

BLIS – Kenya

Lab Administrator Guide

Rev 2.5

A joint initiative of C4G @ Georgia Tech, the CDC, @iLabAfrica
– Strathmore University , Association of Public Health
Laboratories (APHL) and participating countries

2015



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1.0 Getting started with BLIS

To start the Basic Laboratory Information System, you must click on the bookmark saved on the web browser e.g. Google Chrome or Mozilla Firefox. You will then see a page requesting login information. You must then enter your credentials to proceed.





Bungoma District Hospital Laboratory

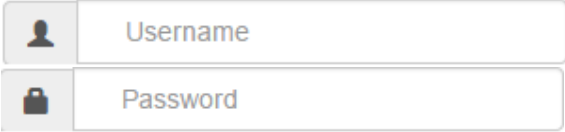
[Login](#)

[User Guide in progress](#)

kBLIS - a port of the Basic Laboratory Information System (BLIS) to Laravel by iLabAfrica. BLIS was originally developed by C4G.

1.1 Signing into BLIS

1. Fill in your username and password then click



2. If you try to sign in while either of the username or password fields is blank, you will

get errors as displayed below

- The 'Username' field is required.
- The 'Password' field is required.

3. If you try to sign in with unmatching username or password, the following errors shall

be displayed.

Username and/or password invalid.

If you have forgotten your password, kindly contact the lab-in-charge for help.

On successful sign-in, you should see such a page as this. The highlighted section shows the person signed in.



2.0 Lab Configuration

The lab configuration section allows you to change how reports are generated, load drivers and define equipment for instrumentation, what patient data is collected, referral facilities, as well as various other settings.

The various pages of this section are explained in the following pages:



2.1 Instrumentation

2.1.1 Conceptualization

How do we dynamically add new functionality to handle new analyzers? Using a *plugin* facility.

Can *BLIS* fetch results from different analyzers of the same type? e.g. CELTAC1 in Ward 1 and CELTAC2 in Ward 2.

Yes! That's why we have 2 buttons.

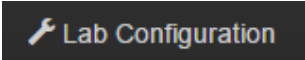
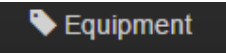
-  is for adding the driver (common to all machines of the same type).
-  is for specifying the physical location of the machine.

2.1.2 Implementation

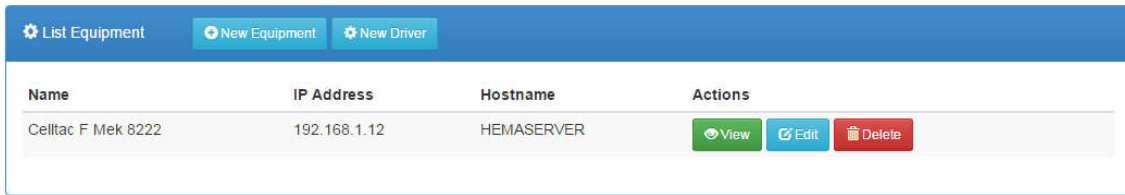
BLIS interfaces with the connected equipment courtesy of a class file that extends the `AbstractInstrumentor` class which in turn implements the `InstrumentorInterface`. A sample file is provided (*CeltacWBC.php*) showing the format in which BLIS expects the result of the `getResult()` method.

On importation, plugin files are copied to the `app/kblis/plugins/` directory. From there, they can be loaded into the application via `psr-4`.

2.1.3 Instrumentation user interface

1. This can be accessed from the  link, then click the  sub menu on the navigation menu.

2. The default page shows a list of all Equipment already configured for use.





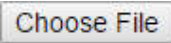
Name	IP Address	Hostname	Actions
Celltac F Mek 8222	192.168.1.12	HEMASERVER	View Edit Delete

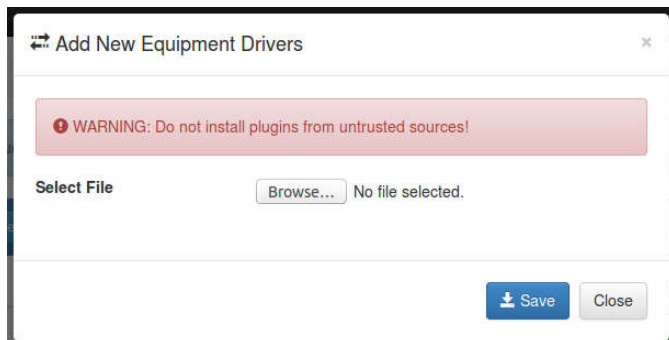
2.1.4 Configuring equipment drivers

Driver files tell *kBLIS* how to access test information from analyzers. A driver implementation should publish following information:

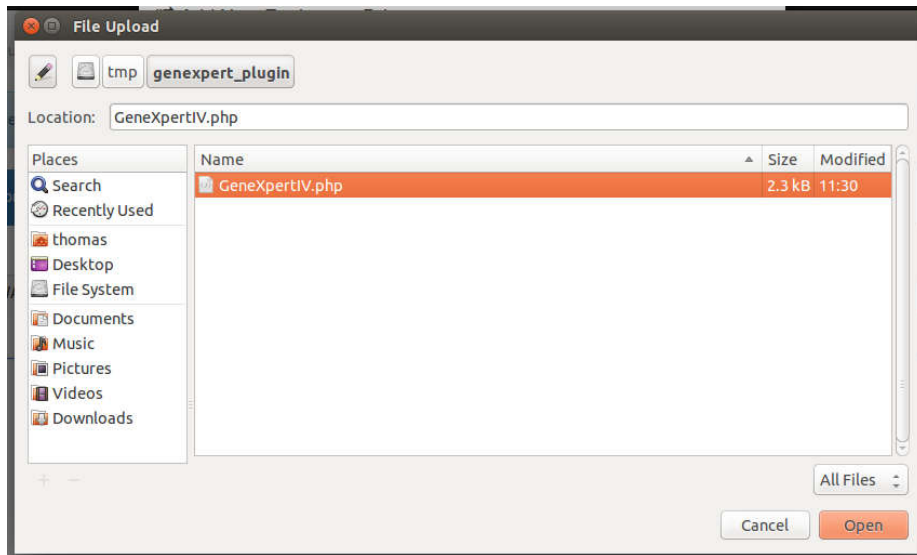
- the equipment name
- a unique identification code
- a description of the equipment
- the medical tests it can perform.

To import a driver file,

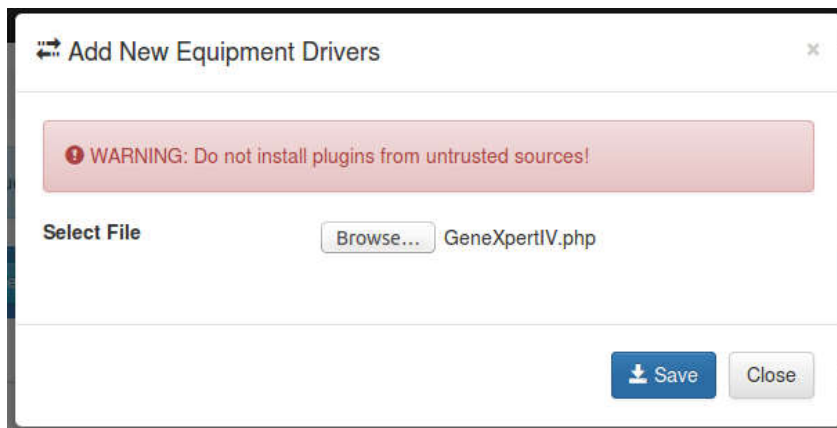
- Click on the  button on the Equipment List page.
- In the dialog box that appears, click the  or  button to open a files dialog box



- Select a driver file




iv. Save the driver file




The new driver will now be listed as one of the available drivers.




2.1.5 View equipment details


Clicking the  button displays the details of the listed equipment.

Equipment Details 	
Name	Celltac F Mek 8222
Description	Automatic analyzer with 22 parameters and WBC 5 part diff Hematology Analyzer
IP Address	192.168.1.12
Hostname	HEMASERVER
Can perform:	WBC
Registration Date	2014-11-24 10:41:32

2.1.6 Update equipment details

The  button allows for changing the details of the listed equipment including:


- name
- description
- ip address
- host name

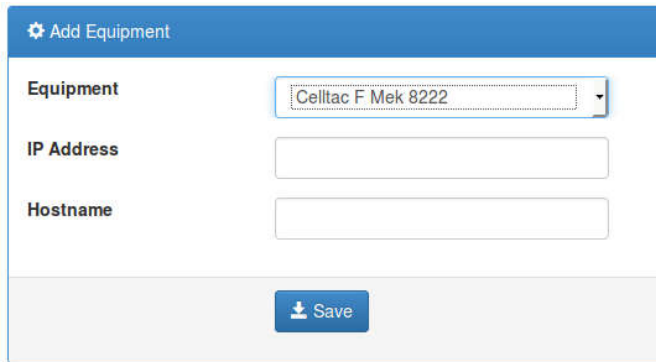
Edit Equipment 	
Name	<input type="text" value="Celltac F WARD 4"/>
Description	<input type="text" value="Automatic analyzer with 22 parameters and WBC 5 part diff Hematology Analyzer"/>
IP Address	<input type="text" value="192.168.1.134"/>
Hostname	<input type="text" value="WARD4_OFFICE"/>
Supported Tests	<input type="text" value="WBC"/>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

The **Supported Tests** field depends on the equipment driver implementation thus is not editable.

2.1.7 Adding new equipment

In this step, the user defines the location of a particular machine by specifying the IP address and optionally the hostname to which the machine is attached.


1. The process is initiated by clicking on  from the Equipment List page.

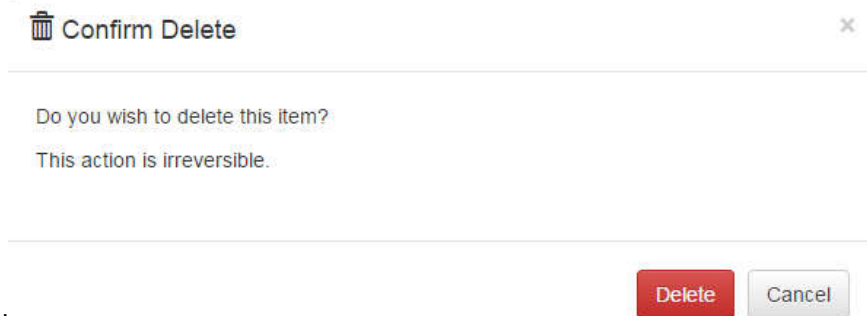


The image shows a form titled "Add Equipment" with a gear icon. It contains three input fields: "Equipment" (a dropdown menu with "Celltac F Mek 8222" selected), "IP Address" (an empty text box), and "Hostname" (an empty text box). At the bottom of the form is a blue "Save" button with a download icon.

2. Click the  button to save the details.

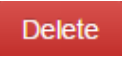


2.1.8 Deleting existing equipment

1. Click the  button on the equipment list page for corresponding equipment



The image shows a "Confirm Delete" dialog box with a trash icon and a close "x" icon. The text inside reads: "Do you wish to delete this item?" and "This action is irreversible." At the bottom right, there are two buttons: a red "Delete" button and a grey "Cancel" button.

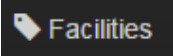
record

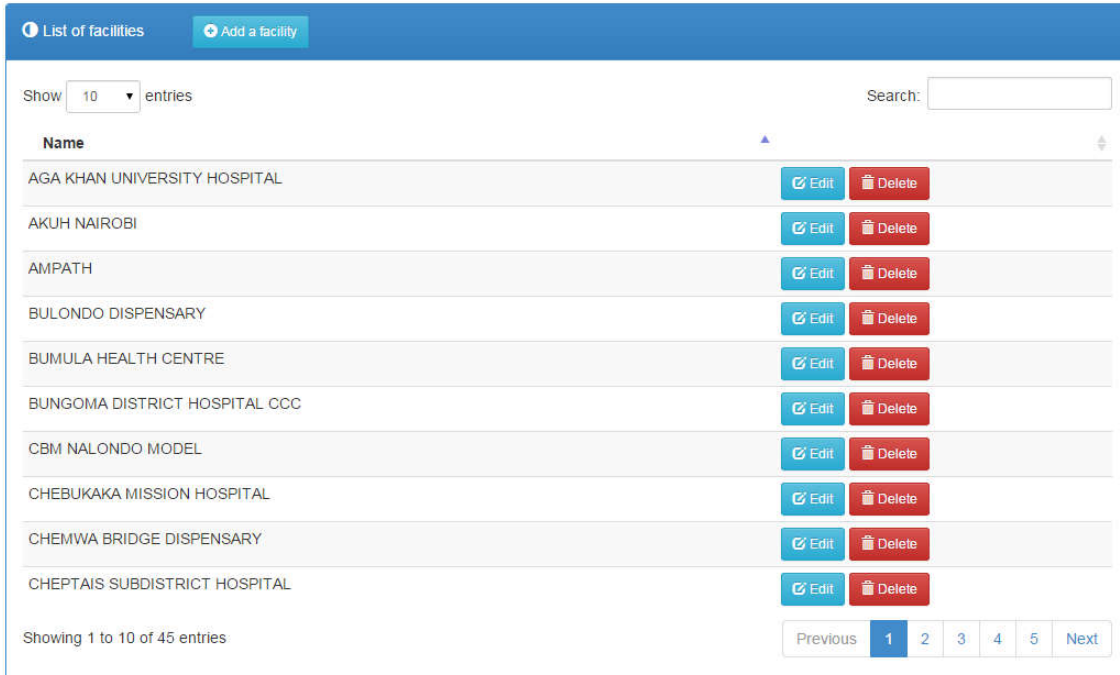
2. Click the  button on the pop-up if you are sure to delete, otherwise, click the  button or  icon to dismiss.

2.2 Facilities

Allows for the definition of other health facilities which do referrals to the lab or we refer tests to. Most are satellite facilities.

2.2.1 Listing existing health facilities

1. Click the  link on the navigation menu.
2. The list of facilities will be loaded as shown below.



The screenshot shows a web interface titled "List of facilities" with a blue header. In the header, there is a "List of facilities" link and a blue "Add a facility" button. Below the header, there is a search bar and a "Show 10 entries" dropdown. The main content is a table with the following entries:

Name	Edit	Delete
AGA KHAN UNIVERSITY HOSPITAL		
AKUH NAIROBI		
AMPATH		
BULONDO DISPENSARY		
BUMULA HEALTH CENTRE		
BUNGOMA DISTRICT HOSPITAL CCC		
CBM NALONDO MODEL		
CHEBUKAKA MISSION HOSPITAL		
CHEMWA BRIDGE DISPENSARY		
CHEPTAIS SUBDISTRICT HOSPITAL		

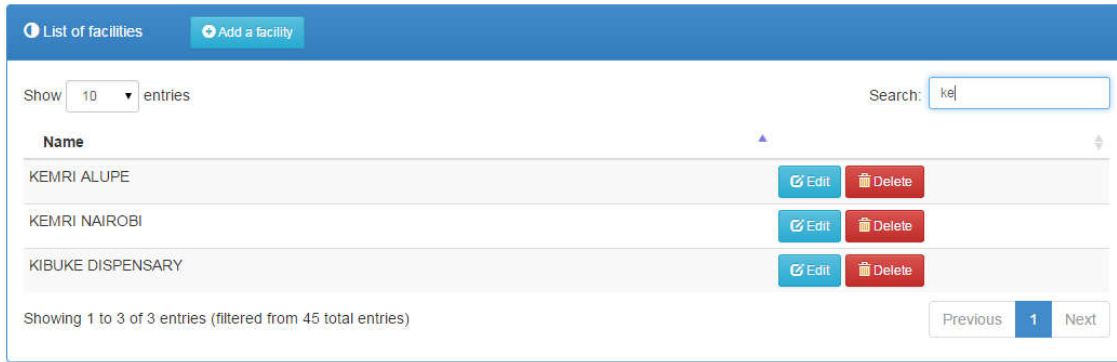
At the bottom of the table, it says "Showing 1 to 10 of 45 entries". Below the table is a pagination control with "Previous", "1", "2", "3", "4", "5", and "Next" buttons.

