

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

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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

Username

Password

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

Username

Password

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

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

get errors as displayed below

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

be displayed.

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.

The screenshot displays the KBLIS 1.0 software interface. At the top, there is a dark header bar with the text "KBLIS 1.0" on the left and "KBLIS Administrator" on the right. Below this is a navigation sidebar on the left side of the main content area. The sidebar has a red header bar with the text "Home". Below this are several menu items with icons: "Patients" (a person icon), "Tests" (a test tube icon), "Lab Configuration" (a wrench icon), "Test Catalog" (a gear icon), "Reports" (a bar chart icon), and "Access Controls" (a key icon). The main content area contains a "Home Page" header with a back arrow and a forward arrow. Below the header is a photograph of a black plastic tray holding six VACUETTE test tubes with pink caps. The tubes are labeled with handwritten text. In the background of the photo, a white box is visible with the brand name "NUNC KORDEN" and the word "Hematology". At the bottom of the main content area, there is a caption: "Specimen ready for tests processing" followed by three small circular icons.

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.

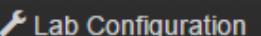
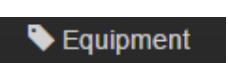
-  is for adding the driver (common to all machines of the same type).
-  is for specifying the physical location of the machine.

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.

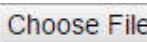
Name	IP Address	Hostname	Actions
Celtac F Mek 8222	192.168.1.12	HEMASERVER	<button>View</button> <button>Edit</button> <button>Delete</button>

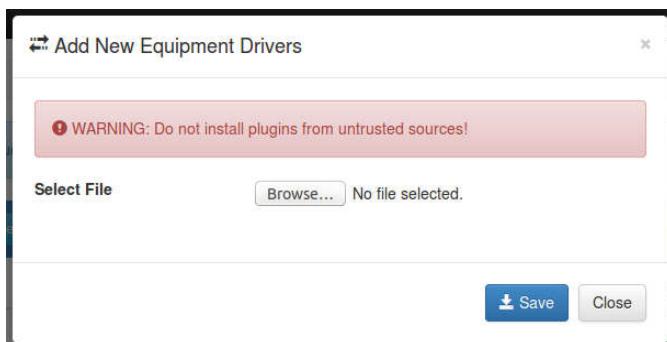
2.1.4 Configuring equipment drivers

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

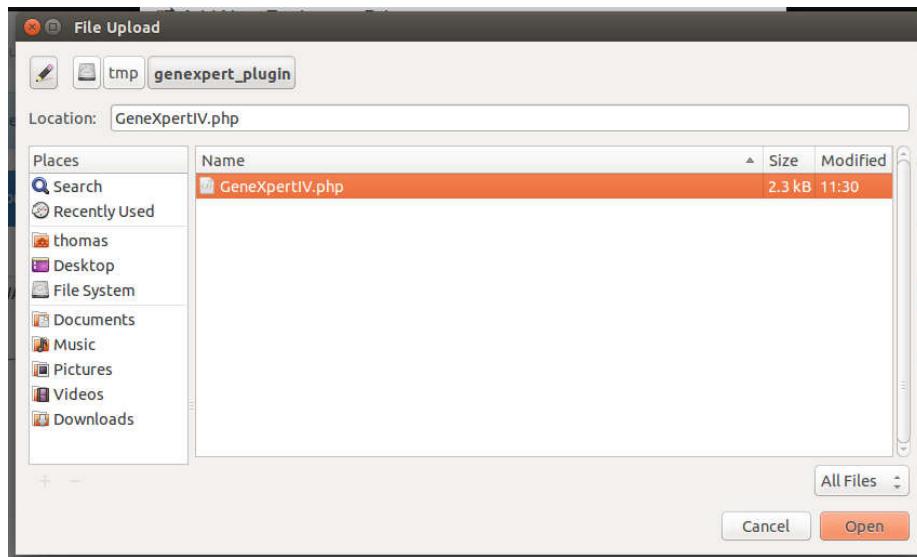
- the equipment name
- a unique identification code
- a description of the equipment
- the medical tests it can perform.

To import a driver file,

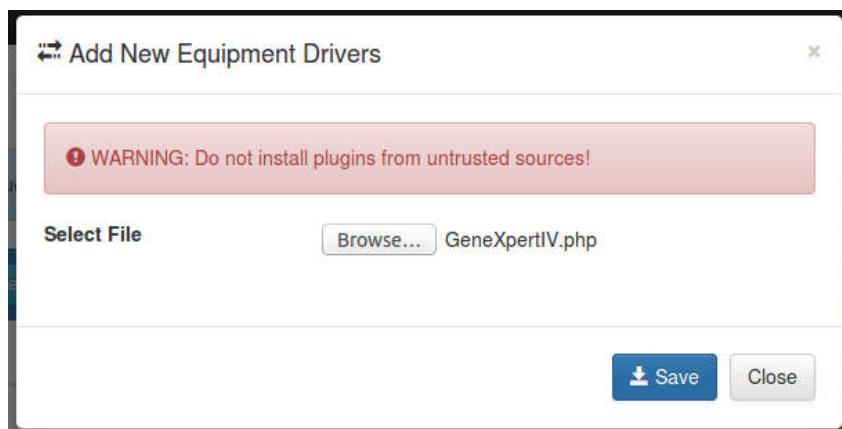
- i. Click on the  button on the Equipment List page.
- ii. In the dialog box that appears, click the  or  button to open a files dialog box



- iii. 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	
 Edit	
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	Celltac F WARD 4
Description	Automatic analyzer with 22 parameters and WBC 5 part diff Hematology Analyzer
IP Address	192.168.1.134
Hostname	WARD4_OFFICE
Supported Tests	WBC

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 **+ New Equipment** from the Equipment List page.

