient; after registration, the program returns to the OPD window and the new patient is selected.
- If the user is enabled by the Administrator (see [Users & Groups](#)) the following is shown:
 - the **Examination** button function (see [Patient examination](#))
 - the **Operation** tab after the patient's tab (5) to record small surgeries and other interventions (see [Operations](#)) as well as in Admission (see [Insert or Modify Surgery Data](#)).

6 Pharmacy (Pharmacy)

Pressing **Pharmacy** from the main menu provides access to the Pharmacy menu. From the Pharmacy menu, the following functions are available: **Pharmaceuticals** and **Pharmaceuticals Stock, Pharmaceuticals Stock Ward**.

*Submenu: Press the **Pharmacy** button or “Alt + P” to open the Pharmacy submenu*



i Pharmaceuticals Stock Ward functionality can be disabled by changing the INTERNALPHARMACIES flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

6.1 Pharmaceuticals (Pharmaceuticals)

6.1.1 Main Characteristics

Pharmaceutical functions allow for the insertion, modification, and deletion of pharmaceuticals. Moreover, it provides important information about pharmaceuticals:

- the current quantity lying in the stock
- the limit quantity that defines when a pharmaceutical is going out of stock
- if the pharmaceutical is out of stock

- the expiring drugs today or a within a specified time period



In Open Hospital to identify pharmaceuticals sometimes the word, “pharmaceutical” is used and sometimes the synonym “medical” is used.

6.1.2 Functions of Pharmaceuticals

To access the functions of Pharmaceuticals, press **Pharmaceuticals** in the Pharmacy menu.

All functions available under Pharmaceuticals are accessible from the **Pharmaceutical Browser** window shown below. It displays all the pharmaceuticals available in the hospital.

Pharmaceutical Browser						
TYPE	CODE	DESCRIPTION	PcsXPck	STOCK	CRIT. LEVEL	OUT OF STOCK
Laboratory		4 Dimethyl Aminobenzaldehyde	0	3	5	<input type="checkbox"/>
Drugs		Acetazolamide 250mg Tab	0	0	0	<input checked="" type="checkbox"/>
Laboratory		Acetic Acid Glacial 1 ltr	0	0	0	<input checked="" type="checkbox"/>
Laboratory		Aceton 99% 1ltr	0	0	0	<input checked="" type="checkbox"/>
Drugs		Aciclovir cream	0	320	2	<input type="checkbox"/>
Drugs		Acyclovir 200mg Tab	0	1,210	0	<input type="checkbox"/>
Surgery		Adhesive Tape 2.5cm x 5m	0	20	0	<input type="checkbox"/>
Surgery		Adhesive Tape 7.5cm x 5m	0	0	0	<input checked="" type="checkbox"/>
Drugs		Adrenaline 1mg/ml 1ml Amp	0	0	0	<input checked="" type="checkbox"/>
Surgery		Air ring set 43x15cm, rubber with pump	0	0	0	<input checked="" type="checkbox"/>
Surgery		Airway Guedel Size 0	0	0	0	<input checked="" type="checkbox"/>
Surgery		Airway Guedel Size 00	0	0	0	<input checked="" type="checkbox"/>
Surgery		Airway Guedel Size 1	0	0	0	<input checked="" type="checkbox"/>
Surgery		Airway Guedel Size 2	0	0	0	<input checked="" type="checkbox"/>
Surgery		Airway Guedel Size 3	0	0	0	<input checked="" type="checkbox"/>
Drugs		Albendazole 200mg Tab	0	37,200	450	<input type="checkbox"/>
Drugs		Albendazole 400mg Tab	0	0	0	<input checked="" type="checkbox"/>
Drugs		Aminophylline 25mg/ml/1.0ml Amp	0	190	0	<input type="checkbox"/>
Drugs		Aminophylline 100mg Tab	0	8,981	0	<input type="checkbox"/>
Drugs		Amitriptyline 25mg Tab	0	5,600	0	<input type="checkbox"/>
Laboratory		Amonium Oxalate	0	0	0	<input checked="" type="checkbox"/>
Drugs		Amoxycillin /Clavulanate 375mg Tab	0	0	0	<input checked="" type="checkbox"/>
Drugs		Amoxycillin 125mg/5ml Powd. Susp 100ml	0	180	0	<input type="checkbox"/>
Drugs		Amoxycillin 250mg Caps	0	56,080	0	<input type="checkbox"/>
Drugs		Amphotericin B 50mg Vial	0	0	0	<input checked="" type="checkbox"/>
Drugs		Ampicillin 500mg Vial	0	650	0	<input type="checkbox"/>
Chemical		Anti Serum A 10ml	0	0	0	<input checked="" type="checkbox"/>

Select type ALL New Edit Delete Export Stock StockCard Order Expiring AMC Close

If the pharmaceutical quantity is under the critical level it is shown in RED.

If the pharmaceutical quantity is zero it is shown in GRAY and the square in the last column is checked.

The following functions are accessible from the **Buttons panel** of the **Pharmaceutical Browser** window:

- New:** register a new pharmaceutical.
- Edit:** modify a registered pharmaceutical.
- Delete:** delete a pharmaceutical.
- Export:** export the pharmaceuticals to a CSV file (Excel).
- Stock:** show the report of stock quantities.
- StockCard:** show the history of the movement of a certain pharmaceutical (must be selected in the list first).
- Order:** show the list of pharmaceuticals that have to be ordered.
- Expiring:** show the list of pharmaceuticals that are going to expire (today, next month, within two months, within three months, or within another month to be specified).
- AMC:** show the AMC (average monthly consumption) of pharmaceuticals.
- Close:** exit from the **Pharmaceuticals Browser**.

At the bottom left of the window, there is a "Select type" combo box. Based on the value selected, the table either displays a pharmaceutical of a specific type or all pharmaceuticals if the default value of ALL is used. Just to the right of the combo box is a field that is used to search for a specific pharmaceutical by description by typing a keyword into the field.

It is possible to sort the table by any of the column headers by double-clicking on the column name. Filtered type (combo box), searched keys (the search field) and sorting are all reflected in the STOCK report.

6.1.2.1 Insert a New Pharmaceutical (New)

Press the New button in the **Pharmaceutical Browser** window to access the **New Medical** window shown below.

To insert a new pharmaceutical, enter the following fields:

- **Type:** for example, Drugs or Chemical
- **Code:** code that uniquely identifies the pharmaceutical for fast searching.
- **Description:** the description of the pharmaceutical.
- **Pieces per Packet:** number of pieces per packet (if more than 1).
- **Critical level:** the minimum quantity required in stock.



Types can be defined by the Administrator. Check the [Settings](#) chapter for more information.

New Medical	
Type:	Chemical
Code:	
Description:	
Pieces per Packet:	1
Critical level:	0.0

When all the data is entered, the **Buttons panel** has the following choices:

- OK: confirm and save the data.
- Cancel: close the window and return to the **Pharmaceutical Browser** window.

6.1.2.2 Modify an Existing Pharmaceutical (Edit)

After selecting the pharmaceutical to modify, press the Edit button in the **Pharmaceutical Browser** window to access the **Edit Medical** window shown below. All the data except for the "Type" value can be modified or changed.

Edit Medical

Type:	Drugs
Code:	44
Description:	Atropine 1mg/ml 1ml Amp
Pieces per Packet:	0
Critical level:	0.0

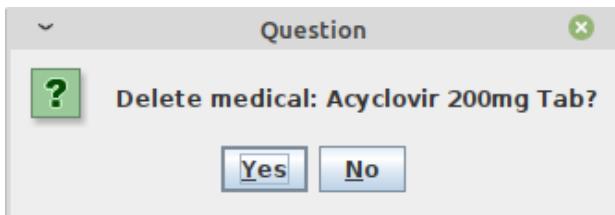
OK **Cancel**

When all the data is entered, the **Buttons panel** has the following choices:

- **OK**: confirm and save the data.
- **Cancel**: close the window and return to the **Pharmaceutical Browser** window.

6.1.2.3 Delete a Pharmaceutical (Delete)

To delete a pharmaceutical, highlight it in the Browser window as before. Next, press the **Delete** button and a confirmation dialog is shown:



The **Buttons panel** has the following choices:

- **Yes**: confirm the deletion of the pharmaceutical.
- **No**: close the window and return to the **Pharmaceutical Browser** window.

6.1.2.4 Export the List of Pharmaceuticals (Export)

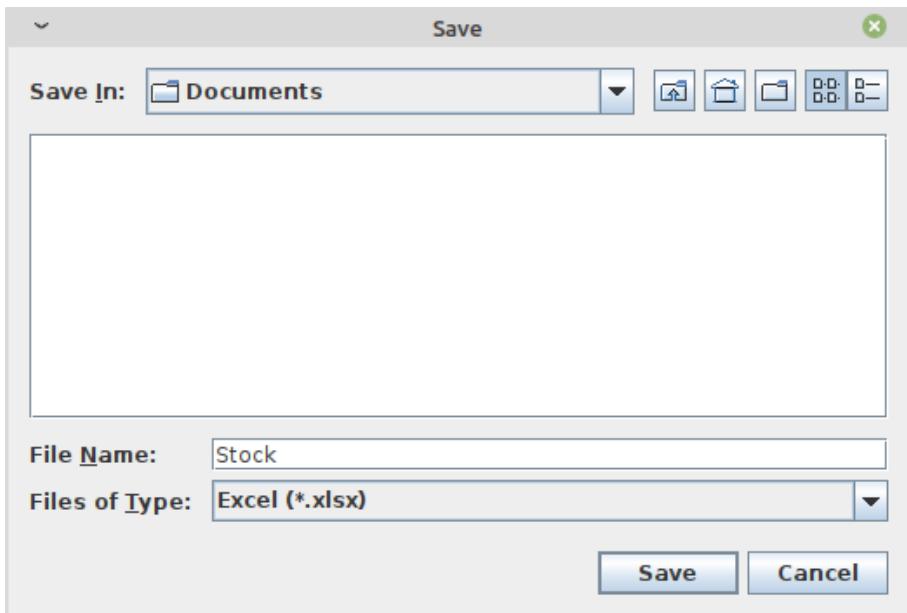
Use this function to export the list of pharmaceuticals shown in the **Pharmaceutical Browser** window that then can be imported into Excel.

Press the **Export** button in the **Pharmaceutical Browser** window to access the **Save** window shown below. The window uses the language of the computer, regardless of the language used in Open Hospital.

This begins the exporting of the list of pharmaceuticals.

In the **Save** window:

- select the directory of the file system where the data is to be stored
- input the name for the file (Filename)



6.1.2.5 Stock Report (Stock)

Press the Stock button in the **Pharmaceutical Browser** window to produce the report of pharmaceuticals in the stock grouped by *IN STOCK* and *OUT OF STOCK*.

6.1.2.6 StockCard (StockCard)

Press the StockCard button in the **Pharmaceutical Browser** window to show the history of movement for a selected pharmaceutical for a specific time range. The data can either be in report format or exported to a CSV file.

6.1.2.7 Order of Pharmaceuticals (Order)

Press the Order button in the **Pharmaceutical Browser** window to produce the list of pharmaceuticals remaining in stock and the ones to be reordered according to their critical level.

6.1.2.8 Expiring Pharmaceuticals (Expiring)

Press the Expiring button in the **Pharmaceutical Browser** window to produce the list of pharmaceuticals that are going to expire grouped by type and lot.

6.1.2.9 Average Monthly Consumption (AMC)

Press the AMC button in the **Pharmaceutical Browser** window to produce a report showing the average monthly consumption of pharmaceuticals.

6.2 Pharmaceutical Stock (**Pharmaceutical Stock**)

6.2.1 Main Characteristics

The Pharmaceutical Stock feature is used to store and trace every stock movement that has been made. Every movement is identified by the following data:

- date of the movement

- type of the movement, that is, if it is a charging or discharging one
- the ward that the movement refers to. This characteristic is needed for discharging movements only. It is important to know in which ward pharmaceuticals have been used, otherwise, this field is empty
- the quantity
- the pharmaceutical (which in turn relates to different categories: Laboratory, Surgery, Drugs or Chemical)
- the lot to which the movement is referred to. Some pharmaceuticals may not have a lot related (for example ‘Gloves’), so the field can be omitted. It is recommended to store even the lot (if it exists) because every lot has its own peculiarity:
 - a name (that can be its code)
 - a preparation date
 - a due date

In this way, which movement that refers to the pharmaceuticals expiring can be found, or pharmaceuticals prepared on a specific date, or how many movements have been registered about that lot, and so on.

- the supplier of the pharmaceutical. This characteristic is needed for charging movements only. This field is empty in other cases.

6.2.2 Functions of Pharmaceuticals Stock

To access the functions of Pharmaceuticals, press **Pharmaceutical Stock** in the Pharmacy menu shown below.



The **Stock Movement Browser** window shown below is opened.

Stock Movement Browser												
REF. ...	DATE	TYPE	WARD	QTY	PHARMACEUTICAL	MED TYPE	LOT	PREP DATE	DUE DATE	ORIGIN	COST	TOTAL
302	15/03/21 ...	Disc...	CHILDREN WARD	20	cotton Wool 500G	Surgery	714445...	15/03/21	15/03/21	JMS	2.000	40.00
301	15/03/21 ...	Char...		100	cotton Wool 500G	Surgery	714445...	15/03/21	15/03/21	JMS	2.000	200.00
300	15/03/21 ...	Char...		20	Whitfield Ointment 200g	Drugs	730989...	15/03/21	15/03/21	Enter...	8.000	160.00
205	15/03/21 ...	Disc...	FEMALE WARD	20	Mosquito Net Impreg...	Surgery	135215...	15/03/21	15/03/24		30.000	600.00
204	15/03/21 ...	Disc...	MALE WARD	40	Chlorpromazine 25m...	Drugs	746001...	15/03/21	15/03/21		2.000	80.00
203	15/03/21 ...	Char...		100	Chlorpromazine 25m...	Drugs	746001...	15/03/21	15/03/21	JMS	2.000	200.00
202	15/03/21 ...	Char...		1000	Gloves Surgical Steril...	Surgery	119075...	15/03/21	15/03/21	JMS	0.150	150.00
201	15/03/21 ...	Char...		10	X-Ray Film 43x35cm	Surgery	593753...	15/03/21	15/03/21	JMS	10.000	100.00
14	15/03/21 ...	Char...		10	Liquid detergent 20Ltr	Drugs	255823...	15/03/21	15/03/21	JMS	0.500	5.00
13	15/03/21 ...	Char...		20	Adhesive Tape 2.5cm...	Surgery	367058...	15/03/21	15/03/21	Enter...	2.000	40.00
12	15/03/21 ...	Char...		300	Vitamin B Complex Tab	Drugs	252525...	15/03/21	15/03/21	JMS	2.000	600.00
11	15/03/21 ...	Char...		50	Mosquito Net Impreg...	Surgery	135215...	15/03/21	15/03/24	Enter...	30.000	1.500.00
10	13/03/21 ...	Char...		100	Fluconazole 100mg T...	Drugs	139776...	15/03/21	15/03/24	JMS	15.000	1.500.00

The following functions are available from the **Buttons panel** of the window **Stock Movement Browser**:

- **Charge:** record a new charge movement.
- **Discharge:** record a new discharge movement.
- **Export to Excel:** export pharmaceuticals stock movements.
- **StockCard:** show the history of movement for a certain pharmaceutical (can be directly selected by the list otherwise will be requested).
- **Stock Ledger:** show the history of movement for all pharmaceuticals within a selected date range.
- **Close:** exit the **Stock Movement Browser** window.



There is no “Delete” button as movements cannot be deleted. If a mistake does occur, for example, the wrong quantity of a pharmaceutical is inserted in charge then use a new opposite movement to correct the mistake. In this example use a discharge movement to undo the unwanted change.

Furthermore, a search function (**Filter**) is available using the **Selection panel** on the left of the window.

6.2.2.1 Search Pharmaceuticals Stock Movements (**Filter**)

Selection Panel

Pharmaceutical

Description

Type

Movement

Type

Ward

Date

From 01 / 01 / 2021
To 01 / 04 / 2021

Lot Preparation Date

From / /
To / /

Lot Due Date

From / /
To / /

Filter **Keep**

Using the **Stock Movement Browser** search function, the information in the window can be filtered to show:

- how many boxes of pharmaceutical remains in the stock
- which movements have been made on a specific day
- in which ward a specific pharmaceutical has been discharged
- if there are any pharmaceutical expired

Queries about movements of pharmaceuticals can be done using the search criteria available on the **Selection panel** area of the **Stock Movement Browser** window (left side of the browser). The search results are shown in the **Data table** area.

The **Selection panel** is used to select a group of movements according to specific filters. The filter is set using the tools contained in the **Selection panel**.

Filters refer to three different objects: the **Pharmaceutical**, the **Movement**, and the **Lot Preparation and Lot Due Date**.

For a **Pharmaceutical**, choose either its:

- **Description**, the pharmaceutical's name
- **Type**: Laboratory, Surgery, Chemical, and Drugs, etc.

To avoid conflicting filters, only one of the options is available at any one time. So, when the description combo box is active, the other one is not, and vice versa.

To quickly find a medical simply type a keyword that is a part of the medical's name into the text field at the top of the pharmaceuticals products combo box and press the search button (🔍) that follows this text field.

For a **Movement**, choose either its:

- **Type**: specifies if it is a charge or a discharge type. If the discharge option is selected, then the ward combo box is enabled. The ward combo box allows finding any discharging movements that refer to a specific ward.
- **Date**: specifies the data range for the search, between the 'Date From' and 'Date To' values. The date tools consist of three blank areas, which (from left to right) refer to day, month and year. As a value is inserted into a blank area, moving to the next area is accomplished by using the "Tab" key on the keyboard. When the window is shown the date range is set to the previous week by default.

Finally, for **Lot Preparation Date** and **Lot Due Date** movements that refer to specific lots can be found by inserting:

- the *lot preparation date*: a valid time span (between 'Preparation Date From' and 'Preparation Date To')
- the *due date*; behaves similar to the lot preparation tool and the movement date tool

Each filter can be combined with another, allowing for many possibilities.

After the filtering criteria are chosen, press the **Filter** button and the matching data is shown in the **Data table** area.

6.2.2.2 Insert Stock Charging Movement (Charge)

To insert charging movements, press **Charge** in the **Stock Movement Browser** window. The **Stock Movement** window is shown:

Stock Movement

Date:	05/07/2021 12:10:10	Reference No.:							
Charge Type:	Charge								
Supplier:									
Type a code or a description and press ENTER									
CODE	DESCRIPTION	QTY/PAC...	QTY	UNIT/PACK	TOTAL	LOT NO.	EXPIRING	COST	TOTAL

Delete Save Cancel

Stock Movement

Reference No.:							
Type a code or a description and press ENTER							
QTY/PAC...	QTY	UNIT/PACK	TOTAL	LOT NO.	EXPIRING	COST	TOTAL

Delete Save Cancel

It is possible to perform more than one charging movement at a time. The window is composed of two areas: a **Panel** and a **Grid**.

The **Panel** contains the following fields:

- **Date**: the date of the movement
- **Charge Type**: the charge type
- **Supplier**: the origin of the pharmaceutical
- **Reference No.**: the reference of the operation

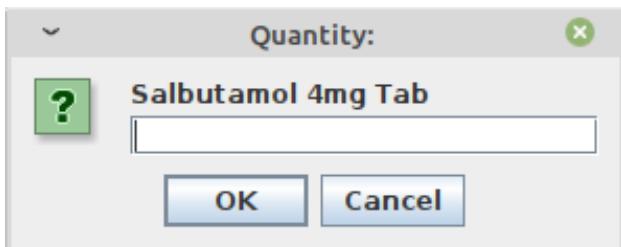
The **Grid** is filled with the pharmaceuticals involved in the charging movement. To fill the grid, use the field above the grid to select a pharmaceutical. Enter into the field the code or the description of the pharmaceutical to move, and press **ENTER**. This will open the **Choose a Medical** window.

Choose a Medical

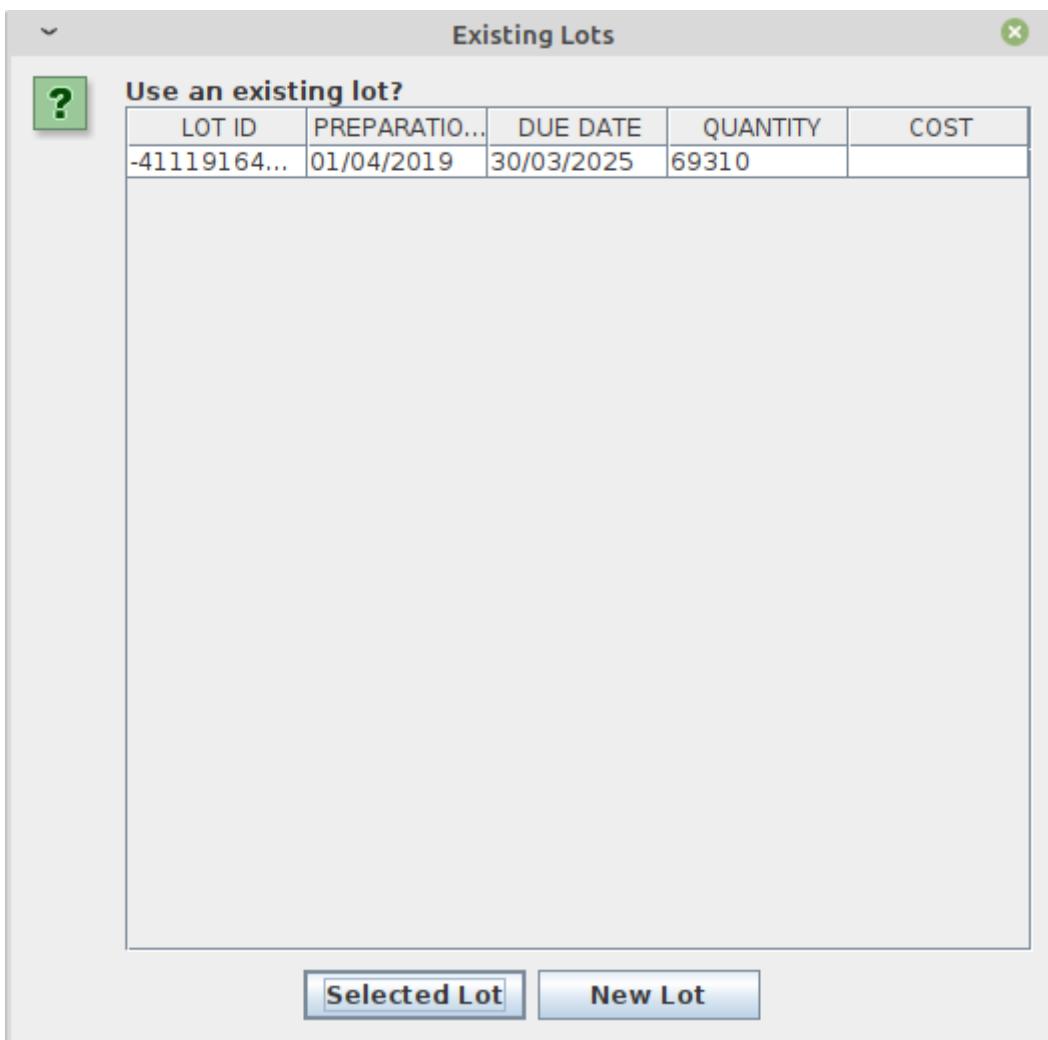
CODE	DESCRIPTION
A-23	Amonium Oxalate
A-106	Amoxycillin /Clavulanate 375mg Tab
A-226	Amoxycillin 125mg/5ml Powd. Susp 100ml
A-105	Amoxycillin 250mg Caps
P-180	Paracetamol 120mg/5ml 100ml
P-179	Paracetamol 120mg/5ml Syrup
P-415	Paracetamol 500 MG
S-173	Salbutamol 4mg Tab
D-204	Salbutamol Inhaler 10ml
D-203	Salbutamol solution for inhalation 5ml

Yes **No**

Select the desired medical and click **Yes**. This will open a new window where the quantity of the medical is specified:

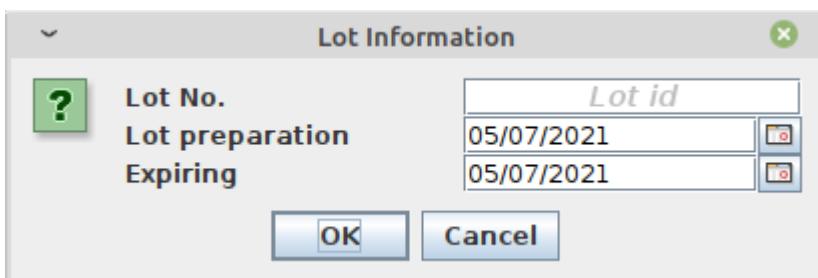


Then press **OK**. If there is an existing lot in the system, the **Existing Lot** window is shown:

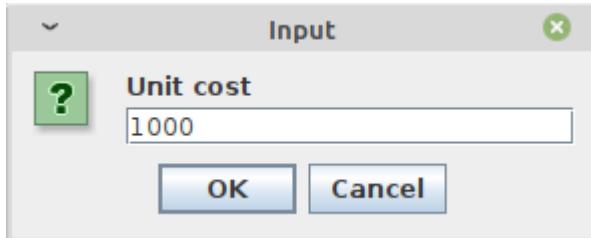


If stock movement is related to this existing lot, select it and click **Selected Lot**. Otherwise, click **New Lot** and the **Lot Information** window is shown with the following fields:

- **Lot No.:** The lot code
- **Lot preparation:** The lot preparation date
- **Expiring:** The lot expiring date



Enter the appropriate values and then press the **OK** button. The **Input** window is shown, where the unit cost is specified:



Then click **OK** to insert the medical information as a line in the grid.

Finally, click the **Save** button to save the charge movement.



The Lot definition can be set as automatic by changing the AUTOMATICLOT_IN flag in the configuration file, so every new charging movement automatically creates a new lot. Regardless of the setting, the Expiring Date must always be provided. Ask the Administrator or refer to the *Administrator's Guide*.



In order to avoid managing the cost of medicinals set the LOTWITHCOST flag to *no* in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

6.2.2.3 Insert Stock Discharging Movement (**Discharge**)

To insert discharging movements, press the **Discharge** button in the **Stock Movement Browser** window. The **Stock Movement** window is shown:

Stock Movement

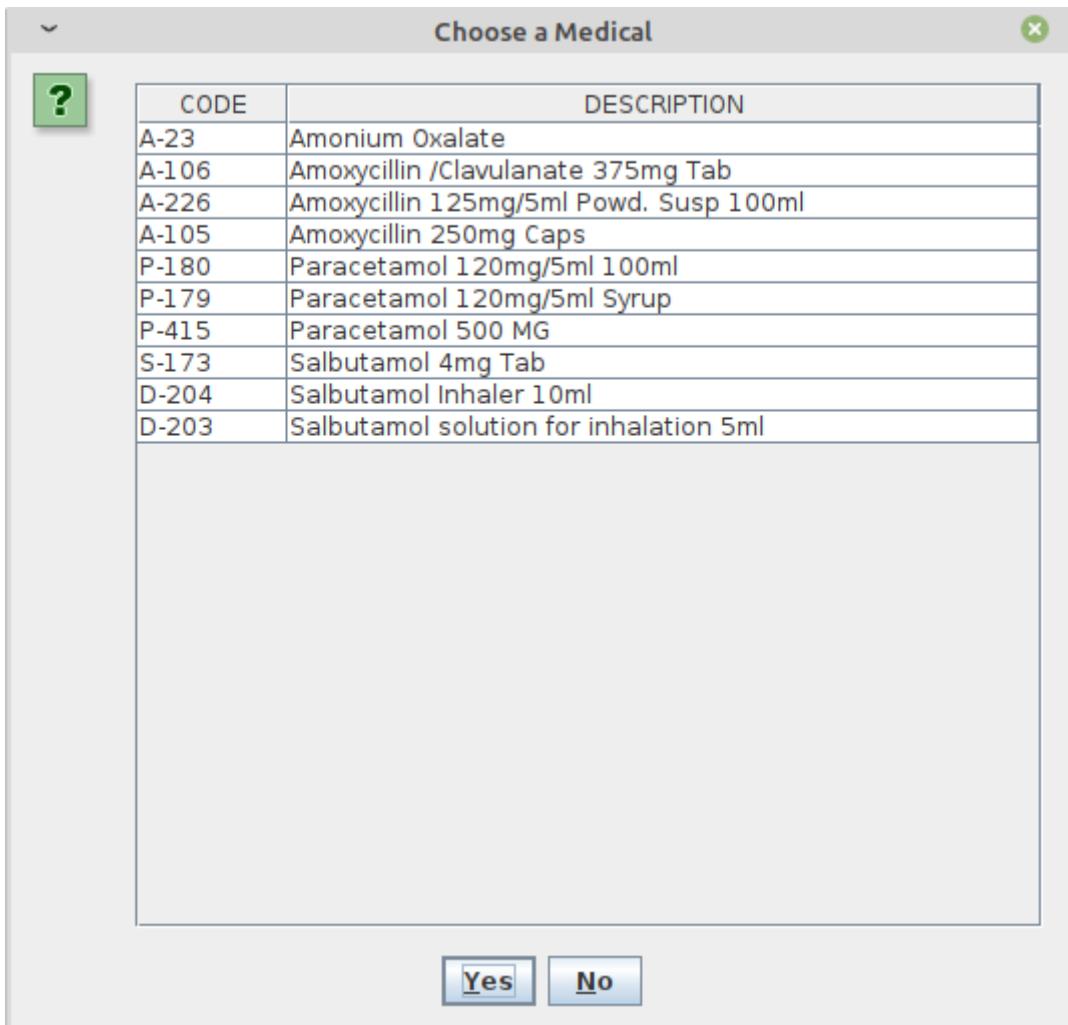
Date	5/07/2021 13:35:23	Reference No.							
Discharge Type	Discharge								
Destination									
Type a code or a description and press ENTER									
CODE	DESCRIPTION	UNIT/PACK	QTY	UNIT/PACK	TOTAL	LOT NO.	EXPIRING		
<input type="button" value="Delete"/> <input type="button" value="Save"/> <input type="button" value="Cancel"/>									

It is possible to perform more than one discharging movement at a time. The window is composed of two areas: a **Panel** and a **Grid**.

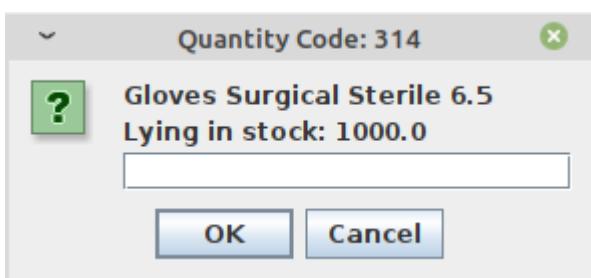
The **Panel** contains the following fields:

- **Date**: the date of the movement
- **Discharge Type**: the discharge type
- **Destination**: the ward where the discharged medical will be affected
- **Reference No.**: the reference number of the operation

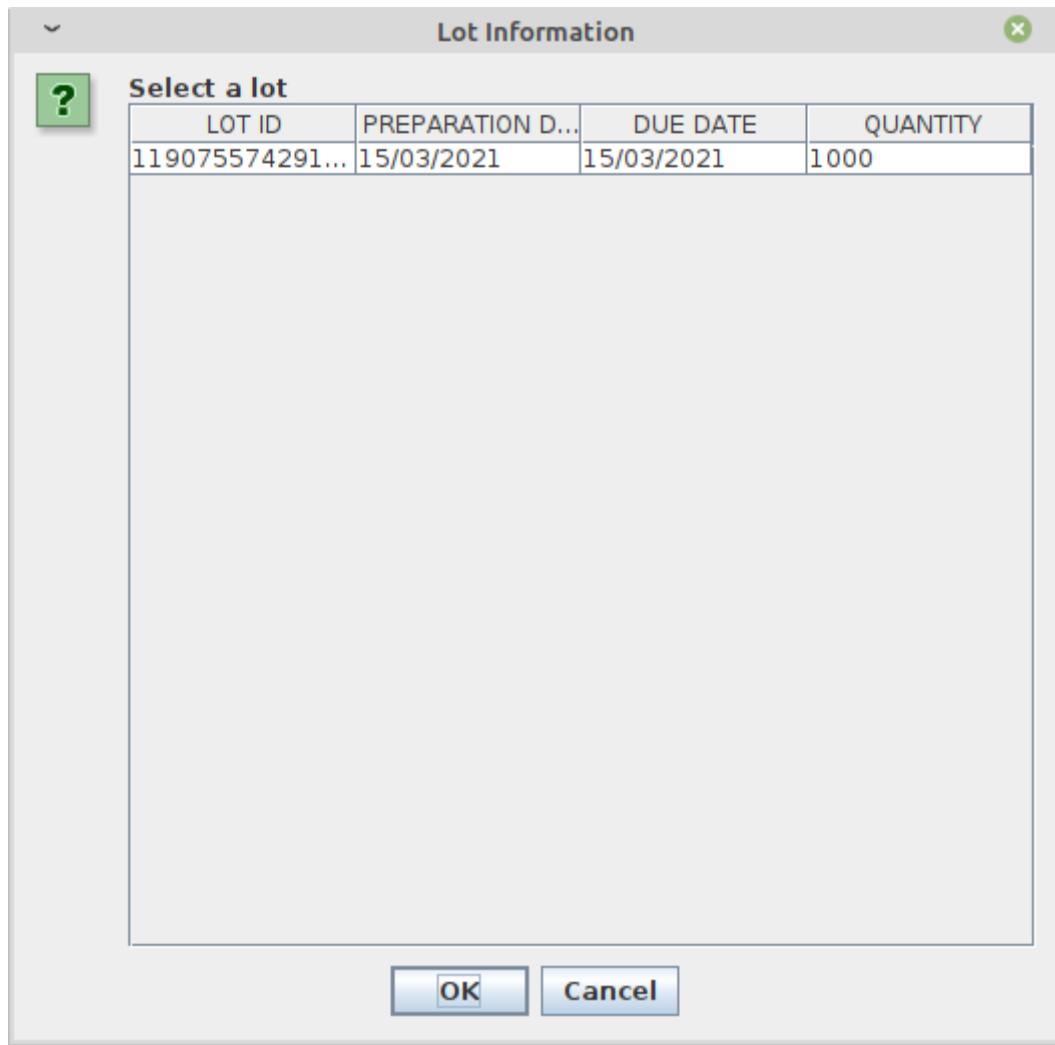
The **Grid** is filled in with pharmaceuticals involved in the discharging movement. To fill the grid, enter into the field above the grid the description of the pharmaceutical to discharge, and press **ENTER**. This opens the **Choose a Medical** window.



Select the desired medical and click **Yes**. This then opens the **Quantity** window showing the existing stock for the medical. In the input field enter the quantity of the medical to discharge.



Then press **OK**. The **Lot Information** window is shown:



Select the existing lot and click **OK** to insert the medical discharge into the grid.

Click the **Save** button to save the discharge movement.



The Lot definition can be set as automatic by changing the flag AUTOMATICLOT_OUT in the configuration file, so every new discharging movement will automatically select a suitable lot for the operation according to the expiring date. If the first selected lot does not contain enough quantity to serve the discharging movement, several discharging movements may be generated. Ask the Administrator or check the *Administrator's Guide* for more information.

6.3 Pharmaceuticals Stock Ward (Pharmaceuticals Stock Ward)

6.3.1 Main Characteristics

The Pharmaceutical Stock Ward feature allows the management of the pharmacy at the ward level.