2.2.2 Searching for a facility



1. Begin typing the name of the facility in the search field provided

Search:



2. The list will automatically be loaded with matching values e.g.



2.2.3 Adding a new facility

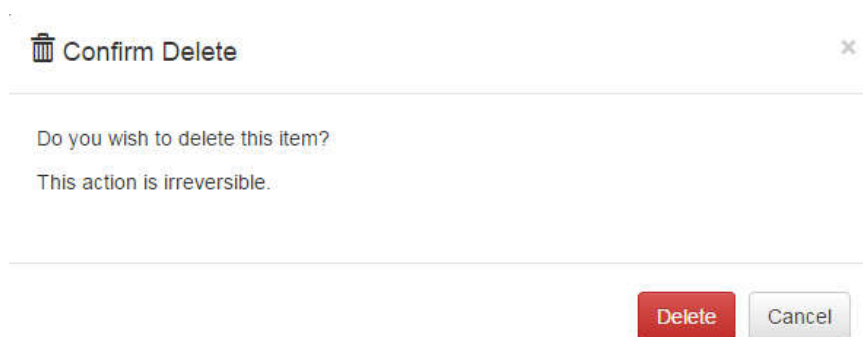
1. Click the  button to load the new facility details form.
2. Complete the form as appropriate.
3. Click the  button to save the details.

2.2.4 Updating a facility's details

1. Click the  button of the corresponding record to open a form with pre-filled values.
2. Make the necessary modifications to the details presented.
3. Click the  button to save the details.

2.2.5 Deleting a facility

1. From the list of facilities, click the  button of the corresponding record



- Click the **Delete** button on the pop-up if you are sure to delete, otherwise, click the **Cancel** button or **×** icon to dismiss.

2.3 Surveillance

Allows for the definition of the different test parameters for a particular disease available in the system and adding new diseases.

2.3.1 Listing existing surveillances

- Click the **Surveillance** link on the navigation menu.
- The list of tests and diseases will be loaded as shown below.

The screenshot shows the 'Surveillance' configuration page. At the top, there is a blue header with 'Surveillance' and a 'New Disease' button. Below the header, there are two columns of dropdown menus. The 'Test Types' column contains 'BS for mps', 'Stool for C/S', and 'Salmonella Antigen Test'. The 'Diseases' column contains 'Malaria', 'Shigella Dysentery', and 'Typhoid'. Each dropdown menu has a small 'x' icon to its right. At the bottom of the form, there are three buttons: 'Save', 'Cancel', and 'Add Another'.

2.3.2 Removing a test and its disease

Click the X button as shown below

This close-up shows the 'Test Types' and 'Diseases' dropdown menus. The 'Test Types' dropdown is set to 'BS for mps' and the 'Diseases' dropdown is set to 'Malaria'. To the right of the 'Diseases' dropdown, there is a small 'x' icon. A red arrow points to this 'x' icon, indicating that it should be clicked to remove the selected test and disease.

2.3.3 Adding a new configuring a new test and its disease for the surveillance

- Click the **Add Another** button to load drop down combo boxes where you will be able to select test and disease alongside one another.
- Complete the form as appropriate.

3. Click the  button to save the details.

2.3.3 Adding a new disease for the surveillance

1. Click the  button to load a text field.
2. Complete the field as appropriate.

3. Click the  button to save the details.

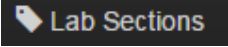
3.3.2 Removing a disease

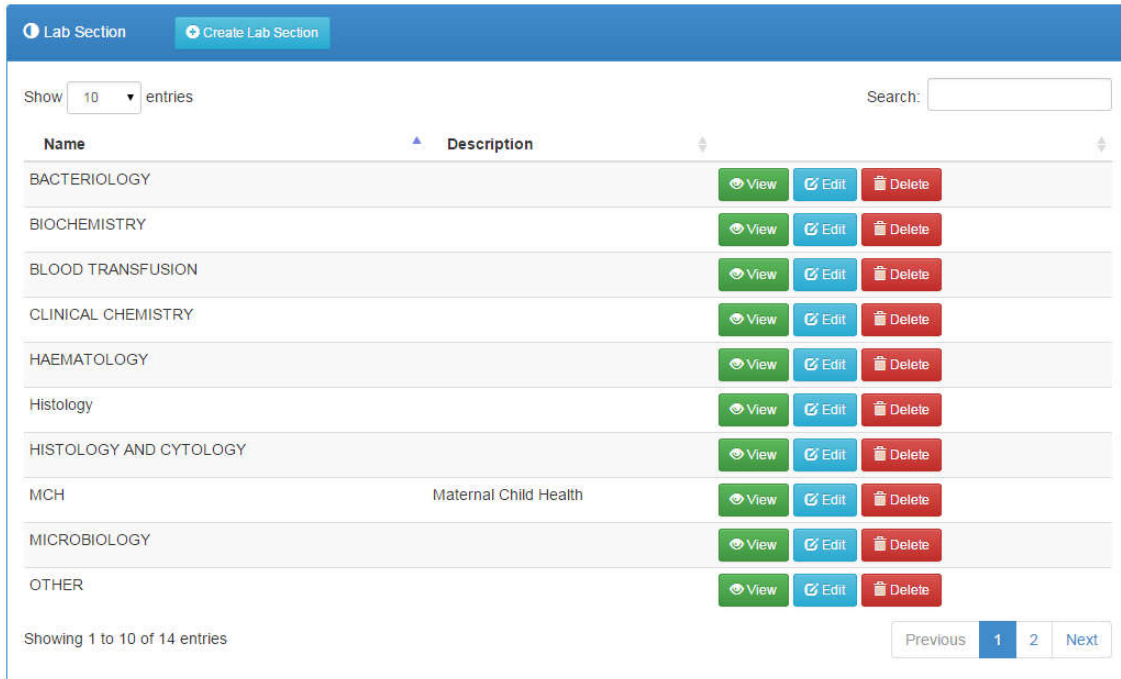
Click the X button as shown below

3.0 Test Catalog

3.1 Lab Sections

3.1.1 Listing all lab sections

1. Click the  link on the navigation bar
2. The lab sections will be loaded



The screenshot shows a web interface for managing lab sections. At the top, there is a blue header with a 'Lab Section' title and a 'Create Lab Section' button. Below the header, there is a search bar and a 'Show 10 entries' dropdown. The main content is a table with columns for 'Name' and 'Description'. The table lists 14 lab sections, each with 'View', 'Edit', and 'Delete' buttons. The sections listed are: BACTERIOLOGY, BIOCHEMISTRY, BLOOD TRANSFUSION, CLINICAL CHEMISTRY, HAEMATOTOLOGY, Histology, HISTOLOGY AND CYTOLOGY, MCH (with description 'Maternal Child Health'), MICROBIOLOGY, and OTHER. At the bottom, there is a pagination control showing 'Showing 1 to 10 of 14 entries' and buttons for 'Previous', '1', '2', and 'Next'.

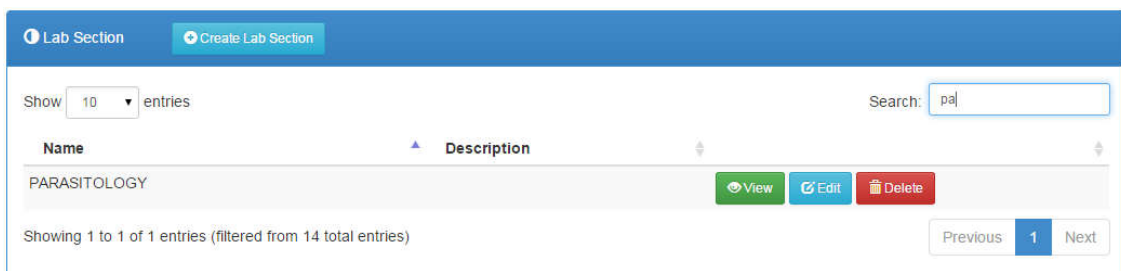
Name	Description	View	Edit	Delete
BACTERIOLOGY		View	Edit	Delete
BIOCHEMISTRY		View	Edit	Delete
BLOOD TRANSFUSION		View	Edit	Delete
CLINICAL CHEMISTRY		View	Edit	Delete
HAEMATOTOLOGY		View	Edit	Delete
Histology		View	Edit	Delete
HISTOLOGY AND CYTOLOGY		View	Edit	Delete
MCH	Maternal Child Health	View	Edit	Delete
MICROBIOLOGY		View	Edit	Delete
OTHER		View	Edit	Delete

3.1.2 Searching for a lab section

1. Simply type the name of the lab section on the search field

Search:


2. The list will automatically be loaded with matching values e.g.

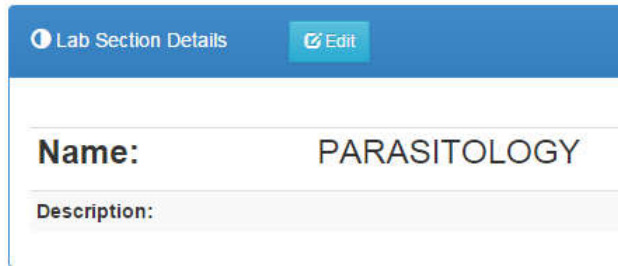



The screenshot shows the same web interface as before, but with the search field containing the text 'pa'. The table now only displays one entry: PARASITOLOGY. The pagination control at the bottom indicates 'Showing 1 to 1 of 1 entries (filtered from 14 total entries)' and the '1' button is highlighted.

Name	Description	View	Edit	Delete
PARASITOLOGY		View	Edit	Delete

3.1.3 Viewing a lab section

1. Click the  button of the corresponding record.
2. The details shall be loaded on to a panel e.g.




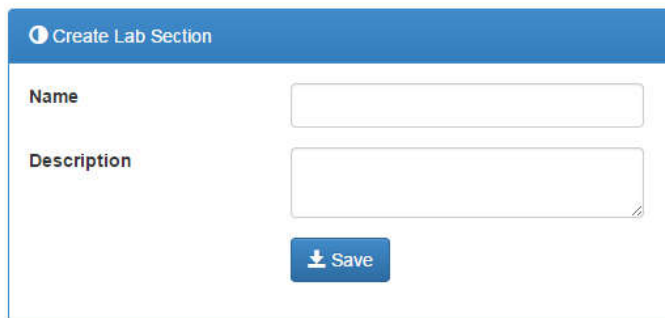
Lab Section Details 

Name: PARASITOLOGY

Description:

3.1.4 Adding a new lab section


1. On the list of lab sections, click the  button.
2. Complete the details on the provided form




Create Lab Section


Name

Description




3. Click the  button to save the lab section to the system

3.1.5 Updating lab section details

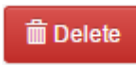
1. Click the  button of the corresponding record to open a form with pre-filled values

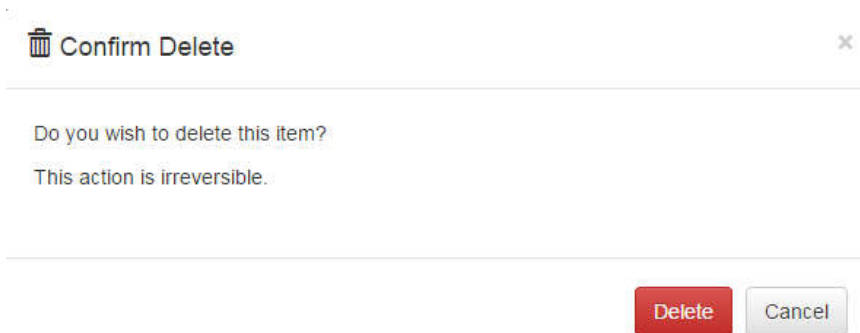
2. Make the necessary modifications

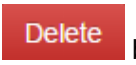




3. Click the  button to save the changes

3.1.6 Deleting a lab section

1. Click the  button of the corresponding record.

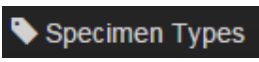


2. Click the  button on the pop-up if you are sure to delete, otherwise, click the  button or  icon to dismiss.

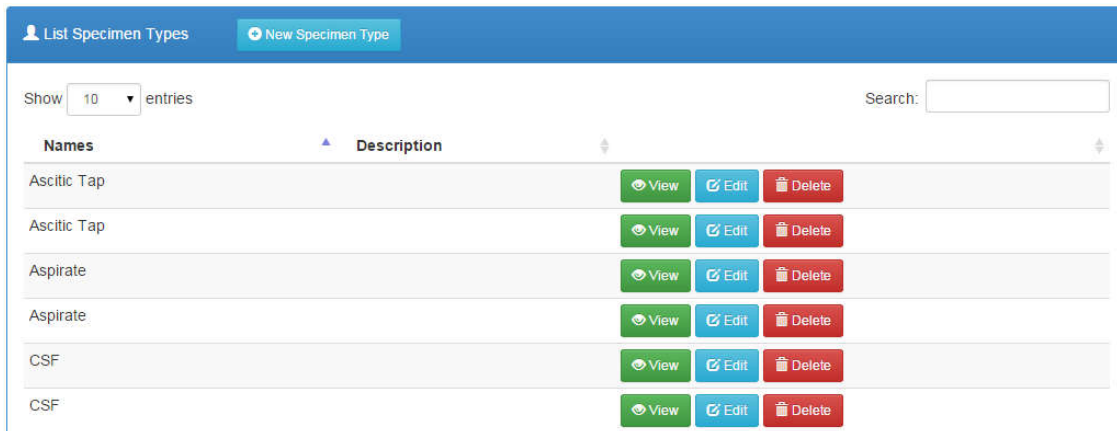
3.2 Specimen Types

Allows you to set the specimen types as appropriate for your laboratory.