The screenshot shows a web-based application interface for adding new equipment. At the top, there's a blue header bar with the text 'Add Equipment'. Below it is a form with three input fields: 'Equipment' (a dropdown menu currently set to 'Celltac F Mek 8222'), 'IP Address' (an empty text input), and 'Hostname' (an empty text input). At the bottom of the form is a blue 'Save' button with a downward arrow icon.

2. Click the **Save** button to save the details.

2.1.8 Deleting existing equipment

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



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.

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

List of facilities		Add a facility
Show 10 entries		Search:
Name		
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		
Showing 1 to 10 of 45 entries		Previous 1 2 3 4 5 Next

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.

List of facilities		Add a facility
Show 10 entries		Search: ke
Name		
KEMRI ALUPE	 Edit	 Delete
KEMRI NAIROBI	 Edit	 Delete
KIBUKE DISPENSARY	 Edit	 Delete

Showing 1 to 3 of 3 entries (filtered from 45 total entries)

Previous 1 Next

2.2.3 Adding a new facility

1. Click the [Add a facility](#) button to load the new facility details form.
2. Complete the form as appropriate.
3. Click the [Save](#) button to save the details.

2.2.4 Updating a facility's details

1. Click the [Edit](#) 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 [Save](#) button to save the details.

2.2.5 Deleting a facility

1. From the list of facilities, click the [Delete](#) button of the corresponding record

Confirm Delete ×

Do you wish to delete this item?

This action is irreversible.

[Delete](#) [Cancel](#)

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.

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

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

Test Types	Diseases
BS for mps	Malaria
Stool for C/S	Shigella Dysentery
Salmonella Antigen Test	Typhoid

Save **Cancel** **Add Another**

2.3.2 Removing a test and its disease

Click the X button as shown below

Test Types	Diseases
BS for mps	Malaria

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

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

Surveillance **New Disease**

Test Types	Diseases
BS for mps	Malaria
HB	Shigella Dysentery
WBC	Malaria
HB	

Save Cancel Add Another

3. Click the **Save** button to save the details.

2.3.3 Adding a new disease for the surveillance

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

Diseases

Malaria	X
Typhoid	X
Shigella Dysentery	X
	X

Save Cancel Add Another

3. Click the **Save** button to save the details.

3.3.2 Removing a disease

Click the X button as shown below

Malaria	X
---------	---

3.0 Test Catalog

3.1 Lab Sections

3.1.1 Listing all lab sections

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

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

3.1.2 Searching for a lab section

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

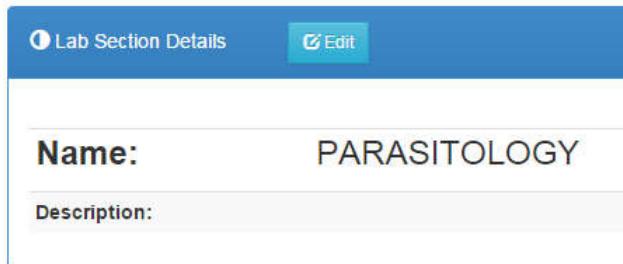
Search:

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

Name	Description	View	Edit	Delete
PARASITOLOGY				
Showing 1 to 1 of 1 entries (filtered from 14 total entries)				

3.1.3 Viewing a lab section

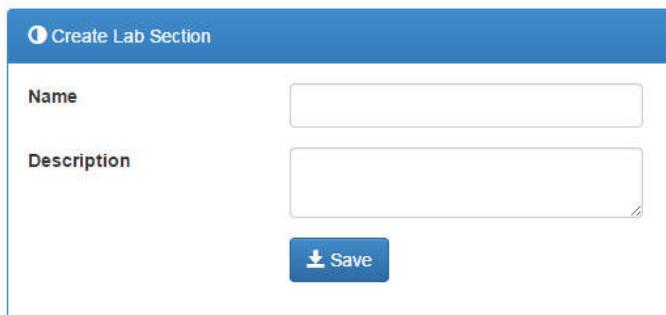
1. Click the  button of the corresponding record.
2. The details shall be loaded on to a panel e.g.



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



Name	
Description	

 Save

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

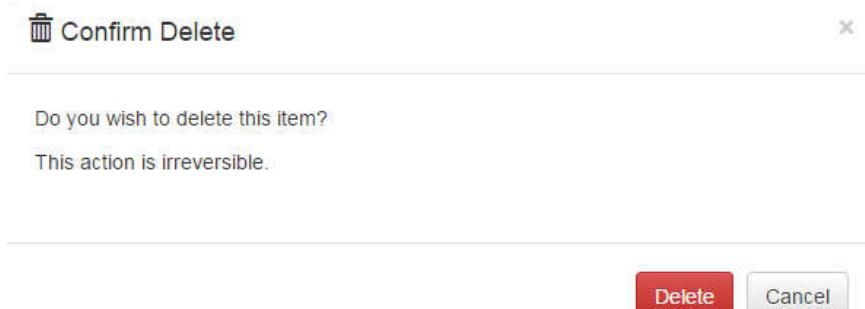
Name	PARASITOLOGY
Description	

Save

3. Click the **Save** button to save the changes

3.1.6 Deleting a lab section

1. Click the **Delete** 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 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 **Specimen Types** link on the navigation menu.
2. A list of available specimen types will be loaded

List Specimen Types			
New Specimen Type			
Show	10	▼ entries	Search:
Names ▲ Description			
Ascitic Tap			
Ascitic Tap			
Aspirate			
Aspirate			
CSF			
CSF			

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.