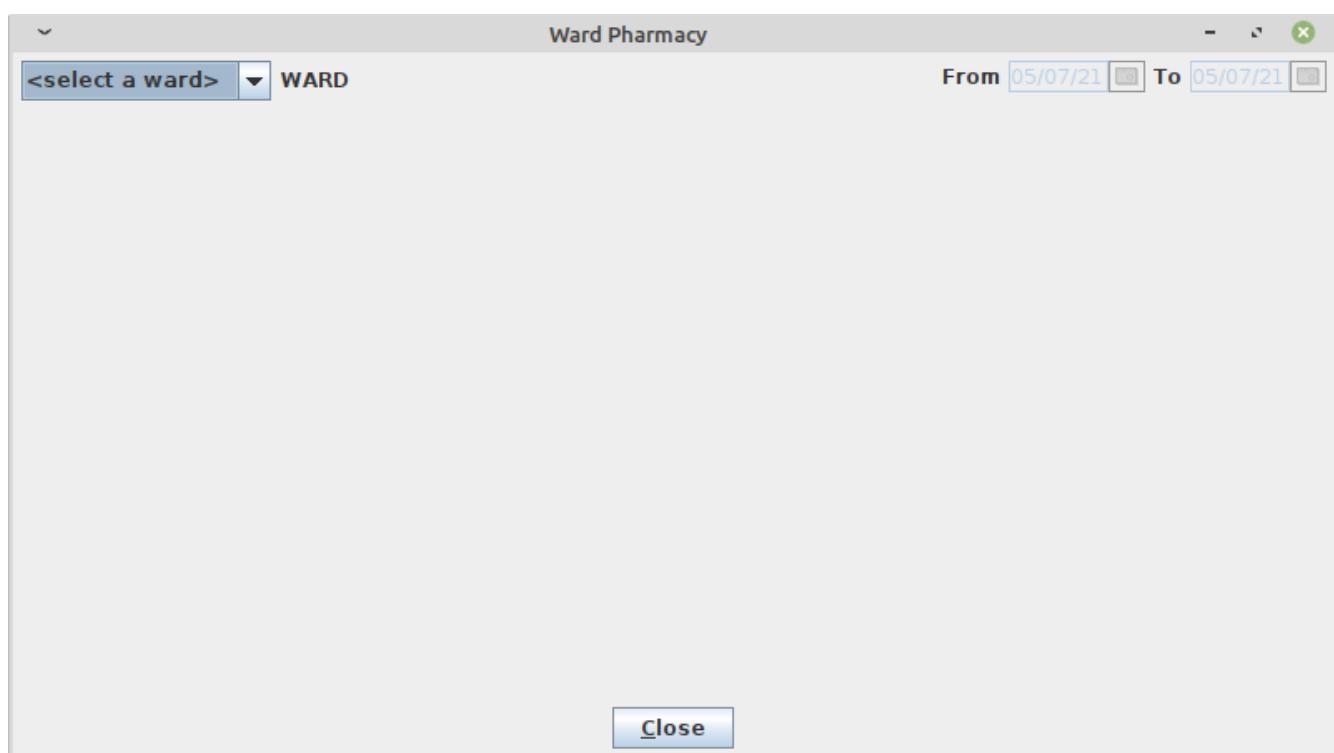
Pharmaceuticals Stock Ward functionality can be enabled or disabled by changing the *INTERNALPHARMACIES* flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

6.3.2 Functions of Pharmaceuticals Stock Ward

To access the functions of Pharmaceuticals, press **Pharmaceutical Stock Ward** on the Pharmacy menu shown below.



The window **Ward Pharmacy** shown below will be opened. All functions available under Pharmaceutical Stock are accessible from the **Ward Pharmacy** window selecting one **WARD** on the top left of the window.



After the selection of the ward (FEMALE WARD in this example), the **Ward Pharmacy** window is shown, allowing for the management of the ward pharmacy of the FEMALE WARD:

Ward Pharmacy

FEMALE WARD <input type="button" value="WARD"/> Medical <input type="button" value="All Types"/> <input type="button" value="Search"/> <input type="button" value="All Medicals"/> Age Age From: <input type="text" value="0"/> Age To: <input type="text" value="0"/> Sex <input checked="" type="radio"/> All <input type="radio"/> Male <input type="radio"/> Female	Outcomes Incomings Drugs Double click to show lot details <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width: 30%;">MEDICAL</th> <th style="width: 20%;">QUANTITY</th> <th style="width: 20%;">UNITS</th> <th style="width: 30%;"></th> </tr> </thead> <tbody> <tr> <td>Acyclovir 200mg Tab</td> <td>100.0</td> <td>pieces</td> <td>Rectify</td> </tr> <tr> <td>Amoxycillin 250mg Caps</td> <td>1000.0</td> <td>pieces</td> <td>Rectify</td> </tr> <tr> <td>Mosquito Net Impregnated ...</td> <td>20.0</td> <td>pieces</td> <td>Rectify</td> </tr> <tr> <td>X-Ray Fixer 3.3kg for 22.5 Ltr</td> <td>10.0</td> <td>pieces</td> <td>Rectify</td> </tr> <tr> <td>Paracetamol 500 MG</td> <td>200.0</td> <td>pieces</td> <td>Rectify</td> </tr> </tbody> </table>	MEDICAL	QUANTITY	UNITS		Acyclovir 200mg Tab	100.0	pieces	Rectify	Amoxycillin 250mg Caps	1000.0	pieces	Rectify	Mosquito Net Impregnated ...	20.0	pieces	Rectify	X-Ray Fixer 3.3kg for 22.5 Ltr	10.0	pieces	Rectify	Paracetamol 500 MG	200.0	pieces	Rectify	From <input type="text" value="07/07/21"/> <input type="button" value="From"/> To <input type="text" value="07/07/21"/> <input type="button" value="To"/> <input type="button" value="Filter"/> <input type="button" value="Reset"/> Count: <input type="text" value="0"/> <input type="button" value="New"/> <input type="button" value="Rectify"/> <input type="button" value="Report"/> <input type="button" value="Excel"/> <input type="button" value="StockCard"/> <input type="button" value="Stock Ledger"/> <input type="button" value="Close"/>
MEDICAL	QUANTITY	UNITS																								
Acyclovir 200mg Tab	100.0	pieces	Rectify																							
Amoxycillin 250mg Caps	1000.0	pieces	Rectify																							
Mosquito Net Impregnated ...	20.0	pieces	Rectify																							
X-Ray Fixer 3.3kg for 22.5 Ltr	10.0	pieces	Rectify																							
Paracetamol 500 MG	200.0	pieces	Rectify																							

The available functions are:

- **New**: create a new discharging movement for the patient.
- **Rectify**: rectify the quantity lying in stock (see 6.3.2.1 Rectify).
- **Report**: print the ward medical inventory report.
- **Excel**: export the data in a format to import into Excel.
- **StockCard**: show the history of movement for a certain pharmaceutical (can be directly selected by the list otherwise will be requested).
- **Stock Ledger**: show the history of movement for all pharmaceuticals within a selected date range.
- **Close**: exit from the **Ward Pharmacy** window.

Different than the **Pharmaceuticals Stock** functionality, the **Pharmaceutical Stock Ward** allows only discharging movement to patients since it is an internal management of pharmaceuticals held in the ward after they have been “charged” by the main pharmacy. It is also possible that the discharging movement from ward to ward can be accomplished.

The **Ward Pharmacy** window shows a **Filter panel** on the left, a **Movements panel** in the right-center, and a **Button panel** at the bottom.

6.3.2.1 Rectify (Rectify)

It is possible to rectify the quantity held in stock in the Ward Pharmacy. This may be necessary when a drug is damaged or stolen. To do this, click the **Rectify** button to open the **Rectify** window.

Rectify

In stock

Medical:

Lot No.: Choose a Lot

Actual Quantity:

Reason:

- Select the medical. Once done, the quantity currently in stock is displayed.
- If lots exist for the drug, click **Choose a Lot**, otherwise, click on **New Lot** (new lot creation).
- Modify the **Actual Quantity**.
- Enter the reason for the rectification.

Rectify

In stock
120.0

Medical:

Lot No.: Choose a Lot
In lot
120.0

Actual Quantity:

Reason: Reducing quantity to 118 (scrapping 2 tablets)

Click **OK** to save the rectification or **Cancel** to abort the change.

6.3.2.2 Search Ward Pharmacy Movements (Filter)

The screenshot shows a 'Medical' filter panel. At the top is a dropdown menu set to 'All Medicals'. Below it is another dropdown menu set to 'All Types'. There are two input fields for age: 'Age From: 0' and 'Age To: 0'. Below these are three radio buttons: 'All' (selected), 'Male', and 'Female'. There are also input fields for weight: 'From: 0' and 'To: 0'. At the bottom are two buttons: 'Filter' and 'Reset', and a text field showing 'Count: 0'.

The **Filter panel** allows the filtering of registered movements by:

- Medical
- Age
- Sex
- Weight

The counter at the bottom automatically displays the number of movements that match the filtering criteria after clicking the **Filter** button.

The **Reset** button resets all the values in the **Filter panel** back to their default values as shown in the figure above.

6.3.2.3 The Movements Panel

The **Movements panel** is made up of three tabs:

- **Outcomes:** shows all the movements registered between the dates in the **From** and **To** fields at the top of the window. By default, **From** and **To** dates are set to the current date. Every movement is identified by the following fields:
 - **Date:** the date of the movement.
 - **Patient:** the patient the movement is related to, their age, sex, and weight (ND if the weight has not been defined at the registration moment).
 - **Medical:** the drug subject of the movement.
 - **Quantity:** the quantity subject of the movement.
- **Incomings:** shows all incomings from the main pharmacy, it is to say, all discharging movements registered in the **Pharmaceutical Stock** window related to the selected ward.
- **Drugs:** the number of drugs remaining in the selected ward as a result of all incoming minus all

the outgoings.

6.3.2.4 Inserting a New Ward Pharmacy Movement (New)

To insert ward pharmacy movements, press the New button in the **Ward Pharmacy** window. The **New / Edit** window is shown:

The screenshot shows the 'New / Edit' dialog box. At the top, there are three radio button options: 'Patient' (unchecked), 'Internal use' (unchecked), and 'Another Ward' (checked). Below this, a dropdown menu shows 'MATERNITY WARD'. A search bar contains 'parac' and a search icon. To the right is a 'Medical' button with a plus sign. A table below lists a single item: Paracetamol 500 MG, categorized as MEDICAL, with a QUANTITY of 10.0 and a LOT NO. of AUTO... A 'Remove Item' button with a red X is located at the bottom right of the table. At the very bottom are 'OK' and 'Cancel' buttons.

MEDICAL	QUANTITY	LOT NO.
Paracetamol 500 MG	10.0	AUTO...

As mentioned previously, only discharging movements are allowed in this functionality. So, the information required is the following:

- **Patient or Internal use or Another Ward:** a registered patient can be selected by clicking on the **Pick Patient** button so the movement is associated with his/her ID or select **Internal use** and type a description to specify that the movement is not related to a patient. Selecting **Another Ward** allows for choosing the destination ward from the list provided.
- **Medical:** first select the drug to give to that patient (the only ones that are in the ward as a result of a previous discharging movement in the **Pharmaceutical Stock Browser**) from the

dropdown list and then press the **Medical** button. It is possible to specify the quantity (multiple and half-piece are allowed) in the window shown:



If **AUTOMATICLOTWARD_TOWARD** has been enabled the user will be requested to select a lot (similar to [Insert Stock Discharging Movement](#)).

The lot selection can be enabled or disabled (set as automatic) by changing the flag **AUTOMATICLOTWARD_TOWARD** in the configuration file, so every new discharging movement will automatically select a suitable lot for the operation according to the expiring date (FEFO). If the first selected lot does not contain enough quantity to serve the discharging movement, several discharging movements may be generated if the quantity laying in other lots can satisfy the request. Ask the Administrator or check the *Administrator's Guide* for more information.



Before pressing the **OK** button, insert as many Medicals as needed, it will show a corresponding number of movements in the **Outcomes** tab of the **Movement panel** in the **Ward Pharmacy** window. These movements are also visible in the **Incomings** tab of the **Movement panel** in the **Ward Pharmacy** window of the receiving ward, in case of discharging to another ward.

7 Laboratory (Laboratory)

7.1 Main Characteristics

The Laboratory features are used to manage the laboratory exams.

Press the **Laboratory** button or “Alt + L”.



It is possible to create, modify or delete exams.

- Insert a new laboratory exam
- Delete (or edit) an existing exam
- Select some exams with the Search button (select the exam's name and the range of dates for the exam)

7.2 Functions of Laboratory

- To access the Laboratory's functions press **Laboratory** on the main menu of Open Hospital. The **Laboratory Browser** window is shown:

All functions available under **Laboratory** are accessible from the **Laboratory Browser** window shown below. By default, the system shows all the laboratory exams record in the last week.

Laboratory Browser			RESULT
Select an exam	DATE	EXAM	RESULT
All	15/03/2021	3.1 Blood Slide (Malaria)	NEGATIVE
	15/03/2021	3.2 Blood Slide (OTHERS, E.G. TRIUPHANOSOMIAS, MICRIFILARIA, LEISHMANIA, BORRELIA)	NEGATIVE
Date From:	14/07/2020	15/03/2021 7.3.3 GOT	<= 50 (NORMAL)
Date To:	21/07/2021	15/03/2021 7.3.4 ALT/GPT	> 50
		15/03/2021 8.1 OCCULT BLOOD	NEGATIVE
		15/03/2021 3.1 Blood Slide (Malaria)	NEGATIVE
		15/03/2021 3.2 Trypanosomiasis	NEGATIVE
		15/03/2021 3.6 CSF WET PREP	NEGATIVE
		15/03/2021 5.4 LEISMANIA	NEGATIVE
		15/03/2021 7.4.1 CREATININA	1.4 - 2.5
		15/03/2021 1.5 ESR	NORMAL
		13/03/2021 2.1 Grouping	AB RH+
		13/03/2021 7.4.1 CREATININA	< 1.4 (NORMAL)
		13/03/2021 3.1 Blood Slide (Malaria)	NEGATIVE
		13/03/2021 4.6 OTHER C&S	NEGATIVE
		13/03/2021 2.2 Comb's Test	NEGATIVE
		13/03/2021 3.1 Blood Slide (Malaria)	NEGATIVE
		13/03/2021 URINALYSIS	Multiple results
		23/11/2020 7.1 PROTEIN	NEGATIVE
		23/11/2020 7.2 SUGAR	NORMAL
		21/11/2020 1.4 Film Comment	0
		21/11/2020 1.6 Sickling Test	NEGATIVE
		21/11/2020 4.1 CULTURE AND SENSITIVITY (C&S) FOR HAEMOPHILUS INFLUENZA TYPE B	POSITIVE
		21/11/2020 1.4 Film Comment	0
		21/11/2020 4.6 OTHER C&S	NEGATIVE
		21/11/2020 5.4 LEISMANIA	NEGATIVE
		21/11/2020 6.4 HEPATITIS	NEGATIVE
		21/11/2020 6.4 HEPATITIS	NEGATIVE
		21/11/2020 6.5 OTHERS E.G BRUCELLA, RHEUMATOID FACTOR, WEIL FELIX	NEGATIVE
		21/11/2020 5.5 ZN	NEGATIVE
		21/11/2020 7.4.1 CREATININA	< 1.4 (NORMAL)
		21/11/2020 7.4.2 UREA	10-55 (NORMAL)
		20/11/2020 1.2 WBC Count	4000 - 7000 (NORMAL)
		20/11/2020 5.5 ZN	NEGATIVE
		20/11/2020 5.6 WAYSON	NEGATIVE
		20/11/2020 3.1 Blood Slide (Malaria)	++++

New Edit Delete Print Table Print Label Close

Data that identify laboratory exams are the following:

- **Date:** indicates the date and time when the exam was entered
- **Exam:** the description of the exam
- **Result:** the result of the exam

To access the other functions of the laboratory in the **Buttons panel** the following choices are available:

- New: enter a new laboratory exam.
- Edit: modify an existing laboratory exam.
- Delete: delete an existing laboratory exam.
- Print Table: print the list of laboratory exams shown in the table.
- Print Label: print the labels of the samples for laboratory exams.
- Close: close the window and return to the main menu.

Furthermore, a search function (**Search**) is available using the **Selection panel** on the left of the window.

7.2.1 Search Laboratory Exams (Search)

The search function allows for selecting and showing laboratory exams on the **Data table** of the **Laboratory Browser** window.

In the example below, all types of exams executed on the date 21.11.2020 are shown in the **Data table**.

Laboratory Browser			
Select an exam	DATE	EXAM	RESULT
All	21/11/2020	1.4 Film Comment	0
	21/11/2020	1.6 Sickling Test	NEGATIVE
Date From:	21/11/2020	4.1 CULTURE AND SENSITIVITY (C&S) FOR HAEMOPHILUS INFLUENZA TYPE B	POSITIVE
Date To:	21/11/2020	1.4 Film Comment	0
	21/11/2020	4.6 OSMOSIS CGS	NEGATIVE
	21/11/2020	5.1 LEISHMAN	NEGATIVE
	21/11/2020	6.4 HEPATITIS	NEGATIVE
	21/11/2020	6.4 HEPATITIS	NEGATIVE
	21/11/2020	6.5 OTHERS E.G BRUCELLA, RHEUMATOID FACTOR, WEIL FELIX	NEGATIVE
	21/11/2020	5.5 ZN	NEGATIVE
	21/11/2020	7.4.1 CREATININA	< 1.4 (NORMAL)
	21/11/2020	7.4.2 UREA	10-55 (NORMAL)

Data about exams can be selected by choosing specific fields among the following:

- **Select an exam:** Valid values are:
 - All: exams of all types are shown
 - Pick a single exam from the list; only exams of the selected type are shown
- **Date:** “Date From” and “Date To” only shows the exams executed within the requested time period

After the selection press, the **Search** button; the system shows in the table results of the search applying the criteria requested.

7.2.2 Create a New Laboratory Exam (**New**)

Press the **New** button in the **Laboratory Browser** window: The **New Laboratory Exam** window is shown:

New Laboratory Exam

Date	21/07/21	Material	
Exam			
Patient	In	Select a patient	
Name		Age	
Note			
Result			
OK Print Cancel			

To record the visit, enter the following fields:

- **Date:** the date of the exam, the application defaults to the current date.
- **Material:** choose from the available values the material used in the exam.
- **Exam:** choose the exam.
- **Patient In:** it activates itself if the selected patient is currently admitted, it is possible to change it if needed.
- **Select a patient:** select the patient that is examined. The field is not mandatory as the patient's data be input into the following fields.
- **Name:** the first and last name of the patient (*automatically filled if a patient is selected*).
- **Age:** the age of the patient (range 0-200) (*automatically filled if a patient is selected*).
- **Sex:** the value *M* for male or the value *F* for female (*automatically filled if a patient is selected*).
- **Note:** a free-form area for notes and/or description.
- **Result:** based on the exam chosen the panel is populated with all available results for selection.

7.2.2.1 Results

In Open Hospital there are two kinds of possible results for each exam:

- **Single Result:** selection of a single result from a list (Procedure 1)
- **Multiple Results:** selection of many results from a list of positive/negative values (Procedure 2)
- Or manually inputting the precise result (Procedure 3)

The figure consists of three side-by-side screenshots of the 'New Laboratory Exam' dialog box. Each screenshot shows the following fields: Date (21/07/21), Material (Material dropdown), Exam (Exam dropdown), Patient (Patient dropdown), Name, Age, Sex (M/F), Note, and a Result section.

- Screenshot 1 (Top Left):** Exam is set to '1.1 HB'. The Result section contains a dropdown menu with options: '>=12 (NORMAL)', '>=12 (NORMAL)', '6 - 12', and '< 6'. The '< 6' option is highlighted.
- Screenshot 2 (Top Right):** Exam is set to 'URINALYSIS'. The Result section lists several items with radio button options: BILIRUBIN (radio buttons P, N, selected N), HCG (radio buttons P, N, selected N), PROTEIN (radio buttons P, N, selected N), SEDIMENTS (radio buttons P, N, selected N), SUGAR (radio buttons P, N, selected N), and UROBILINOGEN (radio buttons P, N, selected N).
- Screenshot 3 (Bottom):** Exam is set to '1.1.1 HB (Procedure 3)'. The Result section contains a text input field with the value '11.2 gal'.



Exams, Exam Type, and Results can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.

When the data is specified, the **Buttons panel** provides the following choices:

- **OK:** confirm and record the data.
- **Print:** print the result.

- Cancel: close the window and return to the **Laboratory Browser** window.

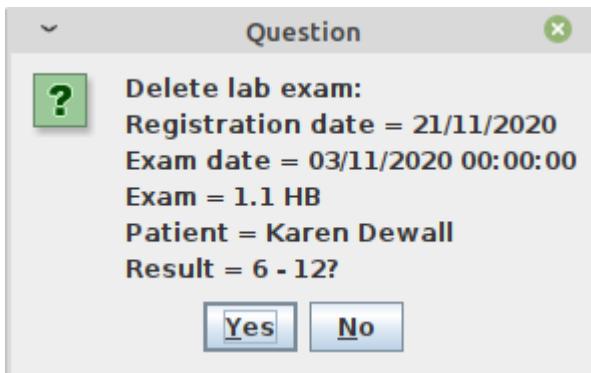
7.2.3 Modify a Laboratory Exam (Edit)

To modify an exam, highlight the exam in the **Laboratory Browser** window. Once highlighted, press the Edit button to enter the **Edit Laboratory Exam** window shown below. Now the record is available for changes. This function allows for editing all the data for the exam including setting the result of the exam.

The screenshot shows the 'Edit Laboratory Exam' dialog box. The 'Date' field is set to '03/11/20'. The 'Material' field is 'Undefined'. The 'Exam' field is '1.1 HB'. The 'Patient' field shows 'In' and 'Dewall Karen'. The 'Name' field is 'Karen Dewall', 'Age' is '70', and 'Sex (M/F)' is 'M'. The 'Note' field contains '7.1 g/dl'. Below these fields is a 'Result' section with a dropdown menu. The menu has four items: '6 - 12' (selected), '6 - 12', '< 6', and '>=12 (NORMAL)'. At the bottom of the dialog are three buttons: 'OK', 'Print', and 'Cancel'.

7.2.4 Delete Laboratory Exam (Delete)

To delete an exam, highlight the exam in the **Laboratory Browser** window. Once highlighted, press the Delete button, and a confirmation window is shown:



7.3 Laboratory Extended

The Laboratory functionality can be extended by changing the *LABEXTENDED* flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

7.3.1 Extended Laboratory Browsing

If the extended Laboratory functionality is enabled, the Laboratory Browser window shows a new column containing the name of the patient.

Laboratory Browser				
Select an exam	DATE	PATIENT	EXAM	RESULT
All	15/03/2021	Jeffreys Risa	3.1 Blood Slide (Malaria)	NEGATIVE
	15/03/2021	Jeffreys Risa	3.2 Blood Slide (OTHERS, E.G. TRIUPHANOSOMIAS, MCFILARIA, ...)	NEGATIVE
	15/03/2021	Deputy Darrell	7.3.3 GOT	<= 50 (NORMAL)
	15/03/2021	Deputy Darrell	7.3.4 ALT/GPT	> 50
	15/03/2021	Curtis Courson	8.1 OCCULT BLOOD	NEGATIVE
	15/03/2021	Nieves Julietta	3.1 Blood Slide (Malaria)	NEGATIVE
	15/03/2021	Nieves Julietta	3.21 Trypanosomiasis	NEGATIVE
	15/03/2021	Nieves Julietta	3.6 CSF WET PREP	NEGATIVE
	15/03/2021	Sara Hucklington	5.4 LEISMANIA	NEGATIVE
	15/03/2021	Sara Hucklington	7.4.1 CREATININA	1.4 - 2.5
	15/03/2021	Eddings Carmine	1.5 ESR	NORMAL
	13/03/2021	Geremia Dickinson	2.1 Grouping	AB RH+
	13/03/2021	Geremia Dickinson	7.4.1 CREATININA	< 1.4 (NORMAL)
	13/03/2021	Kenty Willis	3.1 Blood Slide (Malaria)	NEGATIVE
	13/03/2021	Kenty Willis	4.6 OTHER C&S	NEGATIVE
	13/03/2021	Bumpers Ferdinand	2.2 Comb's Test	NEGATIVE
	13/03/2021	Bumpers Ferdinand	3.1 Blood Slide (Malaria)	NEGATIVE
	13/03/2021	Mary Garrington	URINALYSIS	Multiple results
	23/11/2020	Quinilan Coors	7.1 PROTEIN	NEGATIVE
	23/11/2020	Quinilan Coors	7.2 SUGAR	NORMAL
	23/11/2020	Robert Kittelson	1.4 Film Comment	0
	23/11/2020	Robert Kittelson	1.6 Sickling Test	NEGATIVE
	23/11/2020	Robert Kittelson	4.1 CULTURE AND SENSITIVITY (C&S) FOR HAEMOPHILUS INFUEN...	POSITIVE
	23/11/2020	Janusz Lavery	1.4 Film Comment	0
	23/11/2020	Vincent Arata	4.6 OTHER C&S	NEGATIVE
	23/11/2020	Vincent Arata	5.4 LEISMANIA	NEGATIVE
	23/11/2020	Vincent Arata	6.4 HEPATITIS	NEGATIVE
	23/11/2020	Genna Susterlind	6.4 HEPATITIS	NEGATIVE
	23/11/2020	Genna Susterlind	6.5 OTHERS E.G. BRUCELLA, RHEUMATOID FACTOR, WEIL FELIX	NEGATIVE
	23/11/2020	Jestine Dacruz	5.5 ZN	NEGATIVE
	23/11/2020	Stanton Durrah	7.4.1 CREATININA	< 1.4 (NORMAL)
	23/11/2020	Stanton Durrah	7.4.2 UREA	10-55 (NORMAL)
	20/11/2020	Carmelina Rauch	1.2 WBC Count	4000 - 7000 (NORMAL)
	20/11/2020	Carmelina Rauch	5.5 ZN	NEGATIVE
	20/11/2020	Carmelina Rauch	5.6 WAYSON	NEGATIVE
	20/11/2020	Vanish Katrina	3.1 Blood Slide (Malaria)	+++

The presence of the patient name column is required by this mode.

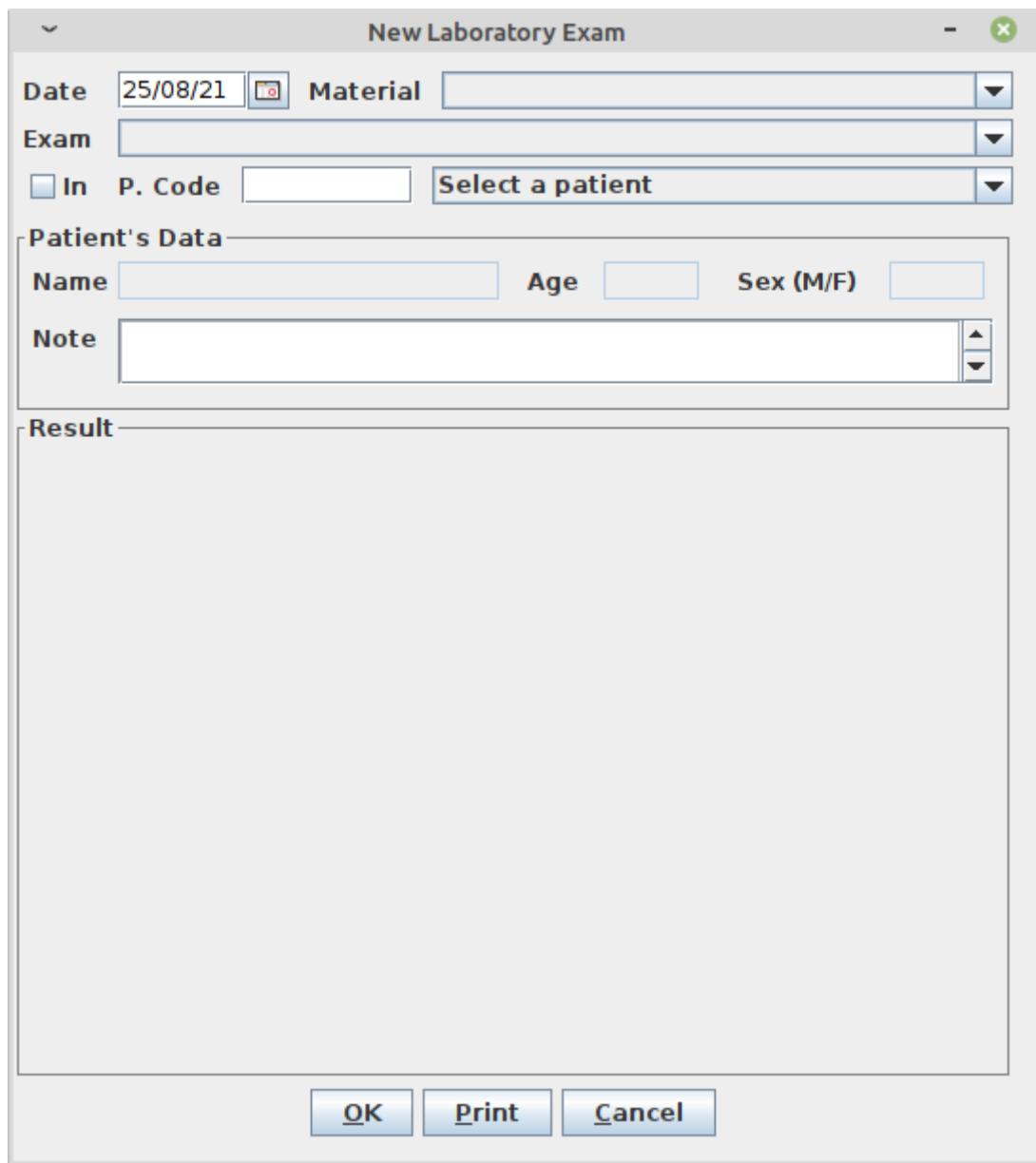
7.3.2 New Laboratory Exam (New)

The *New Laboratory Exam* window is now strictly related to the patient, that is to say, that the exam must be assigned to a patient previously registered in the system.

Before closing the window with the exam result a patient must be selected from the list; the fields in the **Patient's Data** panel provide some simple patient details.

A search field can be used to find a patient by typing part of his/her name or his/her Open Hospital code (which is specified in the Patient window, see *Patient Extended*).

The **New Laboratory Exam** window is shown:



The **Patient's Data** panel cannot be modified except for the **Note** field and only shows the information related to the selected patient.

7.3.3 Laboratory Multiple Insert

The *New Laboratory* functionality can be extended by changing the *LABMULTIPLEINSERT* flag in the configuration file. The flag *LABEXTENDED* has to be enabled too. Refer to the *Administration's Guide*.

The New Laboratory Multiple allows multiple exam insertion for each patient, avoiding repeating the new laboratory exam procedure ([New](#)) for every exam for the same patient.

7.3.3.1 New Patient Exams ([New](#))

Press the [New](#) button in the **Laboratory Browser** window: The **New Patient Exams** window is shown (including sample exam data):

New Patient Exams

Date	23/07/21 (16:11:03)	<input type="button" value=""/>						
Patient	<input type="text"/>	<input type="button" value="Find Patient"/>						
		<input type="radio"/> OPD <input type="radio"/> IP						
EXAM	RESULT							
1.1 HB	>=12 (NORMAL)	<input type="button" value="Exam"/>						
1.2 WBC Count	4000 - 7000 (NORMAL)	<input type="button" value="Remove"/>						
URINALYSIS	Multiple results	<input type="button" value="Material"/>						
		<input type="button" value="Undefined"/>						
		<input type="button" value="Result"/>						
<table border="1"> <tr> <td><input checked="" type="checkbox"/> BILIRUBIN</td> </tr> <tr> <td><input type="checkbox"/> HCG</td> </tr> <tr> <td><input checked="" type="checkbox"/> PROTEIN</td> </tr> <tr> <td><input type="checkbox"/> SEDIMENTS</td> </tr> <tr> <td><input type="checkbox"/> SUGAR</td> </tr> <tr> <td><input type="checkbox"/> UROBILINOGEN</td> </tr> </table>			<input checked="" type="checkbox"/> BILIRUBIN	<input type="checkbox"/> HCG	<input checked="" type="checkbox"/> PROTEIN	<input type="checkbox"/> SEDIMENTS	<input type="checkbox"/> SUGAR	<input type="checkbox"/> UROBILINOGEN
<input checked="" type="checkbox"/> BILIRUBIN								
<input type="checkbox"/> HCG								
<input checked="" type="checkbox"/> PROTEIN								
<input type="checkbox"/> SEDIMENTS								
<input type="checkbox"/> SUGAR								
<input type="checkbox"/> UROBILINOGEN								
Note <input type="text"/>								
<input type="button" value="OK"/> <input type="button" value="Print Label"/> <input type="button" value="Cancel"/>								

To record the visit, enter the following fields:

- **Date:** the date of the exam, the application defaults to the current date.
- **Patient:** select a patient by pressing the **Find Patient** button.
- **OPD/IPD:** the window automatically checks if the patient is admitted or not in the hospital; the value can be changed if needed.
- **Exam:** choose the exam; a first window asks for the material, then a second window asks for the exam, finally a third window asks for the result if the exam allows only a single result, otherwise the list of multiple results are shown in the right panel, together with the chosen material.
- **Remove:** remove a selected exam.
- **Note:** additional exam reporting (different for each exam).



At any time, before pressing **OK**, modifications can be made to every exam by clicking on it in the list and changing material, results, or notes in the related panels.

8 Accounting (Accounting)

8.1 Main Characteristics

Accounting is the function that is used to manage the billing process where bills for pharmaceuticals, operations, exams, and other costs of a patient are created and managed. Currently, the billing process is not linked with other functions of **Open Hospital** and therefore the application does not generate the accompanying billing information based on the therapy followed by the patient: the billing information must be input for all items manually.

In addition, the accounting function supports the management of bill payments (total or partial) and the generation of reports.

Submenu: Press the Accounting button or “Alt + C” to open the Accounting submenu



8.2 Functions of Accounting

All functions available under **Accounting** are accessible from the **Patients Bills Management** window shown below. To access the **Patient Bills Management** window press **Bill Manager** on the **Accounting** menu.

By default, the window shows in the **Data table** all the bills for today (current day).

Patient Bills Management

Today From 20/11/20 To 20/11/20 July 2021

Bills Pending Closed

ID	DATE	PAT. ID	PATIENT	AMOUNT	LAST PAYMENT	STATUS	BALANCE
24	20/11/20 - 00:26:01	151	Lien Notter	136.0	20/11/20 - 02:13:11	0	136.0
12	20/11/20 - 02:40:44	514	Mario Rossi	46.0	20/11/20 - 02:41:22	0	46.0
11	20/11/20 - 02:09:17	189	Jake Tibbets	224.0	20/11/20 - 02:11:33	0	74.0
10	20/11/20 - 00:44:37	180	Brock Boyter	145.0	23/11/20 - 14:23:3	0	145.0
9	20/11/20 - 00:43:04	191	Leonard Badgett	46.0	20/11/20 - 00:59:59	0	-34.0
8	20/11/20 - 00:37:45	141	Brandie Lutz	180.0	23/11/20 - 14:33:33	0	-70.0
7	20/11/20 - 00:36:56	167	Richard Gauldin	26.0	20/11/20 - 00:56:56	0	26.0
6	20/11/20 - 00:31:44	301	Noe Kruse	12.0	20/11/20 - 00:08:08	0	-68.0
5	20/11/20 - 00:30:47	125	Kristie Muldoon	64.0	20/11/20 - 00:51:51	0	64.0
4	20/11/20 - 00:30:23	445	Rodolfo Scoggins	68.0	20/11/20 - 01:23:23	0	68.0
3	20/11/20 - 00:28:30	503	Charlie Sturgeon	10.0		0	-110.0
2	20/11/20 - 00:26:01	245	Vanish Katrina	28.0		0	-2.0

Click to select or remove a patient from the data table

TODAY: UGX 0 Not Paid: UGX
PERIOD: UGX 980 Not Paid: UGX 275

New Bill Edit Bill Delete Bill Receipt Report Close

For each bill the following data are shown in the **Data table**:

- **ID**: the number of the bill (created automatically by the application).
- **Date**: the date and time of the bill creation.
- **Pat ID**: the patient's ID (created automatically by the application at the registration time).
- **Patient**: the patient's name.
- **Amount**: the total amount of the bill.
- **Last payment**: the date and time of the last payment.
- **Status**: the status of the bill; values are: "O" (open) if not fully paid; "C" (closed) if fully paid.
- **Balance**: the bill amount which has not yet been paid.

The following functions are accessible from the **Buttons panel** of the **Patient Bills Management** window:

- **Today**: (button on top of the window) shows in the **Data table** only the bills for the current day.
- **New Bill**: insert a new bill.
- **Edit Bill**: modify a stored bill if its status is "O" (Open).
- **Delete Bill**: delete a stored bill (does not remove the bill but changes the status to "D").
- **Receipt**: print a bill receipt.
- **Report**: print a variety of reports.
- **Close**: exit from **Patient Bills Management** and return to the main menu

Furthermore, the **Patient Bills Management** window shows an **Incomes Table** with the following information:

- **First Row:** the **PAID** and **UNPAID** amounts (in the specified currency) for **Today**
- **Second Row:** the **PAID** and **UNPAID** amounts (in the specified currency) for the visualized **Period**

8.2.1 Insert a New Bill (New Bill)

The **New Bill** function is used to generate a new bill for a patient. Press the **New Bill** button in the **Patients Bills Management** window to access the **New Patient Bill** window shown below.

To record a new bill it must be saved with the **Save** function (see description below).