3.2.1 Listing available specimen types

1. Click the  link on the navigation menu.

2. A list of available specimen types will be loaded

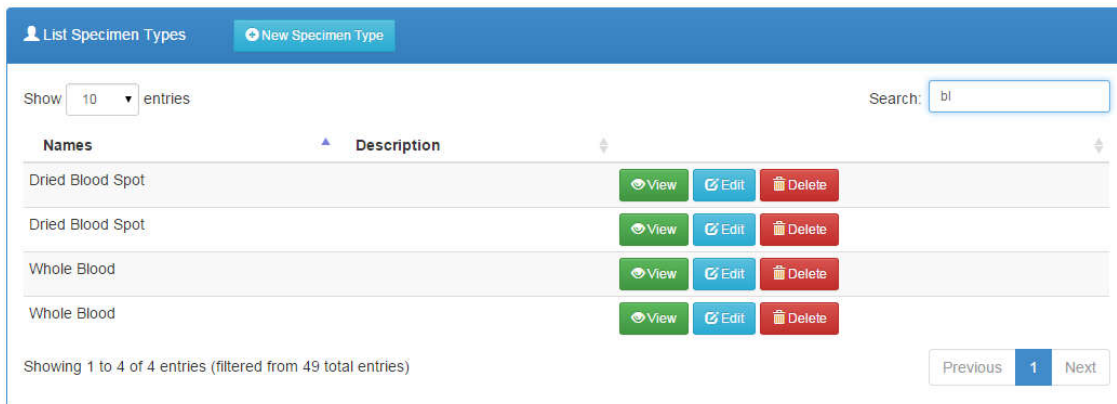


3.2.2 Searching for a specimen type

1. Start typing the specimen type on the search field

Search:

2. The list will automatically be loaded with matching values e.g.



3.2.3 Viewing a specimen type

1. Click the [View](#) button of the corresponding specimen type.
2. The details shall be loaded on to a panel e.g.

Specimen Type Details [Edit](#)

Name	Whole Blood
Description	
Registration Date	2010-04-09 21:16:51

3.2.4 Adding a new specimen type

1. On the list of specimen types, click the [New Specimen Type](#) button.
2. Complete the details on the provided form

Create Specimen Type

Name

Description

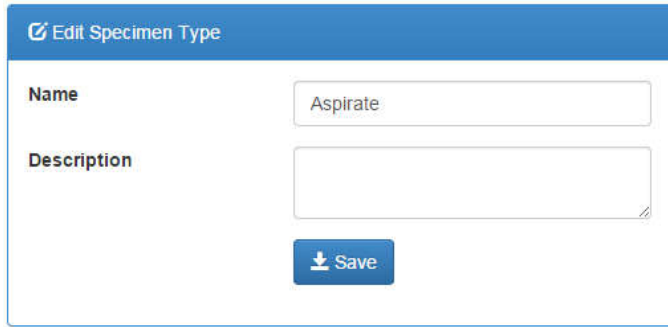
[Save](#)

3. Click the [Save](#) button to save the specimen type to the system

3.2.5 Updating specimen type details


1. Click the [Edit](#) button of the corresponding record to open a form with pre-filled values


2. Make the necessary modifications






3. Click the  button to save the changes

3.2.6 Deleting a specimen type

1. Click the  button of the corresponding record.



2. Click the  button on the pop-up if you are sure to delete, otherwise, click the  button or  icon to dismiss.

3.3 Specimen Rejection

Allows for definition of the various reasons for specimen rejection as applicable to the laboratory

3.3.1 Listing all specimen rejection reasons

1. Click the  link on the navigation menu.

- The list of specimen rejection reasons appears in a panel as shown.

The screenshot shows a web interface for 'Specimen Rejection'. At the top, there is a blue header with a user icon, the text 'Specimen Rejection', and a button 'Add New Rejection Reason'. Below the header, there is a search bar and a dropdown menu set to '10 entries'. The main content area is a table with a 'Reason' column and two action columns: 'Edit' (blue button with a pencil icon) and 'Delete' (red button with a trash icon). The table lists 10 rejection reasons: Broken Sample Container, Clotted Blood, Delay between specimen collection and arrival in the laboratory, Double entry, Duplicate specimen received, Empty Container, Empty container, no sample, Haemolysis, Inappropriate specimen for the test, and Inappropriate specimen packing. At the bottom, there is a pagination control showing 'Showing 1 to 10 of 38 entries' and buttons for 'Previous', '1', '2', '3', '4', and 'Next'.

3.3.2 Searching for a specimen type


- Begin typing the rejection reason on the search field

Search:

- The list will automatically be loaded with matching values e.g.


The screenshot shows the same 'Specimen Rejection' interface, but with the search bar containing the text 'lab'. The table now displays 5 filtered results: Delay between specimen collection and arrival in the laboratory, Mismatched sample and form labelling, Missing Labels on container and tracking form, No Label, and Poorly labelled. The pagination control at the bottom indicates 'Showing 1 to 5 of 5 entries (filtered from 38 total entries)' and shows the '1' button highlighted.

3.3.3 Adding a new rejection reason


1. Click the  button
2. Complete the form

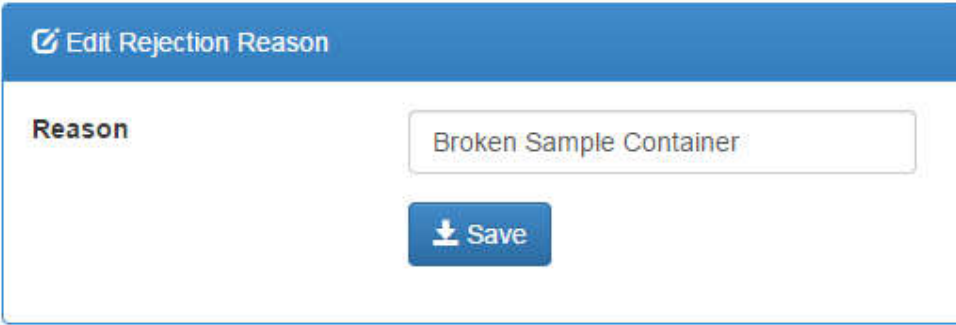
details



3. Click the  button to save the reason.


3.3.4 Updating a rejection reason details

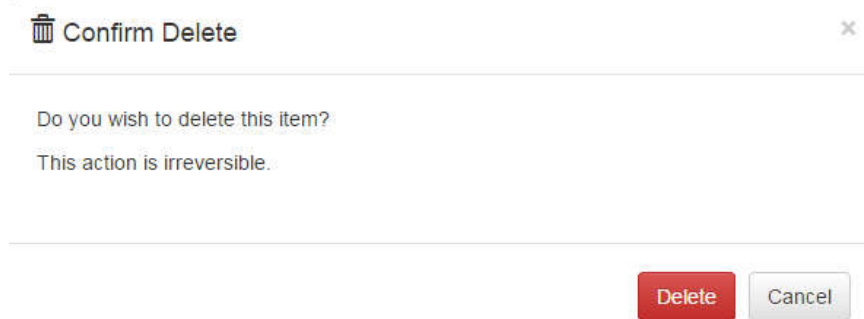
1. Click the  button of the corresponding record to open a form with pre-filled values.
2. Make the necessary modifications



3. Click the  button to save the changes

3.3.5 Deleting a rejection reason

1. Click the  button of the corresponding record.



2. Click the **Delete** button on the pop-up if you are sure to delete, otherwise, click the **Cancel** button or **X** icon to dismiss.

3.4 Test Types

Allows you to set the specimen types as appropriate for your laboratory.

3.4.1 Listing all test types

1. Click the **Test Types** link on the navigation bar

A screenshot of a web application interface for "List Test Types". The page has a blue header with a gear icon, "List Test Types", and a "New Test Type" button. Below the header, there is a search bar and a "Show 10 entries" dropdown. The main content is a table with columns: Name, Description, Target Turnaround Time, and Prevalence Threshold. Each row has three action buttons: View, Edit, and Delete. The table lists various test types like ALAT, Albumin, Alkaline Phosphate, ASAT, and Asot. At the bottom, there is a pagination control showing "Showing 1 to 10 of 225 entries" and a page navigation bar with buttons for Previous, 1, 2, 3, 4, 5, ..., 23, and Next.

Name	Description	Target Turnaround Time	Prevalence Threshold	
ALAT		0.00	0	View Edit Delete
Albumin		24.00	70	View Edit Delete
Albumin				View Edit Delete
Alkaline Phosphate		0.00	0	View Edit Delete
ASAT		0.00	0	View Edit Delete
Ascitic tap for biochemistry		0.00	0	View Edit Delete
Ascitic tap for culture and sensitivity		0.00	0	View Edit Delete
Ascitic tap for microscopy		0.00	0	View Edit Delete
Ascitic tap for microscopy		0.00	0	View Edit Delete
Asot		1.00		View Edit Delete

3.4.2 Searching for a test type

1. Begin typing the test type name on the search field

Search:

2. The list will automatically be loaded with matching values e.g.

The screenshot shows the 'List Test Types' interface. At the top, there are tabs for 'List Test Types' and 'New Test Type'. Below the tabs, there is a search bar with the text 'bs' and a dropdown menu for 'Show 10 entries'. The main content is a table with the following columns: Name, Description, Target Turnaround Time, and Prevalence Threshold. The table contains four rows of data, each with a 'View', 'Edit', and 'Delete' button. The first row is 'BS for mps' with a Target Turnaround Time of 0.75 and a Prevalence Threshold of 0. The second row is 'DBS' with a Target Turnaround Time of 0.00 and a Prevalence Threshold of 0. The third row is 'Direct COOMBS test' with a Target Turnaround Time of 1.00 and a Prevalence Threshold of 0. The fourth row is 'Indirect COOMBS test' with a Target Turnaround Time of 1.00 and a Prevalence Threshold of 0. At the bottom of the table, it says 'Showing 1 to 4 of 4 entries (filtered from 225 total entries)'. There are also 'Previous', '1', and 'Next' buttons for pagination.

Name	Description	Target Turnaround Time	Prevalence Threshold	
BS for mps		0.75	0	View Edit Delete
DBS		0.00	0	View Edit Delete
Direct COOMBS test		1.00		View Edit Delete
Indirect COOMBS test		1.00		View Edit Delete

3.4.3 Viewing a test type


1. Click the  button of the specific test type

2. The details shall be loaded on to a panel e.g.

The screenshot shows the 'Test Type Details' interface. At the top, there are tabs for 'Test Type Details' and 'Edit'. The main content is a table with the following rows: Name (BS for mps), Description, Lab Section (PARASITOLOGY), Compatible Specimen, Measure (BS for mps), Turnaround Time (0.75), Prevalence Threshold (0), and Registration Date (2014-07-19 12:45:06).

Name	BS for mps
Description	
Lab Section	PARASITOLOGY
Compatible Specimen	
Measure	BS for mps
Turnaround Time	0.75
Prevalence Threshold	0
Registration Date	2014-07-19 12:45:06

3.4.4 Adding a new test type

1. On the list of test types, click the  button.
2. Complete the details on the provided form

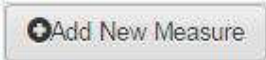


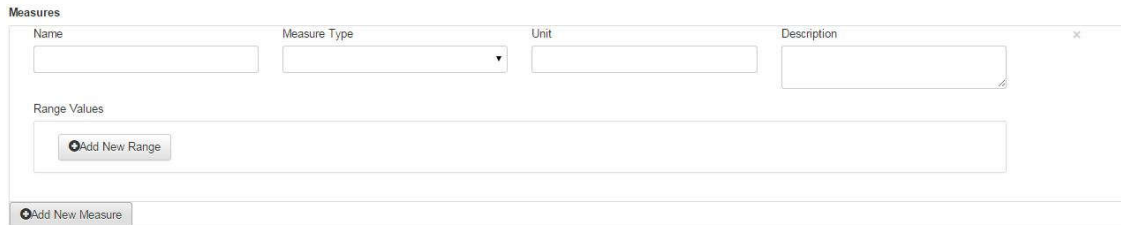
The form titled "Create Test Type" has a blue header with a gear icon. It contains three input fields: "Name" (text box), "Description" (text area), and "Lab Section" (dropdown menu).

3. Select the applicable specimen types


Select Specimen Types

<input type="checkbox"/> Ascitic Tap	<input type="checkbox"/> Ascitic Tap	<input type="checkbox"/> Aspirate	<input type="checkbox"/> Aspirate
<input type="checkbox"/> CSF	<input type="checkbox"/> CSF	<input type="checkbox"/> DBS	<input type="checkbox"/> Dried Blood Spot
<input type="checkbox"/> Dried Blood Spot	<input type="checkbox"/> High Vaginal Swab	<input type="checkbox"/> High Vaginal Swab	<input type="checkbox"/> Nasal Swab
<input type="checkbox"/> Nasal Swab	<input type="checkbox"/> Plasma	<input type="checkbox"/> Plasma	<input type="checkbox"/> Plasma EDTA
<input type="checkbox"/> Plasma EDTA	<input type="checkbox"/> Pleural Tap	<input type="checkbox"/> Pleural Tap	<input type="checkbox"/> Pus Swab
<input type="checkbox"/> Pus Swab	<input type="checkbox"/> Rectal Swab	<input type="checkbox"/> Rectal Swab	<input type="checkbox"/> Semen
<input type="checkbox"/> Semen	<input type="checkbox"/> Serum	<input type="checkbox"/> Serum	<input type="checkbox"/> Skin
<input type="checkbox"/> Skin	<input type="checkbox"/> SMEARS	<input type="checkbox"/> Sputum	<input type="checkbox"/> Sputum

4. Add the applicable measures for the test type by clicking  which will populate the form below



The "Measures" form has a title bar with a close button. It contains four input fields: "Name" (text box), "Measure Type" (dropdown menu), "Unit" (text box), and "Description" (text area). Below these is a "Range Values" section with an "Add New Range" button. At the bottom left is another "Add New Measure" button.

5. Add applicable range for the measure by clicking  which will populate the form below

Measures

Name	Measure Type	Unit	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Range Values			
<input type="button" value="Add New Range"/>			

Name	Measure Type	Unit	Description
<input type="text"/>	Numeric Range	<input type="text"/>	<input type="text"/>
Range Values			
Age Range	Gender	Measure Range	Interpretation
<input type="text"/> : <input type="text"/>	Male	<input type="text"/> : <input type="text"/>	<input type="text"/>
<input type="button" value="Add New Range"/>			

6. Complete the details such as expected turnaround time

Target Turnaround Time

Prevalence Threshold

7. Check the show culture worksheet button to select the organisms as shown below

Show Culture Worksheet?


Select Organisms

<input type="checkbox"/> Beta-haemolytic streptococci	<input type="checkbox"/> Enterococcus species	<input type="checkbox"/> Gram negative cocci	<input type="checkbox"/> Gram positive cocci
<input type="checkbox"/> Haemophilus influenzae	<input type="checkbox"/> Neisseria meningitidis	<input type="checkbox"/> Pseudomonas aeruginosa	<input type="checkbox"/> Salmonella species
<input type="checkbox"/> Shigella	<input type="checkbox"/> Staphylococci species	<input type="checkbox"/> Streptococcus pneumoniae	<input type="checkbox"/> Streptococcus species viridans group
<input type="checkbox"/> Vibrio cholerae			

8. Click the button to save the specimen type to the system

3.4.5 Updating test type details

1. Click the button to open a form with pre-filled values.
2. Make the necessary modifications such as the lab section, specimen types, measures and so forth.

- During editing, Culture worksheet can be shown by checking the box **Show Culture Worksheet?** . After the box has been checked the following details will be added in the test type editing interface as shown below where you will be able to select the organisms

Target Turnaround Time

Prevalence Threshold


Show Culture Worksheet?


Select Organisms

<input type="checkbox"/> Beta-haemolytic streptococci	<input type="checkbox"/> Enterococcus species	<input type="checkbox"/> Gram negative cocci	<input type="checkbox"/> Gram positive cocci
<input type="checkbox"/> Haemophilus influenzae	<input type="checkbox"/> Neisseria meningitidis	<input type="checkbox"/> Pseudomonas aeruginosa	<input type="checkbox"/> Salmonella species
<input type="checkbox"/> Shigella	<input type="checkbox"/> Staphylococci species	<input type="checkbox"/> Streptococcus pneumoniae	<input type="checkbox"/> Streptococcus species viridans group
<input type="checkbox"/> Vibrio cholerae			


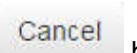

- Click the  button to save the changes.

3.4.6 Deleting a test type

- Click the  button of an entry

 **Confirm Delete** ✕

Do you wish to delete this item?
This action is irreversible.