List Specimen Types			
New Specimen Type			
Show	10	▼ entries	Search:
Names ▲ Description			
Dried Blood Spot			
Dried Blood Spot			
Whole Blood			
Whole Blood			

Showing 1 to 4 of 4 entries (filtered from 49 total entries)

Previous | **1** | Next

3.2.3 Viewing a specimen type

1. Click the 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	<input type="text"/>
Description	<input type="text"/>
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

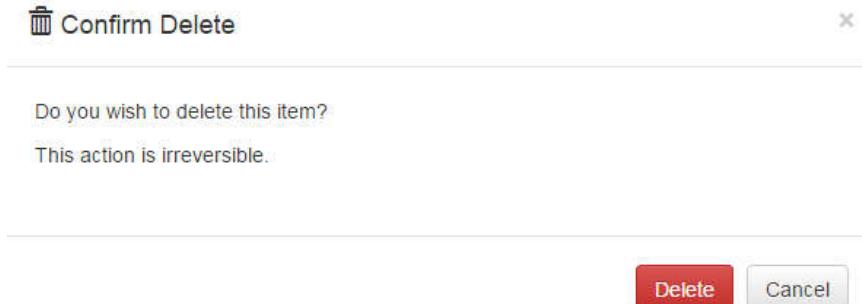
Edit Specimen Type	
Name	Aspirate
Description	

Save

3. Click the **Save** button to save the changes

3.2.6 Deleting a specimen type

1. Click the **Delete** 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 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 **Specimen Rejection** link on the navigation menu.

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

Specimen Rejection		Add New Rejection Reason
Show	10 ▾ entries	Search: <input type="text"/>
Reason		
Broken Sample Container	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Clotted Blood	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Delay between specimen collection and arrival in the laboratory	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Double entry	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Duplicate specimen received	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Empty Container	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Empty container, no sample	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Haemolysis	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Inappropriate specimen for the test	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Inappropriate specimen packing	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Showing 1 to 10 of 38 entries	Previous	1 2 3 4 Next

3.3.2 Searching for a specimen type

1. Begin typing the rejection reason on the search field

Search:

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

Specimen Rejection		Add New Rejection Reason
Show	10 ▾ entries	Search: <input type="text"/> lab
Reason		
Delay between specimen collection and arrival in the laboratory	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Mismatched sample and form labelling	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Missing Labels on container and tracking form	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
No Label	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Poorly labelled	<input type="button" value="Edit"/>	<input type="button" value="Delete"/>
Showing 1 to 5 of 5 entries (filtered from 38 total entries)	Previous	1 Next

3.3.3 Adding a new rejection reason

1. Click the  button
2. Complete the form



The screenshot shows a simple form titled "Add New Rejection Reason". It has a single input field labeled "Reason" and a blue "Save" button below it.

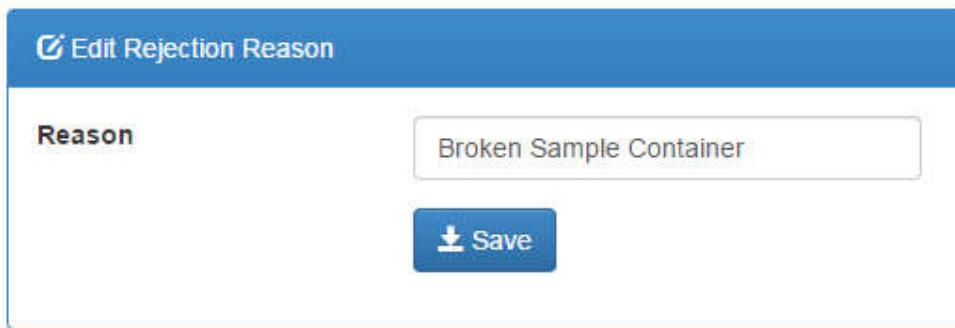
Add New Rejection Reason	
Reason	<input type="text"/>
 Save	

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



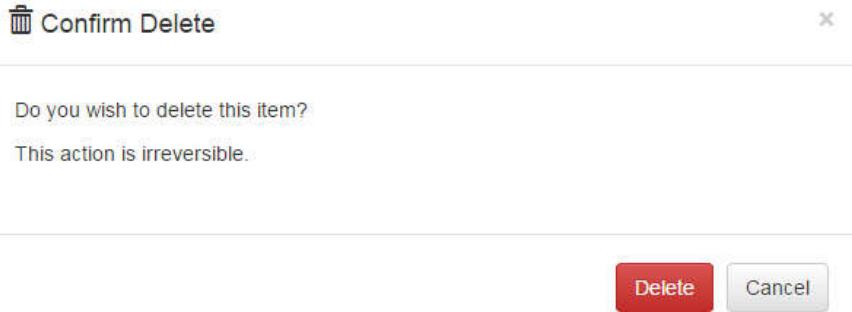
The screenshot shows an "Edit Rejection Reason" form. The "Reason" field contains the value "Broken Sample Container". Below the field is a blue "Save" button.

Edit Rejection Reason	
Reason	Broken Sample Container
 Save	

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

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

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.

List Test Types					New Test Type
Show 10 entries		Search: bs			
Name	Description	Target Turnaround Time	Prevalence Threshold		
BS for mps	0.75	0		View	Edit
DBS	0.00	0		View	Edit
Direct COOMBS test	1.00			View	Edit
Indirect COOMBS test	1.00			View	Edit

Showing 1 to 4 of 4 entries (filtered from 225 total entries)

Previous 1 Next

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.