Before describing the function of the **New Patient Bill** window the components of the window are described.

The **New Patient Bill** window is composed of four areas: the **Bill panel** at the top, the **Item panel** in the center, the **Payments panel** at the bottom, and the **Buttons panel** on the right.

Bills are composed of items. A billing item is a cost related to either a pharmaceutical, an operation, an exam, or other/custom costs.

Data shown in the **Bill panel** area are:

- **Date:** the date and time of the bill.
- **Patient:** the patient associated with the bill.
- **List:** the Price List that will be used for this bill

NOTE: Price Lists can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.

Data shown in the **Item Panel** area are:

- **ITEM, QTY, AMOUNT:** the descriptions of the bill entry, the selected quantity, and the amount; the amount is calculated as the unit cost of the item multiplied by the quantity;
- **TOTAL:** the total amount of the bill

NOTE: Prices, or unit costs, can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.

Data shown in the **Payments panel** area are:

- **Date:** the date and time of the payment.
- **Amount:** the amount of the payment.
- **BALANCE:** the remaining amount to be paid (the difference between the Total (*) and the sum of the payments).

New Patient Bill

Date	24/07/21 - 11:46:46	<input type="button" value=""/>	<input type="button" value="Find Patient"/>	<input type="button" value=""/>	admin
Patient	<input type="text"/>			List Basic <input type="button" value=""/>	
TOTAL		UGX	0	<input type="button" value="+ Medical"/> <input type="button" value="+ Operation"/> <input type="button" value="+ Exam"/> <input type="button" value="+ Other"/> <input type="button" value="+ Custom"/> <input type="button" value="✖ Remove Item"/>	
ITEM		QTY	AMOUNT		
TO PAY		UGX	0	<input type="button" value="+ Payment"/> <input type="button" value="+ Refund"/> <input type="button" value="Payment Receipt"/> <input type="button" value="✖ Remove Payment"/> <input type="button" value="Give Change"/>	
BALANCE		UGX	0	<input type="button" value="Save"/> <input type="button" value="Paid"/> <input type="button" value="Close"/>	

To insert a new bill **Date field** value is required. The application defaults to the current date and time but the values can be modified.

In addition, a patient must be selected. To do that, press the **Find Patient** button on top of the screen. The **Patient Selection** window is shown:

Patient Selection

<input type="text" value="Search Patient"/>	<input type="button" value="New Patient"/>																																																																		
<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th style="width: 10%;">CODE</th> <th style="width: 90%;">NAME</th> </tr> </thead> <tbody> <tr><td>519</td><td>Jeanna Rickember</td></tr> <tr><td>518</td><td>Jeremy Lindon</td></tr> <tr><td>517</td><td>Maria Njoko</td></tr> <tr><td>516</td><td>Genna Susterlind</td></tr> <tr><td>515</td><td>Alvaro Robertson</td></tr> <tr><td>514</td><td>Mario Rossi</td></tr> <tr><td>513</td><td>Makenzie Everton</td></tr> <tr><td>512</td><td>Millman Enriqueta</td></tr> <tr><td>511</td><td>Henderson Alba</td></tr> <tr><td>510</td><td>Racuba Scottie</td></tr> <tr><td>509</td><td>Ventier Asia</td></tr> <tr><td>508</td><td>De Koenig Melissa</td></tr> <tr><td>507</td><td>Westermann Fred</td></tr> <tr><td>506</td><td>Zabel John</td></tr> <tr><td>505</td><td>Curtney Gina</td></tr> <tr><td>504</td><td>Froue Jane</td></tr> <tr><td>503</td><td>Sturgeon Charlie</td></tr> <tr><td>502</td><td>Furlong Merryman</td></tr> <tr><td>500</td><td>Matthews Ruth</td></tr> <tr><td>499</td><td>Vessin Jordan</td></tr> <tr><td>498</td><td>Falky Mady</td></tr> <tr><td>497</td><td>Vernon Reklin</td></tr> <tr><td>496</td><td>Angelo Jaime</td></tr> <tr><td>495</td><td>Rodriguez Oscar</td></tr> <tr><td>494</td><td>James Veronica</td></tr> <tr><td>493</td><td>Musso Kina</td></tr> <tr><td>492</td><td>Ballantine Lashawna</td></tr> <tr><td>491</td><td>Holter Josette</td></tr> <tr><td>490</td><td>Cairo Tawnya</td></tr> <tr><td>489</td><td>Morning Mellisa</td></tr> <tr><td>488</td><td>Glennis Isabelle</td></tr> <tr><td>487</td><td>Johnson Tamia</td></tr> </tbody> </table>		CODE	NAME	519	Jeanna Rickember	518	Jeremy Lindon	517	Maria Njoko	516	Genna Susterlind	515	Alvaro Robertson	514	Mario Rossi	513	Makenzie Everton	512	Millman Enriqueta	511	Henderson Alba	510	Racuba Scottie	509	Ventier Asia	508	De Koenig Melissa	507	Westermann Fred	506	Zabel John	505	Curtney Gina	504	Froue Jane	503	Sturgeon Charlie	502	Furlong Merryman	500	Matthews Ruth	499	Vessin Jordan	498	Falky Mady	497	Vernon Reklin	496	Angelo Jaime	495	Rodriguez Oscar	494	James Veronica	493	Musso Kina	492	Ballantine Lashawna	491	Holter Josette	490	Cairo Tawnya	489	Morning Mellisa	488	Glennis Isabelle	487	Johnson Tamia
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487	Johnson Tamia																																																																		

Name:
Age:
Sex:
TOB:

Tax Number ID

Address

City

Parents

Next of Kin

Blood Type

Telephone

Marital Status

Insurance

Profession

Patient Notes

Once the patient is selected start entering the data related to the bill.



A patient can have several pending bills only if the parameter ALLOWMULTIPLEOPENEDBILL is enabled (see the Administrator Manual). Otherwise, if the patient has a pending bill, the bill will be recalled to edit it. A new bill cannot be started for a patient before closing the previous bill.

There are several types of bill categories (or types) identified by the buttons in the **Buttons panel** on the right of the window:

- **Medical:** enter bill entries for pharmaceuticals.
- **Operation:** enter bill entries for operations.
- **Exam:** enter bill entries for exams.
- **Other:** enter other prices defined in the Price List.
- **Custom:** enter custom items defined on the fly.



Types can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.

8.2.1.1 Insert a Bill Entry Related to Medicals, Operations or Exams (**Medical**, **Operation**, **Exam**)

We show here how to insert a bill entry for pharmaceutical (**Medical**); the function to insert a bill entry for operation (**Operation**) and exam (**Exam**) is the same with the only difference that for the

last two is not required the quantity (the quantity is always 1).

New Patient Bill

Date 24/07/21 - 11:58:02 admin

Patient Sara Hucklington List Basic ▾

TOTAL	UGX	10
ITEM	QTY	AMOUNT
Cyclophosphamide 500mg Vial	1	0.0
5 days of hospitalization	1	10.0

TO PAY	UGX	10
24/07/2021 - 11:59:09	7.0	

BALANCE	UGX	3
---------	-----	---

Medical

Operation

Exam

Other

Custom

Remove Item

Payment

Refund

Payment Receipt

Remove Payment

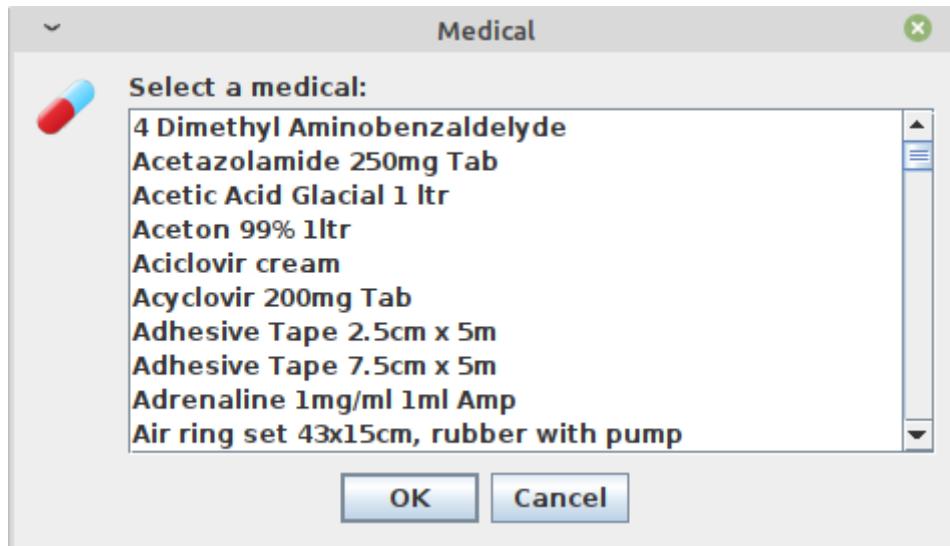
Give Change

Save

Paid

Close

To insert a bill entry, press the **Medical** button. The **Medical** window is shown:



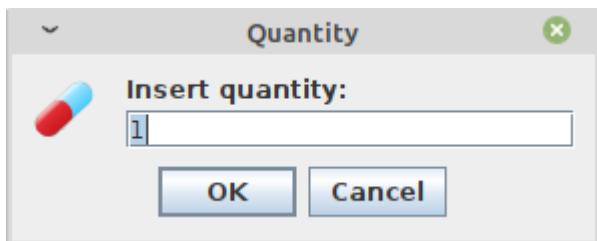
Using the mouse, highlight the required pharmaceutical (medical).

The **Buttons panel** of the **Medical** window has the following choices:

- **OK**: select the highlighted pharmaceutical

- Cancel: return to the *New Patient Bill* window without selecting any pharmaceutical

If **OK** is selected the *Quantity* window is shown, where the quantity of the pharmaceutical used by the patient can be entered:

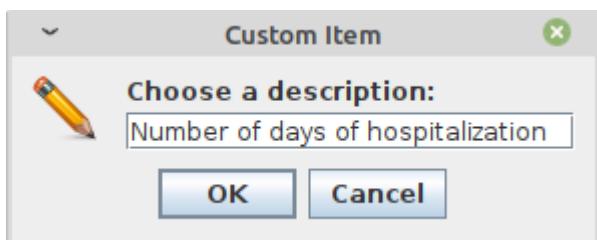


The **Buttons panel** of the *Quantity* window has the following choices:

- **OK**: select the highlighted pharmaceutical and return to the *New Patient Bill* window.
- Cancel: return to the *New Patient Bill* window without selecting any pharmaceutical.

8.2.1.2 Insert a Bill Entry Related to Various Custom Reasons (**Custom**)

To insert a custom bill entry press the **Custom** button. The application will show the *Custom Item* window shown below.



In this window enter a description for the custom item (in the example below is “Number of days of hospitalization”).

The **Buttons panel** of the *Custom Item* window has the following choices:

- **OK**: go to another *Custom Item* window (to enter the quantity, see below).
- Cancel: return to the *New Patient Bill* window without inserting any custom bill entry.



In the *Custom Item* window enter the amount related to the bill entry (in the example above the “20” is in the local currency, i.e., it is in US dollars if the country is the USA).

The **Buttons panel** of the *Custom Item* window has the following choices:

- **OK**: confirm the bill entry and return to the *New Patient Bill* window.

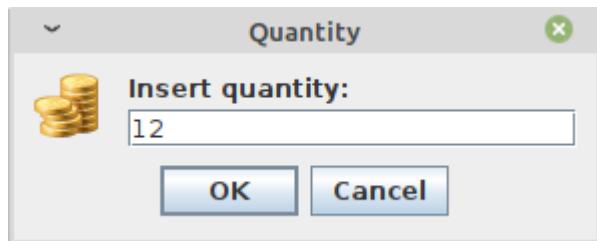
- Cancel: return to the **New Patient Bill** window without inserting any bill entry.

8.2.1.3 Remove a Bill Entry of a Bill (Remove Item)

To remove a bill entry select the bill in the **New Patient Bill** window and then press the **Remove Item** button. The selected bill entry is removed. Bill entries can be removed before or after the final saving (see [Save function](#) described below).

8.2.1.4 Insert a Payment (Payment)

To insert a payment press the **Payment** button. The application shows the **Quantity** window shown below.



Provide the amount of the payment (in the example above is “12” in the local currency, i.e. it is US dollars if the country is the USA) in the text field.

The **Buttons panel** of the **Quantity** window has the following choices:

- OK: confirm the payment and return to the **New Patient Bill** window.
- Cancel: return to the **New Patient Bill** window without inserting any payment.

8.2.1.5 Insert a Refund (Refund)

Sometimes the cashier has to process a refund for the patient; in this case, press the **Refund** button and insert the amount of the refund. The amount is converted to a negative value and added to the payments list.

8.2.1.6 Payment Receipt (Payment Receipt)

A Payment receipt can be printed at any time given that at least one payment is made. Click the **Payment Receipt** button.

8.2.1.7 Remove a Payment (Remove Payment)

A payment can be removed by selecting the payment in the **New Patient Bill** window and then pressing the **Remove Payment** button.

8.2.1.8 Give Change (Give Change)

Sometimes it could be useful to calculate the difference between the bill balance and the payment amount the patient is making when paying their bill. By pressing the **Give Change** button the amount the patient is paying must be specified and the program calculates the difference between the payment and the current bill balance. If the amount being paid is greater than the bill balance (i.e., they are overpaying) the amount of change to give to the patient is displayed.

8.2.1.9 Save Function (Save)

When all the data input for a bill is completed (bill or payments) press the **Save** button in the **Buttons panel** of the **New Patient Bill** window.

The application saves the bill and returns to the **Patient Bills Management** window; the status of the bill is “O” (Open) until it is PAID (**Paid**).

8.2.1.10 Paid Function (Paid)

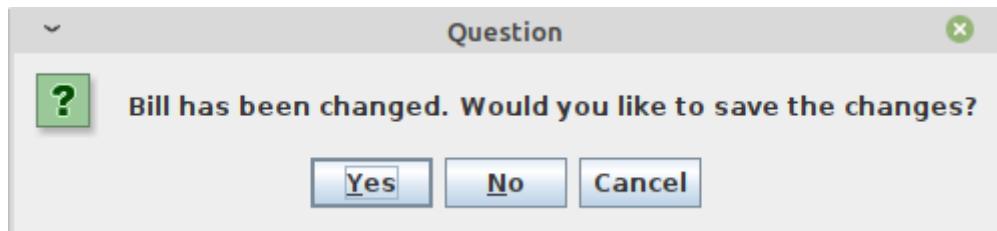
If the patient is going to pay the complete amount of the bill press the **Paid** button. If the balance is not equal to zero the system automatically adds a payment in the payments list equal to the balance and sets the bill as “C” (Closed).

8.1.2.11 Print Receipt Function

A receipt can be printed at any time by pressing the **Paid** button. *To enable this feature, the RECEIPTPRINTER flag in the configuration file must be set and a proper printer device must be connected to the system. Ask the Administrator or refer to the Administrator’s Guide.*

8.2.1.12 Close Function (Close)

The close function allows for optionally exiting from the **New Patient Bill** window without saving changes. Press the **Close** button to access the close function. The confirmation window is shown:



8.2.2 Edit an Existing Bill (Edit Bill)

To modify an existing bill select the bill in the **Patient Bills Management** window and then press the **Edit Bill** button. The **Edit Patient Bill** window is shown:

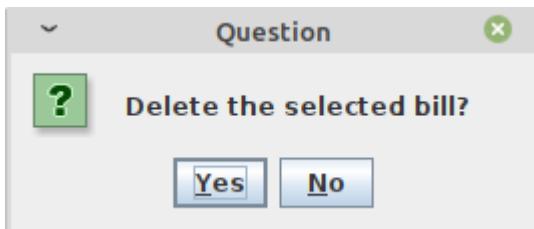
Edit Patient Bill: 6

Date	20/11/20 - 00:31:44	<input type="button" value="Change Patient"/>	admin												
Patient	Noe Kruse	List Basic	<input type="button" value=""/>												
<table border="1"> <thead> <tr> <th>TOTAL</th> <th>UGX</th> <th>52</th> </tr> <tr> <th>ITEM</th> <th>QTY</th> <th>AMOUNT</th> </tr> </thead> <tbody> <tr> <td>Creatinine 200ml (Calorimetric)</td> <td>4</td> <td>40.0</td> </tr> <tr> <td>3.2 Blood Slide (OTHERS, E.G. T...</td> <td>1</td> <td>12.0</td> </tr> </tbody> </table>			TOTAL	UGX	52	ITEM	QTY	AMOUNT	Creatinine 200ml (Calorimetric)	4	40.0	3.2 Blood Slide (OTHERS, E.G. T...	1	12.0	<input type="button" value="Medical"/> <input type="button" value="Operation"/> <input type="button" value="Exam"/> <input type="button" value="Other"/> <input type="button" value="Custom"/> <input type="button" value="Remove Item"/>
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ITEM	QTY	AMOUNT													
Creatinine 200ml (Calorimetric)	4	40.0													
3.2 Blood Slide (OTHERS, E.G. T...	1	12.0													
<table border="1"> <thead> <tr> <th>TO PAY</th> <th>UGX</th> <th>52</th> </tr> </thead> <tbody> <tr> <td>20/11/2020 - 00:32:08</td> <td>80.0</td> <td></td> </tr> </tbody> </table>			TO PAY	UGX	52	20/11/2020 - 00:32:08	80.0		<input type="button" value="Payment"/> <input type="button" value="Refund"/> <input type="button" value="Payment Receipt"/> <input type="button" value="Remove Payment"/> <input type="button" value="Give Change"/> <input type="button" value="Save"/> <input type="button" value="Paid"/> <input type="button" value="Close"/>						
TO PAY	UGX	52													
20/11/2020 - 00:32:08	80.0														
<table border="1"> <thead> <tr> <th>BALANCE</th> <th>UGX</th> <th>-28</th> </tr> </thead> </table>			BALANCE	UGX	-28										
BALANCE	UGX	-28													

i Only bills with status “O” (Open) can be modified, otherwise, an A4 report will be shown.

8.2.3 Delete a Bill (Delete Bill)

To delete an existing bill select the bill in the **Patient Bills Management** window and press the **Delete Bill** button. The **Delete** window is shown:



i Generally, this functionality is not allowed for regular users and should be performed only by the Administrator.

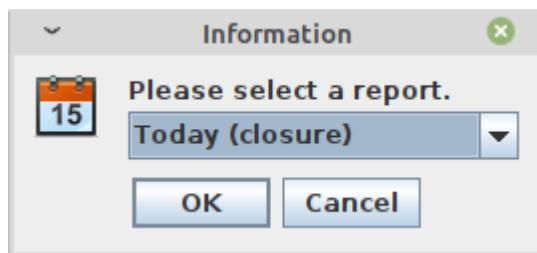
8.2.4 Receipt (Receipt)

A bill receipt can be printed directly from the **Patient Bills Management** window. Highlight the bill and click the **Receipt** button. A proper printer device must be connected to the system.

8.2.5 Reports (Report)

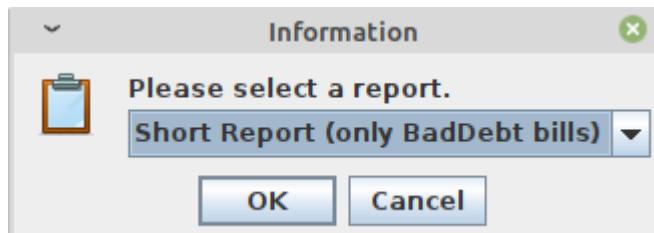
The Open Hospital accounting module comes with a set of reports hereby listed:

- **Today (Closure):** a report that shows the current user incomes
- **Today:** a report that shows a statement with all paid and unpaid bills within today
- **Period:** a report that shows a statement with all paid and unpaid bills within the period currently selected
- **This month:** a report that shows a statement with all paid and unpaid bills within the current month
- **Other month:** a report that shows a statement with all paid and unpaid bills within a specified month



For each report, except Today (Closure), one of the following options must be chosen:

- **Short Report (only BadDebts bills):** a report that shows a statement with only the unpaid bills and the total for the others
- **Full Report (all bills):** a report that shows a statement with all paid and unpaid bills
- **OH23A1-open bills list:** a report that shows the list of opened bills (pending bills)



Once the choice has been made, after some time the JasperViewer® will show the generated report as follows:

JasperViewer

St. Luke HOSPITAL - Angal
P.O. BOX 85 - NEBBI - ANGAL
angal@ucmb.ug.co.
+256 0472621076

Periodical Incomes/Billed and Receivables Report(with pending)

report from 20/11/2020 TO 20/11/2020

Bill ID	Date	Patient	Amount	Last Payment	Paid	Balance	Status
24	(20/11/20)	151 - Lien Notter	136.00	20/11/2020		136.00	O
2	(20/11/20)	245 - Vanish Katrina	28.00	23/11/2020		-2.00	O
3	(20/11/20)	503 - Charlie Sturgeon	10.00	20/11/2020	120.00	-110.00	O
4	(20/11/20)	445 - Rodolfo Scoggins	68.00	20/11/2020		68.00	O
5	(20/11/20)	125 - Kristie Muldoon	64.00	20/11/2020		64.00	O
6	(20/11/20)	301 - Noe Kruse	12.00	20/11/2020	80.00	-68.00	O
7	(20/11/20)	167 - Richard Gauldin	26.00	20/11/2020		26.00	O
8	(20/11/20)	141 - Brandie Lutz	180.00	23/11/2020	500.00	-70.00	O
9	(20/11/20)	191 - Leonard Badgett	46.00	20/11/2020	80.00	-34.00	O
10	(20/11/20)	180 - Brock Boyter	145.00	23/11/2020	50.00	145.00	O
11	(20/11/20)	189 - Jake Tibbetts	224.00	20/11/2020	150.00	74.00	O
12	(20/11/20)	514 - Mario Rossi	46.00	20/11/2020		46.00	O
			985.00		980.00	275.00	

Page 1 of 1



By default, an internal PDF viewer is used. An external PDF reader can be used by modifying the INTERNALVIEWER flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

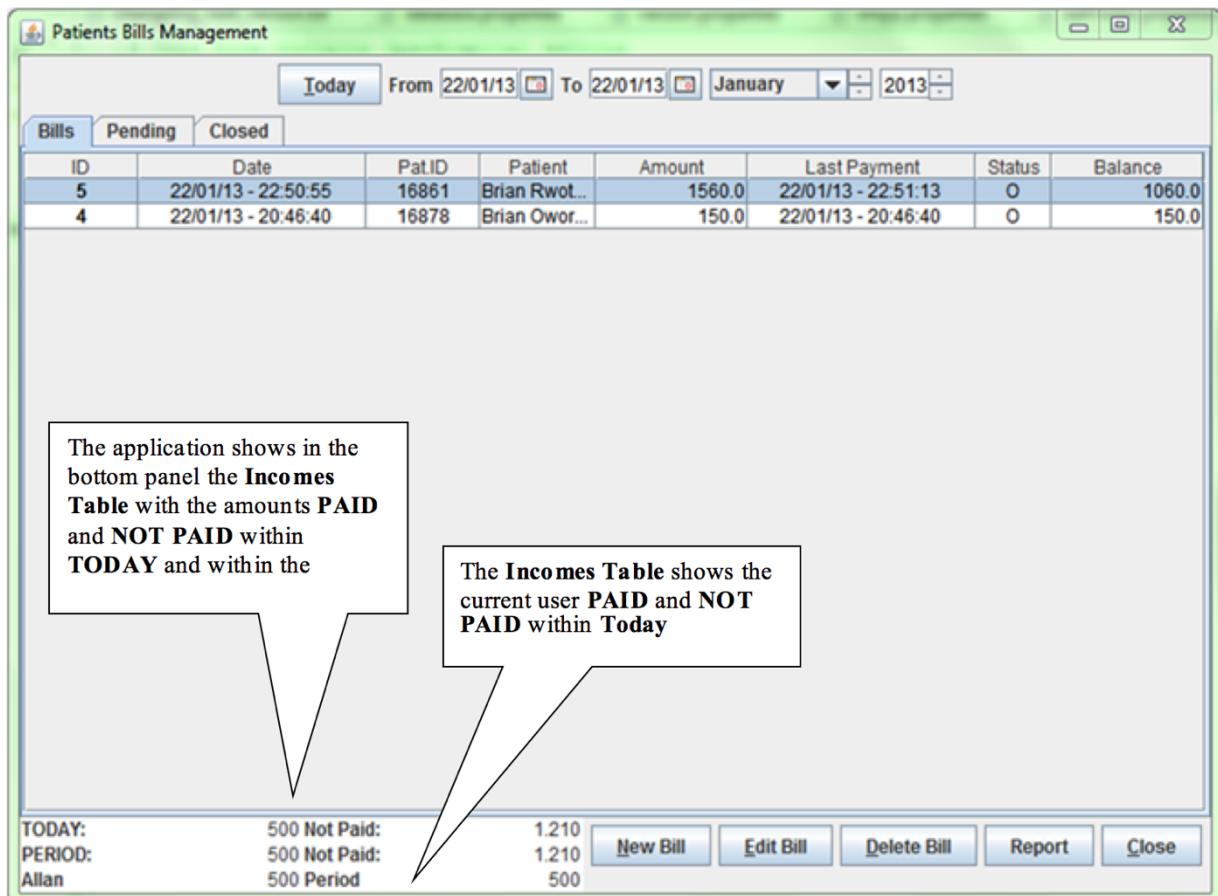
The PDF report can be saved by clicking on the save button (). The report can also be printed by clicking on the print button ().



A PDF copy of every report is always saved within the folders of Open Hospital. Ask the Administrator or refer to the *Administrator's Guide*.

8.3 Functions of Accounting in Multi-user Mode

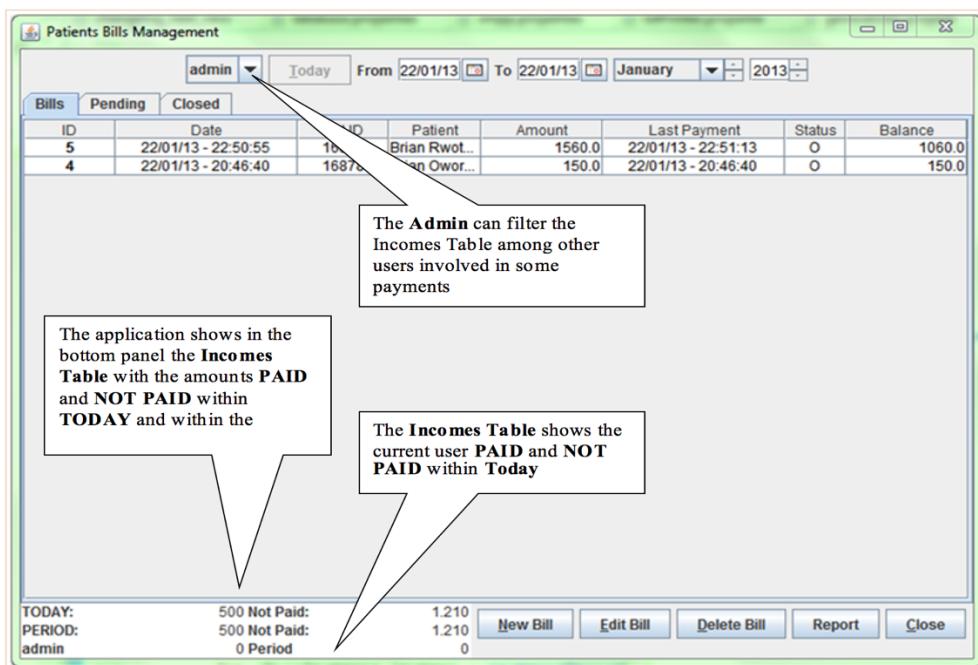
In multi-user mode, the Incomes Table will show only the Incomes for the logged user:



So, the **Incomes Table** will show the following information:

- **First Row:** the **PAID** and **UNPAID** for **Today**
- **Second Row:** the **PAID** and **UNPAID** for the specified **Period**
- **Third Row:** the **PAID** and **UNPAID** for the current **user** for **Today**

The Administrator user can filter all incomes for all users have some payment amount:



9 Vaccines (Vaccines)

9.1 Main Characteristics

The vaccines functions are used to manage vaccines for all the registered patients. It is possible to register vaccinations, modify or delete them. A specific search function is also available.

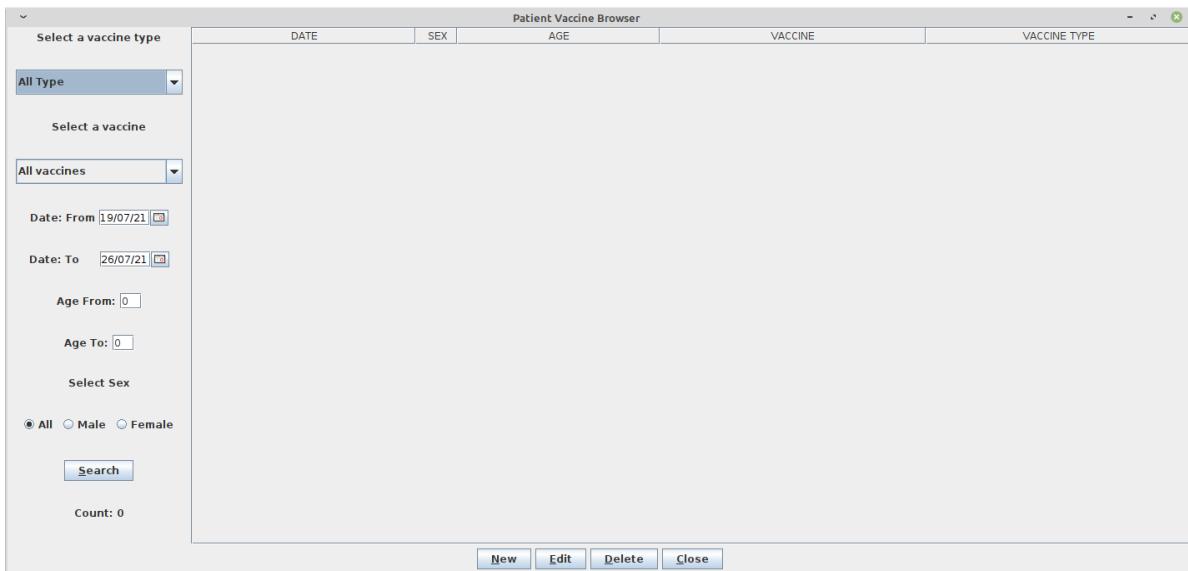
*Click with the mouse on the button or press "Alt + V" to enter the **Patient Vaccine Browser** window*



9.2 Functions of Vaccines

All functions available under **Vaccines** are accessible from the window **Patient Vaccine Browser** window shown below.

By default, the window shows in the **Data table** all the vaccinations added to the system in the last week.



The following functions are accessible from the **Buttons panel** of the window **Patient Vaccine Browser** window:

- **New**: insert a new vaccination.
- **Edit**: modify a stored vaccination.
- **Delete**: delete a stored vaccination.
- **Close**: exit from the **Patient Vaccine Browser** window and return to the main menu.

Furthermore, there is a search function available in the **Selection panel** on the left of the window.

9.2.1 Search Vaccinations

Queries about vaccinations can be done using the search criteria available in the **Selection panel** area of the window (left side of the window). The results of the search are shown in the **Data table** area.

Vaccinations can be selected by choosing specific field values from the following list:

- **Vaccine type**: selection of a vaccine type to filter the vaccines list
- **Vaccine**: select a specific vaccine or all vaccines with "All vaccines"
- **Date**: "Date: From" and "Date: To" subsets the vaccinations to a specific time period
- **Age**: "Age From" and "Age To" subsets the patients subject to vaccinations by an age range
- **Sex**: All / Male / Female



Vaccine Types and Vaccines can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.

After the selection press the **Search** button; the system shows in the **Data table** the results of applying the search criteria requested.

The function also shows in the field "Count:" the number of vaccinations that are shown in the **Data table** (in the example there are 26).

Patient Vaccine Browser					
Select a vaccine type	DATE	SEX	AGE	VACCINE	VACCINE TYPE
All Type	15/03/2021	M	0	POLIO 1 C	Child
	15/03/2021	F	36	TT VACCINE DOSE 2	Pregnant
	15/03/2021	M	53	TT VACCINE DOSE 3	Pregnant
	15/03/2021	M	52	TT VACCINE DOSE 4	Pregnant
	23/11/2020	M	56	POLIO 3 C	Child
	23/11/2020	F	48	TT VACCINE DOSE 2	Pregnant
Select a vaccine	23/11/2020	M	12	MEASLES	Child
All vaccines	22/11/2020	M	0	POLIO 3 C	Child
	21/11/2020	F	4	POLIO 1 C	Child
	21/11/2020	M	1	MEASLES	Child
	21/11/2020	F	50	POLIO 2 C	Child
Date: From:	19/07/01	F	50	TT VACCINE DOSE 3	Pregnant
Date: To:	26/07/21	F	28	TT VACCINE DOSE 2	Pregnant
Age From:	0	F	0	DPT 2 - HepB + Hib 1	Child
Age To:	0	M	40	DPT 2 - HepB + Hib 1	Child
Select Sex	19/11/2020	F	1	POLIO 1 C	Child
	20/11/2020	F	0	DPT 2 - HepB + Hib 1	Child
	20/11/2020	F	40	DPT 3 - HepB + Hib 1	Child
	20/11/2020	F	41	TT VACCINE DOSE 2	Pregnant
	20/11/2020	F	4	MEASLES	Child
	20/11/2020	M	15	BCG	Child
	20/11/2020	F	78	TT VACCINE DOSE 5	No pregnant
	20/11/2020	M	12	BCG	Child
	20/11/2020	M	34	POLIO 3 C	Child
	19/11/2020	M	29	TT VACCINE DOSE 3	No pregnant

(All Male Female)

Count: 26

9.2.2 Insert a New Patient Vaccination (New)

This function is used to register a new patient vaccination.

Press the **New** button in the **Patient Vaccine Browser** window to access the **New Patient Vaccine** window shown below.

New Patient Vaccine

Date	26/07/21	<input type="button" value=""/>	Progressive	27						
Search Patient	<input type="text"/>	<input type="button" value="Select a patient"/>	<input type="button" value=""/>							
Vaccine Type	<input type="button" value="All Type"/>									
Vaccine	<input type="button" value="All vaccines"/>									
Patient's data <table border="1"> <tr> <td>Name</td> <td><input type="text"/></td> <td>Age</td> <td><input type="text"/></td> <td>Sex (M/F)</td> <td><input type="text"/></td> </tr> </table>					Name	<input type="text"/>	Age	<input type="text"/>	Sex (M/F)	<input type="text"/>
Name	<input type="text"/>	Age	<input type="text"/>	Sex (M/F)	<input type="text"/>					
<input type="button" value="OK"/> <input type="button" value="Cancel"/>										

To record a new patient vaccination enters the following fields:

- Date:** the date of the vaccination
- Progressive:** the progressive number in the year (set automatically by the system)
- Patient:** select the patient by entering the **Patient code** or alternatively selecting a patient
- Vaccine Type:** the Vaccine Type
- Vaccine:** the vaccine



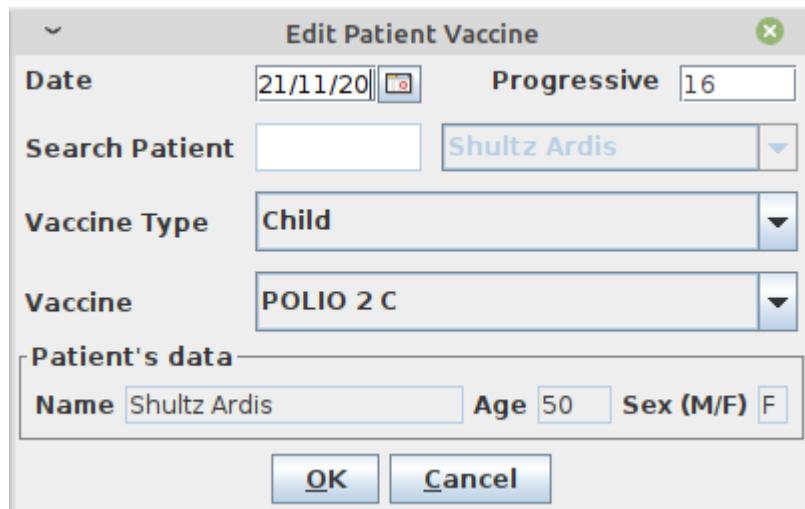
Vaccine Types and Vaccines can be defined by the Administrator. Ask the Administrator or check the **Settings** chapter.