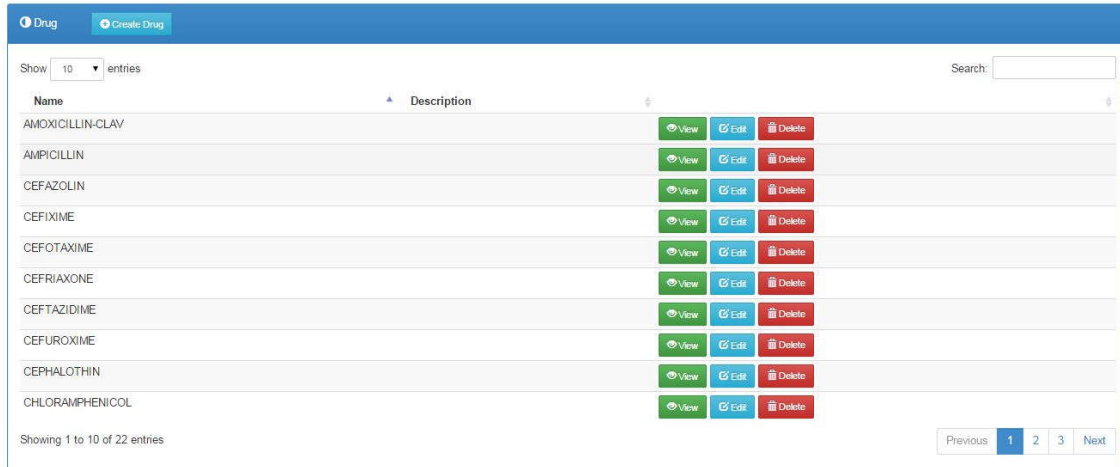
- Click the  button on the pop-up if you are sure to delete, otherwise, click the  button or  icon to dismiss.

3.5 Drugs

Allows you to create drugs as appropriate for your laboratory.

3.5.1 Listing all added drugs

1. Click the  link on the navigation bar

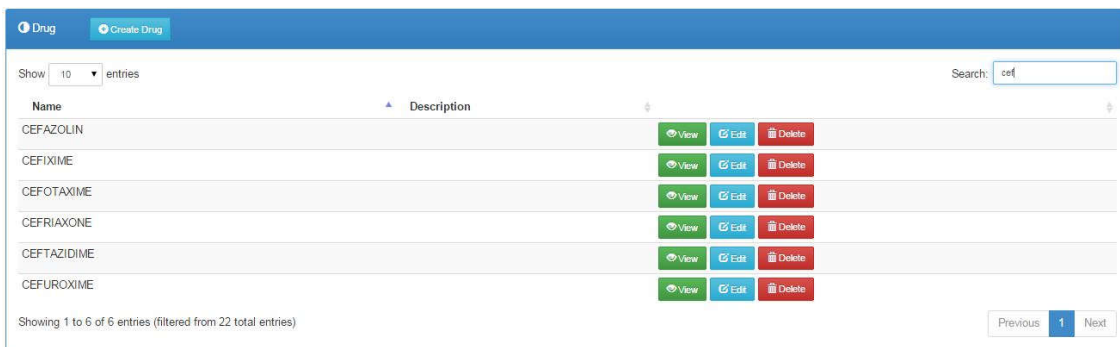


3.5.2 Searching for a drug

1. Begin typing the drug name on the search field

Search:

2. The list will automatically be loaded with matching values e.g.



3.5.3 Viewing a Drug

1. Click the  button of the specific test type

2. The details shall be loaded on to a panel e.g.



The screenshot shows a 'Drug Details' panel with a blue header. Below the header, there is a form with two fields: 'Name' containing the text 'CEFAZOLIN' and 'Description' which is currently empty.


3.5.4 Adding a new drug

1. On the list of drugs, click the   button.


2. Complete the details on the provided form



The screenshot shows a 'Create Drug' form with a blue header. Below the header, there are two input fields: 'Name' and 'Description', both of which are empty. At the bottom of the form, there is a blue button with a downward arrow and the text 'Save'.

1. Click the  button to save the drug to the system

3.5.5 Updating drug details

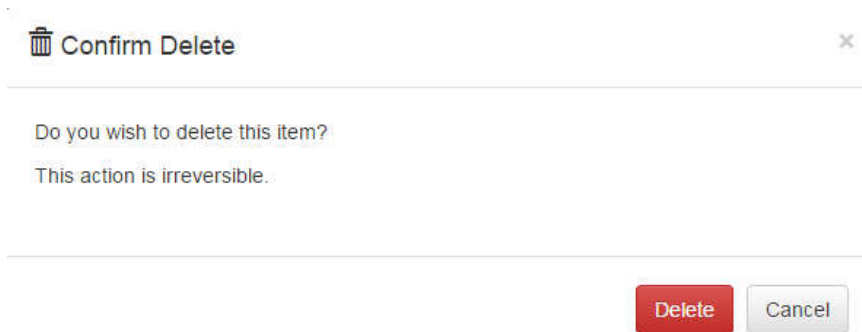
1. Click the  button to open a form with pre-filled values.

2. Make the necessary modifications such as the drug name, description and so forth.

3. Click the  button to save the changes.

3.5.6 Deleting a drug

1. Click the  button of an entry



2. Click the **Delete** button on the pop-up if you are sure to delete, otherwise, click the **Cancel** button or **X** icon to dismiss.

3.6 Organisms

Allows you to create drugs as appropriate for your laboratory.

3.6.1 Listing all organisms

1. Click the **Organisms** link on the navigation bar



3.6.2 Searching for an organism

1. Begin typing the organism name on the search field

Search:

2. The list will automatically be loaded with matching values e.g.

Organism			Create Organism		
Show	10	entries	Search: Avail		
Name	Description				
Available	Treats all				
Not available	Treat null				
Showing 1 to 2 of 2 entries					Previous 1 Next

3.6.3 Viewing an organism

1. Click the button of the specific test type
2. The details shall be loaded on to a panel e.g.

Organism Details		Edit
Name:	Available	
Description:	Treats all	
Compatible Drugs:	PENICILLIN, CIPROFLOXACIN, CHLORAMPHENICOL, PIPERACILLIN, LEVOFLOXACIN, IMEDENEM	


3.6.4 Adding a new organism

1. On the list of drugs, click the button.
2. Complete the details on the provided form



Create Organism																											
Name	<input type="text"/>																										
Description	<input type="text"/>																										
Compatible Drugs	<table border="0"> <tr> <td><input type="checkbox"/> AMOXICILLIN-CLAV</td> <td><input type="checkbox"/> AMPICILLIN</td> <td><input type="checkbox"/> CEFAZOLIN</td> <td><input type="checkbox"/> CEFIXIME</td> </tr> <tr> <td><input type="checkbox"/> CEFOTAXIME</td> <td><input type="checkbox"/> CEFRIAXONE</td> <td><input type="checkbox"/> CEFTAZIDIME</td> <td><input type="checkbox"/> CEFUROXIME</td> </tr> <tr> <td><input type="checkbox"/> CEPHALOTHIN</td> <td><input type="checkbox"/> CHLORAMPHENICOL</td> <td><input type="checkbox"/> CIPROFLOXACIN</td> <td><input type="checkbox"/> CLINDAMYCIN</td> </tr> <tr> <td><input type="checkbox"/> GANTAMICIN</td> <td><input type="checkbox"/> IMEDENEM</td> <td><input type="checkbox"/> LEVOFLOXACIN</td> <td><input type="checkbox"/> MERODENEM</td> </tr> <tr> <td><input type="checkbox"/> NITROFURANTOIN</td> <td><input type="checkbox"/> PENICILLIN</td> <td><input type="checkbox"/> PIPERACILLIN</td> <td><input type="checkbox"/> PIPERACILLINTAZO</td> </tr> <tr> <td><input type="checkbox"/> TETRACYCLINE</td> <td><input type="checkbox"/> TRIMETHOPRIM/SULFA</td> <td></td> <td></td> </tr> </table>			<input type="checkbox"/> AMOXICILLIN-CLAV	<input type="checkbox"/> AMPICILLIN	<input type="checkbox"/> CEFAZOLIN	<input type="checkbox"/> CEFIXIME	<input type="checkbox"/> CEFOTAXIME	<input type="checkbox"/> CEFRIAXONE	<input type="checkbox"/> CEFTAZIDIME	<input type="checkbox"/> CEFUROXIME	<input type="checkbox"/> CEPHALOTHIN	<input type="checkbox"/> CHLORAMPHENICOL	<input type="checkbox"/> CIPROFLOXACIN	<input type="checkbox"/> CLINDAMYCIN	<input type="checkbox"/> GANTAMICIN	<input type="checkbox"/> IMEDENEM	<input type="checkbox"/> LEVOFLOXACIN	<input type="checkbox"/> MERODENEM	<input type="checkbox"/> NITROFURANTOIN	<input type="checkbox"/> PENICILLIN	<input type="checkbox"/> PIPERACILLIN	<input type="checkbox"/> PIPERACILLINTAZO	<input type="checkbox"/> TETRACYCLINE	<input type="checkbox"/> TRIMETHOPRIM/SULFA		
<input type="checkbox"/> AMOXICILLIN-CLAV	<input type="checkbox"/> AMPICILLIN	<input type="checkbox"/> CEFAZOLIN	<input type="checkbox"/> CEFIXIME																								
<input type="checkbox"/> CEFOTAXIME	<input type="checkbox"/> CEFRIAXONE	<input type="checkbox"/> CEFTAZIDIME	<input type="checkbox"/> CEFUROXIME																								
<input type="checkbox"/> CEPHALOTHIN	<input type="checkbox"/> CHLORAMPHENICOL	<input type="checkbox"/> CIPROFLOXACIN	<input type="checkbox"/> CLINDAMYCIN																								
<input type="checkbox"/> GANTAMICIN	<input type="checkbox"/> IMEDENEM	<input type="checkbox"/> LEVOFLOXACIN	<input type="checkbox"/> MERODENEM																								
<input type="checkbox"/> NITROFURANTOIN	<input type="checkbox"/> PENICILLIN	<input type="checkbox"/> PIPERACILLIN	<input type="checkbox"/> PIPERACILLINTAZO																								
<input type="checkbox"/> TETRACYCLINE	<input type="checkbox"/> TRIMETHOPRIM/SULFA																										

3. Select the applicable compatible drugs


Compatible Drugs			
<input type="checkbox"/> AMOXICILLIN-CLAV	<input type="checkbox"/> AMPICILLIN	<input type="checkbox"/> CEFAZOLIN	<input type="checkbox"/> CEFIXIME
<input type="checkbox"/> CEFOTAXIME	<input type="checkbox"/> CEFRIAXONE	<input type="checkbox"/> CEFTAZIDIME	<input type="checkbox"/> CEFUROXIME
<input type="checkbox"/> CEPHALOTHIN	<input type="checkbox"/> CHLORAMPHENICOL	<input type="checkbox"/> CIPROFLOXACIN	<input type="checkbox"/> CLINDAMYCIN
<input type="checkbox"/> GANTAMICIN	<input type="checkbox"/> IMEDENEM	<input type="checkbox"/> LEVOFLOXACIN	<input type="checkbox"/> MERODENEM
<input type="checkbox"/> NITROFURANTOIN	<input type="checkbox"/> PENICILLIN	<input type="checkbox"/> PIPERACILLIN	<input type="checkbox"/> PIPERACILLIN/TAZO
<input type="checkbox"/> TETRACYCLINE	<input type="checkbox"/> TRIMETHOPRIM/SULFA		

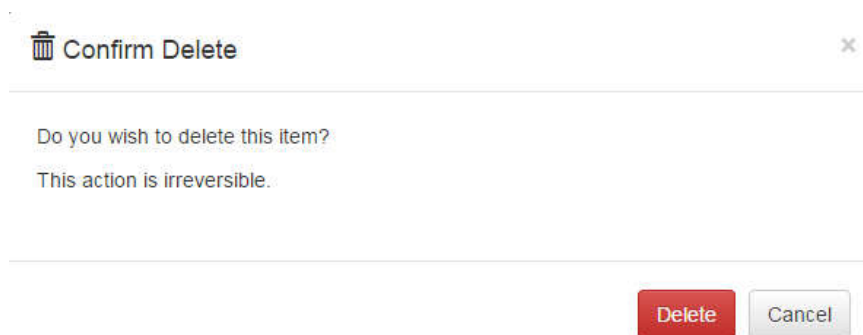
2. Click the  button to save the organism to the system

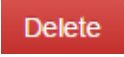
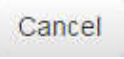

3.6.5 Updating organism details

1. Click the  button to open a form with pre-filled values.
2. Make the necessary modifications such as the organism name, description, compatible drugs and so forth.
3. Click the  button to save the changes.

3.6.6 Deleting a organism

1. Click the  button of an entry



2. Click the  button on the pop-up if you are sure to delete, otherwise, click the  button or  icon to dismiss.


4.0 Reports


1. Click on the  link to open the reports module.


4.1 Daily Reports






The Patient Report and Daily Log should be run every day.



4.1.1 Patient report

1. Click the  link on the Reports sub-menu to open the patients reports listing

 Search

 Patient Report

Patient ID	Patient Number	Full Name	Gender	Age	Actions
1	████	██████████	M	8 years 7 months	 View Report
2	████	██████████████████	F	65 years 7 months	 View Report
3	████	██████████	M	4 years 3 months	 View Report
4	████	██████████████████	F	30 years 5 months	 View Report
5	████	██████████	F	19 years 3 months	 View Report

2. Search for the patient by Patient Name, Patient Number, or Patient ID.
3. Click the  Search button to start search.
4. Select the patient you want from the list if more than one patient matches your search criteria.
5. Click  View Report to see all data for that patient.

You can edit the report to show activity within a date range, include pending tests for which results are not available, set printing information, or export to Word using the controls at the top of the page.

Include Pending Tests

From

To

[View](#)

[Export to Word](#)

Patient Report

BUNGOMA DISTRICT HOSPITAL LABORATORY
BUNGOMA TOWN, HOSPITAL ROAD
OPPOSITE POLICE LINE/DISTRICT HEADQUARTERS
P.O. BOX 14,
BUNGOMA TOWN.
Phone: +254 055-30401 Ext 203/208

LABORATORY REPORT

Patient Report For 23-01-2015

Patient name	██████████	Gender	Female
Patient ID	█	Age	65 years 7 months
Patient Number	██████	Requesting Facility/Department	Bungoma District Hospital Laboratory

Specimen

Type	Tests	Lab Sections	Status	Collected By/Rejected by	Date Checked
No records found.					

Results

Test Type	Test:Result	Remarks	Performed By	Results Entry Date	Date Tested	Verified By	Date Verified
No records found.							

6. Click [View](#) to filter the report and [Export to Word](#) to export to word document.

4.1.2 Daily log

1. Click the [Daily Log](#) sub-menu under reports to view daily logs.
2. Set the date range to reflect the log to print. You can run a report of the day's activity by patients seen (by clicking Patient Records), or by tests run (by clicking Test Records) or rejected specimens (by clicking Rejected Specimen Records).

From To [View](#) [Export to Word](#)

Test Records Patient Records Rejected Specimen Records Pending Tests Only All Tests

Lab Sections Test Type

4.1.2.1 Test Records


You can choose to run a log for one lab section or for one type of test, for all tests or pending tests only. The default settings are test records, all sections, and all tests. The report loads with Export controls at the top of the page.

From To [View](#) [Export to Word](#)


Test Records
 Patient Records
 Rejected Specimen Records
 Pending Tests Only
 All Tests

Lab Sections
 Test Type

Daily Log - Test Records



BUNGOMA DISTRICT HOSPITAL LABORATORY
 BUNGOMA TOWN, HOSPITAL ROAD
 OPPOSITE POLICE LINE/DISTRICT HEADQUARTERS
 P.O. BOX 14,
 BUNGOMA TOWN.
 Phone: +254 055-30401 Ext 203/208



LABORATORY REPORT

Test Records - Complete Tests For 23-01-2015

Specimen ID	Specimen	Lab Receipt Date	Tests	Performed By	Results	Remarks	Results Entry Date	Verified By
No records found.								

4.1.2.2 Patient records



1. Click on the **Patient Records** checkbox
2. Apply the filter parameters, date ranges in this case

From To

3. Click the [View](#) button to load the report
4. Click the [Show/Hide Summary](#) button to toggle the summary

Daily Log - Patient Records

Your filter did not match any records.