Test Type Details		Edit
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

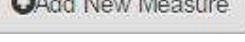
 Create Test Type

Name	<input type="text"/>
Description	<input type="text"/>
Lab Section	<input type="text"/>

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

Measures

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

Range Values





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="button" value="▼"/>	<input type="text"/>	<input type="text"/>

Range Values

<input type="button" value="Add New Range"/>
--

Range Values

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

Range Values

Age Range	Gender	Measure Range	Interpretation
<input type="text"/> - <input type="text"/>	<input type="button" value="Male"/>	<input type="text"/> - <input type="text"/>	<input type="text"/>

6. Complete the details such as expected turnaround time

Target Turnaround Time

Prevalence Threshold

 **Save**

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"/> <i>Nisseria meningitidis</i>	<input type="checkbox"/> <i>Pseudomonas aeruginosa</i>	<input type="checkbox"/> <i>Salmonella</i> species
<input type="checkbox"/> Shigella	<input type="checkbox"/> <i>Staphylococci</i> species	<input type="checkbox"/> <i>Streptococcus pneumoniae</i>	<input type="checkbox"/> <i>Streptococcus</i> species viridans group
<input type="checkbox"/> <i>Vibrio cholerae</i>			

 **Save**

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

3.4.5 Updating test type details

1. Click the  **Edit** 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.

3. 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 able to select the organisms

The screenshot shows a configuration dialog for a test type. At the top, there are input fields for 'Target Turnaround Time' and 'Prevalence Threshold'. Below these is a checkbox labeled 'Show Culture Worksheet?' which is checked. Underneath is a section titled 'Select Organisms' containing a grid of checkboxes for various bacterial species. The species listed are: Beta-haemolytic streptococci, Enterococcus species, Gram negative cocci, Gram positive cocci; Haemophilus influenzae, *Neisseria meningitidis*, *Pseudomonas aeruginosa*, *Salmonella* species; Shigella, *Staphylococci* species, *Streptococcus pneumoniae*, *Streptococcus species viridans group*; and *Vibrio cholerae*. At the bottom of the dialog are two buttons: a blue 'Save' button with a downward arrow icon and a grey 'Cancel' button.

4. Click the **Save** button to save the changes.

3.4.6 Deleting a test type

1. Click the **Delete** 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 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  Drugs link on the navigation bar

Name	Description	View	Edit	Delete
AMOXICILLIN-CLAV				
AMPICILLIN				
CEFAZOLIN				
CEFIXIME				
CEFOTAXIME				
CEFTRIAZONE				
CEFTAZIDIME				
CEFUROXIME				
CEPHALOTHIN				
CHLORAMPHENICOL				

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.

Name	Description	View	Edit	Delete
CEFAZOLIN				
CEFIXIME				
CEFOTAXIME				
CEFTRIAZONE				
CEFTAZIDIME				
CEFUROXIME				

3.5.3 Viewing a Drug

1. Click the  View button of the specific test type

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

A screenshot of a software interface titled "Drug Details". It shows a table with one row. The first column is labeled "Name:" and contains the value "CEFAZOLIN". Below the table, there is a link labeled "Create Drug".

3.5.4 Adding a new drug

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

A screenshot of a software interface titled "Create Drug". It contains two input fields: "Name" and "Description", both currently empty. Below the fields is a blue "Save" button with a downward arrow icon.

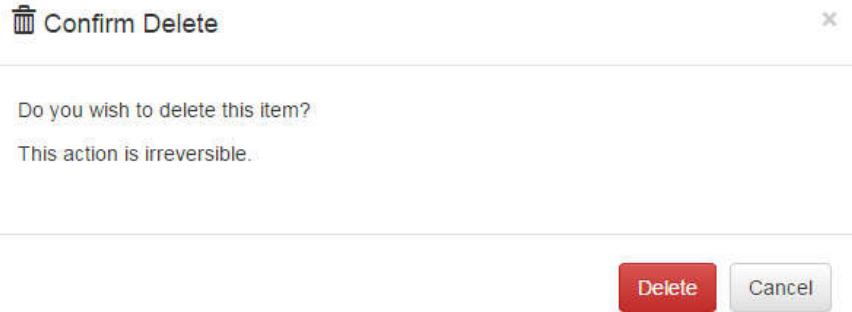
1. Click the button to save the drug to the system

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

Organism		Create Organism
Show 10 entries		
Name	Description	
Available	Treats all	View Edit Delete
Not available	Treat null	View Edit Delete

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: Aval
Name	Description	
Available	Treats all	View Edit Delete
Not available	Treat null	View Edit Delete
Showing 1 to 2 of 2 entries		
Previous 1 Next		

3.6.3 Viewing an organism

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

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

3.6.4 Adding a new organism

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

Create Organism			
Name	<input type="text"/>		
Description	<input type="text"/>		
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"/> CEFTRIAZONE <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"/> MEROPENEM <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		
	<input type="button" value="Save"/>		

- 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"/> CEFTRIAZONE	<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"/> MEROPENEM
<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.

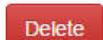
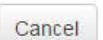
3.6.6 Deleting a organism

1. Click the  button of an entry

 Confirm Delete ×

Do you wish to delete this item?

This action is irreversible.

 Delete  Cancel

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

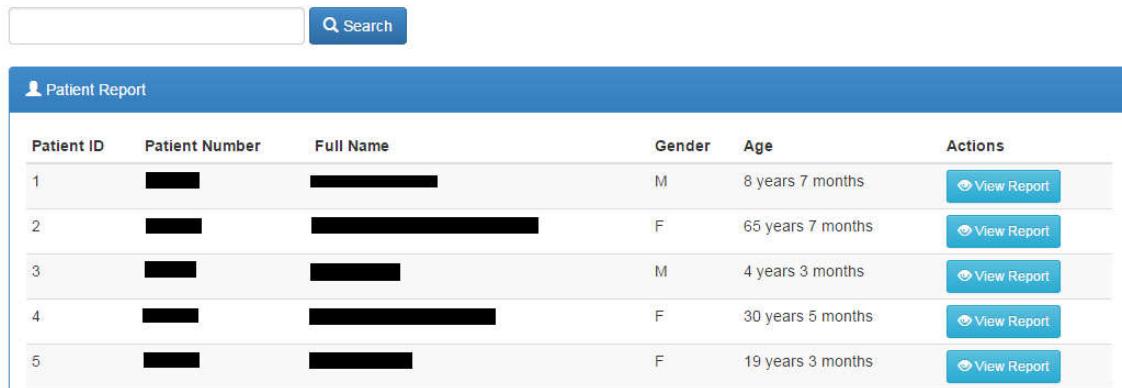
1. Click on the  Reports link to open the reports module.