When all the required information is entered the **Buttons panel** has the following choices:

- **OK:** confirm the data and record the patient vaccination.
- **Cancel:** close the window and return to the **Patient Vaccine Browser** window without recording the patient vaccination,

9.2.3 Modify Data of a Recorded Patient Vaccination (Edit)

To modify data of a patient vaccination select the vaccination in the **Patient Vaccine Browser** window and then press the **Edit** button. When the **Edit Patient Vaccine** window is shown, the record is available for changes. Date, vaccine type, and the vaccine can be changed:



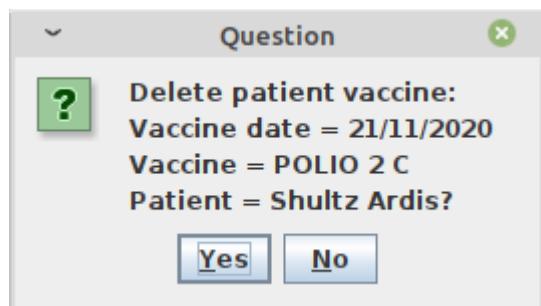
All the data for the vaccination can be changed except for the patient associated with the vaccination.

Once all the changes are made the **Buttons panel** has the following choices:

- **OK:** confirm the new values (all the previous values will be lost).
- **Cancel:** close the window and return to the **Patient Vaccine Browser** window without changing any values.

9.2.4 Delete a Patient Vaccination (Delete)

To delete a stored patient vaccination select the vaccination in the table in the **Patient Vaccine Browser** window. Next, press the **Delete** button. The confirmation window is shown. The vaccination can then be deleted. Deleted vaccinations are no longer available.



9.3 Vaccines Extended (Vaccines)

The vaccine functionality can be extended by changing the *PATIENTVACCINEEXTENDED* flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

9.3.1 Extended Vaccine Browsing

The extended version of the window looks like the following:

Patient Vaccine Browser						
Select a vaccine type	DATE	PATIENT	SEX	AGE	VACCINE	VACCINE TYPE
All Type	15/03/2021	Vessin Jordan	M	0	POLIO 1 C	Child
	15/03/2021	Genina Justterin	F	36	TT VACCINE DOSE 2	Pregnant
	15/03/2021	Jeremy Anthon	M	53	TT VACCINE DOSE 3	Pregnant
	15/03/2021	Marcus Kellop	M	52	TT VACCINE DOSE 4	Pregnant
Select a vaccine	23/11/2020	Heard Elma	M	56	POLIO 3 C	Child
	23/11/2020	Orbison An	F	48	TT VACCINE DOSE 2	Pregnant
	23/11/2020	Horwitz Stuart	M	12	MEASLES	Child
	22/11/2020	Rochester Lenny	M	0	POLIO 3 C	Child
All vaccines	21/11/2020	Lounsbury Valda	F	4	POLIO 1 C	Child
	21/11/2020	Milda Sergeant	M	1	MEASLES	Child
	21/11/2020	Shultz Ardis	F	50	POLIO 2 C	Child
Date: From	19/07/20	Madaline Mincks	F	50	TT VACCINE DOSE 3	Pregnant
	20/11/2020	Ciancio Michale	F	28	TT VACCINE DOSE 2	Pregnant
Date: To	26/07/21	Batman Camelia	F	0	DPT 2 - HepB + Hib 1	Child
	20/11/2020	Norman Ali	M	40	DPT 3 - HepB + Hib 1	Child
Age From:	0	Erdmann Dustin	F	1	POLIO 1 C	Child
	20/11/2020	Delnero Vernal	F	0	DPT 2 - HepB + Hib 1	Child
Age To:	0	Mcguirk Bennett	F	40	DPT 3 - HepB + Hib 1	Child
Select Sex	19/11/2020	Hortense Saucedo	F	41	TT VACCINE DOSE 2	Pregnant
	20/11/2020	Shonda Deschamp	F	4	MEASLES	Child
	20/11/2020	Andrepoint Golden	M	15	BCG	Child
	20/11/2020	Su Veloz	F	78	TT VACCINE DOSE 5	No pregnant
	20/11/2020	Abdul Burton	M	32	TT VACCINE DOSE 4	Pregnant
	20/11/2020	Mcsherry Mortimer	M	12	BCG	Child
	20/11/2020	Merrihew Pamila	M	34	POLIO 3 C	Child
	19/11/2020	Mario Rossi	M	29	TT VACCINE DOSE 3	No pregnant

The only difference is that there is a new column containing the name of the patient.

10 Admission/Patient (Admission/Patient)

10.1 Main Characteristics

The Admission/Patient functionality allows registering a new patient, modifying their personal details, browsing their history, and admitting them to a hospital ward.

*Click with the mouse on the button or press "Alt + A" to enter the **Patient Browser** window*



An OPD registration can be started from here if the OPDEXTENDED flag is set to YES. Ask the Administrator or refer to the *Administrator's Guide*.

10.2 Functions of Admission/Patients

All the functions available under **Admission/Patient** are accessible from the **Patient Browser** window shown below.

By default, the window shows a **Data table** all of the patients currently present in the system.

Patient Browser						
Admission Status	CODE	NAME	AGE	SEX	CITY / ADDRESS / TELEPHONE / NOTE	WARD
All	531	Mario Rossi	28y 10m 4d	F	Via Verdi - Roma	
	529	Sara Huckleington	0y 9m 6d	F	Kulele - Long Road 1 - +39	
Ward	528	Kenty Willis	14y 6m 20d	F	Jikney - Furja Street 81 - +3914413	
<input checked="" type="checkbox"/> CHILDREN WARD	527	Marcus Kellop	52y 9m 27d	M	Mirly - Fullister Pl. 45/b - +396153134	
<input checked="" type="checkbox"/> FEMALE WARD	526	Genina Justerin	36y 5m 30d	F	Uribe - Ghoulan Rd 231 - +393452432	
<input checked="" type="checkbox"/> MALE WARD	525	Mary Garrington	0y 7m 17d	F	Kendring - Ganston - +39	
<input checked="" type="checkbox"/> MATERNITY WARD	524	Geremia Dickinson	67y 8m 20d	M	Kellog - Springfield - +39	
Count: 478	523	Quinlan Coors	6y 10m 19d	M	Derbyshire - Franklin St 12 - +416824999	
Age	522	Harry Colterson	62y 7m 7d	M	Ottee - Westeman St. 12 - +912314411	MALE WARD
From: [] To: []	521	Betta Jamison	10y 10m 1...	F	Kensington - Kinney Rd. 43 - +39	
Sex	520	Rochester Lenny	0y 10m 20d	M	Warengton - Letterman St. 512 - +005199944	
All	519	Jeanna Rickember	3y 10m 22d	F	Justin - Lavon Road 62 - +2243143213	
Search Key	518	Jeremy Lindon	58y 3m 1d	M	Misurel - Stenton Plaza 151 - +394252422	
	517	Maria Njoko	20y 6m 2d	F	West Kurtika - Mong Road 56 - +2434334	
	516	Genna Susterlind	46y 3m 4d	F	Rudkenny - Genev Road 77 - +3813144111	
	515	Alvaro Robertson	12y 1m 30d	M	Guarinton - Courtney ST. 27 - +39	
	514	Mario Rossi	28y 10m 3d	M	Roma - Via Verdi - +397653431	
	513	Makenzie Everton	27y 9m 29d	M	Albrington - Wayland 21 - +3924534314	
	512	Millman Enriqueta	80y 10m 9d	F	Crossing - Hartney St. 55	
	511	Henderson Alba	53y 10m 9d	F	Street - South Ilford	
	510	Racuba Scottie	42y 10m 9d	F	Valley south - Montgomery road 11 - +12-4354154	



If the list of patients becomes very large it is likely to result in a slowdown of the system depending on the network settings. It is possible to optimize the use of memory by changing the flag ENHANCEDSEARCH in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

The following data are shown in the **Patient Browser** window:

- **Code:** the patient's code (automatically generated by the application)
- **Name:** the patient's full name
- **Age:** the patient's age in years, months, and days
- **Sex:** the patient's sex
- **City / Address / Telephone / Note:** all this information separated by a “-“
- **Ward:** the ward where this patient is currently admitted; this field is blank if the patient is not admitted to the hospital at the current time

The following functions are accessible from the **Buttons panel** of the window **Patient Browser** window:

- **New:** insert a new patient.
- **Edit:** modify an existing patient.
- **Delete:** delete an existing patient.
- **Admission:** manage the admission of the patient in the hospital.
- **Examination:** manage the patient examination.
- **OPD:** start an OPD visit on the selected patient.
- **Bill:** start a bill on the selected patient.
- **Data:** modify data for a patient including the history of their admissions/out of patient visits as well as their malnutrition data.
- **Clinical Sheet:** analyze the clinical sheet of a patient and print it.
- **Therapy:** manage the therapy of a patient.
- **Close:** exit from the **Patient Browser** window and return to the main menu.



It is possible to have a **Merge** function that can be used in the case of double patient registration, by changing the flag MERGEFUNCTION in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

Furthermore, a search function is available using the **Selection panel** on the left of the window.

10.2.1 Search Patient

Queries about patients can be done using the search criteria available in the **Selection panel** area of the window (left side of the window). The results of the search are shown in the **Data table** area.

Patient selection can be accomplished by specifying a specific value for the fields in the following list:

- **Admission Status.** The choices are:
 - **All:** all patients are included in the selection
 - **Admitted:** only patients admitted are included in the selection
 - **Not Admitted:** only patients not admitted are included in the selection
- **Ward** Select one or more wards:
 - **Children Ward**
 - **Female Ward**
 - **Male Ward**
 - **Maternity Ward**
- **Age.** specify the patient's age range
- **Sex.** specify the patient's gender:
 - **All**
 - **Male**
 - **Female**
- **Search Key** Any character string entered is matched against the patient's name and address. A complete string or only some characters can be entered and the system will show all the patients matching the string. For example, entering, "isabe", will result in all patients that have "isabe" in their name being selected and displayed; so both "Glennis Isabelle" and "Isaiah Isabelle" are shown.

Patient Browser

CODE	NAME	AGE	SEX	CITY / ADDRESS / TELEPHONE / NOTE	WARD
488	Glennis Isabelle	6y 10m 9d	F	Grove - Downers	
317	Isaiah Isabelle	72y 10m 9d	M	GA - Cartersville	

Admission Status
All

Ward
 CHILDREN WARD
 FEMALE WARD
 MALE WARD
 MATERNITY WARD
Count: 2

Age
From: _____ To: _____

Sex
All

Search Key
isabe

Buttons: New | Edit | Delete | Admission | Examination | QPD | Bill | Data | Clinical Sheet | Therapy | Merge | Close



Wards can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.

10.2.2 Search Patient Enhanced

Memory usage can be optimized when the number of registered patients becomes huge by changing the *ENHANCEDSEARCH* flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

Once the enhanced search has been enabled the new **Patient Browser** window looks like following:

Patient Browser

CODE	NAME	AGE	SEX	CITY / ADDRESS / TELEPHONE / NOTE	WARD
------	------	-----	-----	-----------------------------------	------

Admission Status
All

Ward
 CHILDREN WARD
 FEMALE WARD
 MALE WARD
 MATERNITY WARD
Count: 0

Date
Admission Date *
From: _____ To: _____

Discharge Date
From: _____ To: _____

Age
From: _____ To: _____

Sex
All

Search Key

Buttons: New | Edit | Delete | Admission | Examination | QPD | Bill | Data | Clinical Sheet | Therapy | Merge | Close

Initially, the list is empty. To show some patients, enter a search criterion in the **Search Key** field and then press the search (button and the window will show only patients matching the specified criteria.

Patient Browser

CODE	NAME	AGE	SEX	CITY / ADDRESS / TELEPHONE / NOTE	WARD
488	Glennis Isabelle	6y 10m 9d	F	Grove - Downers	CHILDREN WA...
317	Isaiah Isabelle	72y 10m 9d	M	GA - Cartersville	MALE WARD

Admission Status
All

Ward
 CHILDREN WARD
 FEMALE WARD
 MALE WARD
 MATERNITY WARD
Count: 2

Date
Admission Date *
From: To:

Discharge Date
From: To:

Age
From: To:

Sex
All

Search Key
isabe|

New Edit Delete Admission Examination OPD Bill Data Clinical Sheet Therapy Merge Close

Moreover, further search criteria are added in this mode:

- **Admission Date:** search for all patients admitted in between the specified dates, regardless if they are still admitted or not
- **Discharge Date:** search for all patients discharged in between the specified dates, regardless if they were admitted again later on



To show the full patient list again just press the search button with an empty search criterion.

10.3 Insert a New Patient (New)

This function is used to register a new patient into the hospital.

Press the **New** button in the **Patient Browser** window to access the **New Patient** window shown below.

New Patient

Insert data for a new patient

First Name *	<input type="text"/>
Second Name *	<input type="text"/>
Age *	<input type="text"/>
Sex * <input checked="" type="radio"/> Male <input type="radio"/> Female	
Address	<input type="text"/>
City	<input type="text"/>
Next of Kin	<input type="text"/>
Telephone	<input type="text"/>
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

Note

To record a new patient, enter the following fields:

- **First Name:** the patient's first name
- **Second Name:** the patient's last name or other names
- **Age:** the patient's age in years
- **Sex:** the patient's sex: male or female
- **Address:** the address of where the patient lives
- **City:** the city where the patient lives
- **Next of Kin:** the name of the patient's closest relative
- **Telephone:** the patient's telephone number
- **Note:** A free text for adding notes about the patient

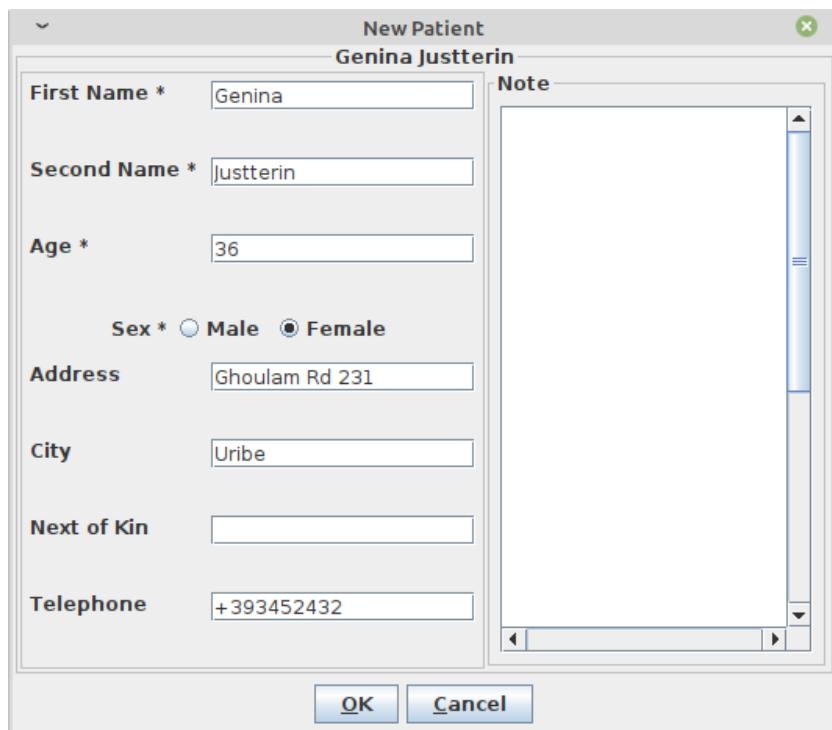
When finished entering the data the **Buttons panel** has two choices:

- **OK:** confirm the data and add the patient's record.
- **Cancel:** close the window and return to the **Patient Browser** window without adding the patient.

10.3.1 Modify Data of a Patient (Edit)

To modify the data of a patient select the patient in the **Patient Browser** window and then press the **Edit** button. When the **New Patient** window is shown, the record is available for changes. All

the data can be changed.



When finished modifying the data in the **Buttons panel** there are two choices:

- OK: confirm the new values (all the previous values will be lost).
- Cancel: close the window and return to the **Patient Browser** window without changing the patient's data.

10.3.2 Delete a Patient (Delete)

To delete a stored patient select the patient in the **Patient Browser** window. Next press the **Delete** button. The name of the patient is shown in the **Question** window below. The patient's data can then be deleted. Deleted information is no longer available in the system. *The patient is not completely removed from the system as the Administrator to restore the data at any time.*



In the **Buttons panel** the choices are:

- Yes: confirm the deletion of the patient.
- No: close the window and return to the previous window.

10.4 Insert a new Patient Extended (New)

The New Patient functionality can be extended by changing the *PATIENTEXTENDED* flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

10.4.1 Additional Features

The New Patient Extended module affords the following improvements:

The screenshot shows the 'New Patient' dialog box. On the left, there are several input fields: 'First Name *' (text box), 'Second Name *' (text box), 'Tax Number ID' (text box), 'Age *' (radio buttons for Age, BirthDate, Description; dropdowns for Years, Months, Days), 'Sex *' (radio buttons for Male, Female), 'Address' (text box), 'City' (text box), 'Next of Kin' (text box), and 'Telephone' (text box with '+39' prefix). Below these is a note: '* Indicates required fields'. On the right, there are dropdown menus for 'Blood Type' (Unknown), 'Marital Status' (Unknown), 'Profession' (Unknown), and 'Dead/Alive' status for 'Father's Name' and 'Mother's Name'. There are also radio buttons for 'Parents Together' (Yes, No, Unknown) and 'Has Insurance' (Yes, No, Unknown). To the right of the main form is a 'Patient Photo' section with a placeholder image and a 'Load File' button, and a 'Note' section with a scrollable text area.

To record a new patient, the following fields are available:

- **Tax Number ID:** is the national ID or other ID that uniquely identifies the patient
- **Age / BirthDate / Description:** the age can be specified in three different ways:



Three examples of how age can be specified:

- Age *
Age BirthDate Description
Years 0 Months 0 Days 0
- Age *
Age BirthDate Description
Birth Date 12/03/2000
21y 3m 2d
- Age *
Age BirthDate Description
Early Childhood 0 Months

Regardless of the way it is entered the age is converted to an age in years in the **Patient Browser** window.

- **BloodType:** valid values are 0+, A+, B+, AB+, 0-, A-, B-
- **Marital Status:** valid values are Single, Married, Divorced, and Widowed. If left empty, the default is Unknown
- **Profession:** valid values are Other, Farming, Construction, Medicine, Food/Hospitality, Homemaker, Mechanic, Business, Janitorial Services, Mining, and Engineering. If left empty, the

default is Unknown

- **Father's Name:** specify the name of the patient's father and if he is still alive
- **Mother's Name:** specify the name of the patient's mother and if she is still alive
- **Parents Together:** specify if the parents are still together
- **Has Insurance:** specify if the patient has a health financial protection plan (insurance)
- **Load File:** a button used to load a patient's picture (it will be cropped and squared)



Age Types (Descriptions) can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.

10.4.2 Height and Weight Functionality (Height and Weight)

The height and weight of the patient are not required when registering a new patient. It is done through the examination module available in the **Patient Browser** window.

10.4.3 Patient Photo (New Photo)

The New Patient functionality can be extended by changing the VIDEOMODULEENABLED flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

Once the video module has been enabled the **New Patient** window looks as follows:

The screenshot shows the 'New Patient' dialog box and a separate 'Patient Photo' window. The main 'New Patient' window contains fields for First Name, Second Name, Tax Number ID, Age (with radio buttons for Age, BirthDate, and Description), Sex (Male/Female), Address, City, Next of Kin, Telephone, and several status checkboxes (Blood Type, Marital Status, Profession, Father's Name, Mother's Name, Parents Together, Has Insurance). At the bottom are OK and Cancel buttons. A note at the bottom left indicates that fields marked with an asterisk (*) are required. The 'Patient Photo' window is a smaller overlay showing a placeholder for a patient photo and buttons for 'New Photo' and 'File'.

By clicking on the **New Photo** button, the webcam should be activated (check for any lights on the device). The **Patient Photo** window should show what the camera is pointing at.

New Patient

Insert data of new Patient

First Name *	<input type="text"/>	Blood type	<input type="button" value="Unknown"/>
Second Name *	<input type="text"/>	Fathername	<input type="text"/>
Tax Number ID	<input type="text"/>	<input type="radio"/> Dead <input checked="" type="radio"/> Unknown <input type="radio"/> Alive	
Age *	<input checked="" type="radio"/> Age <input type="radio"/> BirthDate <input type="radio"/> Description	Mothername	<input type="text"/>
	Years <input type="text"/> Months <input type="text"/> Days <input type="text"/>	<input type="radio"/> Dead <input checked="" type="radio"/> Unknown <input type="radio"/> Alive	
Address	<input type="text"/>	Parents Together	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Unknown
City	<input type="text"/>	Has Insurance	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Unknown
Next Kin	<input type="text"/>		
Telephone	+39 <input type="text"/>		

* Indicates required fields

OK Cancel

Patient photo

New Photo File

Quality: - +

Note

Edit Patient

Tracy Amiaparwoth (Code: 16879)

First Name	<input type="text" value="Ampiarwoth"/>	Blood type	<input type="button" value="Unknown"/>
Second Name	<input type="text" value="Tracy"/>	Fathername	<input type="text"/>
Tax Number ID	<input type="text"/>	<input type="radio"/> Dead <input checked="" type="radio"/> Unknown <input type="radio"/> Alive	
Age	<input checked="" type="radio"/> Age <input type="radio"/> BirthDate <input type="radio"/> Description	Mothername	<input type="text"/>
	Age <input type="text" value="2"/>	<input type="radio"/> Dead <input checked="" type="radio"/> Unknown <input type="radio"/> Alive	
Address	<input type="text" value="Padolo"/>	Parents Together	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Unknown
City	<input type="text" value="Padel"/>	Has Insurance	<input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Unknown
Next Kin	<input type="text"/>		
Telephone	<input type="text"/>		

Ok Cancel Height and Weight

Patient photo

New Photo

Quality: - +

Note

malaria, RTI

By clicking again on the **New Photo** button, a picture is taken ready to be attached to the patient information.

10.4.3.1 Camera Settings (

If nothing happens when pressing the **New Photo** button, press the **switch camera** button that allows switching among the webcams connected to the computer if there is more than one; if only one camera is connected to the computer it is useful to reset the camera settings and restart it.

Once the camera is activated and the “eye-view” of the camera is visible, press on “+” or “-“ to increase or reduce the image quality.

Open Hospital attempts to automatically set the best quality for any webcam connected to the computer and remembers the last settings used.



If the camera does not function then change the flag to DEBUG in the configuration file to generate additional diagnostic information. Ask the Administrator or refer to the *Administrator's Guide*.

10.5 Admission Functions (Admission)

The admission functions include the managing of patient admission, including surgery, delivery, and discharge.

To access the Admission function, first highlight the patient in the **Patient Browser** window. Next, press the **Admission** button.

If the patient is not admitted then the **New Admission** window is shown.

If the patient is already admitted then the **Edit Admission Record** is shown.

10.5.1 Start the Admission of a Patient (Admission)

Once a patient is registered, they can be admitted to a hospital ward.

First, to insert the admission of a patient highlight the patient in the **Patient Browser** window. Once this is done, press the **Admission** button. The **New Admission** window is shown (if the patient is already admitted the **Edit Admission Record** window is shown):

The screenshot shows the 'New Admission' window. On the left, there is a summary of the patient's details: Code: 528, Name: Kenty Willis, Age: 14y 3m 13d, Sex: F, TOB: B-. Below this are sections for Tax Number ID, Address (Furja Street 81), City (Jikney), Parents, Next of Kin (Telephone +3914413), Blood Type (B-), Marital Status (Single), Insurance, Profession, and Patient Notes. The main right panel is titled 'Admission / Discharge' and includes fields for Ward, From Health Unit, Progressive in Year, Admission Date (set to 14/06/21), Admission Type, Malnutrition, Diagnosis -IN-, Discharge Date, Bed Days, and Discharge Type. Below these are sections for Diagnosis -OUT- with dropdowns for n. 1, n. 2, and n. 3. At the bottom, there are 'Save', 'Examination', and 'Close' buttons, and a note stating '* Indicates required fields'.

To start an admission, enter the appropriate date into the following fields (on the right side of the window):

- **Ward:** the ward where the patient is admitted

- **From Health Unit:** (not mandatory) in case of referral optionally enter the name of the facility where the patient came from
- **Progressive in Year:** is the progressive number per year and per ward automatically set by the system; the value can be changed as needed
- **Admission Date:** the date of the admission, automatically set to today
- **Admission Type:** the type of admission (i.e. Ambulance, Self, Referral, etc.)
- **Malnutrition:** (not mandatory) in case of malnutrition optionally check this box so management of the malnutrition control can be done in the **Patient Data** window (see the Malnutrition control function).
- **Diagnosis IN:** the diagnosis the patient was admitted with



It is possible to filter to find diseases more easily. To do this, enter a text fragment in the search field that is part of the disease name. The closer the search text comes to the name of the disease being searched for, the more precise the search is.



Wards, Admission Types, and Diagnosis can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.



The "Progressive in Year" field is automatically populated by the program; in the case of maternity, the counter starts from the first of January or from the first of June based on the current norm for the health facility. To change the behavior please ask the Administrator to set the MATERNITYRESTARTINJUNE flag in the configuration file or refer to the *Administrator's Guide*.

When done entering data the **Buttons panel** has the following choices:

- **Save:** confirm and persist the current values.
- **Examination:** open the **Examination** window (see [Patient examination](#)).
- **Close:** close the window and return to the **Patient Browser** window without applying any changes.

Once the **Save** button is pressed the **New Admission** window closes and the patient's status is changed in the **Patient Browser** window as shown in the following figure:

Patient Browser						
Admission Status	CODE	NAME	AGE	SEX	CITY / ADDRESS / TELEPHONE / NOTE	WARD
All	531	Mario Rossi	28y 10m 4d	F	Via Verdi - Roma	
	529	Sara Hocklington	0y 9m 6d	F	Kulele - Long Road 1 - +39	
<input checked="" type="checkbox"/> CHILDREN WARD	528	Kenty Willis	14y 6m 20d	F	Jilkney - Furja Street 81 - +3914413	CHILDREN WA...
<input checked="" type="checkbox"/> FEMALE WARD	527	Marcus Kellop	52y 9m 27d	M	Mirly - Fullster Pl. 45/b - +396153134	
<input checked="" type="checkbox"/> MALE WARD	526	Genina Justerin	36y 5m 30d	F	Uribe - Ghoulam Rd 231 - +393452432	
<input checked="" type="checkbox"/> MATERNITY WARD	525	Mary Garrington	0y 7m 17d	F	Kendring - Ganston - +39	
Count: 478	524	Geremia Dickinson	67y 8m 20d	M	Kellog - Springfield - +39	
	523	Quinlan Coors	6y 10m 19d	M	Derbyshire - Franklin St 12 - +416824999	
	522	Harry Colterson	62y 7m 7d	M	Ottey - Westerman St. 12 - +912314411	MALE WARD
	521	Betta Jamison	10y 10m 1...	F	Kensington - Kinney Rd. 43 - +39	
	520	Rochester Lenny	0y 10m 20d	M	Warengton - Letterman St. 512 - +005199944	
	519	Jeanna Rickember	3y 10m 22d	F	Justin - Lavan Road 62 - +2243143213	
	518	Jeremy Lindon	58y 3m 1d	M	Misurel - Stanton Plaza 151 - +394252422	
	517	Maria Njoko	20y 6m 2d	F	West Kurtika - Mongi Road 56 - +2434334	
	516	Genna Susterlind	46y 3m 4d	F	Rudkenny - Genev Road 77 - +3813144111	
	515	Alvaro Robertson	12y 1m 30d	M	Guarinton - Courtney ST. 27 - +39	
	514	Mario Rossi	28y 10m 3d	M	Roma - Via Verdi - +397653431	
	513	Makenzie Everton	27y 9m 29d	M	Albrington - Wayland 21 - +3924534314	
	512	Millenson Enriqueta	80y 10m 9d	F	Crossing - Hartney St. 55	
	511	Henderson Alba	53y 10m 9d	F	Street - South Ilford	
	510	Racuba Scottie	42y 10m 9d	F	Valley south - Montgomery road 11 - +12-4354154	

10.5.2 Patient Examination

During a patient examination patient, general parameters such as weight, height, arterial pressure, heart rate, temperature, saturation, respiratory rate, and auscultation can be recorded. Open Hospital calculates the patient BMI automatically.

There are two ways to access the module. In the **Patient Browser** window, highlight the patient and click **Examination**. Or in the **New Admission** or **Edit Admission Record** window, click the **Examination** button. The following window is shown:

Patient Examination

Date	18/08/2021 - 11:56	<input type="button" value=""/>											
(H) Height	cm	171											
(W) Weight	kg	69.9											
<input type="checkbox"/> Arterial Pressure	min	80	/	max	mmHg								
<input type="checkbox"/> Heart Rate	bpm	60											
<input type="checkbox"/> Temperature	C	36.0											
<input type="checkbox"/> Saturation	%	98.0											
<input type="checkbox"/> HGT	mg/dl	80											
<input type="checkbox"/> Respiratory Rate	bpm	20											
<input type="checkbox"/> Diuresis Vol 24H	ml	100											
<input type="checkbox"/> Diuresis	Oliguria	<input type="button" value=""/>											
<input type="checkbox"/> Bowel	Diarrheal	<input type="button" value=""/>											
<input type="checkbox"/> Auscultation	Crackles	<input type="button" value=""/>											
DATE	(H)	(W)	AP	HR	T	O2	HGT	RR	D24H	D	B	AUSC	NOTE
22/11/20 02:35	171	69.9	80 / 120	60	36.0	98.0	80	-	100	Oliguria	Diarrheal	Crackles	

Complain

Save **Delete** **Print** **Close**

The window is divided into two areas: The panel on the left is where new information is entered and the area where the examination history is displayed is on the right.

Enter the following information:

- **Date:** the date of the examination; by default, it is set to the current date and time
- **Height:** the patient's height (in cm)
- **Weight:** the patient's weight (in Kg)
- **Arterial Pressure:** the patient's arterial pressure (in mmHg)
- **Heart rate:** the patient's heart rate (in bpm)
- **Temperature:** the patient's temperature (in °C)
- **Saturation:** the patient's saturation (%)
- **HGT:** the result of the Hemo Glucose test (in mg/dl)
- **Respiratory Rate:** the patient's respiratory rate (in bpm)
- **Diuresis Vol 24H:** the patient's daily urine volume (in ml)
- **Diuresis:** the Diuresis description
- **Bowel:** the description of bowel function
- **Auscultation:** the patient's auscultation. This will default to unknown if not specified. Options are: Unknown, Normal, Bronchial, Crackles, Rhonchi, Stridor, and Wheezes
- **Complain:** any additional notes concerning the examination

After entering the data, Open Hospital automatically calculates the BMI and displays the result on the human figure at the left.

Where everything is correct, click **Save** to save the examination.

To remove an examination, select one or more records in the lower table and click **Delete** to delete them.

10.5.3 Insert or Modify Surgery Data

To insert/modify operations data of a patient admission first highlight the patient in the **Patient Browser** window and then press the **Admission** button. The **Edit Admission Record** window is shown.

Operation related data can be inserted or modified directly by selecting the **Operation** tab at the top of the window during the admission or modification process of the admission.

Operations data that can be managed are:

- **Operation:** the operation type
- **Date:** the operation date (must be at least older than, or equal to the admission date and at most, more recent than, or equal to the discharge date)
- **Result:** the result of the operation
- **Trans Unit:** (not mandatory) the number of transfusion units of blood were used
- **Remarks:** (not mandatory) comments about the operation

It is possible to record several operations at once. The buttons **New**, **Save** and **Delete** at the top right of the table allow the manipulation of the items of the table.

To add a new operation, click on the button **New** and enter the data as mentioned above, and then click on **Save**.



Clicking on the button **Save** just adds the operation to the table; it is not yet permanently recorded.

To delete a line from the table, select the line to delete by clicking on it (it automatically highlights), then click on the button **Delete**. When finished, click on the button **Save** below the table to save the changes.



Operation Type and Operations can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.

10.5.4 Insert or Modify Delivery Data

If a female patient is admitted, the Maternity ward will be present in the ward list and, by selecting it, the **Edit Admission Record** window will change as shown below:

In the Delivery tab, information about the Maternity case can be specified including:

- **Visit Date:** the date of a visit before the delivery, if any
- **Weight:** the weight of the mother before the delivery, if measured
- **Treatment Type:** the treatment type given to the mother, if any
- **Delivery Date:** the date of the delivery
- **Delivery Type:** the type of the delivery
- **Delivery Result Type:** the result of the delivery
- **Control Dates:** the dates of control after the delivery
- **Abort Date:** the date of the abort if the result of the delivery was an abortion

The screenshot shows the 'Edit Admission Record' window. On the left, there's a patient profile section with fields for Code, Name, Age, Sex, TOB, Tax Number ID, Address, City, Parents, Next of Kin, Telephone, Blood Type, Insurance, Marital Status, and Profession. Below this is a 'Patient Notes' area with a text input field. The main right panel has tabs for 'Admission / Discharge', 'Operation', 'Delivery', and 'Note'. Under 'Admission / Discharge', there are fields for Visit Date (01/06/20), Weight (100), Delivery Date (09/06/20), Delivery Type (set to 'DELIVERY ASSISTED BY CESARIAN SECTION'), Treatment Type, Delivery Result Type, and three dropdowns for Control n.1, Control n.2, and Abort Date. At the bottom are 'Save', 'Examination', and 'Close' buttons.



Treatment Type, Delivery Type, and Delivery Result Type can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.

10.5.5 Discharge of a Patient (Admission)

To discharge a patient from the hospital highlight the patient in the **Patient Browser** window and then press the **Admission** button. The **Edit Admission Record** window is shown.

To complete the discharge of the patient enter the following data:

- **Discharge Date:** the date of the discharge
- **Bed Days:** the number of days admitted; computed by the system by finding the difference between admission date and discharge date
- **Discharge Type:** the type of the discharge
- **Diagnosis OUT:** the diagnosis the patient was discharged with



As in the case of **Diagnosis IN**, it is possible to filter to find diseases more easily.

This screenshot shows the 'Edit Admission Record' window for a different patient (Code: 348). It includes the same basic patient information and notes section as the previous screenshot. The 'Admission / Discharge' tab is active, showing fields for Ward (MATERNITY WARD), From Health Unit, Progressive in Year (1825), Malnutrition (unchecked), Admission Date (02/11/20), Admission Type (SELF), Diagnosis -IN- (Acute Flaccid Paralysis), Discharge Date (04/12/20), Bed Days (32), Discharge Type (REFERRED), and Diagnosis -OUT-. The 'Diagnosis -OUT-' section contains three rows for n. 1, n. 2, and n. 3, each with a text input field, a magnifying glass icon for filtering, and a dropdown arrow. A note at the bottom states '* Indicates required fields'. At the bottom are 'Save', 'Examination', and 'Close' buttons.



Discharge Types and Diseases can be defined by the Administrator. Ask the Administrator or check the [Settings](#) chapter.

When all the data has been entered the **Buttons panel** has the following choices:

- **Save**: confirm the values on the window.
- **Examination**: to open the *Examination* window (See [Patient examination](#)).
- **Close**: close the window and return to the *Patient Browser* window without applying any changes.

Once the **Save** button is pressed the *Edit Admission Record* window closes and the patient's status is changed in the *Patient Browser* window as shown in the following figure:

Patient Browser						
Admission Status	NAME	AGE	SEX	CITY / ADDRESS / TELEPHONE / NOTE	WARD	X
All	Beckmann Kurt	38y 10m 9d	F	Orchard - Rolen Dr. 134 - +0754524245	MATERNITY W...	
	Ciancio Michale	28y 10m 9d	F	Ilvers - Harvey Pl. 4 - +141434	MATERNITY W...	
	Dean Jarvis	39y 10m 9d	F	Oak - Royal	MATERNITY W...	
	Connie Westbrook	28y 10m 9d	F	Mount - Ave.	MATERNITY W...	
	Martin Deforge	18y 10m 9d	F	Falls - Niagara	MATERNITY W...	
	Mcguirk Bennett	40y 10m 9d	F	NJ - Elizabeth - +5242421412	MATERNITY W...	
	Carlo Meche	40y 10m 9d	F	Fredericksburg - Lane	MATERNITY W...	
	Jere Hutcheson	40y 10m 9d	F	NY - Fairport	MATERNITY W...	
	Kirton Winford	37y 10m 9d	F	Parkville - Dr. 56	MATERNITY W...	
	Lamore Dylan	19y 10m 9d	F	Wyring - Salem County West - +31431341	MATERNITY W...	
	Manual Rowse	43y 10m 9d	M	WI - Menasha	MATERNITY W...	
	Jenks Modesto	0y 10m 9d	F	PA - Waynesboro	CHILDREN WA...	
	Ellard Hyman	1y 10m 9d	M	VA - Leesburg	CHILDREN WA...	
	Bryden Kenneth	0y 10m 9d	M	Desplains - North Drive 23	CHILDREN WA...	
	Everart Lindon	20y 10m 9d	M	Lurewon - Opal new		
	Jack Lupe	42y 10m 9d	M	River town - Fall road		
	Raul Koski	33y 10m 9d	M	ND - Bismarck		
	John Emberton	39y 10m 9d	M	Beach - Ormond		
	Moreles Emery	36y 10m 9d	M	Des Moines - Drive st 66		
	Provenzano Branden	75y 10m 9d	M	Wartington - Leland st. 56		
	Starns Kristopher	14y 10m 9d	M	Mass Cambriske - Lowell st 5		

10.6 OPD (OPD)

If the *OPDEXTENDED* flag is set as YES in the configuration file (ask the Administrator) the button **OPD** in the *Patient Browser* window allows for starting an OPD by selecting the related patient first (see [Create a new patient visit](#) for more information).