BUNGOMA DISTRICT HOSPITAL LABORATORY
 BUNGOMA TOWN, HOSPITAL ROAD
 OPPOSITE POLICE LINE/DISTRICT HEADQUARTERS
 P.O. BOX 14,
 BUNGOMA TOWN.
 Phone: +254 055-30401 Ext 203/208

LABORATORY REPORT

Daily visits For 23-01-2015

Summary		
Total Visits	Male	Female
0	0	0

Patient Number	Patient name	Age	Gender	Specimen ID	Specimen Type	Tests
No records found.						

- Click the **Export to Word** button to export the report to word document for further processing

4.1.2.3 Rejected Specimen records

- Click the **Rejected Specimen Records** checkbox then **View** button to load the report

You can choose to run a log for one lab section or for one type of test. The default settings are test records, all sections, and all tests. The report loads with Export controls at the top of the page


From To [View](#)

Test Records
 Patient Records
 Rejected Specimen Records
 [Export to Word](#)


Lab Sections
 Test Types

Daily Log - Rejected Specimen Records

Your filter did not match any records.



BUNGOMA DISTRICT HOSPITAL LABORATORY
 BUNGOMA TOWN, HOSPITAL ROAD
 OPPOSITE POLICE LINE/DISTRICT HEADQUARTERS
 P.O. BOX 14,
 BUNGOMA TOWN.
 Phone: +254 055-30401 Ext 203/208



LABORATORY REPORT

Rejected Specimen Records For 23-01-2015


Specimen ID	Specimen	Lab Receipt Date	Tests	Lab Section Lab Sections	Rejection Reason	Person Talked To	Date Rejected
██████	Whole Blood	2014-12-09 12:56:03	BS for mps	PARASITOLOGY	Haemolysis	██████	2015-01-23 12:21:46

4.2 Aggregate reports

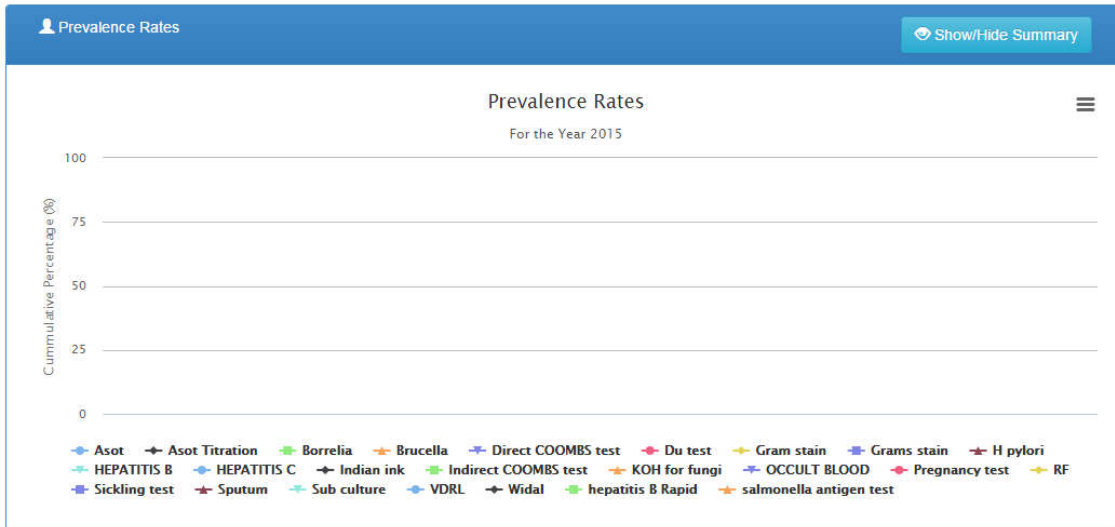
These are accrued summaries over a period of time.

4.2.1 Prevalence Rates

Gives the prevalence of a particular laboratory test result based on the number of tests done and the results.

1. Click the  **Prevalence Rates** sub-menu to load the report.

By default, the report loads prevalence rates for the current year

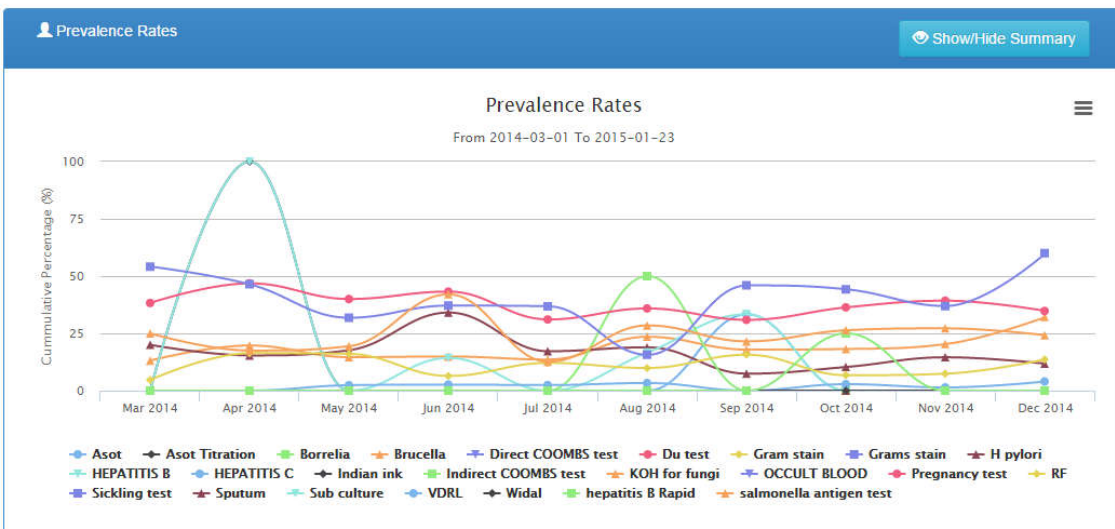


2. Set a date range to view infection graph and prevalence rates. You can also specify the lab section.

From To Test Type

3. Click the button to load the report with the filters you defined e.g.

From To Test Type



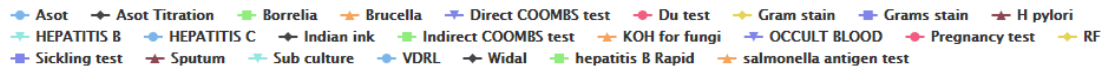
4. You can view a numeric summary of the prevalence rates by clicking the



button to reveal the numeric data.

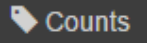
Test Type	Total Specimen	Positive	Negative	Cummulative Percentage (%)
Indirect COOMBS test	10	1	9	10.00
Direct COOMBS test	17	0	17	0.00
Du test	1	0	1	0.00
Sickling test	375	140	235	37.33
CSF for microbiology	37	3	34	8.11
Sputum	1	0	1	0.00
CSF	4	1	3	25.00
salmonella antigen test	2067	497	1570	24.04
OCCULT BLOOD	1	0	1	0.00

5. You can click on a test on the legend section to hide its graph



4.2.2 Counts reports

Generates a report for a particular time period of the number of tests and specimens both grouped and ungrouped.

1. Click the  sub-menu to launch the counts reports options

4.2.2.1 Test counts (Ungrouped)

Shows for each test, the number of complete vs pending tests overtime.

From To [View](#)

Test Counts (Ungrouped)
 Test Counts (Grouped)
 Specimen Counts (Ungrouped)
 Specimen Counts (Grouped)

Counts

Test Counts (Ungrouped) - From 01-01-2015 To 23-01-2015

Test Types	Complete Tests	Pending Tests
Grams stain	0	0
ZN stain	0	0
urine chemistry	0	0
SERUM AMYLASE	0	0

The report can be filtered by specifying date ranges then clicking the [View](#) button to load the report with the applied filters.

4.2.2.2 Test counts (Grouped)

This is a report that groups tests according to various parameters such as lab section, gender, age ranges then counts the numbers for each while showing the total tests run.

Click the **Test Counts (Grouped)** checkbox then [View](#) to load the report

Counts

Test Counts (Grouped) - From 2015-01-01 To 2015-01-23

SEROLOGY

Test Types	Gender	Age Ranges			M/F Total	Total Tests
		0-5	5-15	15-120		
PBF	Male	0	0	0	0	0
	Female	0	0	0	0	
HEPATITIS C	Male	0	0	0	0	0
	Female	0	0	0	0	
HEPATITIS B	Male	0	0	0	0	0
	Female	0	0	0	0	
Asot Titration	Male	0	0	0	0	0
	Female	0	0	0	0	
Widal Titration	Male	0	0	0	0	0
	Female	0	0	0	0	


4.2.2.3 Specimen counts (Ungrpuped)

It is a count for accepted vs rejected specimen

Click the Specimen Counts (Ungrpuped) then  to load the report

Counts			
Specimen Counts (Ungrpuped) - From 2015-01-01 To 2015-01-23			
Specimen Types	Accepted	Rejected	Total Specimen
Whole Blood	1	1	2
Serum	0	0	0
Dried Blood Spot	0	0	0
Sputum	0	0	0

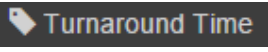

4.2.2.4 Specimen counts (Grouped)

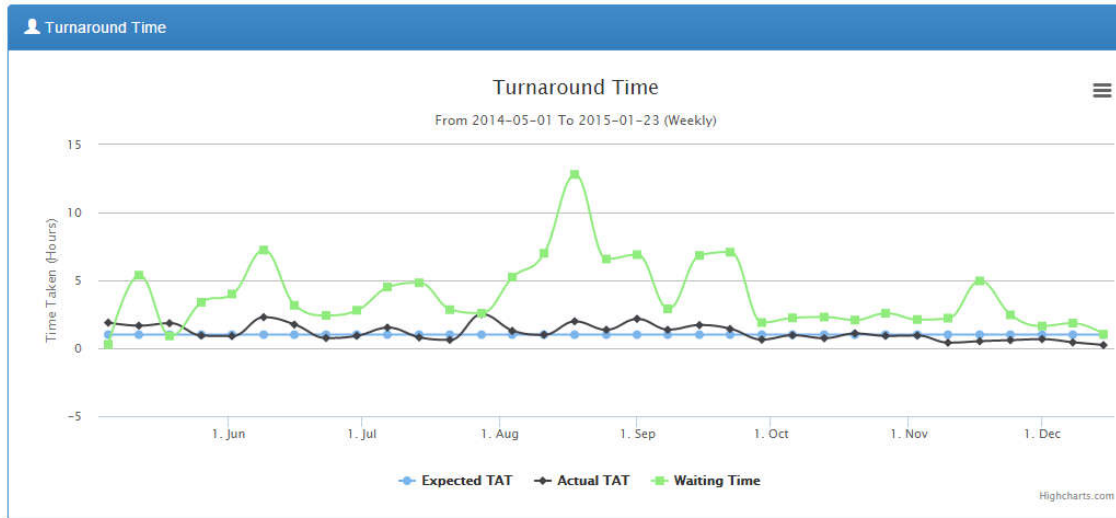
Click the Specimen Counts (Grouped) checkbox then  to load the report


Counts						
Specimen Counts (Grouped) - From 2015-01-01 To 2015-01-23						
Test Types	Gender	Age Ranges			M/F Total	Total Specimen
		0-5	5-15	15-120		
Whole Blood	Male	0	0	0	0	1
	Female	1	0	0	1	
Serum	Male	0	0	0	0	0
	Female	0	0	0	0	

4.2.3 Turnaround time report

Allows you to see actual turnaround times between test order and completion for all or specific tests.


1. Click the  sub-menu to load the report
2. Set a date range then click the  button to filter the report. The default is data for the current year.



3. You can choose to run a log for one lab section or for one type of test. The default settings are test records, all sections, and all tests.
4. The report loads with Export controls which can be accessed by clicking the  icon where the chart can be exported to PDF document or as an image.


4.2.4 Infection report

Allows you to generate reports of infections by patient age and gender.

1. Click  **Infection Report** sub-menu to load the report. By default, it loads data counts for the current year.

From To Lab Section

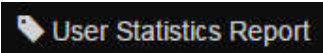
Infection Report - From 01-01-2015 To 23-01-2015									
Test	Measure	Results	Gender	Age Range			M/F Total	Total	Total Tests
				0-5	5-14	14-120			
No records found.									

2. Set a date range or select one Lab Section, or all sections to see all test results after clicking the  button.

Infection Report									
Infection Report - From 2014-05-01 To 2015-01-23									
Test	Measure	Results	Gender	Age Range			M/F Total	Total	Total Tests
				0-5	5-14	14-120			
BS for mps	BS for mps	+	Female	833	298	1129	2260	3935	16616
			Male	832	262	581	1675		
		++	Female	247	107	242	596	1063	
			Male	230	104	133	467		
		+++	Female	217	124	106	447	837	
			Male	208	107	75	390		
		++++	Female	108	51	23	182	356	
			Male	115	48	11	174		
		no mps seen	Female	1744	642	3857	6243	10425	
			Male	1818	540	1824	4182		

4.2.5 User statistics report

Display user specific statistics and user activity logs.


To load the report, click the  link on the navigation menu.

From: To:
 User: Report Type:

User Statistics Report						
User Summary Report (Period: 2015-01-24 - 2015-01-24)						
Show	<input type="text" value="10"/>	entries	Search: <input type="text"/>			
Name	Tests Received	Specimen Collected	Specimen Rejected	Tests Performed	Tests Verified	
1 [REDACTED]	1	2	2	0	0	
2 [REDACTED]	3	9	1	1	0	
3 [REDACTED]	4	2	0	2	1	
4 [REDACTED]	8	1	0	3	0	

Showing 1 to 4 of 4 entries Previous **1** Next

The report can be filtered by date ranges, a specific user and report type such as patient registry, specimen registry and so forth. The default report type is the general summary as shown above.

To filter, change the parameters as desired then click the  button.

For example with KBLIS Administrator user;

From: To:

User: Report Type: [View](#)

User Statistics Report

User Summary Report (Period: 2015-01-24 - 2015-01-24 USER: KBLIS Administrator)

Show entries Search:

	Name	Tests Received	Specimen Collected	Specimen Rejected	Tests Performed	Tests Verified
1	KBLIS Administrator	1	2	2	0	0


Showing 1 to 1 of 1 entries Previous **1** Next

You can also search for a certain user using the **Search:**

The list of users will automatically filtered as you type.

4.2.6 Surveillance report

Allows you to generate surveillance report by laboratory and test outcome.

1. Click  sub-menu to load the report. By default, it loads surveillance for the current month.

From: To: [View](#)

Surveillance




BASIC LABORATORY INFORMATION SYSTEM
 COUNTY REFERRAL HOSPITAL, BLIS
 REFERRAL HOSPITAL LOCATION
 P.O. BOX PRIVATE BAG,
 KENYA.
 PHONE: +00000000 EXT 203/208



LABORATORY REPORT

Surveillance - From 01-03-2015 To 24-03-2015

Laboratory	< 5 Years		≥ 5 Years		Total	
	Tested	Positive	Tested	Positive	Tested	Positive
Malaria	1	0	2	2	3	2
Typhoid	0	0	0	0	0	0
Shigella Dysentery	0	0	0	0	0	0

2. Set a date range to see all test results after clicking the  button.

From To [View](#)

Surveillance

BASIC LABORATORY INFORMATION SYSTEM
COUNTY REFERRAL HOSPITAL, BLIS
REFERRAL HOSPITAL LOCATION
P.O. BOX PRIVATE BAG,
KENYA.
PHONE: +0000000 EXT 203/208
LABORATORY REPORT

Surveillance - From 2014-10-07 To 2015-03-24

Laboratory	< 5 Years		≥ 5 Years		Total	
	Tested	Positive	Tested	Positive	Tested	Positive
Malaria	1	0	2	2	3	2
Typhoid	1	1	0	0	1	1
Shigella Dysentery	0	0	0	0	0	0

4.2.7 Quality control report

Allows you to generate quality control report by range and control type.