4.1 Daily Reports

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

4.1.1 Patient report

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



Patient ID	Patient Number	Full Name	Gender	Age	Actions
1	[REDACTED]	[REDACTED]	M	8 years 7 months	 View Report
2	[REDACTED]	[REDACTED]	F	65 years 7 months	 View Report
3	[REDACTED]	[REDACTED]	M	4 years 3 months	 View Report
4	[REDACTED]	[REDACTED]	F	30 years 5 months	 View Report
5	[REDACTED]	[REDACTED]	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  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	[REDACTED]	Gender	Female
Patient ID	[REDACTED]	Age	65 years 7 months
Patient Number	[REDACTED]	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 Select Lab Section ▾ Test Types Select Test Type ▾

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
[REDACTED]	Whole Blood	2014-12-09 12:56:03	BS for mps	PARASITOLOGY	Haemolysis	[REDACTED]	2015-01-23 12:21:46

4.2 Aggregate reports

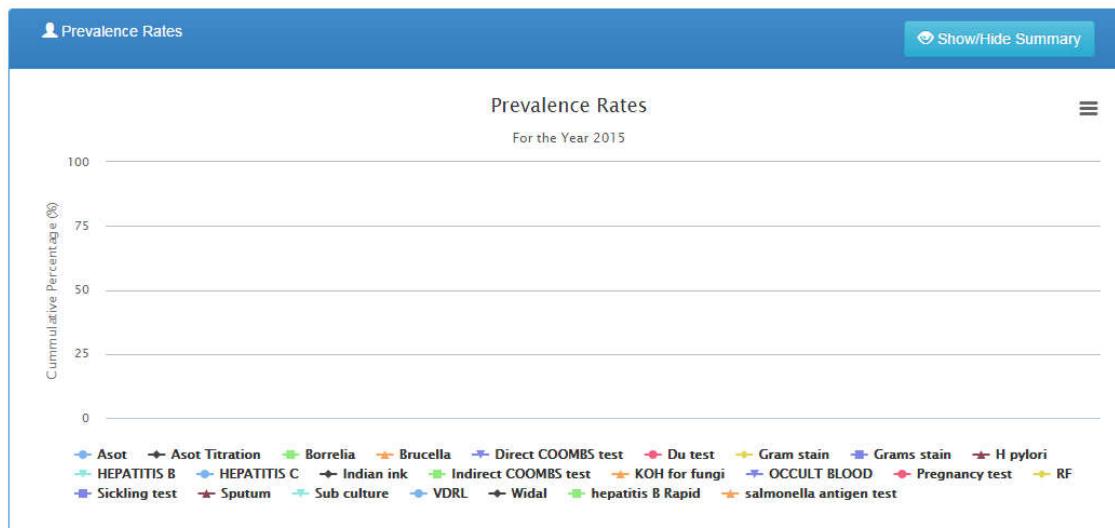
These are accrued summaries over a period of time.

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

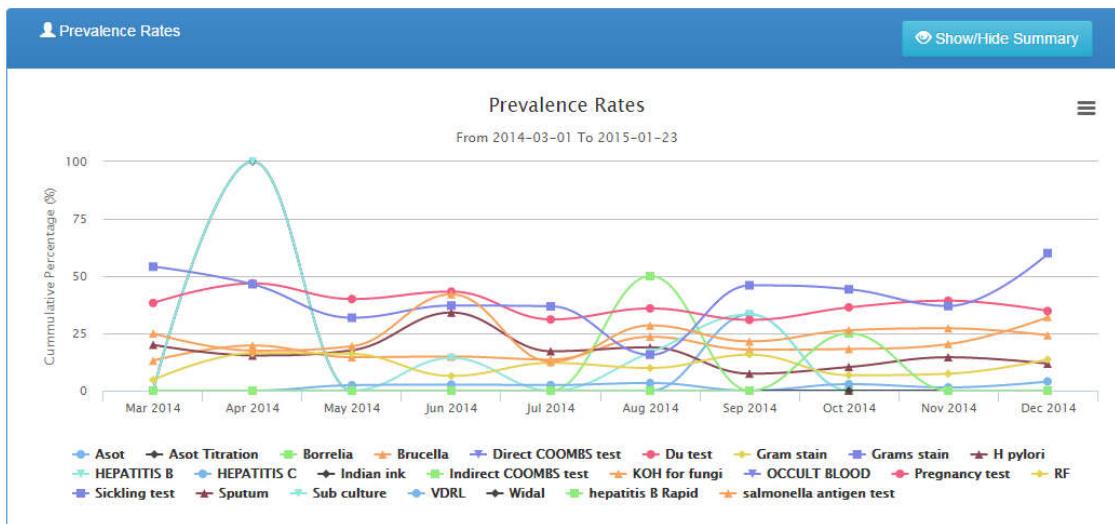


- Set a date range to view infection graph and prevalence rates. You can also specify the lab section.

From To Test Type View

- Click the **View** button to load the report with the filters you defined e.g.