10.7 Bill (Bill)

The button **Bill** in the *Patient Browser* window is used to start a bill for a selected patient (see [Insert a new bill](#) for more information).

10.8 Manage Patient Historical Data (Data)

This function allows modifying data about a patient and modifying or deleting the history of admissions and discharges of a patient. Malnutrition can also be managed with this function.

To access the patient historical data function, first, highlight the patient in the *Patient Browser* window. Next, press the **Data** button. The *Patient Data* window is shown:

Patient Data

	Code: 339 Name: Jack Lupe Age: 42y 7m 4d Sex: M	DATE WARD DIAGNOSIS IN DIAGNOSIS OUT STATUS
	TOB:	02/11/20 OPD Malaria Malaria New Admi...
		25/09/20 MALE WARD Gastro-intestinal ... Gastro-intestinal ... 11/10/20

Tax Number ID

Address Fall road	City River town
----------------------	--------------------

Parents

Next of Kin	Telephone
-------------	-----------

Blood Type	Insurance
------------	-----------

Marital Status	Profession
----------------	------------

Patient Notes

Edit **Delete** **Malnutrition Control** **Close**

The screen is divided into three areas:

- **Patient summary** (on the left)
- **Data table** (on the right)
- **Buttons panel**

The **Patient summary** area shows a summary of the patient's data.

The **Data table** shows a summary of all the outpatients (OPD) visits and all the admissions related to the patient.

The following functions are accessible from the **Buttons panel** of the window **Patient Data**:

- **Edit**: modify the data of an admission or an outpatient visit.
- **Delete**: delete an existing admission.
- **Malnutrition Control**: create, modify or delete malnutrition control data of a patient.
- **Close**: exit from the function **Patient Data** and return to the **Patient Browser** window.

10.8.1 Modify Data of an Admission (**Edit**)

To modify the data of an admission select the admission in the **Data table** of the **Patient Data** window and then press the **Edit** button. When the **Edit Admission Record** window is shown, the record is available for changes. All data can be changed.

The screenshot shows the 'Edit Admission Record' window. On the left, there is a summary of the patient's details: Code: 339, Name: Jack Lupe, Age: 42y 7m 4d, Sex: M, TOB: (empty), Tax Number ID (empty), Address: Fall road, City: River town, Parents (empty), Next of Kin (empty), Telephone (empty), Blood Type (empty), Insurance (empty), Marital Status (empty), Profession (empty), and Patient Notes (empty). The main panel is titled 'Admission / Discharge' and contains fields for Ward (MALE WARD), From Health Unit (empty), Progressive in Year (734), Admission Date (25/09/20), Admission Type (SELF), Diagnosis -IN- (Gastro-intestinal DISEASEss (non infective)), Discharge Date (11/10/20), Bed Days (empty), Discharge Type (NORMAL DISCHARGE), and Diagnosis -OUT- (n. 1: Gastro-intestinal DISEASEss (non infective), n. 2: empty, n. 3: empty). A note at the bottom right indicates '* Indicates required fields'. At the bottom are buttons for Save, Examination, and Close.

When the changes are complete the **Buttons panel** has the following choices:

- **Save**: confirm new values (all the previous values are lost).
- **Examination**: open the *Examination* window (See [Patient examination](#)).
- **Close**: close the window and return to the *Patient Data* window without applying any changes.

10.8.2 Modify Data of an Outpatient Visit (Edit)

To modify the data of an outpatient visit select the OPD in the **Data table** of the *Patient Data* window and then press the **Edit** button. When the *Edit OPD Registration* window is shown, the record is available for changes. All data can be changed.

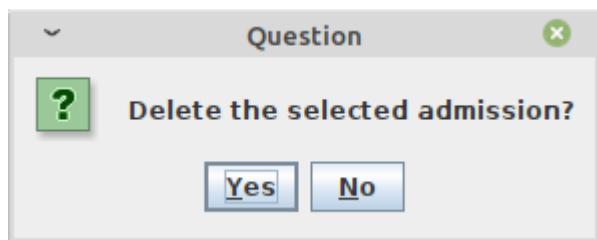
The screenshot shows the 'Edit OPD Registration' window. At the top, there are checkboxes for Re-Attendance (unchecked), New Admittance (checked), Referral (unchecked), and Referred To (unchecked). Below this, the Admittance Date is set to 02/11/20, the OPD No. is 134, and the Search field contains 'Jack Lupe'. The Disease Type is listed as '2. OTHER INFECTIOUS/COMMUNICABLE DISEASES', and the Diagnosis is 'Malaria'. There are also fields for Diagnosis n.2 (full list) and Diagnosis n.3 (full list), both currently empty. In the 'Notes & Symptoms' section, there is a large empty text area. At the bottom, there are tabs for Patient (selected) and Operation, and a note stating 'Patient (code: 339)'. The Patient section contains fields for First Name (Jack), Last Name (Lupe), Address (Fall road), City (River town), Next of Kin (empty), Age (42y 7m 4d), and Sex (radio buttons for Male and Female). At the very bottom are buttons for OK, Examination, and Cancel.

When the changes are complete the **Buttons panel** has the following choices:

- **Save**: confirm new values (all the previous values are lost).
- **Examination**: open the *Examination* window (See [Patient examination](#)).
- **Cancel**: close the window and return to the *Patient Data* window without applying any changes.

10.8.3 Delete an Admission (Delete)

To delete a stored admission select the admission in the *Patient Data* window. Next, press the **[.underline]##D#lete** button. A confirmation window is shown; now the admission can be deleted. Deleted admissions are no longer available.

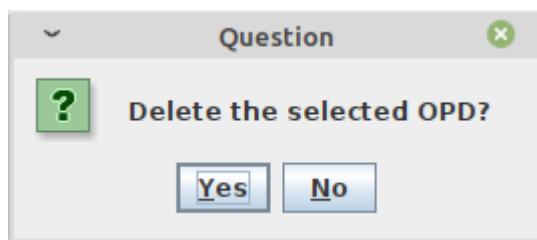


The **Buttons panel** has the following choices:

- **Yes**: confirm the deletion.
- **No**: close the window and return to the previous window.

10.8.4 Delete an Outpatient Visit (Delete)

To delete a stored outpatient visit (OPD) highlight it in the *Patient Data* window. Next, press the **Delete** button. A confirmation window is shown; now the OPD can be deleted. Deleted outpatient visits are no longer available.



The **Buttons panel** has the following choices:

- **Yes**: confirm the deletion.
- **No**: close the window and return to the previous window.

10.8.5 Manage Malnutrition Control of a Patient (Malnutrition Control)

The malnutrition control function is available only for the admissions that have concerns about malnutrition (malnutrition field activated in *New Admission* window, see the next page).

The Malnutrition control function allows the registration of specified visits for those patients who

need to control their weight/height index.

To access the Malnutrition control function, highlight the appropriate admission in the **Patient Data** window. Next, press the **Malnutrition Control** button. The **Malnutrition Browser** window is shown:

FURTHER DATE	APPROVAL DATE	HEIGHT	WEIGHT
13/01/2020	13/02/2020	170.0	60.0
13/02/2020	13/03/2020	170.0	61.0
13/03/2020	13/04/2020	170.0	61.0

New **Edit** **Delete** **Close**

This function supports the insertion (**New**) of a new malnutrition control, the modification (**Edit**) or deletion (**Delete**) of an existing malnutrition control.

10.8.5.1 Insert a New Control (**New**)

By pressing the **New** button in the **Malnutrition Browser** window, the **New Malnutrition** window shown below is available:

New Malnutrition

Date of this control
20 / 01 / 2013

Date of the next control
20 / 02 / 2013

Weight 60 Height 170.0

OK **Cancel**

To record a new control, enter the following fields:

- **Date of this control:** the system automatically sets the date to today
- **Date of next control:** the date of the next planned control
- **Weight:** the weight of the patient; use any kind of measure with decimal notation
- **Height:** the height of the patient; use any kind of measure with decimal notation

10.9 Clinical Sheet (Clinical Sheet)

The Clinical Sheet functionality is very similar to the **Data** functionality (see **Patient Browser** window).

To access the Clinical sheet function, highlight the patient in the **Patient Browser** window. Next, press the **Clinical Sheet** button. The **Patient Data** window is shown:

The screenshot shows the 'Patient Data' window with the following details:

Top Left (Patient Summary):

- Code: 258
- Name: Carmelina Rauch
- Age: 5y 7m 4d
- Sex: M
- TOB:

Left Side (Patient Information):

- Tax Number ID: [Redacted]
- Address: Locust
- City: Rd.
- Parents: [Redacted]
- Next of Kin: [Redacted]
- Telephone: [Redacted]
- Blood Type: [Redacted]
- Insurance: [Redacted]
- Marital Status: [Redacted]
- Profession: [Redacted]
- Patient Notes: [Redacted]

Top Right (Data Table):

DATE	WARD	DIAGNOSIS IN	DIAGNOSIS OUT	STATUS
03/11/20	OPD	Gastro-intestinal ...	Gastro-intestinal ...	New Admi...
02/11/20	CHILDREN W...	Malaria	NO DISEASE	present

Bottom Right (Data Tables):

- Exams Tab:** Shows a table of laboratory exams with columns: DATE, EXAM, CODE, RESULT.

DATE	EXAM	CODE	RESULT
03/11/20	3.1 Blood Slide (Malaria)	206	+++
03/11/20	URINALYSIS	178	Multiple results
02/11/20	3.3 STOOL MICROSCOPY	99	Multiple results
02/11/20	3.1 Blood Slide (Malaria)	108	++++
20/11/20	1.2 WBC Count	299	4000 - 7000 (NORMAL)
20/11/20	5.5 ZN	300	NEGATIVE
20/11/20	5.6 WAYSON	301	NEGATIVE
- Operations Tab:** Shows a table of operations recorded for the patient.
- Drugs Tab:** Shows a table of drugs recorded for the patient.

Buttons Panel:

- OPD Chart
- Admission Chart
- Discharge Chart
- Launch Report
- DICOM
- Close

The window does not allow changing the data but, for the selected patient, it shows all the outpatient (OPD) visits, the Admissions, his/her Laboratory exams and the various surgeries they underwent; by clicking on a row in the **Data table** at the top of the window, the related laboratory exams will be shown as follows:

- the selected row is an Admission: all the exams done between the admission date and the discharge date are shown in the **Data table**, in the **Exams** tab
- the selected row is an outpatient (OPD) visit: all the exams done after the selected OPD visit until the next one (if any) or next admission date (if any) are shown in the **Data table**, in the **Exams** tab

The tab **Operations** shows the various operations recorded for the selected patient between the admission date and the discharge date.

The tab **Drugs** shows the drugs recorded for the selected patient

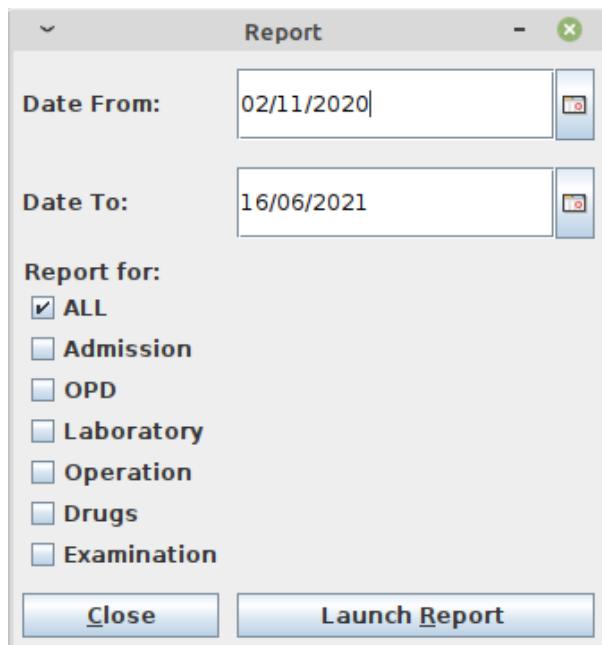
The **Buttons panel** has the following choices:

- **OPD Chart**: print the OPD chart if the selected row in the grid on top is an OPD visit.
- **Admission Chart**: print the Admission chart if the selected row in the grid on top is an Admission.
- **Discharge Chart**: print the Discharge chart if the selected row in the grid on top is an Admission and the patient is already discharged.
- **Launch Report**: print the clinical sheet of a patient.
- **DICOM**: launch the DICOM viewer.
- **Close**: close the window and return to the ***Patient Browser*** window without applying any changes.



The DICOM flag in the configuration file must be changed to activate the DICOM functionality. Ask the Administrator or refer to the *Administrator's Guide*.

By pressing the **Launch Report** button in the ***Patient Data*** window, a new window is shown:

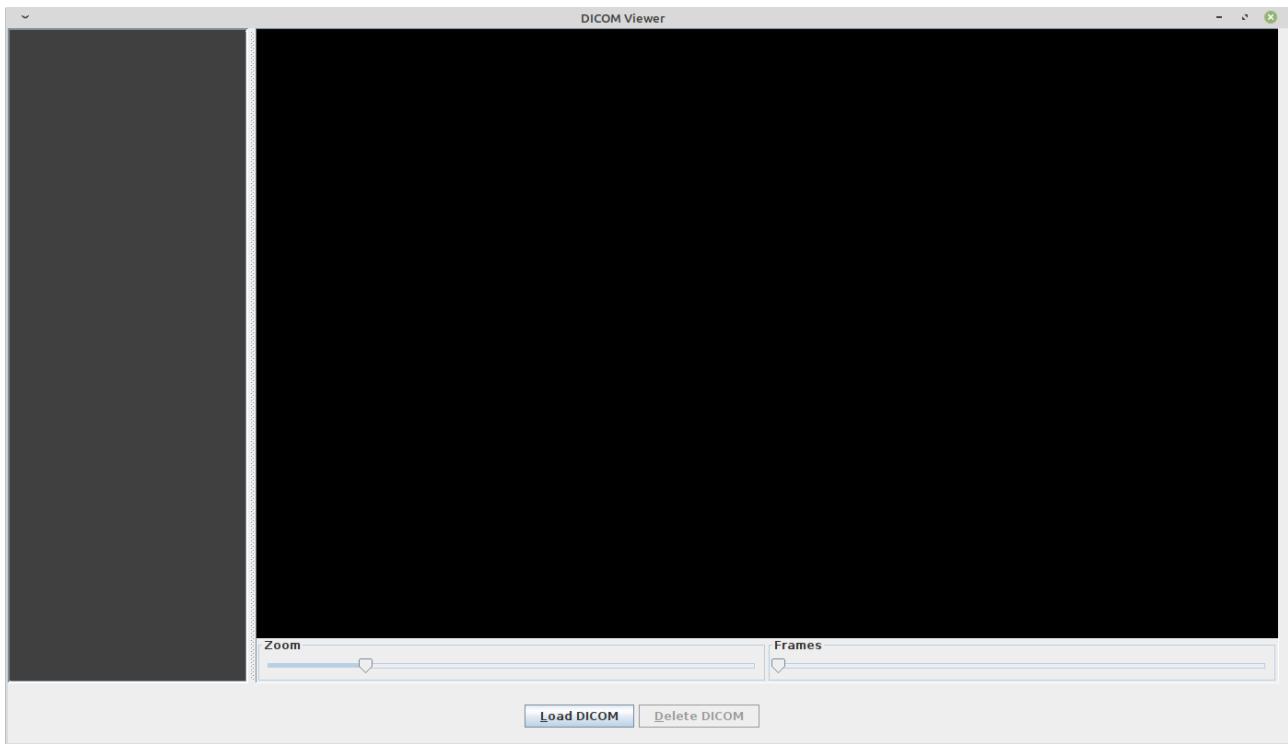


The application is set to get the entire history of the patient, but this can be changed by querying different date ranges and a specific set of information.

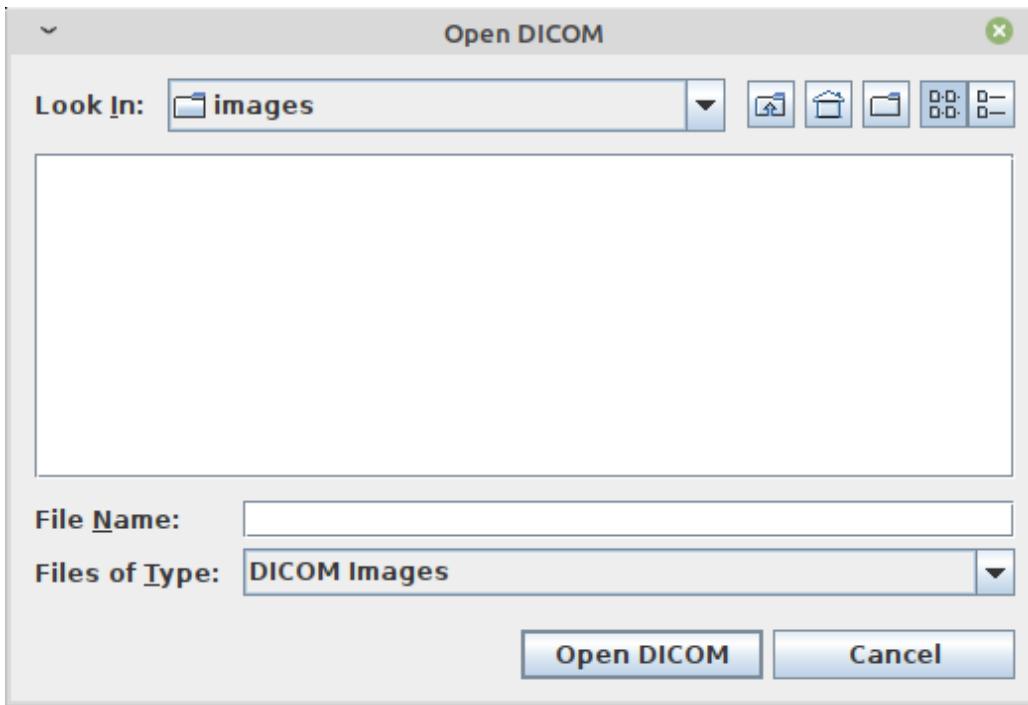
10.9.1 DICOM (**DICOM Viewer**)

The DICOM flag in the configuration file must be changed to activate the DICOM functionality. Ask the Administrator or refer to the *Administrator's Guide*.

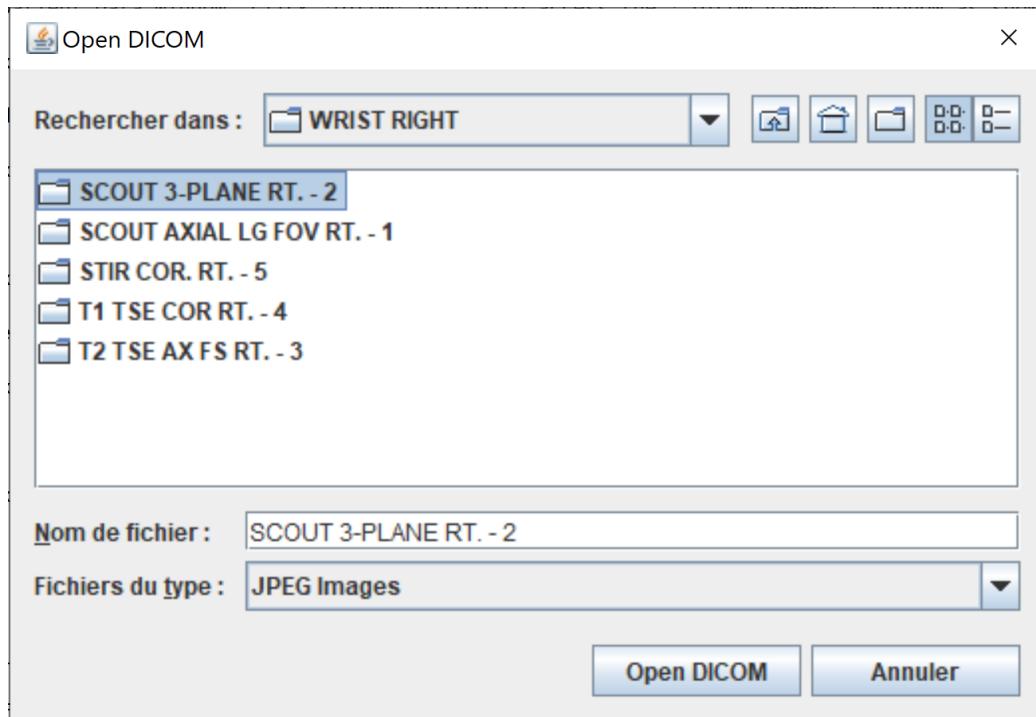
In the ***Patient Data*** window, click the **DICOM** button to access the ***DICOM Viewer*** window as shown below.



This module allows attaching DICOM files to the patient's folder. To do this, click the **Load DICOM** button. The following window is shown:

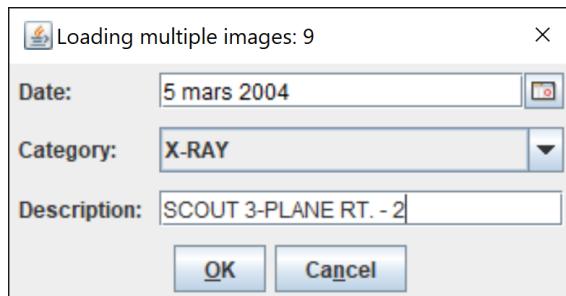


In the case of multi-frame DICOM the whole folder can be selected:



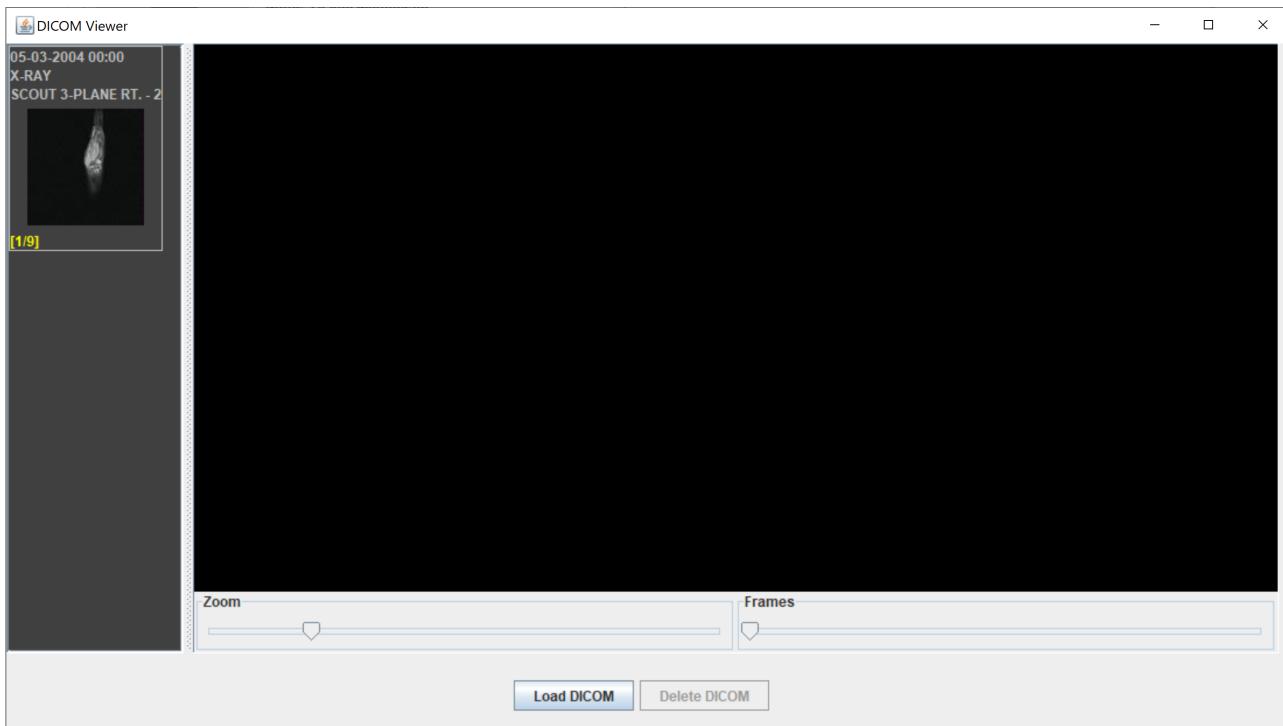
Next, the following data to be used for the DICOM is prompted for (or the multi-frame DICOM series):

- **Date:** the system will propose the current date or other dates provided by the DICOM file itself
- **Category:** optionally select a Dicom category (see [Dicom Types](#)):
- **Description:** the description to be used

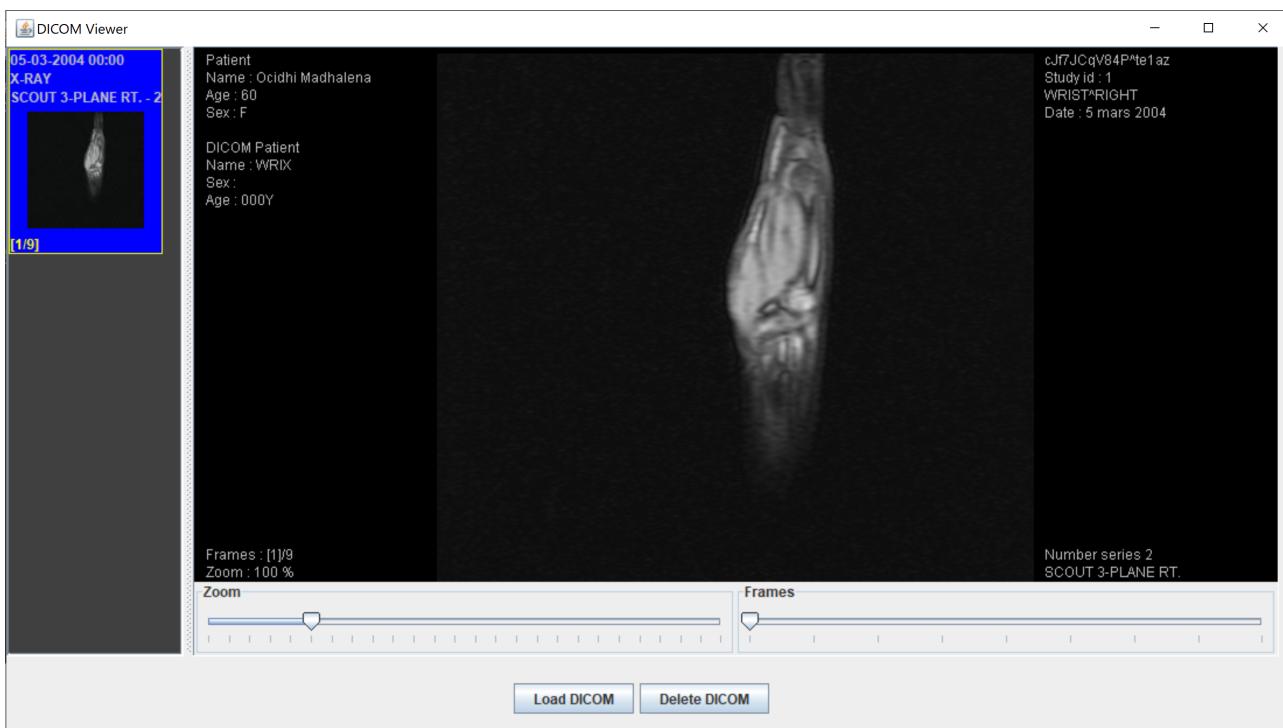


N.B. There is no **Edit DICOM**, so if a mistake is made, delete the DICOM file (**Delete DICOM**) and then reload it (**Load DICOM**) again.

Find the DICOM file and click the **Open DICOM** button to load the file into the **DICOM viewer**.



To view the file in the main window, double-click on it.



The **Zoom** slider can be used to Zoom in or out of the image.

More than one DICOM file can be loaded into a patient folder. It is possible to delete a DICOM file from the patient's folder. First, select the file in the left view and then click the **Delete DICOM** button.

The thumbnails on the left can be hidden by changing the *DICOMTHUMBNAILS* flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

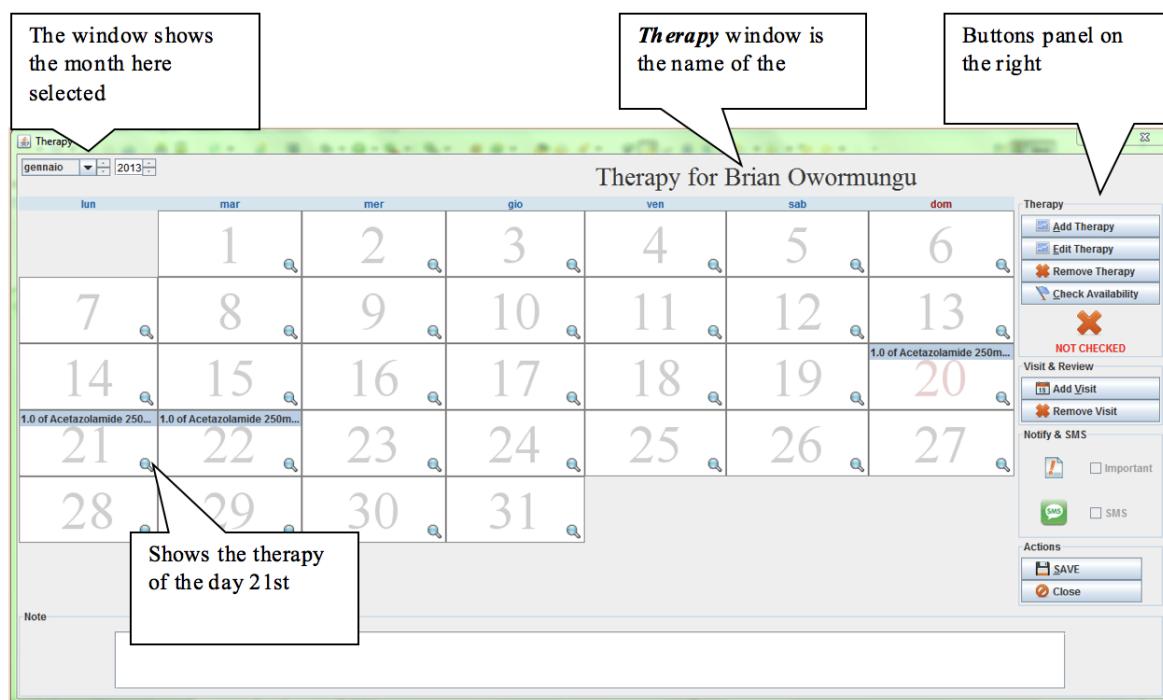
10.10 Therapy Management (Therapy)

To manage the therapy of a patient, select the patient in the **Patient Browser** window. Next, press the **Therapy** button. The specific window for therapy management of the selected patient is shown. The window has no name but it is typically referred to as the **Therapy** window. The name of the selected patient is shown at the top.

In the **Therapy** window, it is possible to insert, modify or remove a therapy for the selected patient.

In addition, from the **Therapy** window, it is possible to insert or remove (not modify) scheduled visits for the selected patient.

The window is complex, see the comments below to understand the structure.

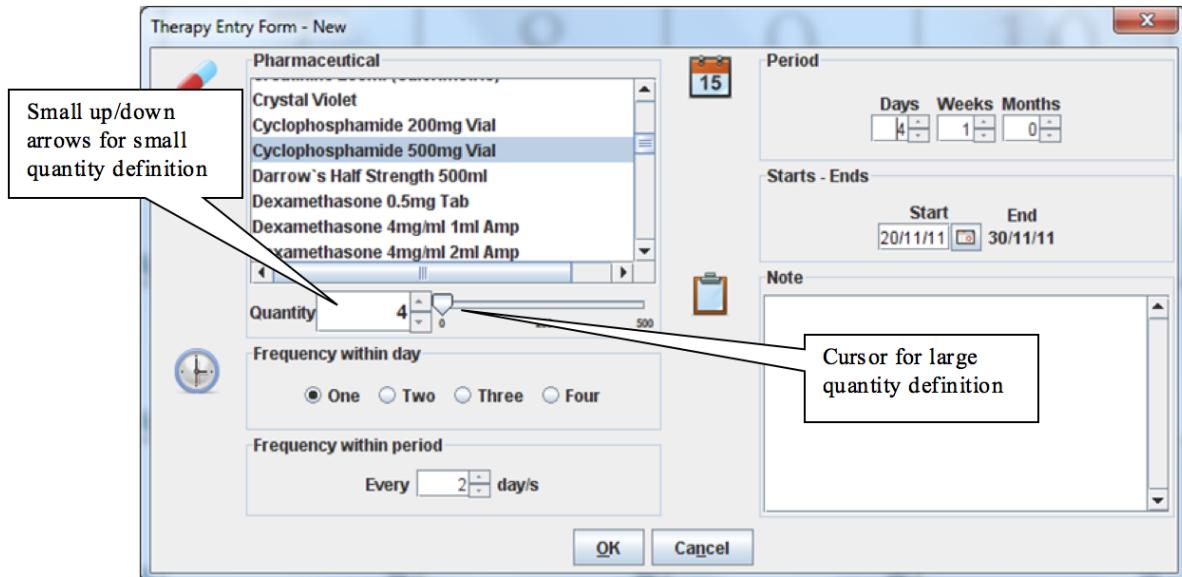


10.10.1 Add a Therapy (Add Therapy)

To add a new therapy for the patient, press the **Add Therapy** button on the right of the window. The **New Therapy Entry Form** window is shown.

A therapy defines for every pharmaceutical: the quantity, frequency, and period of use.

More than one therapy for the same patient can be added. The set of therapies defined for a patient is called a “Therapy plan”.



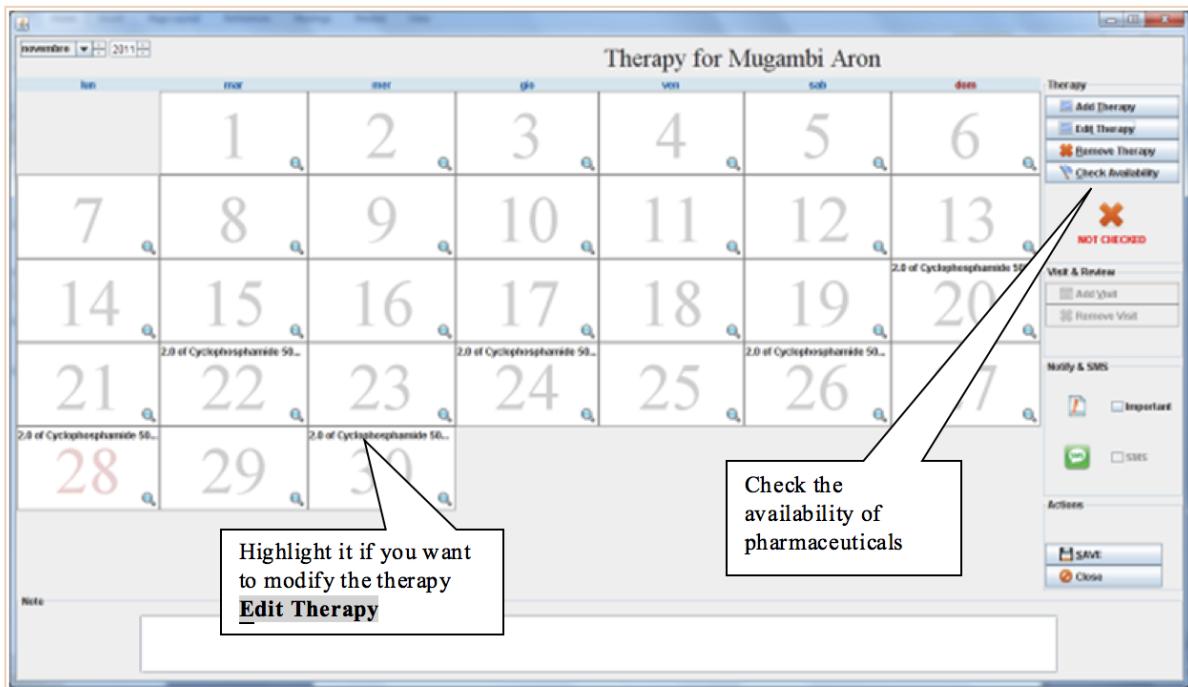
i To better explain how the function **Add a therapy** works, the **Therapy** window below shows the results of the therapy defined in the **New Therapy Entry Form** shown above.