1. Click **Quality Controls** sub-menu to load the report. By default, it loads quality control report for the current month.

Home / Quality Controls

From To Control [View](#)

Control Results

BASIC LABORATORY INFORMATION SYSTEM
COUNTY REFERRAL HOSPITAL, BLIS
REFERRAL HOSPITAL LOCATION
P.O. BOX PRIVATE BAG,
KENYA.
PHONE: +0000000 EXT 203/208
LABORATORY REPORT

2. Set a date range and select the control type to see all results after clicking the **View** button.

Home / Quality Controls

From To Control [View](#)

Control Results

BASIC LABORATORY INFORMATION SYSTEM
COUNTY REFERRAL HOSPITAL, BLIS
REFERRAL HOSPITAL LOCATION
P.O. BOX PRIVATE BAG,
KENYA.
PHONE: +0000000 EXT 203/208
LABORATORY REPORT

4.3 Inventory reports

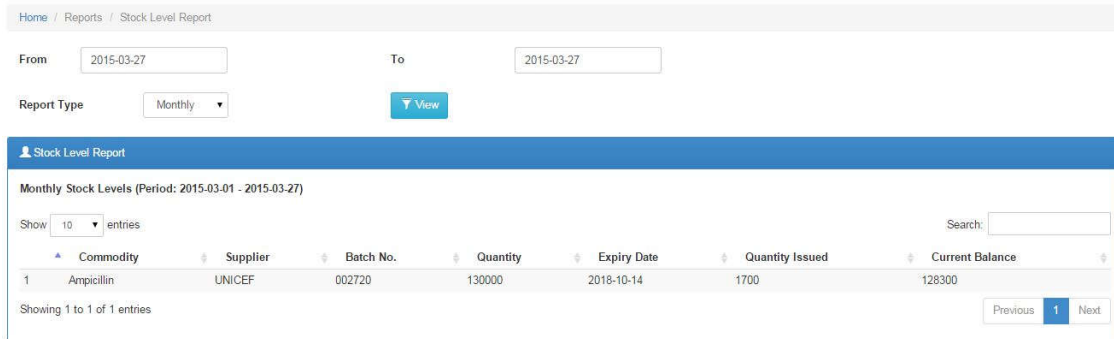
These are accrued summaries of inventory over a period of time.

4.3.1 Stock Levels reports

Gives a brief summary of the available stock.

1. Click the  sub-menu to load the report.

By default, the report loads stock levels for the current month



Home / Reports / Stock Level Report

From: To:

Report Type:

Stock Level Report

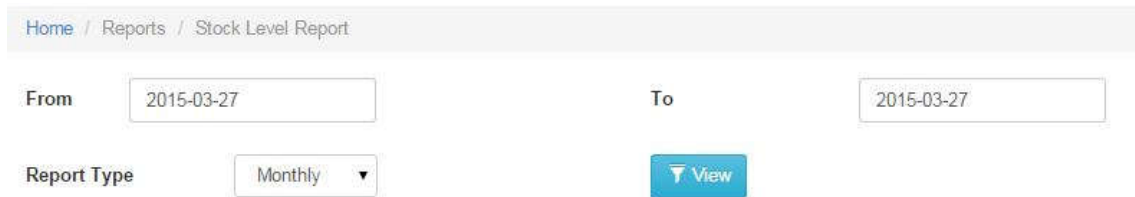
Monthly Stock Levels (Period: 2015-03-01 - 2015-03-27)

Show entries Search:

Commodity	Supplier	Batch No.	Quantity	Expiry Date	Quantity Issued	Current Balance
1 Ampicillin	UNICEF	002720	130000	2018-10-14	1700	128300

Showing 1 to 1 of 1 entries Previous **1** Next


2. Set a date range to view report either monthly or quarterly



Home / Reports / Stock Level Report

From: To:

Report Type:

Click the  button to load the report with the filters you defined

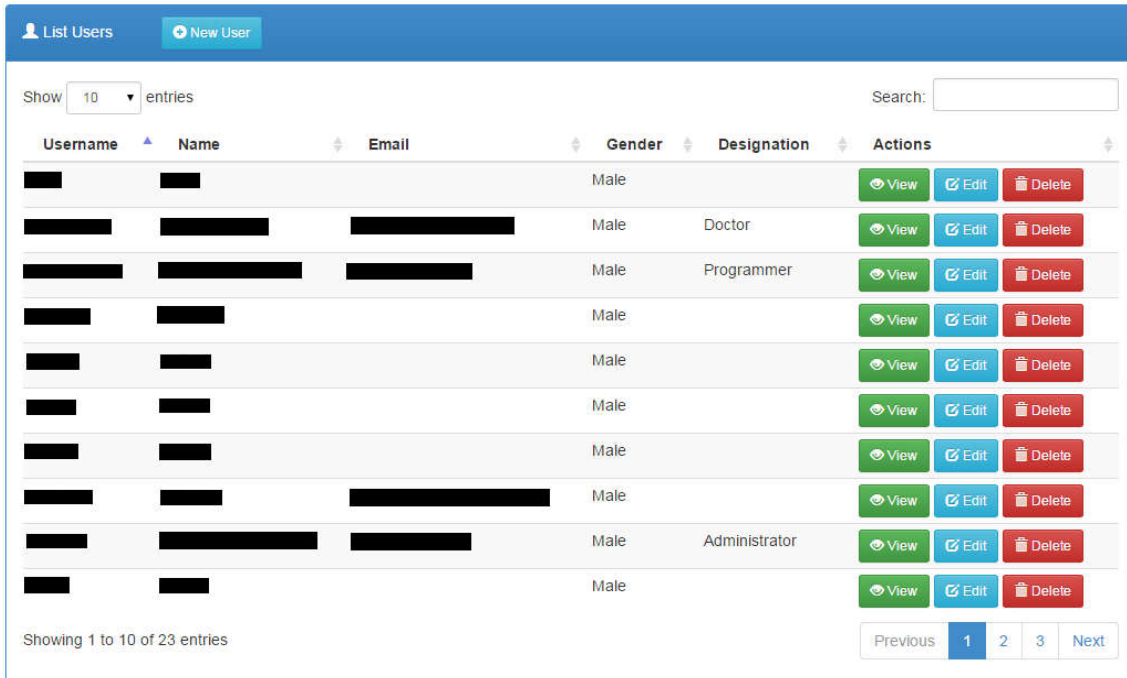
5.0 Access Controls

5.1 User accounts

This page shows all the users with access to the system. It allows you to create new user accounts, edit account settings, delete accounts, and monitor account activity.

5.1.1 List users

Click the  link on the navigation menu.



The screenshot shows the 'List Users' interface. At the top, there are tabs for 'List Users' and 'New User'. Below the tabs, there is a search bar and a dropdown menu set to '10 entries'. The main content is a table with the following columns: Username, Name, Email, Gender, Designation, and Actions. The Actions column contains three buttons: View (green), Edit (blue), and Delete (red). The table displays 10 rows of user data, with the last row being an Administrator. At the bottom, there is a pagination control showing 'Showing 1 to 10 of 23 entries' and a set of buttons for 'Previous', '1', '2', '3', and 'Next'.

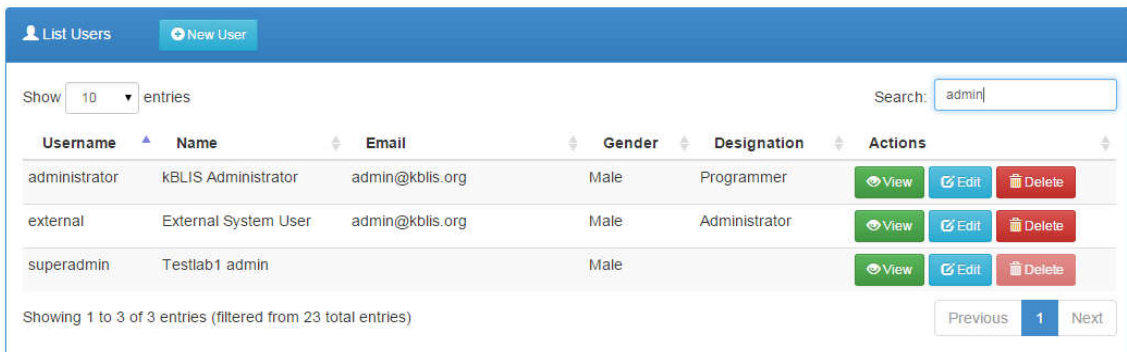
Username	Name	Email	Gender	Designation	Actions
[Redacted]	[Redacted]	[Redacted]	Male		View Edit Delete
[Redacted]	[Redacted]	[Redacted]	Male	Doctor	View Edit Delete
[Redacted]	[Redacted]	[Redacted]	Male	Programmer	View Edit Delete
[Redacted]	[Redacted]	[Redacted]	Male		View Edit Delete
[Redacted]	[Redacted]	[Redacted]	Male		View Edit Delete
[Redacted]	[Redacted]	[Redacted]	Male		View Edit Delete
[Redacted]	[Redacted]	[Redacted]	Male		View Edit Delete
[Redacted]	[Redacted]	[Redacted]	Male		View Edit Delete
[Redacted]	[Redacted]	[Redacted]	Male	Administrator	View Edit Delete
[Redacted]	[Redacted]	[Redacted]	Male		View Edit Delete

5.1.2 Searching a user

1. Begin typing a user's name, username or email in the search field

Search:


2. The list shall be automatically filtered



The screenshot shows the 'List Users' interface with the search field containing the text 'admin'. The table now displays only 3 entries, which are filtered from the original 23. The entries are: administrator (KBLIS Administrator, admin@kblis.org, Male, Programmer), external (External System User, admin@kblis.org, Male, Administrator), and superadmin (Testlab1 admin, Male). The pagination control at the bottom shows 'Showing 1 to 3 of 3 entries (filtered from 23 total entries)' and buttons for 'Previous', '1', and 'Next'.

Username	Name	Email	Gender	Designation	Actions
administrator	KBLIS Administrator	admin@kblis.org	Male	Programmer	View Edit Delete
external	External System User	admin@kblis.org	Male	Administrator	View Edit Delete
superadmin	Testlab1 admin		Male		View Edit Delete

5.1.3 Viewing a user's details


1. Click the  button to load the measure details
2. The user details shall be loaded on to a panel

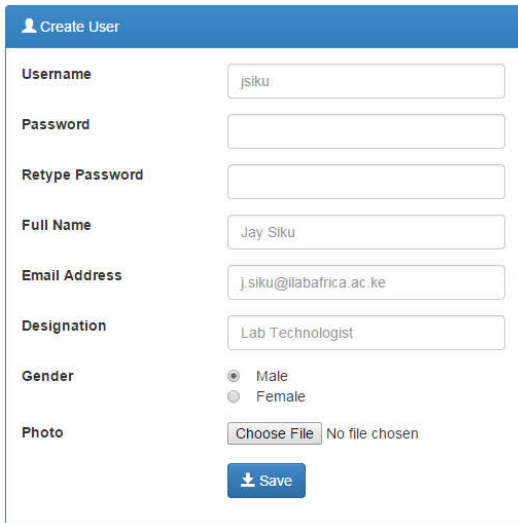


The image shows a 'User Details' panel with a blue header containing a user icon, the text 'User Details', and an 'Edit' button. Below the header, the user's information is displayed in a list format:

Full Name	kBLIS Administrator
Username	administrator
Email Address	admin@kblis.org
Designation	Programmer
Gender	Male
Registration Date	2015-01-15 15:22:58

5.1.4 Adding new users


1. Click the  button to load a new user account form
2. Complete the form with the user's details



The image shows a 'Create User' form with a blue header containing a user icon and the text 'Create User'. The form contains the following fields:


- Username: jsiku
- Password: (empty)
- Retype Password: (empty)
- Full Name: Jay Siku
- Email Address: j.siku@ilabafrica.ac.ke
- Designation: Lab Technologist
- Gender: Male, Female
- Photo: Choose File No file chosen

A blue 'Save' button is located at the bottom of the form.

3. Click the  button to save the changes.

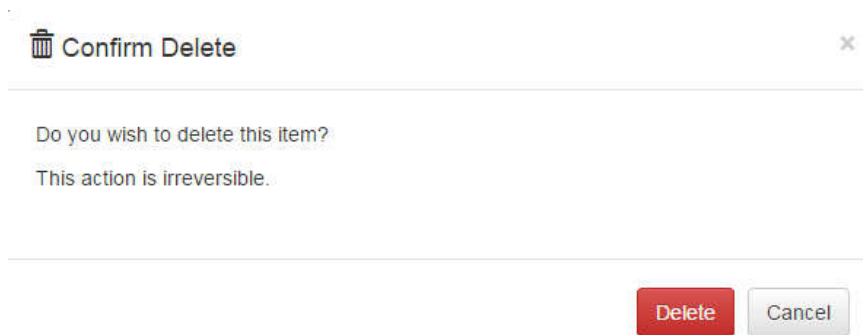
5.1.5 Updating a user's details

1. Click the  button on the users list.

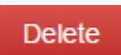


2. Make the desired modifications to the pre-filled details
3. Click the  button to save the changes.

5.1.6 Deleting a user

1. To delete click the  button of an



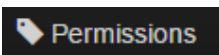
entry

2. Click the  button on the pop-up if you are sure to delete, otherwise, click the  button or  icon to dismiss.

5.2 Permissions


This is where each role in the system is assigned specific actions enabled for that role

5.2.1 List all permissions

1. Click the  link on the navigation menu.
2. The list of all permissions is as shown

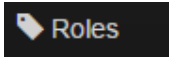
Permissions New Role			
Permissions	Roles		
	Superadmin	Technologist	Receptionist
Can view patient names		<input type="checkbox"/>	<input type="checkbox"/>
Can add patients		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Can receive test requests		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Can request new test		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Can accept test specimen		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Can reject test specimen		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Can change test specimen		<input checked="" type="checkbox"/>	<input type="checkbox"/>

5.2.2 Defining and updating privileges

1. Check all permissions a role can be allowed to handle as designed by the lab as shown above.
2. Click the  button to save the changes.



5.3 Roles

5.3.1 List roles



1. Click the  link on the navigation menu
2. The list of available roles shall be loaded

Roles New Role	
Name	Description
Superadmin	
Technologist	
Receptionist	

5.3.2 Adding a new role

1. Click the  button
2. Complete the presented form
3. Click the  button to save the changes.

5.3.3 Updating an existing role


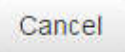

1. Click the  button
2. Make the necessary modifications to the data
3. Click the  button to save the changes.

5.3.4 Deleting a role

1. To delete click the  button of an



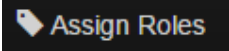
entry

2. Click the  button on the pop-up if you are sure to delete, otherwise, click the  button or  icon to dismiss.

5.4 Assign roles

Allows the assignment of specific roles to the various users of the system.

5.4.1 Assigning and updating assigned roles to users

1. Click the  link on the navigation bar.
2. On the loaded panel, check as appropriate to the user and role

Assign roles to Users			
Users	Roles		
	Superadmin	Technologist	Receptionist
██████████	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
██████	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
██████	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
██████	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
██████	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
██████	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Click the  button to save the changes.

6.0 Inventory

6.1 Top Up

Allows you to create top up as appropriate for the inventory.