From To Test Type View



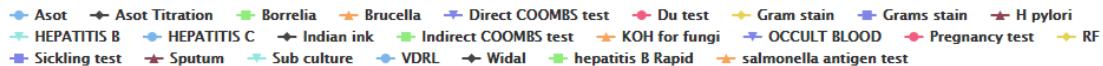
4. You can view a numeric summary of the prevalence rates by clicking the

 Show/Hide Summary

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  Counts 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	0
HEPATITIS C	Male	0	0	0	0	0
	Female	0	0	0	0	0
HEPATITIS B	Male	0	0	0	0	0
	Female	0	0	0	0	0
Asot Titration	Male	0	0	0	0	0
	Female	0	0	0	0	0
Widal Titration	Male	0	0	0	0	0
	Female	0	0	0	0	0

4.2.2.3 Specimen counts (Ungrpuped)

It is a count for accepted vs rejected specimen

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

Specimen Counts (Ungrouped) - 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)

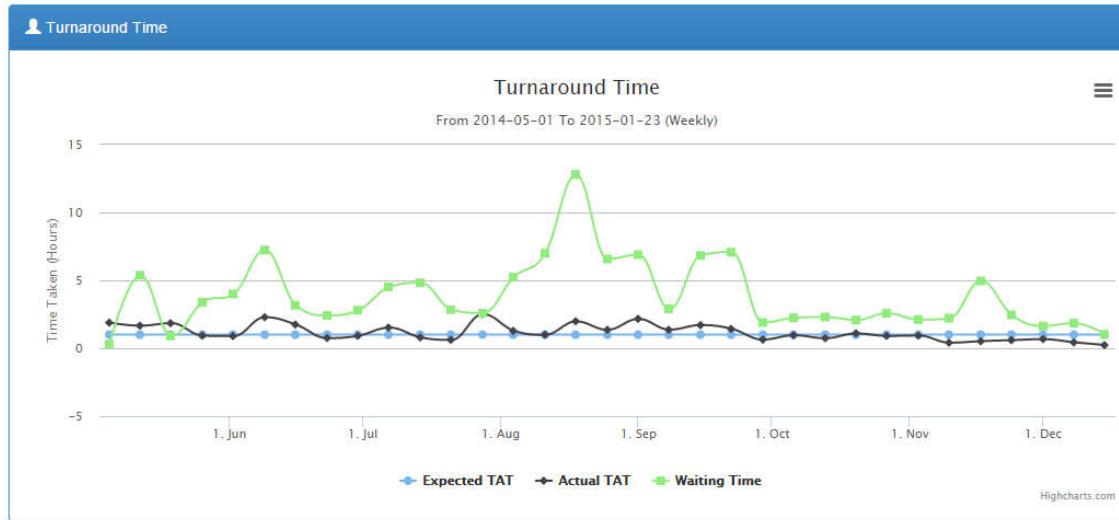
Click the Specimen Counts (Grouped) checkbox then  to load the report

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 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  **User Statistics Report** link on the navigation menu.

From To
User Report Type 

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 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

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 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.

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

From To

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 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 Dysentry	0	0	0	0	0	0

- 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

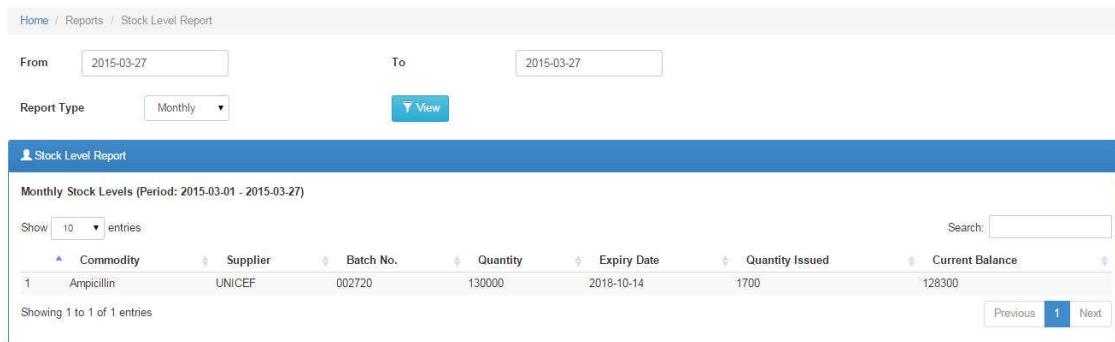
These are accrued summaries of inventory over a period of time.

4.3.1 Stock Levels reports

Gives a brief summary of the available stock.

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

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

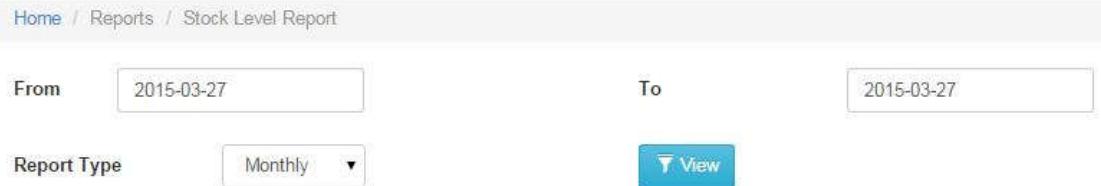


The screenshot shows a web-based reporting interface for stock levels. At the top, there are date selection fields ('From' and 'To') both set to '2015-03-27'. Below these is a dropdown for 'Report Type' set to 'Monthly'. A large blue header bar displays the title 'Stock Level Report' and the subtitle 'Monthly Stock Levels (Period: 2015-03-01 - 2015-03-27)'. The main content area is a table with the following data:

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

Below the table, it says 'Showing 1 to 1 of 1 entries'. There are navigation buttons for 'Previous', a page number '1', and 'Next'.

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



This screenshot shows the same reporting interface as above, but with a different date range. The 'From' field is set to '2015-03-27' and the 'To' field is also set to '2015-03-27'. The 'Report Type' dropdown is still set to 'Monthly'. The rest of the interface and data table are identical to the first screenshot.

Click the  View 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  **User Accounts** link on the navigation menu.