To add a therapy the following information is required:

- **Pharmaceutical:** the pharmaceutical of the therapy; in the example above *Cyclophosphamide 500mg* (highlight the desired pharmaceutical)
- **Quantity:** set the quantity; this can be done by clicking on the small up/down arrows (for small quantity) or moving the cursor on the right (for large quantity); in the example above the selected value is “4”
- **Frequency within day:** set how many times (frequency) the dose has to be given during one day (possible choices are: one, two, three, four); in the example above “One” means once per day
- **Frequency within period:** set the periodicity of the therapy; in the example above every two days (a quantity of 4 *Cyclophosphamide 500mg* every two days has to be given)
- **Period:** set the lenght of therapy; to do it select days, weeks, and months; in the example above, the therapy is 11 days long (4 days and 1 week)
- **Starts – Ends:** set start and end dates of the therapy; in the example, the therapy starts on November 20th and finishes on November 30th
- **Note:** an optional area for free text or notes

Once the data is entered the **Buttons panel** has the following choices:

- **OK:** confirm the data of the therapy. The therapy is not saved until it is confirmed with the **Save** button in the **Therapy** window (see **Save function** described below).
- **Cancel:** close the window and return to the **Therapy** window.



10.10.2 Modify a Therapy (Edit Therapy)

To modify a therapy highlight one occurrence of the therapy (see box above) in the **Therapy** window and then press the **Edit Therapy** button. The **Edit Therapy Entry Form** window will appear. Any of the data can be modified as in the **Add a therapy** function.

See [Add a therapy](#) function for a detailed description.

10.10.3 Remove a Therapy (Remove Therapy)

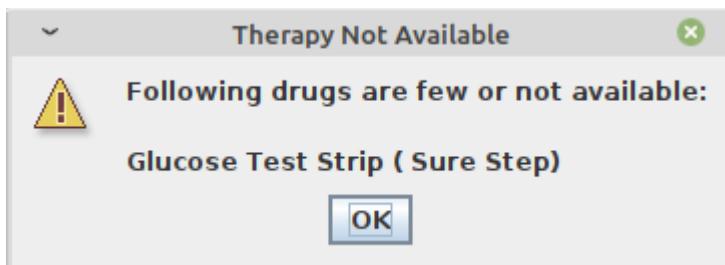
To remove a therapy highlight one occurrence of the therapy (see box above) in the **Therapy** window and then press the **Remove Therapy** button and the therapy is removed from the window and the **Save** button will be enabled (if not already enabled). The removal of a therapy is not effective until it is confirmed with the **Save** button (see [Save function](#)).

10.10.4 Check Availability of the Pharmaceuticals (Check Availability)

When the therapy plan is entered (all the therapies of a patient) press the **Check Availability** button in the **Buttons panel** on the right side of the **Therapy** window to check the availability of the related pharmaceuticals in the hospital. If the pharmaceutical checked is present in the quantity requested by the therapy plan green-colored checkmark is shown.



If there are not sufficient quantities available, the application shows the small window (shown below), called ***Therapy Not Available***:



This window provides information that the therapy is not available but it does not block the input of the Therapy plan. Click the OK button to dismiss the window.

After the check, in the **Buttons panel** of the ***Therapy*** window if there is a red X and the text “NOT AVAILABLE” this means that at least one of the involved drugs is not available.

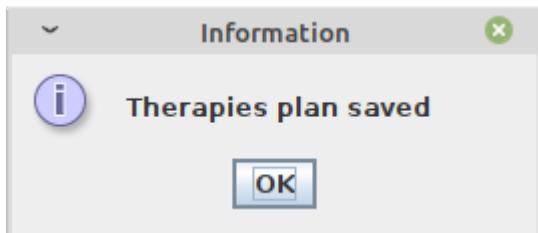


The check can also be done therapy by therapy and not only at the end of the input of all the therapies.

The check function is not mandatory, the therapy plan can be saved without checking the presence of the pharmaceuticals in the hospital (see [Save function](#) below).

10.10.5 Save Function ([Save](#))

When the input of the therapy plan is completed, press the **Save** button in the **Buttons panel** of the ***Therapy*** window. Be aware that the therapy plan is saved when the ***Message*** window is shown:



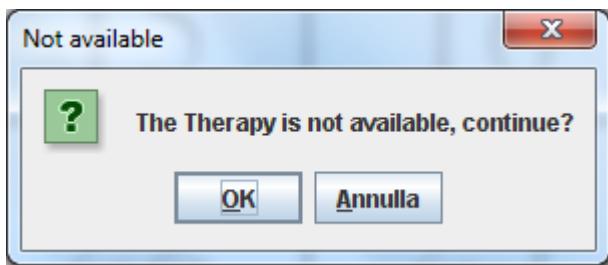
If the availability check has not been executed yet (see [Check availability of the pharmaceuticals](#)) the ***Not checked*** window is shown:



The **Buttons panel** has the following choices:

- **OK**: confirm the therapy plan; if the check for the existence of the pharmaceuticals in the hospital has not been done the application saves the therapy plan and shows the confirmation window shown above.
- **Cancel**: return to the ***Therapy*** window without saving the therapy plan.

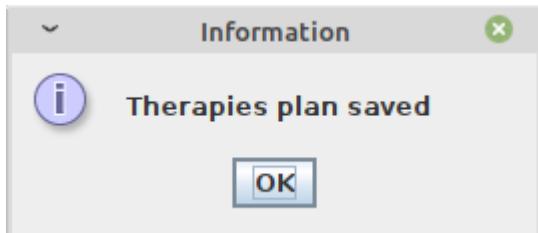
If the availability check is done (see [Check availability of the pharmaceuticals](#)) but the drugs requested by the therapy plan are not available in the hospital, the ***Not Available*** window is shown:



The **Buttons panel** has the following choices:

- **OK**: confirm the therapy plan; the therapy is saved but there are not the requested pharmaceuticals in the hospital. The application saves the therapy plan and shows the confirmation window shown below.
- **Cancel**: return to the **Therapy** window without saving the therapy plan.

Whether the availability check that the pharmaceuticals are present in the hospital is done or not, when the application shows the notification window below the therapies plan is saved.

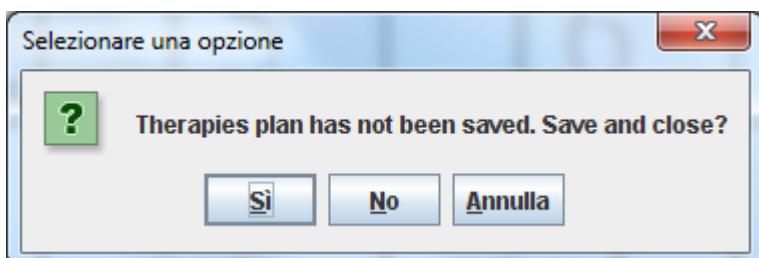


Press **OK** to finish.

10.10.6 Close Function (Close)

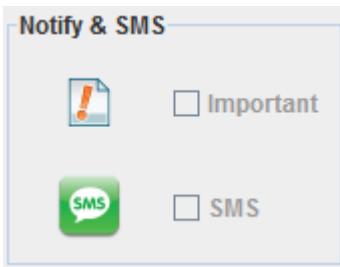
The close function exits from the **Therapy window**. Press the **Close** button to access the Close function. The **Select an option** window is shown:

The **Buttons panel** has the following choices:



- **Yes**: this function is the same as the **Save function (Save)** described above.
- **No**: return to the **Therapy** window without saving the therapy plan.
- **Cancel**: exit the function and return to the **Therapy** window without applying any changes.

10.10.7 Notify & SMS



Use these two checkboxes to set the therapies plan for this patient as important (*not implemented yet*) and notifiable via SMS.

Briefly, the SMS notification works in the following way:

- therapies: will be notified to the patient with an SMS at 8:00 am, with text “REMINDER: “ + therapy details
- visits: will be notified to the patient with an SMS 24 hours before the scheduled date and time, with the text “REMINDER VISIT: “ + visit details (see [SMS Manager](#))

10.10.8 Visits

By clicking on the **Add Visit** button, the following window is shown:

A screenshot of a "Please Select a Patient" dialog box. It includes fields for "Ward" (set to "CHILDREN WARD"), "Service" (empty), "Duration (Min)" (set to 0), and "Date" (set to "05/09/21 13:14:55"). A sub-dialog box shows "Crooks Amos" selected as the patient. At the bottom are "OK" and "Cancel" buttons.

The patient is already selected, while other fields need to be set:

- **Ward:** to specify the ward where the patient has to be received (it will be shown in the Worksheet, see [Worksheet](#))
- **Service:** a brief description of the service that will be provided to the patient (optional)
- **Duration (Min):** the estimated duration of the service that will be provided (optional, default is 30 minutes)
- **Date:** the date and the time for the appointment

Press **OK** to save the appointment and it will be shown in the calendar, along with the therapies.

Note



By pressing the **Worksheet** button a visit can be added also there after checking the actual workload for a specific date.

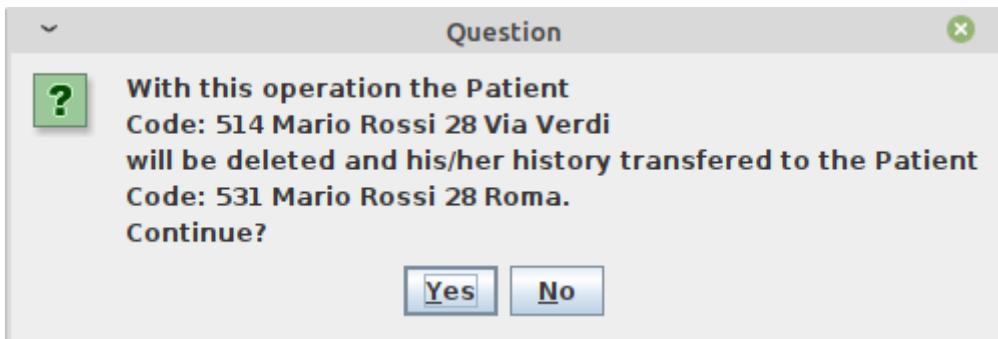
10.11 Merge Function (Merge)

The merge function is used to merge two patients' histories into a single case. This is used to fix the case of two different registrations when a patient is admitted to the Hospital.

To merge data of two patients requires the highlighting of both of them in the **Patient Browser** window.

Patient Browser						
Admission Status	NAME	AGE	SEX	CITY / ADDRESS / TELEPHONE / NOTE	WARD	
All	Mario Rossi	28y 9m 18d	M	Via Verdi - Roma		
Ward	Sara Hucklington	0y 8m 20d	F	Kulele - Long Road 1 - +39		
<input checked="" type="checkbox"/> CHILDREN WARD	Kenty Willis	14y 6m 3d	F	Jlkney - Furja Street 81 - +3914413		
<input checked="" type="checkbox"/> FEMALE WARD	Marcus Kellop	52y 9m 10d	M	Mirly - Fullister Pl. 45/b - +396153134		
<input checked="" type="checkbox"/> MALE WARD	Genina Justterin	36y 5m 13d	F	Uribre - Ghoulam Rd 231 - +393452432		
<input checked="" type="checkbox"/> MATERNITY WARD	Mary Garrington	0y 7m 0d	F	Kendring - Ganston - +39		
Count: 478	Geremia Dickinson	67y 8m 3d	M	Kellog - Springfield - +39		
	Quinlan Coors	6y 10m 2d	M	Derbshire - Franklin St 12 - +416824999		
	Harry Colterson	62y 6m 21d	M	Ottee - Westeman St. 12 - +912314411	MALE WARD	
	Betta Jamison	10y 10m 1d	F	Kensington - Kinney Rd. 43 - +39		
	Rochester Lenny	0y 10m 3d	M	Warengton - Letterman St. 512 - +005199944		
	Jeanna Rickember	3y 10m 5d	F	Justin - Lavon Road 62 - +2243143213		
	Jeremy Lindon	58y 2m 15d	M	Misurel - Stenton Plaza 151 - +394252422		
	Maria Njoko	20y 5m 16d	F	West Kurtika - Mongi Road 56 - +24340334		
	Genna Susterlind	46y 2m 18d	F	Rudkenny - Genev Road 77 - +3813144111		
	Alvaro Robertson	12y 1m 13d	M	Guarinton - Courtney ST. 27 - +39		
	Mario Rossi	28y 9m 17d	M	Roma - Via Verdi - +397653431		
	Makenzie Everton	27y 9m 12d	M	Albrington - Wayland 21 - +3924534314		
	Millman Enriqueta	80y 9m 23d	F	Crossing - Hartney St. 55		
	Henderson Alba	53y 9m 23d	F	Street - South Ilford		
	Racuba Scottie	42y 9m 23d	F	Valley south - Montgomery road 11 - +12-4354154		
	Ventier Asia	32y 9m 23d	F	Roadinsky - Flamingo 45		
	De Koenig Melissa	50y 9m 23d	F	Furklo - Merriam plaza		
	Westermann Fred	21y 9m 23d	M	Bilbao - Avenida johanes 84		

Once the two patients are selected, press the **Merge** button. The **Merge** window is shown:



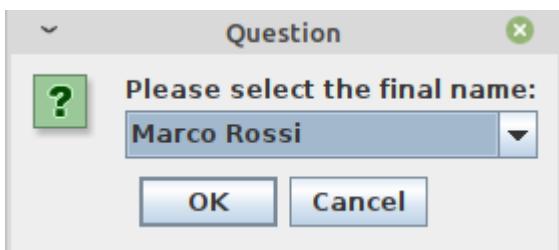
By pressing Yes, the patient with the smaller code is deleted and all their history transferred to the other newer patient record, that is to say:

- Admission History
- Height & Weight History
- Laboratory History
- OPD History
- Bills History
- Pharmaceuticals Stock Ward History
- Therapy History
- Visit History
- Vaccine History

The other (older) patient is then deleted.

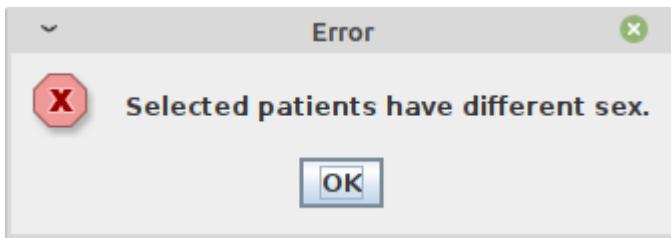
10.11.1 Different Names

If two patients with different names are merged the final name must be chosen in the window shown below:



10.11.2 Different Sex

If two patients with a different sex are merged the operation is not allowed, with the window shown below:



11 Statistics (Statistics)

11.1 Main Characteristics

The purpose of this function is to extract data registered in the application and present it in a useful fashion.

Click with the mouse on the button or press "Alt + T" to enter the Statistics Report Launcher



Open Hospital comes with a set of reports designed for the Ugandan Ministry of Health (HMIS) and for the Kenyan Ministry of Health (MOH) as well as national independent reports (OH). All of these reports may be useful for any organization and can be added or removed as explained in the Administrator Manual's chapter "6 – Reports".

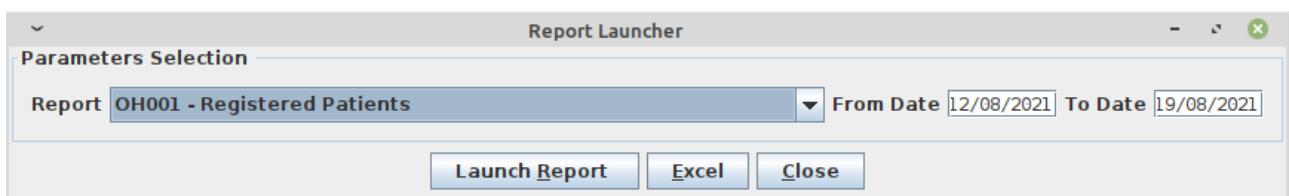
Open Hospital ships with the following set of reports:

- OH001 - Registered Patients
- OH002 - Registered patients by origin
- OH003 - Registered patients by Age and Sex
- OH004 - All incomes by price codes
- OH005 - Count outpatient
- OH006 - Count outpatient diagnosis

- OH007 - Lab monthly basic
- OH008 - Lab summary for OPD
- OH009 – InPatient Report
- OH010 – OutPatient Report
- OH011A - Revenues, Incomes & Receivables (All)
- OH011B - Revenues, Incomes & Receivables (Pending)
- OH011C - Revenues, Incomes & Receivables (Month)
- HMIS 108 - page 1 - 1. census info
- HMIS 108 - page 1 - 2. referrals
- HMIS 108 - page 1 - 3. operations
- HMIS 108 - In Patient (diagnosis In)
- HMIS 108 - In Patient (diagnosis Out)
- HMIS 105 - Opd attendance
- HMIS 105 - Opd referrals
- HMIS 105 - Opd by diagnosis
- HMIS 55b - Lab monthly formatted
- HMIS 33b - Weekly epidem. surveil.
- HMIS 33b - Weekly epidem. surveil. over 5 y.o.
- HMIS 33b - Weekly epidem. surveil. under 5 y.o.
- MOH 717 - Monthly Workload Report for Hospitals (Page1)
- MOH 717 - Monthly Workload Report for Hospitals (Page2)
- MOH 705A - Under 5 - Daily Outpatient Morbidity Summary Sheet
- MOH 705A - Over 5 - Daily Outpatient Morbidity Summary Sheet
- OH23A1 - Open bills list: a report that shows the list of opened bills (pending bills) per period
- OH23B1 - Revenues, Incomes & Receivables: gives the list of incomes per period

11.2 Report Launcher (Launch Report)

This function is used to produce all reports listed in the previous paragraph. Pressing the **Statistics** button on the main menu the **Report Launcher** window is shown:



To produce one report:

- Select a report from the list
- Specify the period (it could be *month-year* or *from date-to date* depending on the report)
- Press the **Launch Report** button for PDF or **Excel** for CSV (Comma Separated Values) format

After some time passes the JasperViewer® will show the generated report as follows:

The screenshot shows a JasperViewer window with a blue header bar containing the title "Registered Patients". Below the header, there is a logo for "OH Open Hospital" featuring a globe icon. The main content area contains the hospital's name, address, email, and phone number. A section titled "novembre" lists daily patient counts, followed by a "TOTAL" row.

01 giovedì	253
02 venerdì	174
03 sabato	66
04 domenica	66
05 lunedì	287
06 martedì	251
07 mercoledì	241
08 giovedì	225
09 venerdì	163
10 sabato	65
11 domenica	66
12 lunedì	318
13 martedì	237
14 mercoledì	223
15 giovedì	1
TOTAL	2636

i By default, an internal PDF viewer is used. An external PDF reader can be used by modifying the INTERNALVIEWER flag in the configuration file. Ask the Administrator refer to the *Administrator's Guide*.

The report can be saved as a PDF by clicking on the save button (PDF) or printing it by clicking on the print button (PRINT).

i A PDF copy of every report is always saved within the folders of Open Hospital. Ask the Administrator or refer to the *Administrator's Guide*.

12 Reports (Reports)

12.1 Main Characteristics

This function is used to generate reports about the hospital like a list of exams, diseases, etc.

*Click with the mouse on the button or press "Alt + R" to enter the **Reports** submenu*



Open Hospital currently only has these two reports:

- Exams List
- Diseases List

12.2 Reports

By pressing **Reports** from the main menu, the **Reports** menu is accessed. From this menu, the following types of reports are available: **Exams List** and **Disease List**.



12.2.1 Exams List (Exams List)

This report is a list of exams, divided by types, as defined by the Administrator.

12.2.2 Disease List (Disease List)

This report is a list of diseases, divided by types, as defined by the Administrator.

13 Communication (Communication)

13.1 Main Characteristics

The Communication module can be enabled by changing the `XMPPEMODULEENABLED` flag in the configuration file. Ask the Administrator or refer to the *Administrator's Guide*.

Through the communication module events and notifications can be shared among users logged into the system,

*Click with the mouse on the button or press "Alt + M" to enter the **Communication** window.*



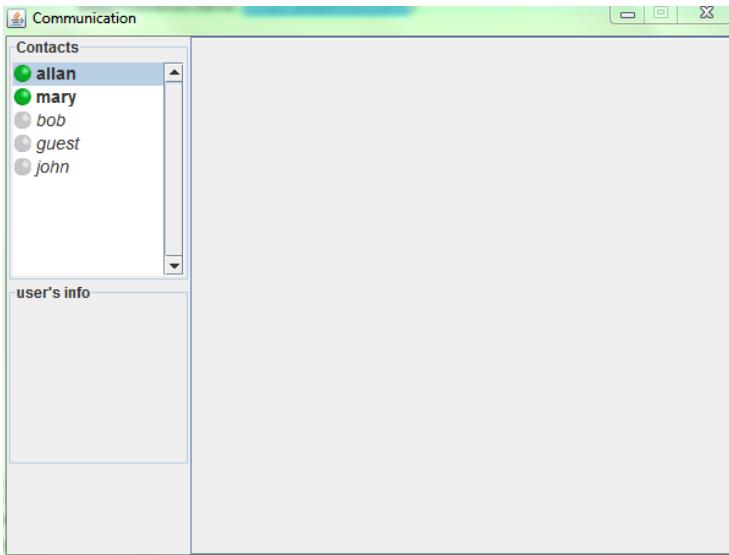
This function is used to chat and share information with other users logged in the system if in turn the application has been set in multi-user mode and an XMPP Server is active and running (Ask the Administrator or refer to the *Administrator's Guide*).

The functionality allows the following tasks:

- Chat
- Admissions notifications
- Pharmaceutical Stock critical levels notifications
- Report sharing

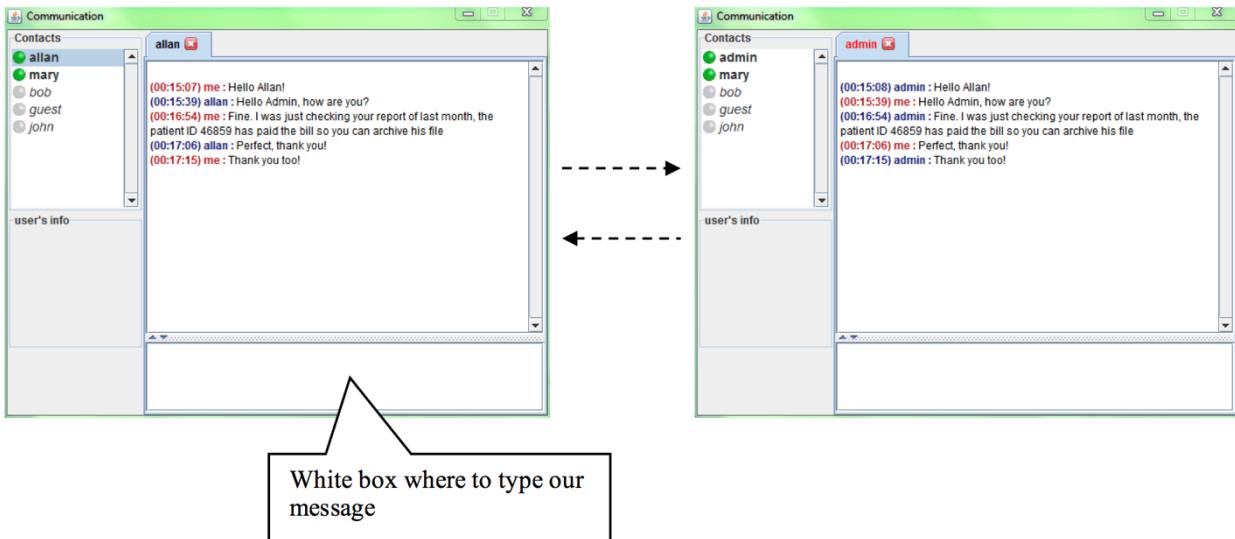
13.2 Chat

By pressing the **Communication** the **Communication** window is shown:



It shows all users logged into the system. Some of them have a green circle near their name: it means that they are currently logged in the system and they are the only ones that can be interacted with. Others have the grey circle near their name: it means that they logged in at least one time in the past but are not currently using the system.

By double-clicking on an active user (i.e. Allan in the figure above) a chat session can be started, as shown in the figures below:



To send a message to Allan, type the message into the white box at the bottom and then press "ENTER"; the message is immediately sent to Allan; when Allan does the same, his response is immediately received. Other users logged in (i.e. Mary in the figures above) cannot see this private conversation.

13.3 Admission/Discharge Notifications

In the **New Admission** window, in the **Buttons panel** there is a dropdown box, as shown below:

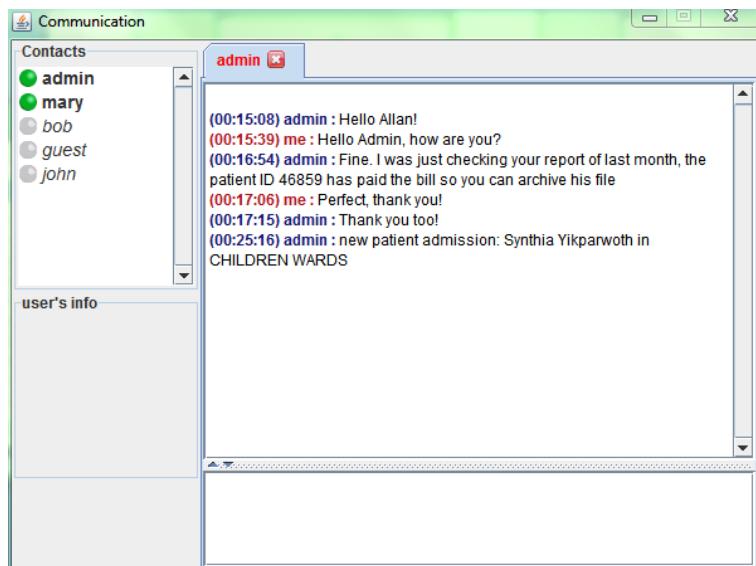
The screenshot shows the 'New admission' window. On the left, there's a placeholder for a patient photo and basic demographic information: Code: 16882, Name: Synthia Yikparwoth, Age: 2, Sex: F, and TOB: . Below this are fields for Tax Number ID, Address (Nyamutete), City (Bulisia), Parents, Next kin, Telephone, Blood type, Insurance, and Patient notes (Malaria, RTI). On the right, the 'Admission / Discharge' tab is selected, showing fields for Ward (CHILDREN WARDS), From Health Unit, Progressive in year (0), Admission date (21/01/13), Admission type (AMBULANCE), Diagnosis -IN- (Acute Flaccid Paralysis), Discharge date, Bed Days, Discharge type, and Diagnosis -OUT- (n. 1, n. 2, n. 3). A note at the bottom indicates that green circles next to names in the contacts list indicate users currently logged into the system. Buttons at the bottom include Save, Close, and a dropdown for sharing alerts.

The box lists all users currently logged into the system (those with the green circle near the name) and allows to send an alert or not (nobody) when the **Save** button is pressed.

13.3.1 Admission Notifications

If the decision is to send a notification about a new admission for user Allan, when the **Save** button is pressed, Allan sees in his **Communication** window a message like “new patient admission:” followed by the patient’s name and the related ward.

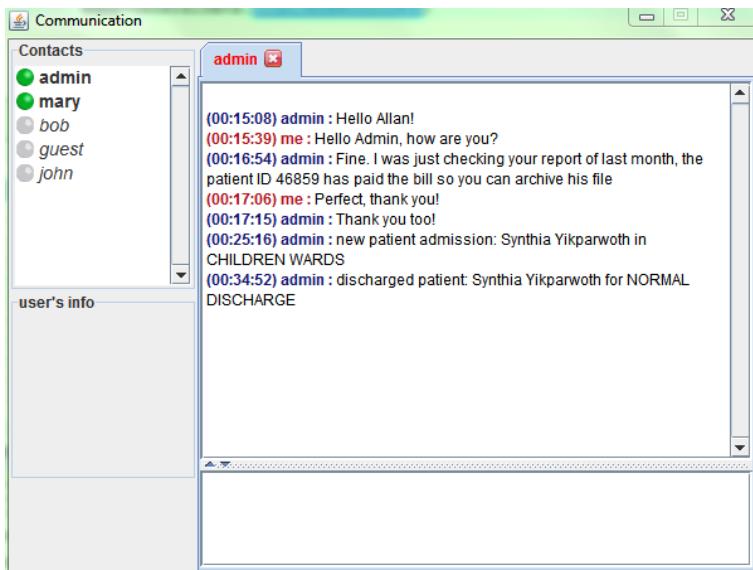
An example of the Allan **Communication** window is shown below:



13.3.2 Discharge Notifications

Similarly, notifications can be sent for discharge events. If the decision is to send a notification about a discharge to user Allan when the **Save** button is pressed, Allan sees in his **Communication** window a message like “discharged patient:” followed by the patient’s name and the related Discharge Type.

An example of the Allan **Communication** window is shown below:



13.4 Pharmaceuticals Critical Level Notifications

In the **Stock Movement Inserting - Discharge** window there is a new box at the bottom, as shown below:

Stock movement inserting

Selection panel

Movement type (Charge/Discharge)
Discharge

Medical

Product Code:

4 Dimethyl Aminobenzaldehyde

Quantity
22

pieces/ml bottles/boxes

Lot Panel

Choose a ward
MATERNITY WARDS

Choose an already existent lot

Lot id	Preparation ...	Due date	Quantity
7624638385...	21-01-2013	21-01-2013	40

Current quantity lying in stock 40.0

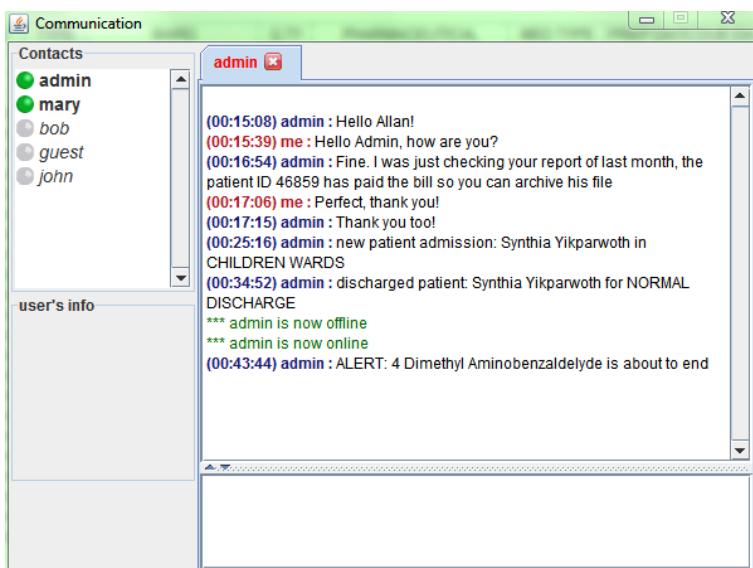
-- Share alert with: Nobody --

Buttons

Ok Reset Close

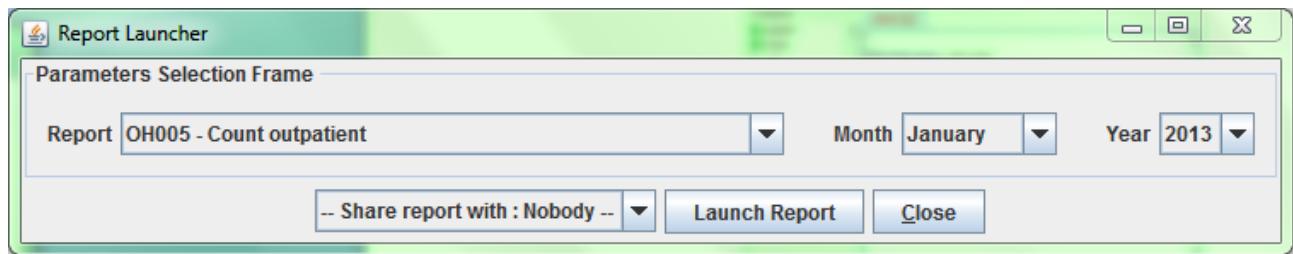
The box becomes active and useful only if the movement is going to reduce the selected pharmaceutical below the critical level. Given such an occurrence the event can be shared with another user logged into the system at the given time when the OK button is pressed.

Assuming such a notification about this discharging movement is to be shared with user Allan, when the OK button is pressed, Allan receives in his **Communication** window a message like “ALERT:” followed by the pharmaceutical name and the text “is about to end” as shown below:



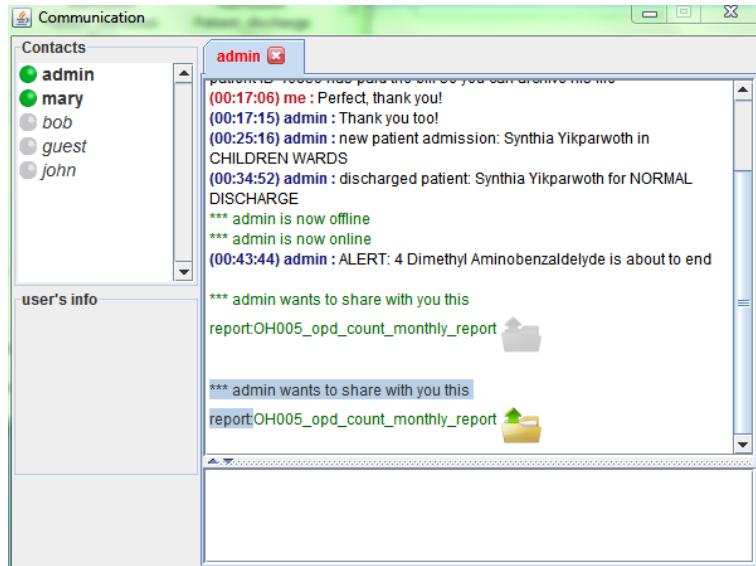
13.5 Report Sharing

In the **Report Launcher** window there is a new box at the bottom, as shown below:



This allows for the decision to share a new report with another user logged into the system when the **Launch Report** button is pressed.

Assuming such a notification about this report is to be shared with user Allan when the **Launch Report** button is pressed, Allan sees in his **Communication** window a message like “*** admin wants to share with you this report:” followed by the report name and a clickable icon that links Allan to the related report. An example of this message is shown below:

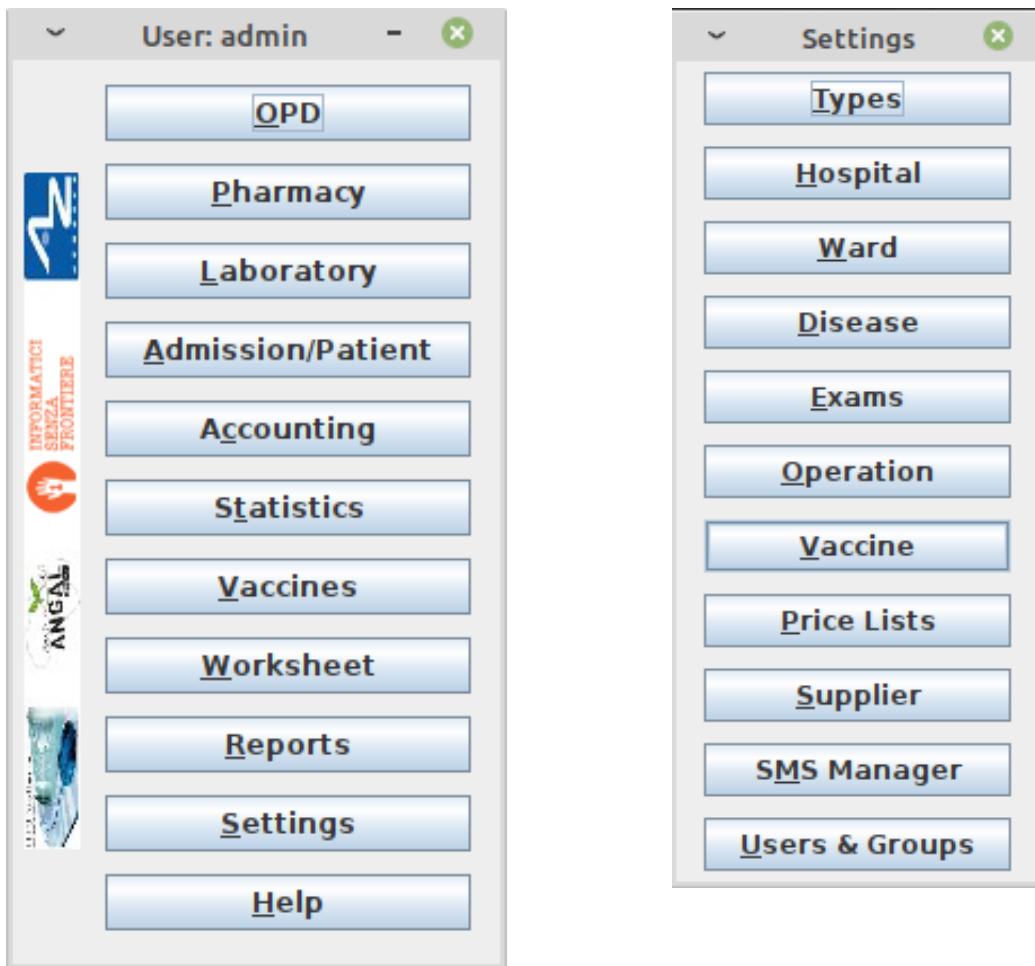


14 Settings (Settings)

14.1 Main Characteristics

One of the administrative tasks is the setup of Open Hospital through the **Settings** functionality. It allows defining all “types” and “data” used in the current Open Hospital implementation.