6.1.1 Listing all Top ups

1. Click the  link on the navigation bar

Top Up Request Top-Up

Show 10 entries Search:

Date	Commodity	Lab Section	Order Quantity	User	Remarks	Actions
2015-03-18 11:47:51	Ampicillin	PARASITOLOGY	1500	KBLIS Administrator	-	Issue List Delete

Showing 1 to 1 of 1 entries Previous 1 Next

6.1.2 Searching for a top up

1. Begin typing the top up name on the search field

Search:

2. The list will automatically be loaded with matching values e.g.

Top Up Request Top-Up

Show 10 entries Search: wad

Date	Commodity	Lab Section	Order Quantity	User	Remarks	Actions
No matching records found						

Showing 0 to 0 of 0 entries (filtered from 2 total entries) Previous Next

6.1.3 Issuing a Top up

1. Click the  button of the specific top up.

2. Complete the details on the provided form

Issue Commodity

Commodity: Ampicillin

Destination: PARASITOLOGY

Batch No. [dropdown]

Quantity available: 128300


Quantity Required: 1500

Quantity Issued: [empty]

Receivers Name: [dropdown]

Remarks: [empty]

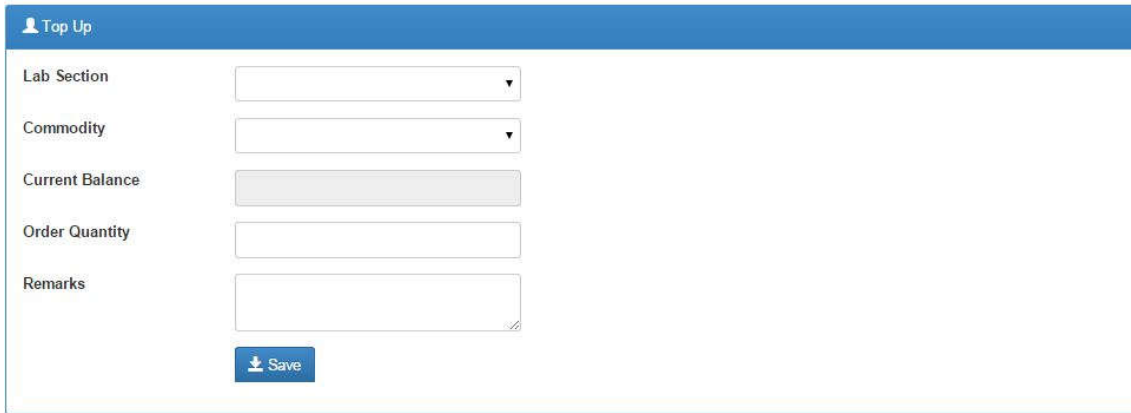
[Save]

3. Click the  button to save the top up to the system


6.1.4 Adding a new Top up

1. On the list of top ups, click the  button.



2. Complete the details on the provided form




The screenshot shows a form titled "Top Up" with a blue header. Below the header, there are five input fields: "Lab Section" (a dropdown menu), "Commodity" (a dropdown menu), "Current Balance" (a text input field), "Order Quantity" (a text input field), and "Remarks" (a larger text input field). At the bottom of the form, there is a blue button with a white download icon and the text "Save".

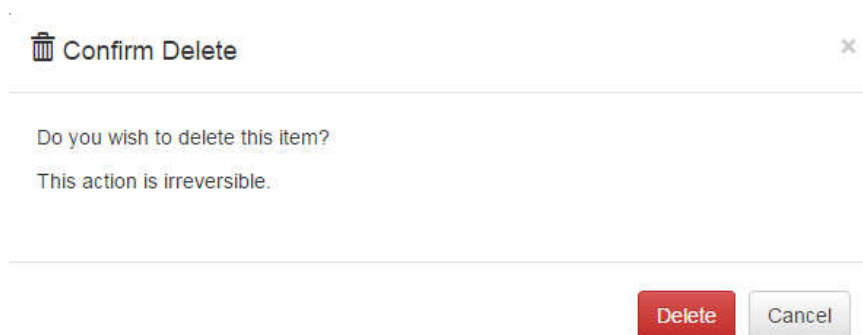
3. Click the  button to save the organism to the system

6.1.5 Updating top up details

1. Click the  button to open a form with pre-filled values.
2. Make the necessary modifications such as the lab section, commodity , remarks and so forth.
3. Click the  button to save the changes.

6.1.6 Deleting a top up

1. Click the  button of an entry



The screenshot shows a dialog box titled "Confirm Delete" with a trash icon and a close button (X) in the top right corner. The main text of the dialog asks "Do you wish to delete this item?" and states "This action is irreversible." At the bottom of the dialog, there are two buttons: a red "Delete" button and a grey "Cancel" button.

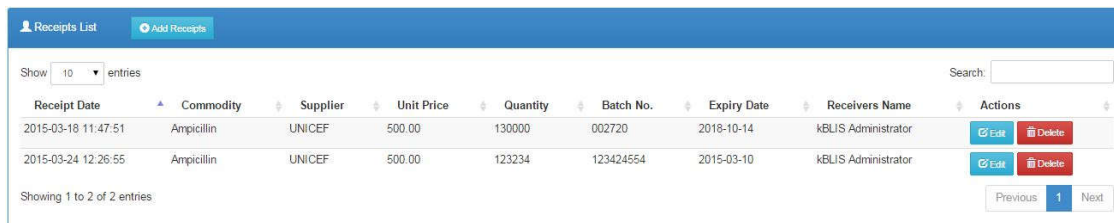
2. Click the **Delete** button on the pop-up if you are sure to delete, otherwise, click the **Cancel** button or **×** icon to dismiss.

6.2 Receipts

Allows you to create receipts as per specific commodity.

6.2.1 Listing all Receipts

1. Click the **Receipts** link on the navigation bar



The screenshot shows the 'Receipts List' interface. At the top, there is a search bar and a dropdown menu set to '10 entries'. Below this is a table with columns: Receipt Date, Commodity, Supplier, Unit Price, Quantity, Batch No., Expiry Date, Receivers Name, and Actions. Two receipts are listed, both for 'Ampicillin' from 'UNICEF'. The first receipt is dated 2015-03-18 and has a quantity of 130000. The second is dated 2015-03-24 and has a quantity of 123234. Each row has 'Edit' and 'Delete' buttons. At the bottom, it says 'Showing 1 to 2 of 2 entries' and has 'Previous', '1', and 'Next' navigation buttons.

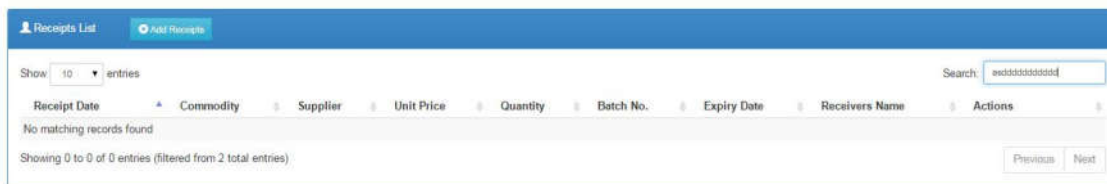
Receipt Date	Commodity	Supplier	Unit Price	Quantity	Batch No.	Expiry Date	Receivers Name	Actions
2015-03-18 11:47:51	Ampicillin	UNICEF	500.00	130000	002720	2018-10-14	kBLIS Administrator	Edit Delete
2015-03-24 12:26:55	Ampicillin	UNICEF	500.00	123234	123424554	2015-03-10	kBLIS Administrator	Edit Delete

6.2.2 Searching for a receipt

1. Begin typing the receipt name on the search field

Search:

2. The list will automatically be loaded with matching values e.g.



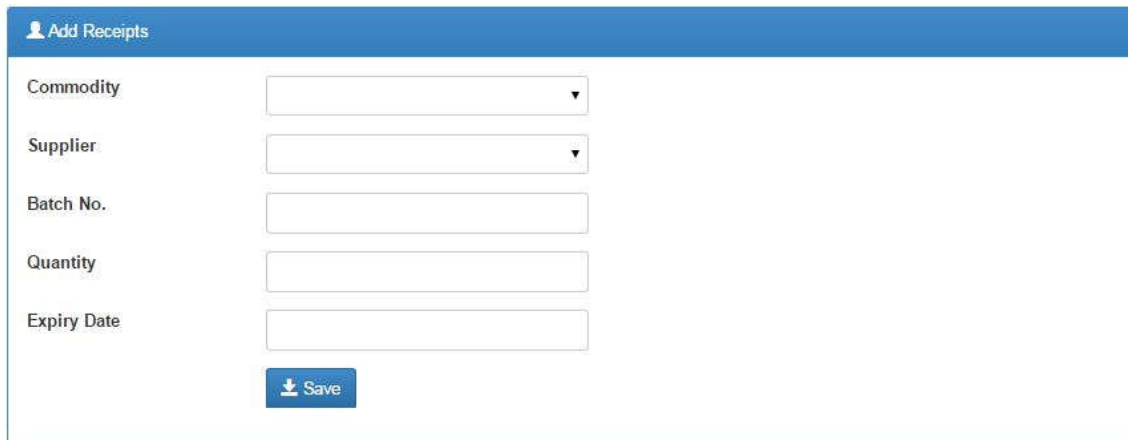
The screenshot shows the 'Receipts List' interface with a search filter applied. The search bar contains 'ampicillin'. The table is empty, and a message says 'No matching records found'. Below the table, it says 'Showing 0 to 0 of 0 entries (filtered from 2 total entries)'. Navigation buttons 'Previous' and 'Next' are visible at the bottom right.


Receipt Date	Commodity	Supplier	Unit Price	Quantity	Batch No.	Expiry Date	Receivers Name	Actions
No matching records found								

6.2.3 Adding a new receipt



1. On the list of receipts, click the **Add Receipts** button.

2. Complete the details on the provided form




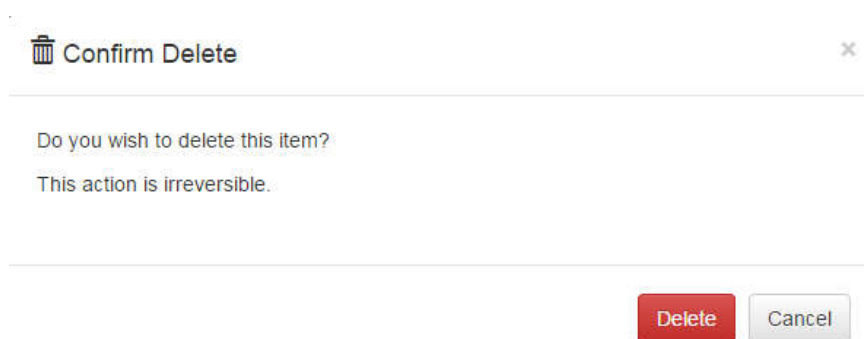
3. Click the  button to save the receipt to the system

6.2.4 Updating receipt details

1. Click the  button to open a form with pre-filled values.
2. Make the necessary modifications such as the commodity, supplier, batch no and so forth.
3. Click the  button to save the changes.

6.2.5 Deleting a receipt

1. Click the  button of an entry



- Click the **Delete** button on the pop-up if you are sure to delete, otherwise, click the **Cancel** button or **X** icon to dismiss.

6.3 Issues

Allows you to issue commodities.

6.3.1 Listing all Issues

- Click the **Issues** link on the navigation bar

The screenshot shows the 'Issues List' interface. At the top, there is a search bar and a 'Show 10 entries' dropdown. Below this is a table with the following columns: Issue Date, Commodity, Batch No., Quantity Required, Quantity Issued, Expiry Date, Destination, Receivers Name, and Actions. The table contains one row with the following data: Issue Date: 2015-03-18 11:47:51, Commodity: Ampicillin, Batch No.: 002720, Quantity Required: 1500, Quantity Issued: 1700, Expiry Date: 2018-10-14, Destination: PARASITOLOGY, Receivers Name: KBLIS Administrator. The Actions column contains 'List' and 'Delete' buttons. At the bottom, it says 'Showing 1 to 1 of 1 entries' and has 'Previous', '1', and 'Next' navigation buttons.

Issue Date	Commodity	Batch No.	Quantity Required	Quantity Issued	Expiry Date	Destination	Receivers Name	Actions
2015-03-18 11:47:51	Ampicillin	002720	1500	1700	2018-10-14	PARASITOLOGY	KBLIS Administrator	List Delete

6.3.2 Searching for an issue

- Begin typing the issue name on the search field

Search:


- The list will automatically be loaded with matching values e.g.

The screenshot shows the 'Issues List' interface with a search bar containing the text 'wqpwqpwqpwqpwqpwqpw'. Below the search bar, the table is empty and displays the message 'No matching records found'. At the bottom, it says 'Showing 0 to 0 of 0 entries (filtered from 1 total entries)' and has 'Previous' and 'Next' navigation buttons.


Issue Date	Commodity	Batch No.	Quantity Required	Quantity Issued	Expiry Date	Destination	Receivers Name	Actions
No matching records found								

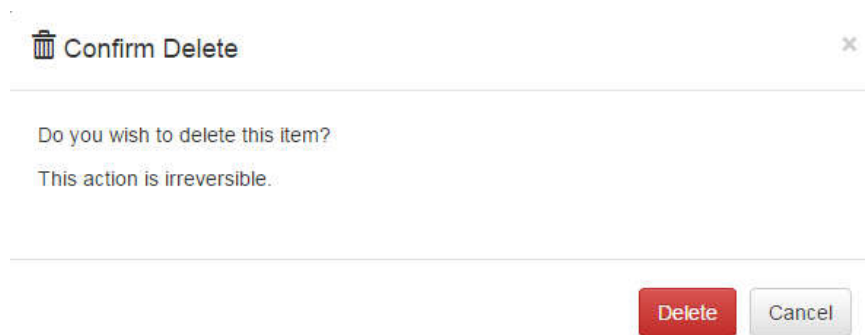
6.3.3 Updating an issue


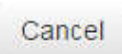

- Click the **Edit** button to open a form with pre-filled values.
- Make the necessary modifications such as the commodity, batch no, destination and so forth.

3. Click the  button to save the changes.

6.3.4 Deleting an issue

1. Click the  button of an entry



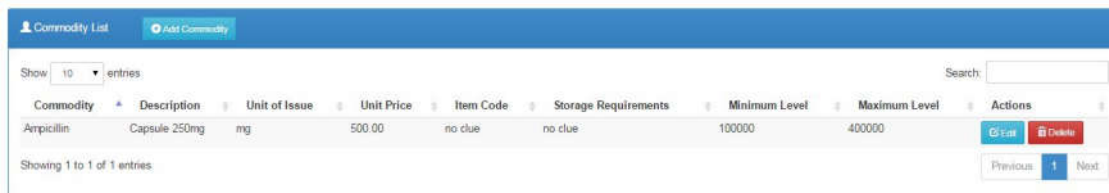
3. Click the  button on the pop-up if you are sure to delete, otherwise, click the  button or  icon to dismiss.

6.4 Commodities



Allows you to add a new commodity as per the inventory demands.

6.4.1 Listing all Commodities

1. Click the  link on the navigation bar



A screenshot of a web application interface titled "Commodity List". It features a search bar, a table with columns for Commodity, Description, Unit of Issue, Unit Price, Item Code, Storage Requirements, Minimum Level, and Maximum Level. The table contains one entry for "Ampicillin" with a unit price of 500.00 and levels of 100000 and 400000. There are "Add Commodity", "Exit", and "Delete" buttons, along with pagination controls.