List Users		New User						
		Show 10 entries	Search:					
Username	Name	Email	Gender	Designation	Actions			
[REDACTED]	[REDACTED]		Male		 View  Edit  Delete			
[REDACTED]	[REDACTED]	[REDACTED]	Male	Doctor	 View  Edit  Delete			
[REDACTED]	[REDACTED]	[REDACTED]	Male	Programmer	 View  Edit  Delete			
[REDACTED]	[REDACTED]		Male		 View  Edit  Delete			
[REDACTED]	[REDACTED]		Male		 View  Edit  Delete			
[REDACTED]	[REDACTED]		Male		 View  Edit  Delete			
[REDACTED]	[REDACTED]		Male		 View  Edit  Delete			
[REDACTED]	[REDACTED]	[REDACTED]	Male		 View  Edit  Delete			
[REDACTED]	[REDACTED]	[REDACTED]	Male	Administrator	 View  Edit  Delete			
[REDACTED]	[REDACTED]		Male		 View  Edit  Delete			
Showing 1 to 10 of 23 entries				Previous	1	2	3	Next

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

List Users		New User					
		Show 10 entries	Search: admin				
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		
Showing 1 to 3 of 3 entries (filtered from 23 total entries)				Previous	1	2	Next

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

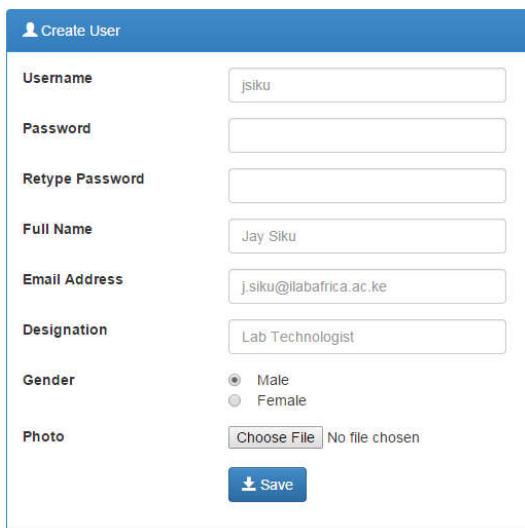


The screenshot shows a user details panel with a blue header bar containing a user icon, "User Details", and an "Edit" button. Below the header is a table with the following data:

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 screenshot shows a "Create User" form with a blue header bar containing a user icon, "Create User". The form contains the following fields:

Username	jsiku
Password	(empty)
Retype Password	(empty)
Full Name	Jay Siku
Email Address	j.siku@ilabafrika.ac.ke
Designation	Lab Technologist
Gender	<input checked="" type="radio"/> Male <input type="radio"/> Female
Photo	<input type="button" value="Choose File"/> No file chosen
 Save	

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

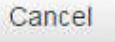
3. Click the  button to save the changes.

5.1.6 Deleting a user

1. To delete click the  button of an



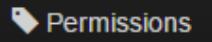
entry

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

The screenshot shows a table titled 'Permissions' with two columns: 'Permissions' and 'Roles'. The 'Permissions' column lists various privileges, each associated with a lock icon. The 'Roles' column lists three user types: Superadmin, Technologist, and Receptionist. Checkmarks indicate which role has been assigned which permission.

Permissions	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

The screenshot shows a table titled 'Roles' with two columns: 'Name' and 'Description'. It lists three roles: Superadmin, Technologist, and Receptionist. Each row includes 'Edit' and 'Delete' buttons.

Name	Description
Superadmin	
Technologist	
Receptionist	

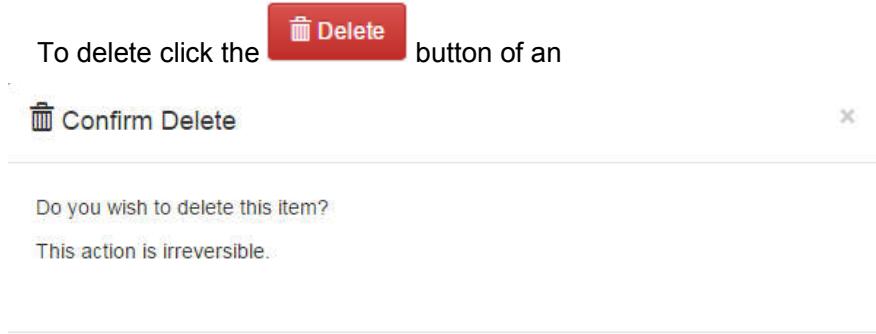
5.3.2 Adding a new role

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

5.3.4 Deleting a role

1. To delete click the  Delete button of an entry

The dialog box contains the following text:
Do you wish to delete this item?
This action is irreversible.

Buttons: Delete (red), Cancel (grey)
2. Click the  Delete button on the pop-up if you are sure to delete, otherwise, click the  Cancel 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  Assign Roles 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
[REDACTED]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[REDACTED]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[REDACTED]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[REDACTED]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
[REDACTED]	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
[REDACTED]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

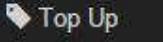
3. Click the  Save button to save the changes.

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  Top Up link on the navigation bar

Top Up						Request Top-Up
Show <input type="text" value="10"/> entries Search: <input type="text"/>						
Date	Commodity	Lab Section	Order Quantity	User	Remarks	Actions
2015-03-18 11:47:51	Ampicillin	PARASITOLOGY	1500	kBLIS Administrator	-	Issue Edit 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: <input type="text" value="wef"/>			
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.	<input type="text"/>
Quantity available	128300
Quantity Required	1500
Quantity Issued	<input type="text"/>
Receivers Name	<input type="text"/>
Remarks	<input type="text"/>

 Save

3. Click the  Save 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  Request Top-Up button.

2. Complete the details on the provided form

Top Up

Lab Section

Commodity

Current Balance

Order Quantity

Remarks

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

Confirm Delete X

Do you wish to delete this item?

This action is irreversible.

Delete Cancel

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

6.2 Receipts

Allows you to create receipts as per specific commodity.

6.2.1 Listing all Receipts

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

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

Showing 1 to 2 of 2 entries

6.2.2 Searching for a receipt

- Begin typing the receipt name on the search field

Search:

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

Receipt Date	Commodity	Supplier	Unit Price	Quantity	Batch No.	Expiry Date	Receivers Name	Actions
No matching records found								
Showing 0 to 0 of 0 entries (filtered from 2 total entries)								

6.2.3 Adding a new receipt

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

2. Complete the details on the provided form

The screenshot shows a web-based form titled "Add Receipts". It contains five input fields: "Commodity" (a dropdown menu), "Supplier" (a dropdown menu), "Batch No." (a text input field), "Quantity" (a text input field), and "Expiry Date" (a text input field). Below these fields is a blue "Save" button with a white downward arrow icon.