*Submenu: Press the **Settings** button or “Alt + S” to open the Settings submenu.*



Pressing the **Settings** button main menu provides access to the **Settings** menu. From the **Settings** menu the following functions are available:

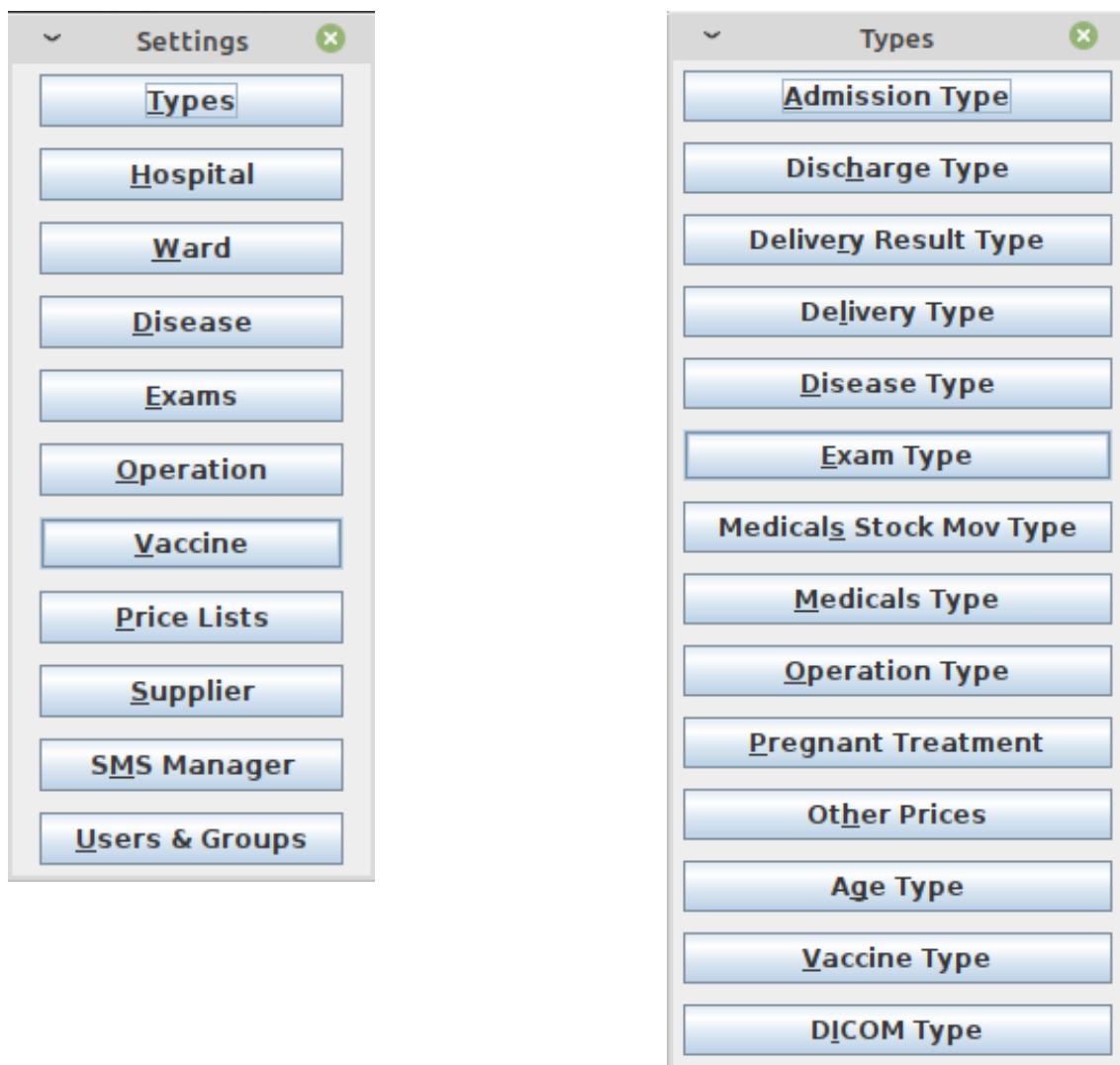
- **Types**: define and manage the various *types* listed in the menu
- **Hospital**: set some Hospital information (name, address, telephone, email, etc.)
- **Ward**: define which departments are in the hospital
- **Disease**: define which diseases are diagnosed in the hospital
- **Exams**: define which laboratory exams are performed in the hospital
- **Operation**: define which surgical operations are provided by the hospital
- **Vaccine**: define which vaccines are given in the hospital
- **Prices lists**: define unitary costs of the services provided by the hospital
- **Supplier**: manage medicals suppliers

- **SMS Manager:** send SMS or schedule an SMS sending
- **Users & Groups:** manage information about various users and groups

14.2 Types (**Types**)

Once the **Types** button is pressed in the **Settings** menu the **Types** menu is presented:

*Settings Menu: Press the **Types** button or “Alt + T” to open the Types Menu*



From the **Types** menu the definition and management of the following types of functions are possible:

- **Admission Type:** the way the patient is admitted to the hospital
i.e. Ambulance, Self, Referral, etc.
- **Discharge Type:** the way the patient is discharged from the hospital
i.e. Healed, Unchanged, Dead, etc.
- **Delivery Result Type:** the various childbirth results for reporting
i.e. Live Birth, Newborn Death, Fresh Still Birth, etc.
- **Delivery Type:** the ways the mothers are assisted in childbirth
i.e. Normal Delivery, Caesarean Section, etc.

- **Disease Type:** the way similar diseases are grouped
i.e. Epidemic, Maternal, etc.
- **Exam Type:** the way similar laboratory exams are grouped+ *i.e. Haematology, Parasitology, Serology, etc.*
- **Medicals Stock Mov Type:** the kind of movements, meant as charge or discharge, that are performed in the Medical Store
i.e. Charge, Discharge, Donation, Correction, etc.
- **Medicals Type:** the way similar pharmaceuticals are grouped
i.e. Drugs, Chemical, Laboratory, etc.
- **Operation Type:** the way similar surgical operations are grouped
i.e. Abdominal, Obstetrical, Orthopaedic, etc.
- **Pregnant Treatment:** the treatments provided to expectant mothers
i.e. First dose with SP, Second dose with SP, etc.
- **Other Prices:** extra services the hospital provides (it will be reflected in Prices lists)
i.e. Admission Fee, Food, POP, etc.
- **Age Type:** the age classifications used by the hospital
i.e. Newborn, Childhood, Adult, Elderly, etc.
- **Vaccine Type:** the way similar vaccines are grouped
i.e. Child, Adult, Pregnant, etc.
- **DICOM Type:** the way similar DICOM types are grouped
i.e. X-Ray, CT-Scan, NMR, etc.

14.2.1 Admission Types (Admission Type)

Once the **Admission Type** button in the **Types** menu is pressed, the **Admission Type Browser** window is shown:

CODE	DESCRIPTION
A	AMBULANCE
R	REFERRAL
I	SELF

[New](#)
[Edit](#)
[Delete](#)
[Close](#)

The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if it is still used somewhere in the application).
- **Close**: close the window.

The Admission Types defined are used in the Admission function (see [Start the admission of a patient](#) and [Discharge of a patient](#) in this document).

14.2.2 Discharge Types (Discharge Type)

Once the **Discharge Type** button in the **Types** menu is pressed, the **Discharge Type Browser** window is shown:

CODE	DESCRIPTION
D	DEAD
ES	ESCAPE
EQ	NORMAL DISCHARGE
B	REFERRED

[New](#)
[Edit](#)
[Delete](#)
[Close](#)

The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

The Discharge Types defined are used in the Admission function (see [Start the admission of a patient](#) and [Discharge of a patient](#) in this document).

14.2.3 Delivery Result Types (**Delivery Result Type**)

Once the **Delivery Result Type** button in the **Types** is pressed, the **Delivery Result Type Browser** window is shown:

CODE	DESCRIPTION
S	FRESH STILL BIRTH
A	LIVE BIRTH
B	MASTERATED STILL BIRTH
M	MATERNAL DEATH
N	NEWBORN DEATH

[New](#)
[Edit](#)
[Delete](#)
[Close](#)

The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

The Delivery Result Types defined are used in the Admission function (see [Insert or Modify Delivery data](#) in this document).

14.2.4 Delivery Types (**Delivery Type**)

Once the **Delivery Type** button in the **Types** menu is pressed, the **Delivery Type Browser** window is shown:

CODE	DESCRIPTION
C	DELIVERY ASSISTED BY CESARIAN SECTION
N	NORMAL DELIVERY
V	DELIVERY ASSISTED BY VACUUM EXTRACTION

[New](#) [Edit](#) [Delete](#) [Close](#)

The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

The Delivery Types defined are used in the Admission function (see [Insert or Modify Delivery data](#) in this document).

14.2.5 Disease Types (**Disease Type**)

Once the **Disease Type** button in the **Types** menu is pressed, the **Disease Type Browser** window is shown:

CODE	DESCRIPTION
ND	1.NOTIFIABLE DISEASES
OC	2.OTHER INFECTIOUS/COMMUNICABLE DISEA...
MP	3.MATERNAL AND PERINATAL DISEASES
NC	4.NON-COMMUNICABLE DISEASES
AO	5. All Other

[New](#)
 [Edit](#)
 [Delete](#)
 [Close](#)

The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

The Disease Types defined are used throughout the application. For example, in the definition of Diseases or in OPD (see [Disease](#) and [Create a new patient visit](#) in this document).

14.2.6 Exam Types ([Exam Type](#))

Once the **Exam Type** button in the **Types** menu is pressed, the **Exam Type Browser** window is shown:

CODE	DESCRIPTION
HB	1.Haematology
BT	2.Blood transfusion
PA	3.Parasitology
BA	4.Bacteriology
MC	5.Microscopy
SE	6. Serology
CH	7. Chemistry
OC	8.Occult Blood
OL	OLD EXAMS
OT	OTHER
SP	STOOLPARASITES
UR	URINALYSIS

[New](#)
[Edit](#)
[Delete](#)
[Close](#)

The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

The Exam Types defined are used in the Laboratory function (see [Laboratory](#) in this document).

14.2.7 Medicals Stock Movement Types (**Medicals Stock Mov Type**)

Once the **Medicals Stock Mov Type** button in the **Types** menu is pressed, the **Medicals Stock Movement Types Browser** window is shown:

CODE	DESCRIPTION	TYPE
charge	Charge	+
discharge	Discharge	-

New **Edit** **Delete** **Close**

The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

By pressing the **New** button, the **New Medical Stock Movement Type** window is shown:

New Medical Stock Movement Type	
Code (max 10 chars):	<input type="text"/>
Description:	<input type="text"/>
Type:	<input type="text"/> + <input type="button" value="▼"/>
OK	Cancel

The allowed types are “” and “-“ and this means that any kind of movements is either a charging (+) or a discharging (-) of the stock.

Examples are:

- Positive correction (+)

- Negative correction (-)
- Donation (+)
- Lost (-)
- ...

The Medical Stock Movement Types defined are used in the Pharmaceutical Stock function (see [Insert Stock Discharging Movement](#) in this document).

14.2.8 Medicals Types (Medicals Type)

Once the Medicals Type button in the *Types* menu is pressed, the *Medical Type Browser* window is shown:

Medical Type Browser	
CODE	DESCRIPTION
K	Chemical
D	Drugs
L	Laboratory
S	Surgery

<u>New</u>	<u>Edit</u>	<u>Delete</u>	<u>Close</u>
------------	-------------	---------------	--------------

The functions available in this window (similar to other windows in the *Types* menu) are:

- New: enter a new type (cannot use an existing code).
- Edit: edit an existing type (the code cannot be changed).
- Delete: delete an existing type (cannot be deleted if still used somewhere in the application).
- Close: close the window.

The Medical Types defined are used throughout the application. For example, in the Pharmacy function and Pharmaceutical Stock Ward (see [Insert a new pharmaceutical](#) and [Search Ward Pharmacy movements](#) in this document).

14.2.9 Operation Types (Operation Type)

Once the **Operation Type** button in the **Types** menu is pressed, the **Operation Type Browser** window is shown:

CODE	DESCRIPTION
AG	ABDOMINAL GENERAL SURGERY
GY	GYNECOLOGICAL
MG	MALE GENITOR-URINARY SYSTEM
OB	OBSTETRICAL
OR	ORTHOPEDICAL
OS	OTHERS: SKIN AND SUBCUTANEOUS

New **Edit** **Delete** **Close**

The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

The Operation Types defined are used in the Admission function (see [Insert or Modify Surgery Data](#) in this document).

14.2.10 Pregnant Treatment Types (Pregnant Treatment Type)

Once the **Pregnant Treatment** button in the **Types** menu is pressed, the **Pregnant Treatment Type Browser** window is shown:

CODE	DESCRIPTION
A	ANC RE-ATTENDANCE
S1	FIRST DOSE WITH SP
I1	IMMUNISATION 1
I2	IMMUNISATION 2
I3	IMMUNISATION 3
N	NEW ANC ATTENDANCE
S2	SECOND DOSE WITH SP

[New](#)
 [Edit](#)
 [Delete](#)
 [Close](#)

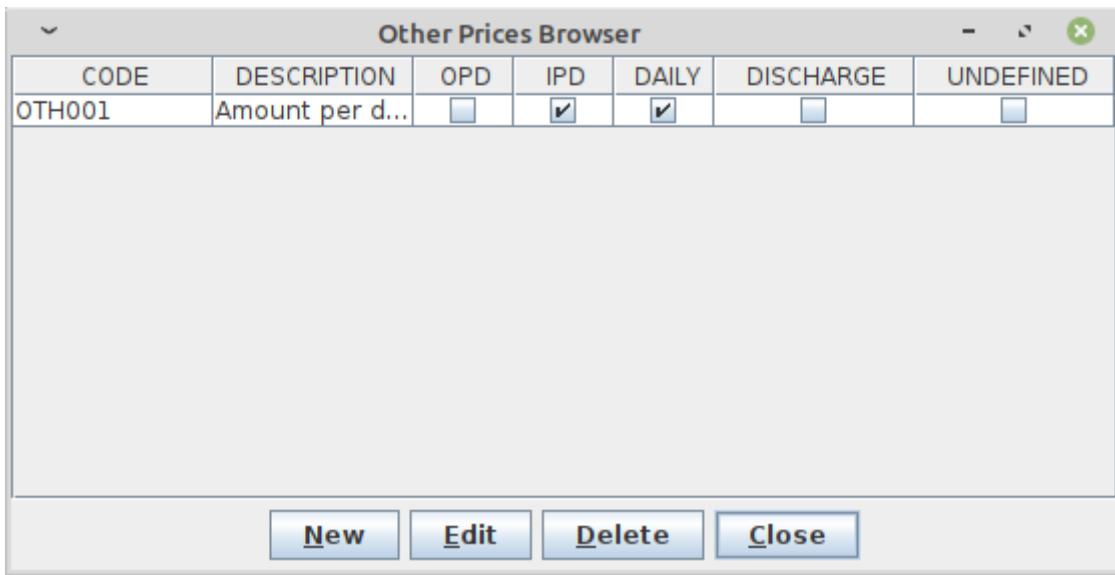
The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

The Pregnant Treatment Types defined are used in the Admission function (see [Insert or Modify Delivery data](#) in this document).

14.2.11 Other Prices (Other Prices)

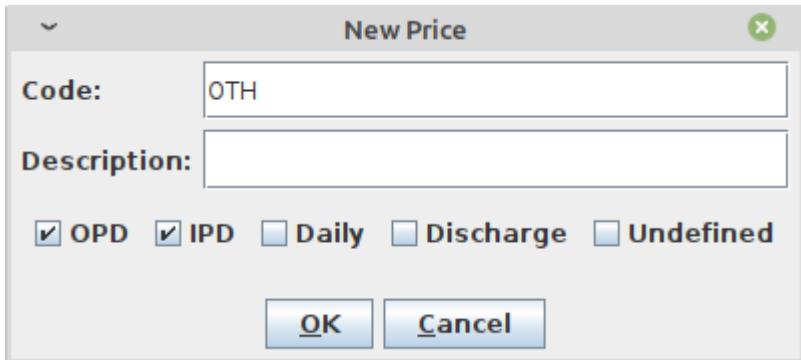
Once the **Other Prices** button in the **Types** menu is pressed, the **Other Prices Browser** window is shown:



The functions available in this window (similar to other windows in the **Types** menu) are:

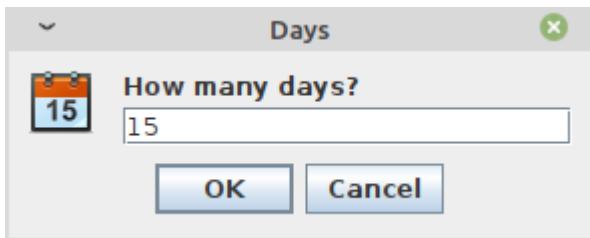
- **New**: enter a new price (cannot use an existing code).
- **Edit**: edit an existing price (the code can be changed).
- **Delete**: delete an existing price (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

To create a new price, press the **New** button, and the **New Price** window is shown:

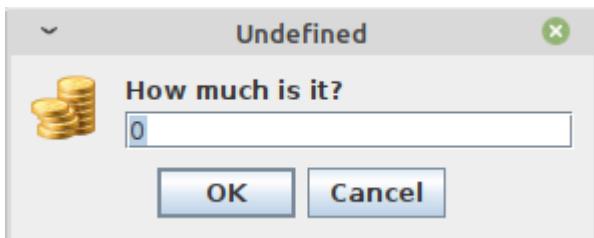


To insert a new price, provide the following data:

- **Code**: the price code and which should be unique; there are no restrictions on this field since the application uses an internal code to uniquely identify the item
- **Description**: the price description that may include the code for a faster search
- **OPD**: if the price is applicable with OPD (not yet implemented)
- **IPD**: if the price is applicable with IPD (not yet implemented)
- **Daily**: if the price should be applied for every bed-day (not yet implemented) or just once; if checked, provide a value for "How many days?" when using this item while managing a patient's bill; see the following **Days** window:



- **Discharge:** if the item has to be treated as a negative value so it will act as a discharge in the billing statement (i.e., Charge-Off, Free-of-charge, etc.).
- **Undefined:** if the item has no value in the Price List and the amount was set as “on the fly” while editing a bill; if checked, a value for “How much is it?” in the following **Undefined** window must be provided:



The Other Prices defined are used in the Accounting and Price List functions (see [Insert a new bill](#) and [Prices](#) in this document).

14.2.12 Age Types (Age Type)

Once the **Age Type** button in the **Types** menu is pressed, the **Age Type Browser** window is shown:

Age Type Browser			
d0	0	0	Newborn
d1	1	5	Early Childhood
d2	6	12	Late Childhood
d3	13	24	Adolescent
d4	25	59	Adult
d5	60	99	Elderly

Edit **Close**

Note that age ranges are fixed and only the Administrator can change their values to best fit the health normative in the country.

By pressing the **Edit** button, the table allows modification of the age values and the button changes to **Save**.

Age Type Browser			
d0	0	0	Newborn
d1	1	5	Early Childhood
d2	6	12	Late Childhood
d3	13	24	Adolescent
d4	25	59	Adult
d5	60	99	Elderly

Save **Close**

By double-clicking on each value, the value is changed by typing a new value. Then pressing the **Save** button, the new information is stored in the system.

Only integer values are allowed and every range must be **contiguous** and may not **overlap** any previous or following value.

For example, in the following case, ranges *Late Childhood* and *Adolescent* are not **contiguous** and ages 14 and 15 are not defined in any range:

Age Type Browser			
d0	0	0	Newborn
d1	1	5	Early Childhood
d2	6	13	Late Childhood
d3	16	24	Adolescent
d4	25	59	Adult
d5	60	99	Elderly

Save **Close**

In the following example, the ranges *Late Childhood* and *Adolescent* **overlap** since both start with age 6:

Age Type Browser			
d0	0	0	Newborn
d1	1	5	Early Childhood
d2	6	13	Late Childhood
d3	6	24	Adolescent
d4	25	59	Adult
d5	60	99	Elderly

Save **Close**

The Age Types defined are used in the Patient Extended functionality (see [Insert a new Patient Extended](#) in this document).

14.2.13 Vaccine Types (**Vaccine Type**)

Once the **Vaccine Type** button in the **Types** menu is pressed, the **Vaccine Type Browser** window is shown:

CODE	DESCRIPTION
C	Child
N	No pregnant
P	Pregnant

[New](#) [Edit](#) [Delete](#) [Close](#)

The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

The Vaccine Types defined are used in the Vaccine function (see [Vaccines](#) in this document).

14.2.14 DICOM Types (DICOM Type)

Once the **DICOM Type** button in the **Types** menu is pressed, the **DICOM Type Browser** window is shown:

DICOM Type Browser	
CODE	DESCRIPTION
CTS	CT-SCAN
NRM	NM Resonance
XRA	X-RAY

[New](#) [Edit](#) [Delete](#) [Close](#)

The functions available in this window (similar to other windows in the **Types** menu) are:

- **New**: enter a new type (cannot use an existing code).
- **Edit**: edit an existing type (the code cannot be changed).
- **Delete**: delete an existing type (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

The DICOM Types defined are used in the DICOM Load function (see [DICOM Viewer](#) in this document).

14.3 Hospital (Hospital)

Once the **Hospital** button in the **Settings** menu is pressed, the **Hospital Information** window is shown:

Hospital Information

Name:	St. Luke HOSPITAL - Angal
Address:	P.O. BOX 85 - NEBBI
City:	ANGAL
Telephone:	+256 0472621076
Fax number:	+256 0
Email address:	angal@ucmb.ug.co.
Currency Code:	UGX

[Edit](#) [Update](#) [Close](#)

By pressing the **Edit** button it is possible to modify the hospital information:

Hospital Information

Name:	St. Luke HOSPITAL - Angal
Address:	P.O. BOX 85 - NEBBI
City:	ANGAL
Telephone:	+256 0472621076
Fax number:	+256 0
Email address:	angal@ucmb.ug.co.
Currency Code:	UGX

[Edit](#) [Update](#) [Close](#)

By pressing the **Update** button, the new information is stored in the system and is reflected throughout the entire application; for example, in the reports heading (see **Statistics** in this document).

14.4 Ward (Ward)

Once the **Ward** button in the **Settings** menu is pressed, the **Ward Browser** window is shown:

CODE	NAME	TELEPHONE	FAX	E-MAIL	Ward Browser						
					BEDS	NURSES	DOCTORS	HAS PHARMACY	MALE	FEMALE	
C	CHILDREN WARD	219			135	18	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
F	FEMALE WARD	218			41	15	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
I	MALE WARD	210			53	14	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
M	MATERNITY WARD	211			67	19	4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

[New](#) [Edit](#) [Delete](#) [Close](#)

The functions available in this window are:

- **New**: enter a new ward (cannot use an existing code).
- **Edit**: edit an existing ward (the code cannot be changed).
- **Delete**: delete an existing ward (cannot be deleted if still used somewhere in the application).
- **Close**: close the window.

By pressing the **New** button the **New Ward** window is shown:

New Ward

Code *	T
Name *	MALE WARD 2
Telephone	232
Fax	
E-mail	
Number of beds *	100
Number of nurses *	5
Number of doctors *	2
<input checked="" type="checkbox"/> Ward with pharmacy	
<input checked="" type="checkbox"/> Male Ward	
<input type="checkbox"/> Female Ward	

* Required fields

OK **Cancel**

To insert a new ward, provide the following required inputs:

- **Code:** the ward code (it must be unique)
- **Name:** the name of the ward
- **Number of beds:** the value is shown in the admission module to check for available beds; 0 – zero beds wards will be not shown in the admission module
- **Number of nurses:** it may be shown in some reports (0 – zero is allowed)
- **Number of doctors:** it may be shown in some reports (0 – zero is allowed)
- **Ward with pharmacy:** it is used in Pharmaceuticals Stock; if checked it means that ward can be a destination for discharging movements, otherwise it will be not shown in the list
- **Male Ward:** if it is a male Ward
- **Female Ward:** if it is a female Ward



Using this function the definition of wards with 0 (zero) beds but with a pharmacy is possible. This allows for "logical" departments (rather than physical) to manage pharmacy movements.

The wards defined are used throughout the entire application. See for example, the Admission module, Pharmaceuticals Stock and Pharmaceuticals Stock Ward (see [Admission/Patient](#), [Pharmaceutical Stock](#) and [Pharmaceuticals Stock Ward](#) in this document).

14.5 Disease (Disease)

Once the **Disease** button in the **Settings** menu is pressed, the **Diseases Browser** window is shown:

CODE	TYPE	NAME
28	3.MATERNAL AND PERINATAL DISEASES	Abortions
1	1.NOTIFIABLE DISEASES	Acute Flaccid Paralysis
106	4.NON-COMMUNICABLE DISEASES	Acute renal failure
107	4.NON-COMMUNICABLE DISEASES	Acute sepsis
29	2.OTHER INFECTIOUS/COMMUNICABLE DISEASES	AIDS
75	4.NON-COMMUNICABLE DISEASES	Alcohol and drug abuse
49	5. All Other	All Other DISEASEs
12	4.NON-COMMUNICABLE DISEASES	Anaemia
82	4.NON-COMMUNICABLE DISEASES	Animal/snake bite
71	4.NON-COMMUNICABLE DISEASES	Anxiety disorders
68	4.NON-COMMUNICABLE DISEASES	Asthma
93	4.NON-COMMUNICABLE DISEASES	Benine neoplasm's (all type)
94	4.NON-COMMUNICABLE DISEASES	Cancer of the breast
95	1.NOTIFIABLE DISEASES	Cancer of the prostate
98	4.NON-COMMUNICABLE DISEASES	Caposis and other skin cancers
103	4.NON-COMMUNICABLE DISEASES	Cardiac arrest
102	4.NON-COMMUNICABLE DISEASES	Cerebro-vascular event
76	4.NON-COMMUNICABLE DISEASES	Childhood and mentle disorders
2	1.NOTIFIABLE DISEASES	Cholera
92	4.NON-COMMUNICABLE DISEASES	Compication and surgical care
91	1.NOTIFIABLE DISEASES	Congenital malformations and chromosome abnormal...
127	1.NOTIFIABLE DISEASES	Covid-19
101	4.NON-COMMUNICABLE DISEASES	Curable Ulcers
56	2.OTHER INFECTIOUS/COMMUNICABLE DISEASES	Death in OPD
13	4.NON-COMMUNICABLE DISEASES	Dental DISEASE and conditions

Select type **ALL**

The functions available in this window are:

- **Selected Type:** filter the list by selecting only one Disease Type.
- **New:** enter a new disease (cannot use an existing code).
- **Edit:** edit an existing disease (the code and type cannot be changed).
- **Delete:** delete an existing disease (it is set as not present in OPD or in IPD).
- **Close:** close the window.

By pressing the **Edit** button, the *Edit Disease* window is shown:

Edit Disease

Type	1.NOTIFIABLE DISEASES
Code	95
Description	Cancer of the prostate
<input type="checkbox"/> OPD <input checked="" type="checkbox"/> IPD -IN- <input checked="" type="checkbox"/> IPD -OUT-	
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

In editing mode, the type and code cannot be changed and the the only modifications allowed are to the Description and if the disease should appear only in OPD, or Admissions, or in both.

By removing the check from all the checkboxes (OPD, IPD -IN-, and IPD -OUT-) a **Delete** action is performed disabling the disease from appearing in the application. This action can be undone by editing the disease again.

The diseases defined are reflected throughout the entire application, like in the Admission module and the OPD module (see [Admission/Patient](#) and [Outpatient Department Management](#) in this document).

14.6 Exam (Exams)

Once the **Exams** button in the **Settings** menu is pressed, the **Exam Browser** window is shown:

Exam Browser					
		Search			
CODE	TYPE	DESCRIPTION	PROC	DEFAULT	
01.01	1.Haematology	1.1 WBC	1	>=12 (NORMAL)	
01.02	1.Haematology	1.2 WBC Count	1	4000 - 7000 (NORMAL)	
01.03	1.Haematology	1.3 Differential	1		
01.04	1.Haematology	1.4 Film Comment	1	0	
01.05	1.Haematology	1.5 ESR	1	NORMAL	
01.06	1.Haematology	1.6 Sickling Test	1	NEGATIVE	
02.01	2.Blood transfusion	2.1 Grouping	1		
02.02	2.Blood transfusion	2.2 Comb's Test	1	NEGATIVE	
03.01	3.Parasitology	3.1 Blood Slide (Malaria)	1	NEGATIVE	
03.02	3.Parasitology	3.2 Blood Slide (OTHERS, E.G. TRIUPHANOS...)	1	NEGATIVE	
03.021	3.Parasitology	3.21 Trypanosomiasis	1	NEGATIVE	
03.022	3.Parasitology	3.22 MICROFILARIA	1	NEGATIVE	
03.023	3.Parasitology	3.23 LEISHMANIA	1	NEGATIVE	
03.024	3.Parasitology	3.24 BORRELLIA	1	NEGATIVE	
03.03	3.Parasitology	3.3 STOOL MICROSCOPY	2		
03.04	3.Parasitology	3.4 URINE MICROSCOPY	1	NEGATIVE	
03.05	3.Parasitology	3.5 TISSUE MICROSCOPY	1	NEGATIVE	
03.06	3.Parasitology	3.6 CSF WET PREP	1	NEGATIVE	
04.01	4.Bacteriology	4.1 CULTURE AND SENSITIVITY (C&S) FOR HA...	1	NEGATIVE	
04.02	4.Bacteriology	4.2 C&S FOR SALMONELA TYPHI	1	NEGATIVE	
04.02	4.Bacteriology	4.3 C&S FOR LISTERIA MONOCYTOGENES	1	NEGATIVE	

The functions available in this window are:

- **Search:** subset the list by typing a keyword.
- **Select Type:** subset the list by selecting only one Exam Type.
- **New:** enter a new exam (cannot use an existing code).
- **Edit:** edit an existing exam (the code and type cannot be changed).
- **Delete:** delete an existing exam (it is set as not present in OPD or in IPD).
- **Results:** define possible results for the selected exam.
- **Close:** close the window.

By pressing the **Edit** button, the **Edit Exam** window is shown:

Edit Exam

Type:	1.Haematology
Code:	01.06
Description:	1.6 Sickling Test
Procedure:	1
Default:	NEGATIVE

OK **Cancel**

In editing mode, the type, code or procedure cannot be changed and the only modifications allowed are to the Description and the default value.

By pressing the **New** button, the *New Exam* window is shown:

New Exam

Type:	1.Haematology
Code:	
Description:	
Procedure:	1
Default:	

OK **Cancel**

To insert a new Exam the following data must be provided:

- **Type:** the Exam Type (see [Exam Types](#) in this document).
- **Code:** a unique code; a warning window will appear if not unique.
- **Description:** the exam name.
- **Procedure:** the kind of results for this exam (see [Results](#) in this document).
- **Default:** a default value among the results that are going to be defined (see [Results](#) in this document).

14.6.1 Results ([Results](#))

Once an exam is defined, the next step is the definition of the set of results the exam can have. First, select the exam in the **Exam Browser** window and then press the [Results](#) button.

In Open Hospital three kinds of results can be defined, called “Procedure”:

- **Procedure 1:** a set of values as description; only one will be selectable as exam **Single Result**
- **Procedure 2:** a set of Positive/Negative values; all of them will figure as exam **Multiple Results**
- **Procedure 3:** a specific value to be input manually; it will show an **input field** at the time of the exam registration

The difference between **Procedures (1, 2, 3)** can be seen in the Laboratory module (see [Create a new laboratory exam](#) and [Laboratory Multiple Insert](#) in this document).

Because for [Procedure 3](#) the exact value is not known, the [Result](#) button is disabled in this case:

Exam Browser				
		Search		
CODE	TYPE	DESCRIPTION	PROC	DEFAULT
01.01	1.Haematology	1.1 HB	1	>=12 (NORMAL)
1.1.1	1.Haematology	1.1.1 HB (Procedure 3)	3	
01.02	1.Haematology	1.2 WBC Count	1	4000 - 7000 (NORMAL)
01.03	1.Haematology	1.3 Differential	1	
01.04	1.Haematology	1.4 Film Comment	1	0
01.05	1.Haematology	1.5 ESR	1	NORMAL
08.01	8.Occult Blood	8.1 OCCULT BLOOD	1	NEGATIVE
01.06	1.Haematology	1.6 Sickling Test	1	NEGATIVE
02.01	2.Blood transfusion	2.1 Grouping	1	
02.02	2.Blood transfusion	2.2 Combs's Test	1	NEGATIVE
03.02	3.Parasitology	3.2 BLOOD PARASITES (OTHERS, E.G. TRIUPHANOS...)	1	NEGATIVE
03.021	3.Parasitology	3.21 Trypanosomiasis	1	NEGATIVE
03.022	3.Parasitology	3.22 MICROFLARIA	1	NEGATIVE
03.023	3.Parasitology	3.22 LEISHMANIA	1	NEGATIVE
03.01	3.Parasitology	3.1 Blood Slide (Malaria)	1	NEGATIVE
03.024	3.Parasitology	3.24 BORRELLIA	1	NEGATIVE
03.03	3.Parasitology	3.3 STOOL MICROSCOPY	2	
03.04	3.Parasitology	3.4 URINE MICROSCOPY	1	NEGATIVE
03.05	3.Parasitology	3.5 TISSUE MICROSCOPY	1	NEGATIVE
03.06	3.Parasitology	3.6 CSF WET PREP	1	NEGATIVE
04.01	4.Radiology	A.1 CULTURE AND SENSITIVITY (CFC) FOR LIA	1	NEGATIVE

The two remaining possibilities are shown below:

1.1 HB Results		URINALYSIS Results	
CODE	DESCRIPTION	CODE	DESCRIPTION
87	6 - 12	79	BILIRUBIN
88	< 6	81	HCG
89	>=12 (NORMAL)	80	PROTEIN
		76	SEDIMENTS
		77	SUGAR
		78	UROBILINOPEN

The functions available in both windows are:

- New: enter a new result.
- Delete: delete a defined result.
- Close: close the window.