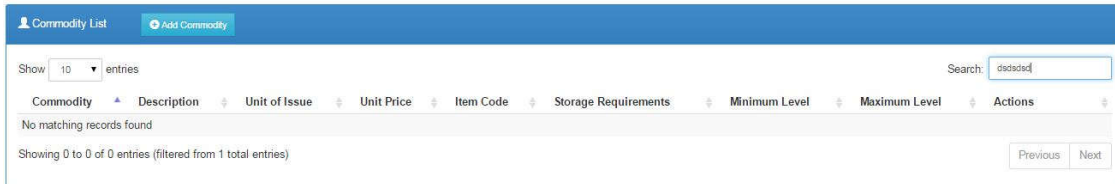
Commodity	Description	Unit of Issue	Unit Price	Item Code	Storage Requirements	Minimum Level	Maximum Level	Actions
Ampicillin	Capsule 250mg	mg	500.00	no clue	no clue	100000	400000	 

6.4.2 Searching for a receipt


1. Begin typing the commodity name on the search field

Search:

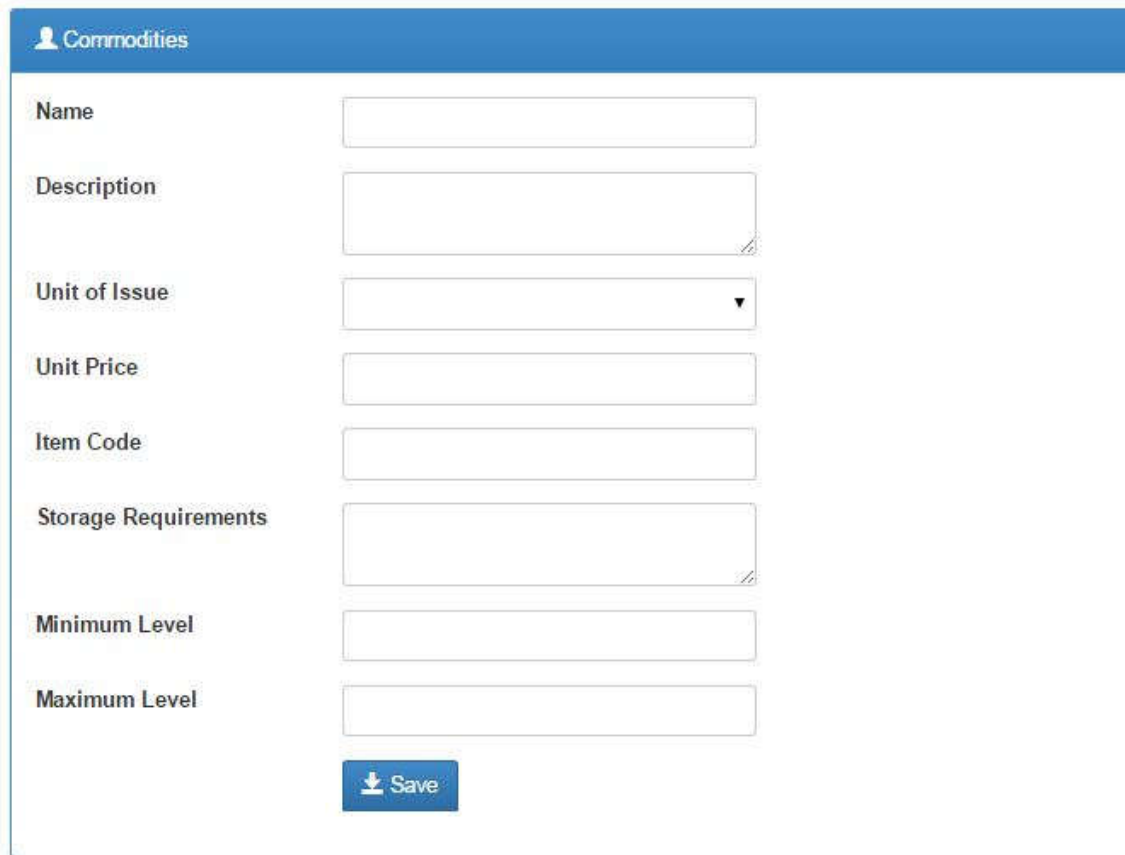
2. The list will automatically be loaded with matching values e.g.



6.4.3 Adding a new commodity


1. On the list of commodities, click the  button.

2. Complete the details on the provided form





The screenshot shows a web form titled "Commodities" with a blue header bar. The form contains several input fields and a save button:


- Name:** A text input field.
- Description:** A text input field with a small icon in the bottom right corner.
- Unit of Issue:** A dropdown menu with a downward arrow.
- Unit Price:** A text input field.
- Item Code:** A text input field.
- Storage Requirements:** A text input field with a small icon in the bottom right corner.
- Minimum Level:** A text input field.
- Maximum Level:** A text input field.
- Save:** A blue button with a white downward arrow icon and the text "Save".

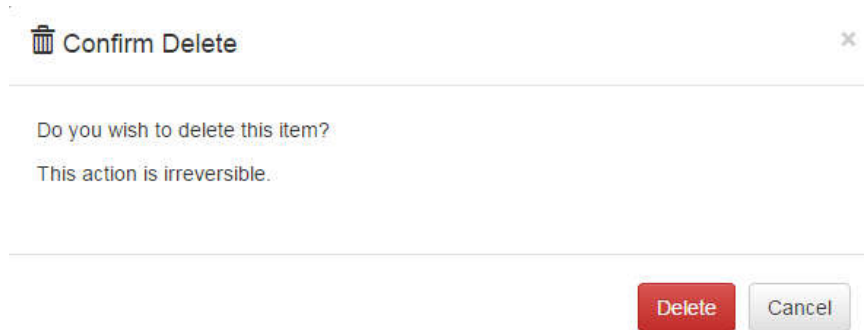
3. Click the  button to save the commodity to the system

6.4.4 Updating commodity details

1. Click the  button to open a form with pre-filled values.
2. Make the necessary modifications such as the name, unit price, item code and so forth.
3. Click the  button to save the changes.

6.4.5 Deleting a commodity

1. Click the  button of an entry



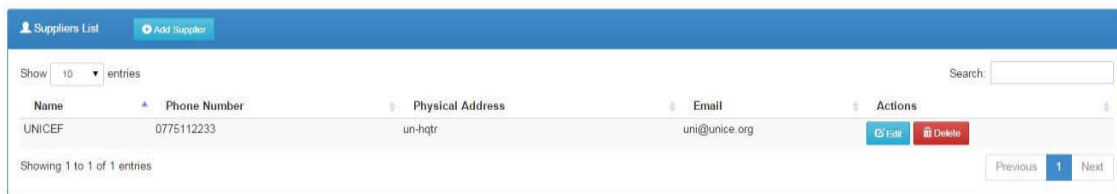
4. Click the **Delete** button on the pop-up if you are sure to delete, otherwise, click the **Cancel** button or **X** icon to dismiss.

6.5 Suppliers

Allows you to add a suppliers to the commodity system

6.5.1 Listing all suppliers

1. Click the **Suppliers** link on the navigation bar



6.5.2 Searching for a supplier


1. Begin typing the supplier name on the search field


Search:

2. The list will automatically be loaded with matching values e.g.





6.5.3 Adding a new supplier


1. On the list of suppliers, click the  button.
2. Complete the details on the provided form

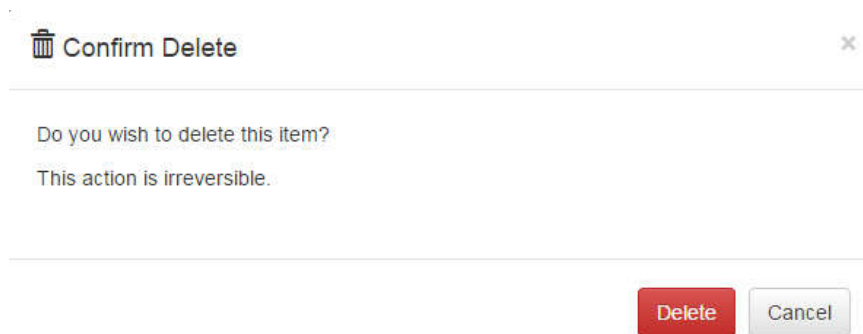
3. Click the  button to save the supplier to the system




6.5.4 Updating supplier details

1. Click the  button to open a form with pre-filled values.
2. Make the necessary modifications such as the name, phone no, item email and so forth.
3. Click the  button to save the changes.

6.5.5 Deleting a supplier

1. Click the  button of an entry



5. Click the  button on the pop-up if you are sure to delete, otherwise, click the  button or  icon to dismiss.

6.6 Metrics

Allows you to add a metrics to the inventory system

6.6.1 Listing all metrics

1. Click the  link on the navigation bar

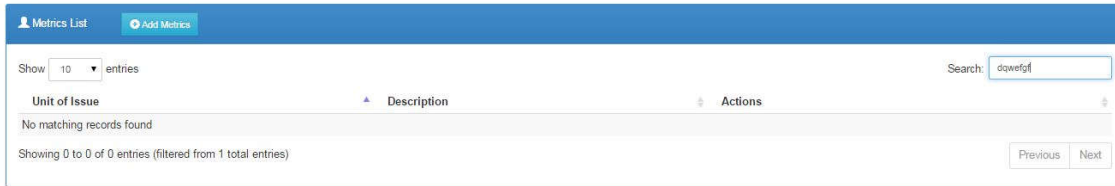


6.6.2 Searching for a metrics


1. Begin typing the metric name on the search field


Search:

2. The list will automatically be loaded with matching values e.g.





6.6.3 Adding a new metric


1. On the list of suppliers, click the  button.
2. Complete the details on the provided form

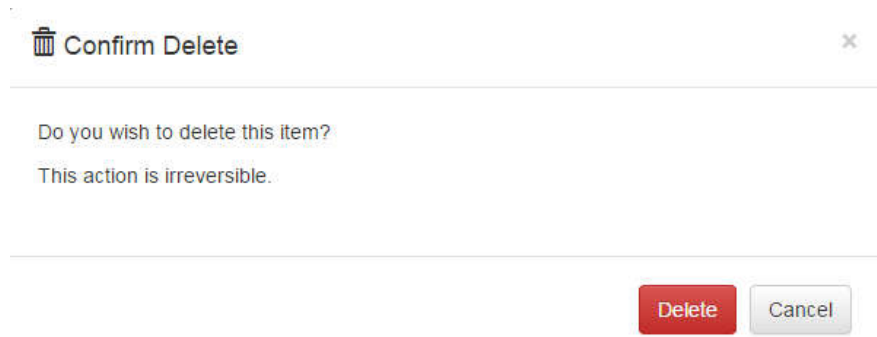
3. Click the  button to save the metric to the system

6.6.4 Updating metric details

1. Click the  button to open a form with pre-filled values.
2. Make the necessary modifications such as the unit of issue, description and so forth.
3. Click the  button to save the changes.

6.6.5 Deleting a metric

1. Click the  button of an entry



6. Click the **Delete** button on the pop-up if you are sure to delete, otherwise, click the **Cancel** button or **x** icon to dismiss.

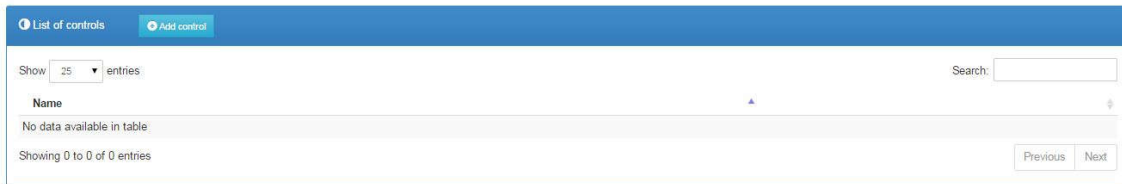
7.0 Quality Controls

7.1 Viewing Quality Controls

Allows you to manage the quality control system

7.1.1 Listing all controls

1. Click the  link on the navigation bar

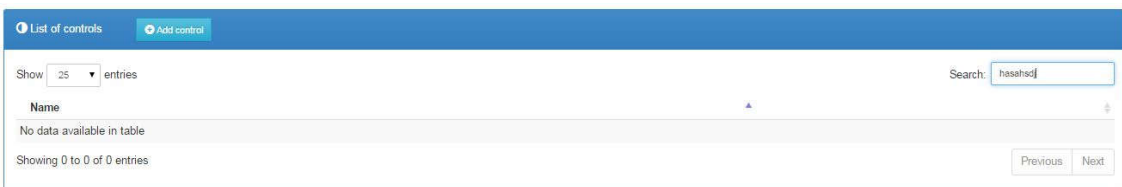


7.1.2 Searching for a control

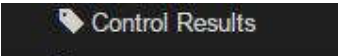
1. Begin typing the control name on the search field

Search:

2. The list will automatically be loaded with matching values e.g.



7.2 Controls Results


1. Click the  link on the navigation bar to list all control results.

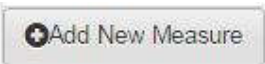


2. To enter control results click . After entering the results save as required.

7.3 Controls

7.3.1 Adding a new control

1. On the list of controls, click the  button.
2. Complete the details on the provided form

3. To add a new measure click  and the form below will be displayed, fill and select all necessary fields. You can also add measure range by clicking the add new range button

Add control

Name


Description

Instrument

Measures

Name	Measure Type	Expected value	Unit
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Range Values

3. Click the  Save button to save the control to the system

7.4 Lots

Allows you to add a lots to the qc system

7.4.1 Listing all Lots

1. Click the  Lots link on the navigation bar

Lots

Show entries

Name	Description
No data available in table	

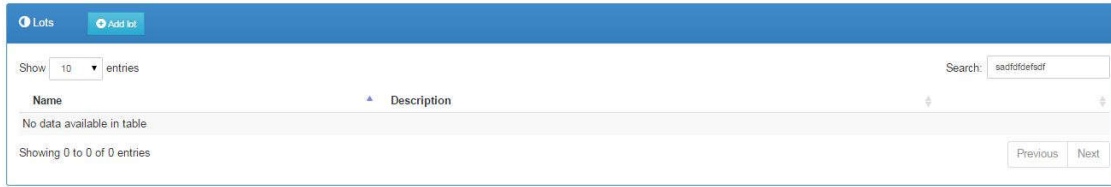
Showing 0 to 0 of 0 entries

7.4.2 Searching for a lot


1. Begin typing the lot name on the search field

Search:


2. The list will automatically be loaded with matching values e.g.



7.4.3 Adding a new lot

1. On the list of lots, click the  button.
2. Complete the details on the provided form

A screenshot of the 'Add lot' form. The form has a blue header with a gear icon and the text 'Add lot'. Below the header, there are three input fields: 'Lot number' (a text box), 'Description' (a larger text area with a small icon in the bottom right corner), and 'Instruments' (a dropdown menu). At the bottom of the form, there is a blue button with a download icon and the text 'Save'.

3. Click the  button to save the lot to the system

Glossary

Admin – Designation for a user that has control over lab configuration settings.

Reports – Pages that collect metrics for various types of data. The scope of these reports varies from individual patients to entire groups of laboratories.

Aggregate – Type of report that collects data over a period of time and presents it to the user.

Results - The recorded outcome of tests performed on specimens.

Barcodes – Used in inventory management to create printable 'barcode' labels for reagents.

Specimen – An entry representing a physical specimen or reading taken from a patient.

Specimen Type – Classification for different types of specimens.

Grouped Reports – Reports that cover multiple types of information.

Technologist – A designation for a user who is tasked with entering data into BLIS.

Inventory – Interface for managing reagents and supplies.

Test – An entry representing a test or reading taken from a specimen.

Lab Configuration – Collection of customizable settings relating to the collection and storage of data.

Test Type – Classification for different types of tests.

Manager – Another name for an Admin user.

Turnaround Time – A measurement of the time it takes to receive a result, once a specimen is collected.

Patient – Entry for a patient whose specimens, tests are performed on.

User – Any person or entity that logs into the BLIS.

Prevalence Rate – The percentage rate of occurrence of a particular result of tests.

Verify – An action performed on test entries that validates the results for further use.

Reagent – Term used in inventory control in BLIS. Denotes any physical supply that requires tracking in the inventory system.

Worksheet – Customizable, printable sheets for improving the speed at which information is recorded in a physical sense (i.e. not entered directly into the BLIS.)

Registration – The act of entering a patient into the BLIS program. Creates a unique patient entry that can be associated with specimens and tests.