14.7 Operations (Operation)

Once the **Operation** button in the **Settings** menu is pressed, the **Operations Browser** window is shown:

ID	TYPE	NAME	CONTEXT
45	ABDOMINAL GENERAL SURGERY	Abdominal Tumours	OPD / ADMISSION
13	GYNECOLOGICAL	Acute abdomen	OPD / ADMISSION
43	ABDOMINAL GENERAL SURGERY	Appendicitis	OPD / ADMISSION
30	MALE GENITOR-URINARY SYSTEM	Bladder biopsy	OPD / ADMISSION
1	OBSTETRICAL	Caesarian section	OPD / ADMISSION
44	ABDOMINAL GENERAL SURGERY	Cholecystitis	OPD / ADMISSION
21	MALE GENITOR-URINARY SYSTEM	circumcision	OPD / ADMISSION
20	GYNECOLOGICAL	Cystorele	OPD / ADMISSION
51	OTHERS: SKIN AND SUBCUTANEOUS	Debridement	OPD / ADMISSION
11	OBSTETRICAL	Dilatation and curettage	OPD / ADMISSION
24	MALE GENITOR-URINARY SYSTEM	dorsal slit-paraphimosis	OPD / ADMISSION
14	GYNECOLOGICAL	Ectopic pregnancy	OPD / ADMISSION
3	OBSTETRICAL	elective	OPD / ADMISSION
2	OBSTETRICAL	emergency	OPD / ADMISSION
34	ABDOMINAL GENERAL SURGERY	Epigastrical Hernia	OPD / ADMISSION
8	OBSTETRICAL	Evacuations	OPD / ADMISSION
31	ABDOMINAL GENERAL SURGERY	Hernia (inguinal & femoral)	OPD / ADMISSION
26	MALE GENITOR-URINARY SYSTEM	Hydrocelectomy	OPD / ADMISSION
4	OBSTETRICAL	Hysterectomy	OPD / ADMISSION
7	OBSTETRICAL	Hysterectomy	OPD / ADMISSION
50	OTHERS: SKIN AND SUBCUTANEOUS	Incision & drainage	OPD / ADMISSION
9	OBSTETRICAL	Incomplete abortion	OPD / ADMISSION
6	OBSTETRICAL	Injured uterus	OPD / ADMISSION
37	ABDOMINAL GENERAL SURGERY	Intestinal obstruction	OPD / ADMISSION
40	ABDOMINAL GENERAL SURGERY	Laparatomy	OPD / ADMISSION
48	ORTHOPEDICAL	Lower limb	OPD / ADMISSION
38	ABDOMINAL GENERAL SURGERY	Mechanical	OPD / ADMISSION
52	OTHERS: SKIN AND SUBCUTANEOUS	Mise -a- plat	OPD / ADMISSION
33	ABDOMINAL GENERAL SURGERY	Non strangulated	OPD / ADMISSION
49	ORTHOPEDICAL	Osteomyelitis - sequestrectomy	OPD / ADMISSION
18	GYNECOLOGICAL	Ovarian tumours	OPD / ADMISSION
23	MALE GENITOR-URINARY SYSTEM	paraphimosis	OPD / ADMISSION
16	GYNECOLOGICAL	Pelvic abscess	OPD / ADMISSION
41	ABDOMINAL GENERAL SURGERY	Penetrating abdominal injuries	OPD / ADMISSION
15	GYNECOLOGICAL	Peritonitis	OPD / ADMISSION
42	ABDOMINAL GENERAL SURGERY	Peritonitis	OPD / ADMISSION
22	MALE GENITOR-URINARY SYSTEM	phimosis	OPD / ADMISSION
29	MALE GENITOR-URINARY SYSTEM	Prostate biopsy	OPD / ADMISSION

The functions available in this window are:

- **Selected type**: filter the list by selecting only one Operation Type.
- New: enter a new operation (cannot use an existing code).
- Edit: edit an existing operation (the code and type cannot be changed).
- Delete: delete an existing operation (it is set as not present in OPD or in IPD).
- Close: close the window.

By pressing the **Edit** button, the **Edit Operation** window is shown:

Edit Operation

Type:	ABDOMINAL GENERAL SURGERY
Code:	45
Description:	Abdominal Tumours
<input checked="" type="radio"/> Major <input type="radio"/> Minor	
Context:	OPD / ADMISSION
<input type="button" value="OK"/> <input type="button" value="Cancel"/>	

In editing mode, the type or the code cannot be changed but only modification of the Description and whether the operation concerns Major or Minor surgery for statistical purposes (not yet implemented) are allowed.

You can also change the operation's context: *OPD / ADMISSION, ADMISSION, OPD*.

The Operations defined are used throughout the entire application, like in the Admission module (see [Insert or Modify Surgery data](#) in this document).

14.8 Vaccine (Vaccine)

Once the **Vaccine** button in the *Settings* menu is pressed, the **Vaccine Browser** window as shown below:

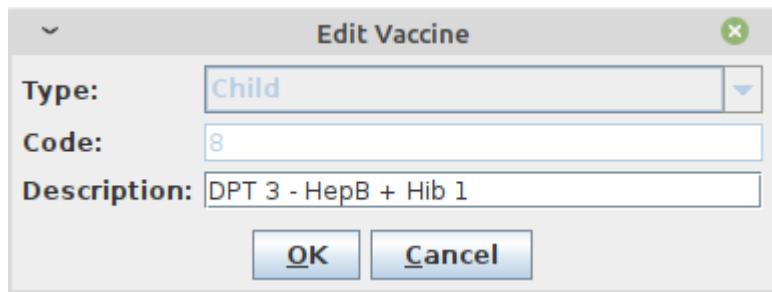
Vaccine Browser		
CODE	TYPE	DESCRIPTION
1	Child	BCG
6	Child	DPT 1 - HepB + Hib 1
7	Child	DPT 2 - HepB + Hib 1
8	Child	DPT 3 - HepB + Hib 1
9	Child	MEASLES
2	Child	POLIO 0 C
3	Child	POLIO 1 C
4	Child	POLIO 2 C
5	Child	POLIO 3 C
10	Pregnant	TT VACCINE DOSE 1
15	No pregnant	TT VACCINE DOSE 2
11	Pregnant	TT VACCINE DOSE 2
16	No pregnant	TT VACCINE DOSE 3
12	Pregnant	TT VACCINE DOSE 3
17	No pregnant	TT VACCINE DOSE 4
13	Pregnant	TT VACCINE DOSE 4
18	No pregnant	TT VACCINE DOSE 5
14	Deceased	TT VACCINE DOSE 5

Select type

The functions available in this window are:

- **Selected type:** filter the list by selecting only one Vaccine Type.
- **New:** enter a new vaccine (cannot use an existing code).
- **Edit:** edit an existing vaccine (the code and type cannot be changed).
- **Delete:** delete an existing vaccine (it is set as not present in OPD or in IPD).
- **Close:** close the window.

By pressing the **Edit** button, the **Edit Vaccine** window is shown:



In editing mode, type and code cannot be changed; only modification of the Description is permitted.

The vaccines defined are used throughout the entire application, like in the Vaccine module (see [Vaccines](#) in this document).

14.9 Prices (Price Lists)

Once the **Price Lists** button in the *Settings* menu is pressed, the **Price Browser** window is shown:

Price Browser		BASIC PRICE LIST (FCFA)		Manage Lists
		NAME	PRICES	
Basic				
Exams				
	1.1 HB		10	
	1.1.1 HB (Procedure 3)		0	
	1.2 WBC Count		10	
	1.3 Differential		12	
	1.4 Film Comment		8	
	1.5 ESR		14	
	1.6 Sickling Test		14	
	2.1 Grouping		10	
	2.2 Comb's Test		0	
	3.1 Blood Slide (Malaria)		10	
	3.2 Blood Slide (OTHERS, E.G. TRIUPHANOSOMIAS, MICRIFILARIA, LEI		12	
	3.21 Trypanosomiasis		15	
	3.22 MICROFILARIA		12	
	3.23 LEISHMANIA		12	
	3.24 BORRELIA		12	
	3.3 STOOL MICROSCOPY		16	
	3.4 URINE MICROSCOPY		16	
	3.5 TISSUE MICROSCOPY		16	

The functions available in this window are:

- **Save**: save any modifications made to the price list.
- **Printing**: print the current price list.
- **Cancel**: close the window.
- Switch price list: focus on a different price list by selecting it in the upper-left corner of the window.
- **Manage Lists**: define how many and which price list will be available in the application (see [Price Lists](#) in this document).

The **Price Browser** window shows the list of all prices in the selected price lists; the system automatically creates a price for every exam (see [Exam](#)), operation (see [Operations](#)) and medical (see [Pharmaceuticals](#)) defined in the system, plus other prices defined in Other Prices module (see [Other Prices](#)).

To modify a price just double-click on it and type the new price.



If a price has been defined as “undefined” (see [Other Prices](#)) it will appear as 0 (zero) and cannot be modified.



Exams', operations' and medicals' prices are automatically created as OPD, IPD, not “daily”, not “undefined”, and not “discharge”; see [Other Prices](#) for more information.

When all the modifications are made the changes can be stored permanently in the system by pressing the **Save** button. A confirmation message reports the success of the operation:



14.9.1 Price Lists ([Manage Lists](#))

Once the **Manage Lists** button in the **Price Browser** window is pressed, the **List Browser** window is shown:

List Browser			
ID	NAME	DESCRIPTION	CURRENCY
LIST001	Basic	Basic price list	FCFA
New	Copy	Edit	Delete

The functions available in this window are:

- **New**: enter a new price list.
- **Copy**: create a new price list as a copy of another one.
- **Edit**: edit an existing price list.

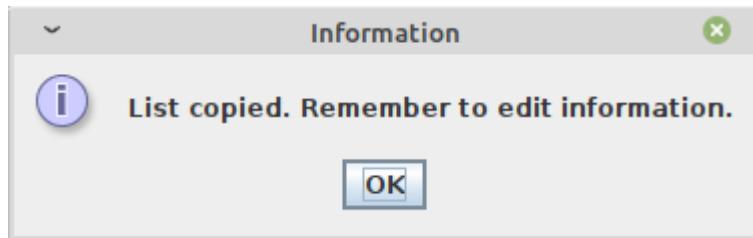
- **Delete:** delete an existing price list.

- **Close:** close the window.

After selecting a list to copy, press the **Copy** button and the system prompts with a series of windows asking:

1. a **Name** of the new price list
2. a **Multiplier** for all prices in the selected price list
3. a **Rounding Factor** for all prices in the new price list

A confirmation message reports the success of the operation:



By default, the new list is created with the following information:

ID: "aCode"

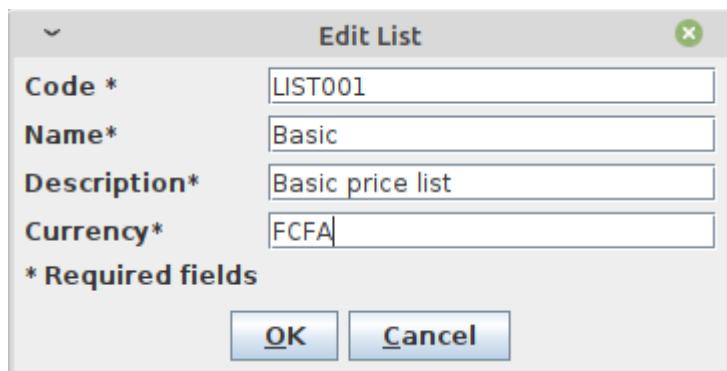
NAME: the same name provided in the step by step copying procedure

DESCRIPTION: "a Description"

CURRENCY: the currency of the selected price list

Once the copy has been created the information can be changed by editing the price list just created.

By pressing the **Edit** button, the **Edit List** window is shown:



In editing mode, any of the data related to the list can be changed.

The lists defined are used in the Accounting module (see [Insert a new bill](#) in this document).

14.10 Supplier (Supplier)

Once the **Supplier** button in the **Settings** menu is pressed, the **Supplier Browser** window is shown:

ID	NAME	ADDRESS	TAX NUMBER ID	TELEPHONE	FAX	E-MAIL	NOTE	DELETED
1	JMS	Sesame Street - 73149 New ...		+22.243454252	+22.243454252	info@enterprise.com		
2	Enterprise Limited							

[New](#) [Edit](#) [Delete](#) [Close](#)

The functions available in this window are:

- **New**: insert a new supplier.
- **Edit**: edit an existing supplier.
- **Delete**: delete a supplier.
- **Close**: close the window.

The **Supplier Browser** window shows the list of all the suppliers in the system.

To add a supplier, click the **New** button to access the **New Supplier** window as shown below:

New Supplier

ID:	
Name: *	
Address:	
Tax Number ID:	
Telephone:	
Fax number:	
E-mail:	
Note:	

* Required fields:

OK Cancel

The information associated with a new supplier is:

- **Name:** is the supplier's name (it is the only required field).
- **Address:** is the supplier's address.
- **Tax Number ID:** is the supplier's tax number.
- **Telephone:** is the supplier's phone number.
- **Fax number:** is the supplier's FAX number.
- **E-mail:** is the supplier's email address.
- **Note:** Additional notes about the supplier.

When the data is entered, click the OK button to save the new supplier.

To edit the supplier's information, in the **Supplier Browser** highlight the supplier and click on the **Edit** button to open the **Edit Supplier** window. After performing the necessary modifications, click the OK button to save the changes.

To delete a supplier, in the **Supplier Browser** highlight the supplier and click on the **Delete** button to remove the selected Supplier.

14.11 SMS Manager (SMS Manager)

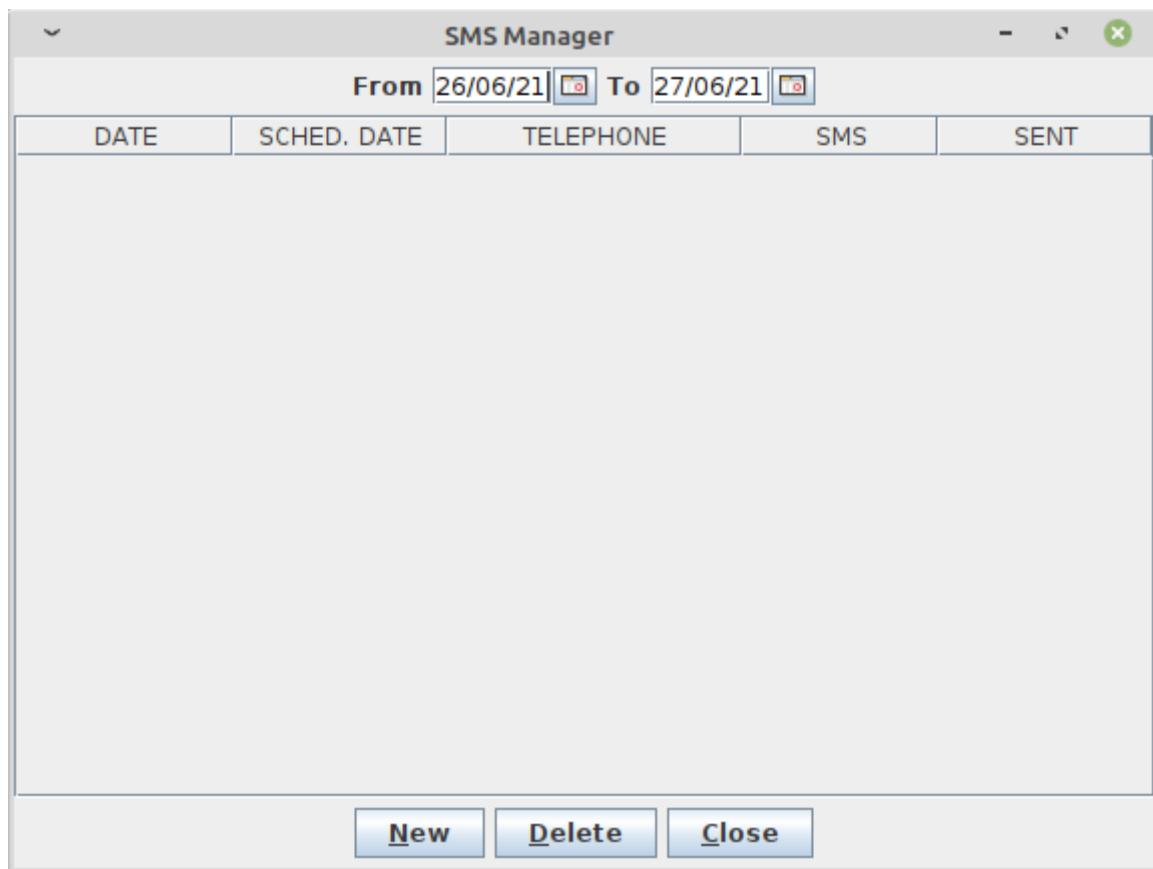


SMS pricing is set and collected by the SMS Provider (GSM or HTTP) and is related to or controlled by this software.



Sending SMS in Open Hospital requires that the Gateway is well configured. Either a GSM gateway or WebApi Gateway can be used. Ask the Administrator about enabling this function or refer to the *Administrator's Guide*.

Once the **SMS Manager** button in the **Settings** menu is pressed, the **SMS Manager** window is shown:

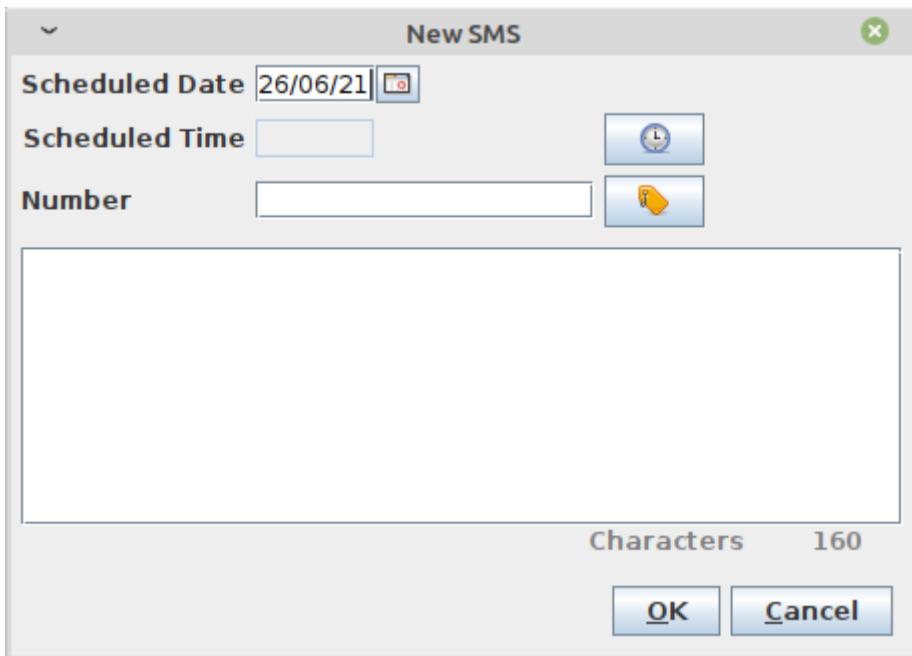


The functions available in this window are:

- **New**: send a new SMS.
- **Delete**: delete an SMS.
- **Close**: close the window.

It is also possible to filter the SMS list by a date range.

To send a new SMS, click the **New** button to access the **New SMS** window:



In order to insert a new SMS, the following data is required:

- **Scheduled Date:** use this field to send an SMS in the future. Use the current date and time to send the SMS immediately.
- **Scheduled Time:** use this field to send an SMS in the future. Use the current date and time to send the SMS immediately.
- **Number:** the recipient of the SMS. You can select a patient by clicking the button . The phone number of the selected patient is automatically inserted.
- **SMS:** type the text of the SMS in the white space (maximum of 160 characters).

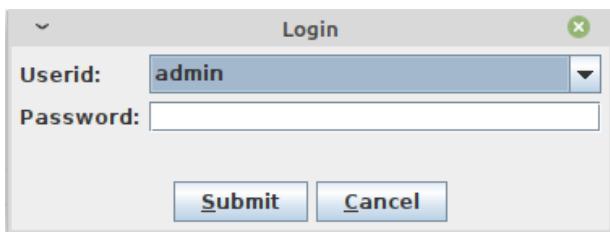
Then click **OK** to save the new SMS. If the scheduled date and time are now, the SMS is sent immediately.

To delete an SMS, highlight the SMS and click the **Delete** button to delete the SMS.

14.12 Users & Groups (Users & Groups)

The User Menu can be enabled or disabled by changing the *SINGLEUSER* flag in the configuration file. Ask the Administrator to enable/disable this function or refer to the *Administrator's Guide*.

If *SINGLEUSER* is set to NO the following login window is shown when the program starts:



Once successfully logged into the system, if enabled by the Administrator, the **Users & Groups** button in the **Settings** submenu is available.

Once the ***Users & Groups*** button in the ***Settings*** submenu is pressed, the ***Users & Groups*** submenu is shown:



Open Hospital allows the management of users organized into groups; each group is characterized by different permissions assigned by the Administrator.

Before registering a new user in the system, ensure that there is a group defined with the related permissions to which the user should have access.

14.12.1 Groups (***Groups***)

Once the ***Groups*** button in the ***Users*** submenu is pressed, the ***Groups Browser*** window is shown:

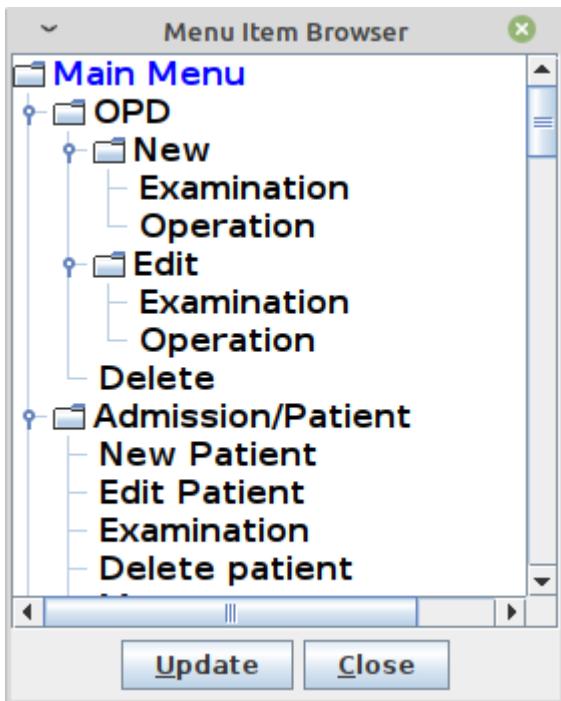
Groups Browser	
GROUP	DESCRIPTION
admin	USER with all the privileges
guest	Read Only Users

Edit **New** **GroupMenu** **Delete** **Close**

The functions available in this window are:

- **Edit**: edit an existing group (only the description can be changed).
- **New**: enter a new group.
- **GroupMenu**: define rights and permission for a selected group.
- **Delete**: delete an existing group.
- **Close**: close the window.

By pressing the ***GroupMenu*** button, the ***Menu Item Browser*** window is shown:

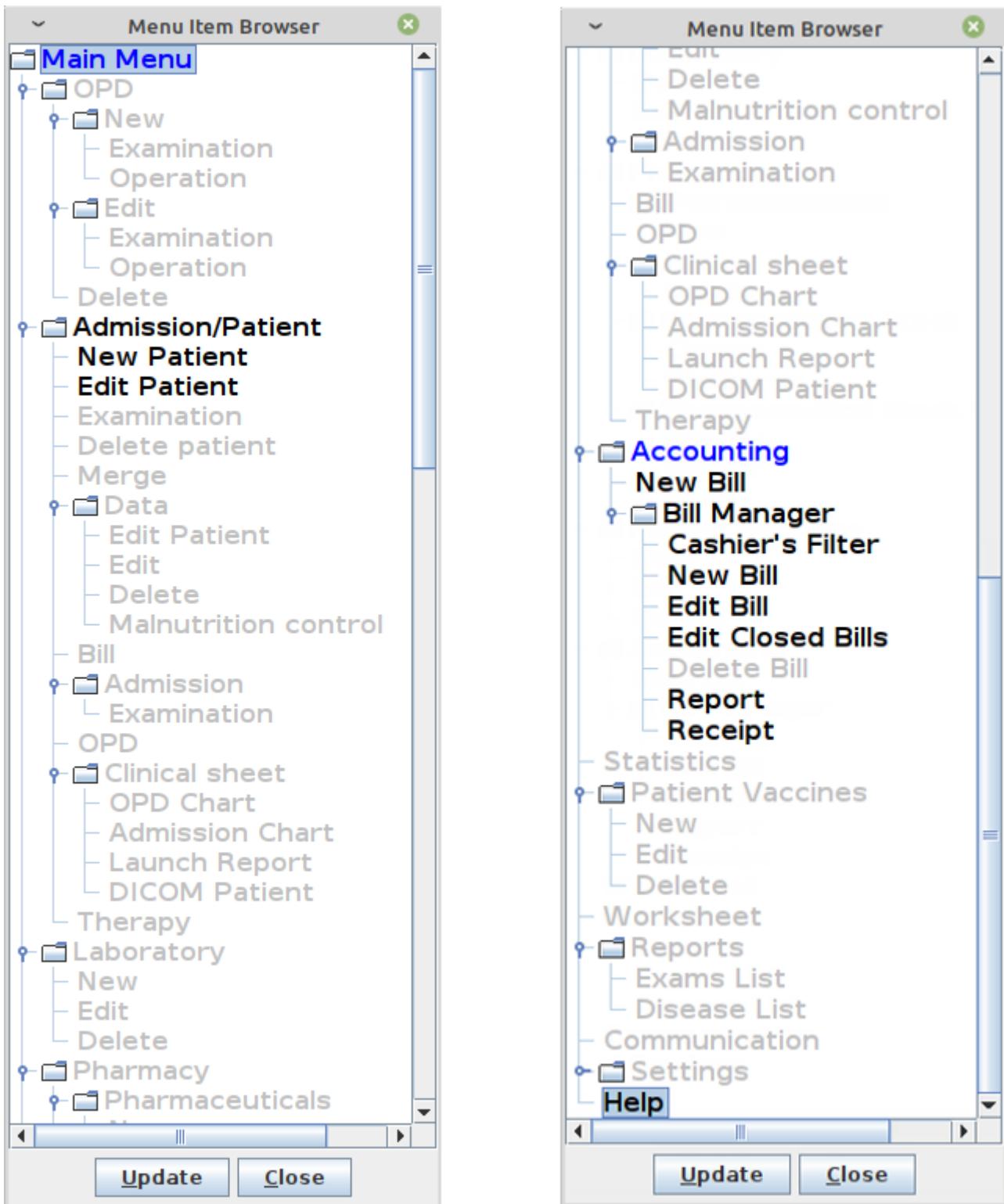


The window shows the full set of functions available in Open Hospital in a tree format:

- main is the “trunk”: the main menu
- **Blue** nodes are the “branches”: menus and windows
- **Black** nodes are the “leaves”: buttons and functions

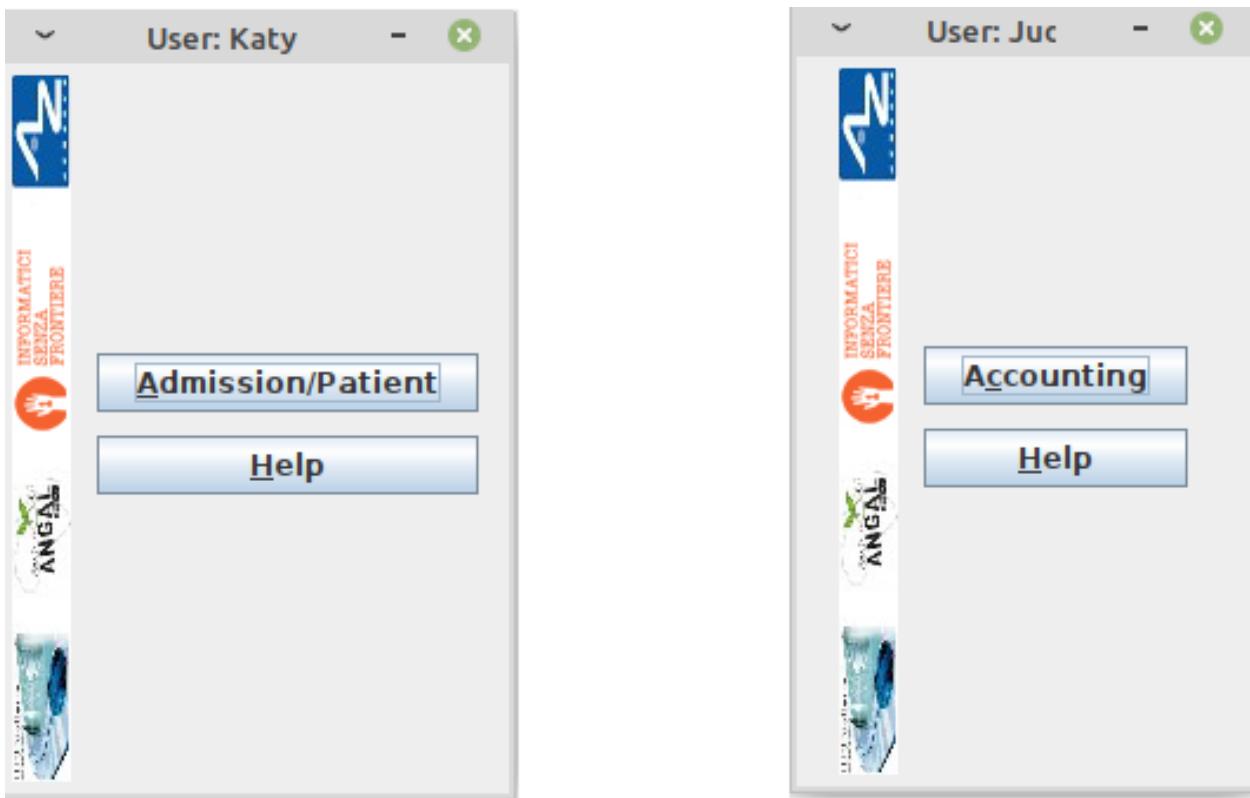
Double-clicking on each branch or leaf enables or disables that function or set of functions for the selected group.

For instance, the group “Registration Office” and the group “Cashiers” may have the following group permission configurations:



So, the Registration Office group can only use the Admission/Patient module to insert and edit patients, while the Cashiers group can only use the Accounting module to produce bills.

So, the “main menu” for each user registered in the Registration Office group and for each one in the Cashiers group is shown as follows:



14.12.2 Users (Users)

Once the **Users** button in the **Users & Groups** submenu is pressed, the **User Browser** window is shown:

User Browser		
USER	GROUP	DESCRIPTION
admin	admin	administrator
Allan	admin	
Bob	admin	
guest	guest	guest
John	admin	
Judith	Cashiers	Cashier
Katy	Registration Office	Receptionist
Mary	admin	

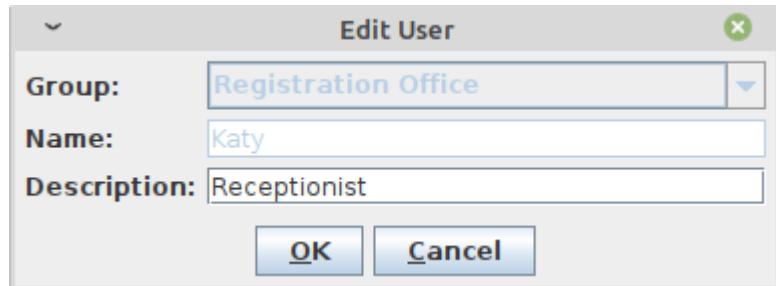
Select group: **All** **New** **Edit** **Reset Password** **Delete** **Close**

The functions available in this window are:

- **Selected group:** filter the list by selecting only one group.

- **New**: enter a new user (cannot use the same name).
- **Edit**: edit an existing user (the group cannot be changed).
- **Reset Password**: change the password for an existing user.
- **Delete**: delete an existing user.
- **Close**: close the window.

By pressing the **Edit** button, the **Edit User** window is shown:



In editing mode, only the description can be modified.

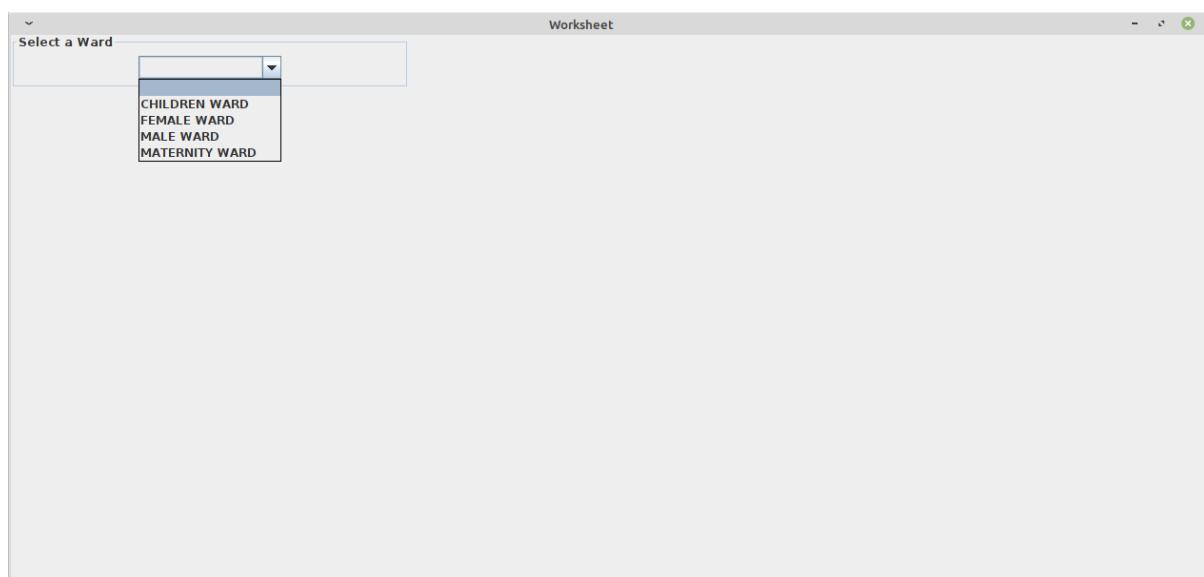
15 Worksheet (Worksheet)

The **Worksheet** function allows the management and printing of the list of appointments scheduled.

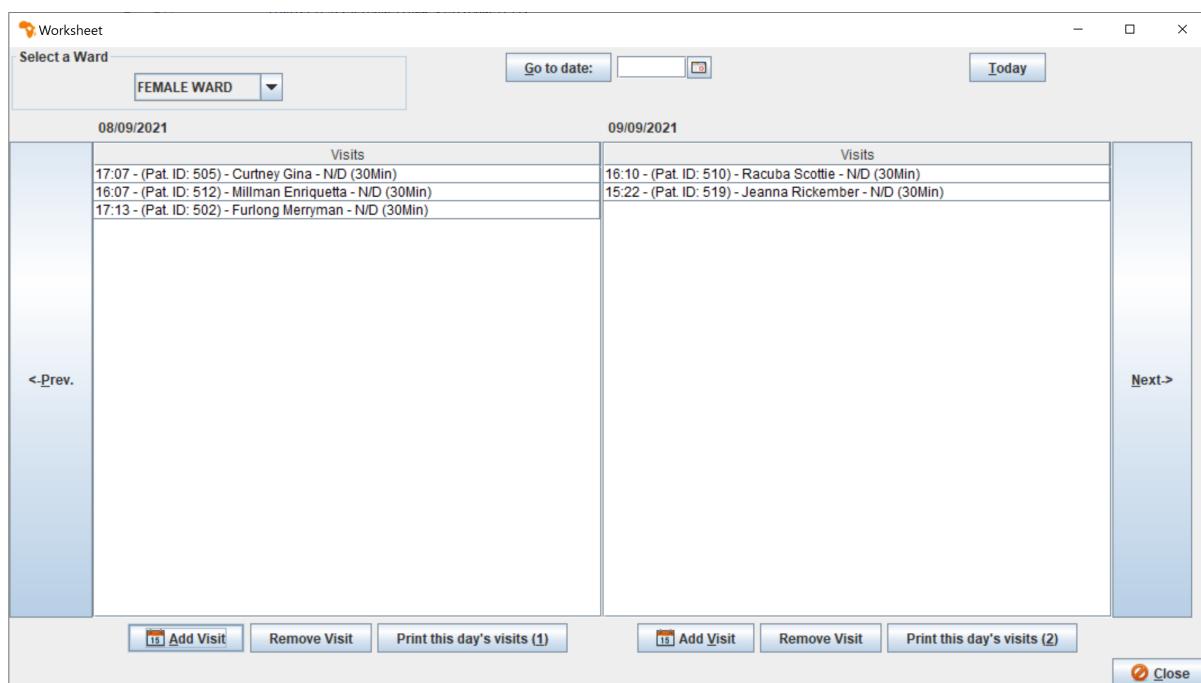
Click the mouse on the button or press "Alt + W" to enter the **Worksheet** page:



The *Worksheet* module works at the Ward (Department) level therefore a ward must first be selected:



Once selected, the ward (it is possible to switch to another ward at any time), a two-column appointment schedule is shown with the appointments/services scheduled for today (on the left) and tomorrow (on the right):



Another date can be selected with the **Go to date** field or reset the schedule back to today with the button **Today**. In all cases, the window *always* shows the chosen date on the left and the following day on the right.

The functions available in this window are:

- **Add Visit:** schedule a new visit for a specific date (on the left or on the right).
- **Remove Visit:** remove a visit for a specific date (on the left or on the right).
- **Print this day's visits:** print the specific date scheduled visits.
- **Next→:** see the schedule for the following day.
- **←Prev.:** see the schedule for the previous day.
- **Close:** close the window.



To schedule a visit can also be done in the **Therapy Management** module, see [Therapy Management](#)

16 License



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