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

6.2.4 Updating receipt details

1. Click the Edit 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 Save button to save the changes.

6.2.5 Deleting a receipt

1. Click the Delete button of an entry

Confirm Delete X

Do you wish to delete this item?

This action is irreversible.

Delete Cancel

3. 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

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

The screenshot shows a table titled "Issues List". The columns are: Issue Date, Commodity, Batch No., Quantity Required, Quantity Issued, Expiry Date, Destination, Receivers Name, and Actions. There is one entry: 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 kBUS Administrator. The Actions column has two buttons: Edit and Delete. At the bottom, it says "Showing 1 to 1 of 1 entries".

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	kBUS Administrator	Edit Delete

6.3.2 Searching for an issue

1. Begin typing the issue name on the search field

Search:

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

The screenshot shows a table titled "Issues List". The columns are: Issue Date, Commodity, Batch No., Quantity Required, Quantity Issued, Expiry Date, Destination, Receivers Name, and Actions. It says "No matching records found". At the bottom, it says "Showing 0 to 0 of 0 entries (filtered from 1 total entries)".

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

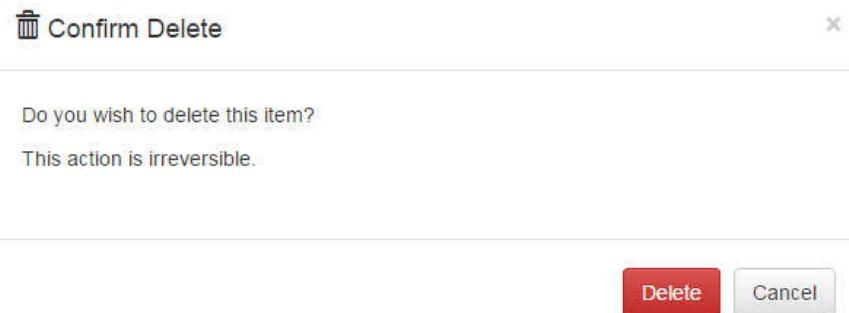
1. Click the **Edit** button to open a form with pre-filled values.

2. Make the necessary modifications such as the commodity, batch no, destination and so forth.

3. Click the  Save button to save the changes.

6.3.4 Deleting an issue

1. Click the  Delete button of an entry

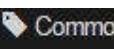


3. Click the  Delete button on the pop-up if you are sure to delete, otherwise, click the  Cancel button or  icon to dismiss.

6.4 Commodities

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

6.4.1 Listing all Commodities

1. Click the  Commodities link on the navigation bar

Commodity List									Add Commodity
Show 10 entries									Search
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	 Edit	 Delete
Showing 1 to 1 of 1 entries									

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.

The screenshot shows a web-based application for managing commodities. At the top, there are navigation links for 'Commodity List' and 'Add Commodity'. Below this is a search bar with the placeholder 'Search: dashed'. A table follows, with columns for Commodity, Description, Unit of Issue, Unit Price, Item Code, Storage Requirements, Minimum Level, Maximum Level, and Actions. The table header includes sorting arrows for each column. A message at the top of the table says 'No matching records found'. At the bottom of the table, it says 'Showing 0 to 0 of 0 entries (filtered from 1 total entries)'. Navigation buttons for 'Previous' and 'Next' are located at the bottom right.

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-based form for adding a new commodity. The title bar says 'Commodities'. The form has the following fields:

- Name: Text input field
- Description: Text input field
- Unit of Issue: A dropdown menu with a downward arrow icon
- Unit Price: Text input field
- Item Code: Text input field
- Storage Requirements: Text input field
- Minimum Level: Text input field
- Maximum Level: Text input field

At the bottom is a blue button with a save icon and the word "Save".

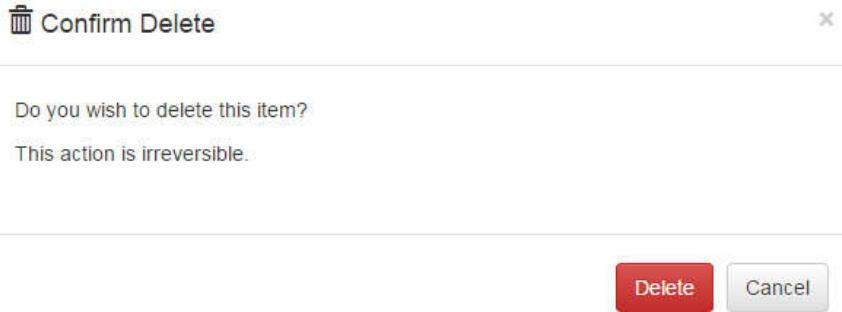
3. Click the **Save** button to save the commodity to the system

6.4.4 Updating commodity details

1. Click the **Edit** 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 **Save** button to save the changes.

6.4.5 Deleting a commodity

1. Click the **Delete** 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

Suppliers List					
Add Supplier					
<input type="button" value="Search"/>					
Show	10	▼	entries	Actions	
Name	UNICEF	Phone Number	0775112233	Physical Address	un-hqtr
Email	uni@unice.org				Edit Delete
Showing 1 to 1 of 1 entries					
Previous 1 Next					

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.

The screenshot shows a table with the following columns: Name, Phone Number, Physical Address, Email, and Actions. There is a search bar at the top with the term "adasdsdf". The table displays the message "No matching records found".

6.5.3 Adding a new supplier

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

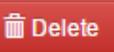
The form has four input fields: Name, Phone Number, Email, and Physical Address. Below the fields is a "Save" button.

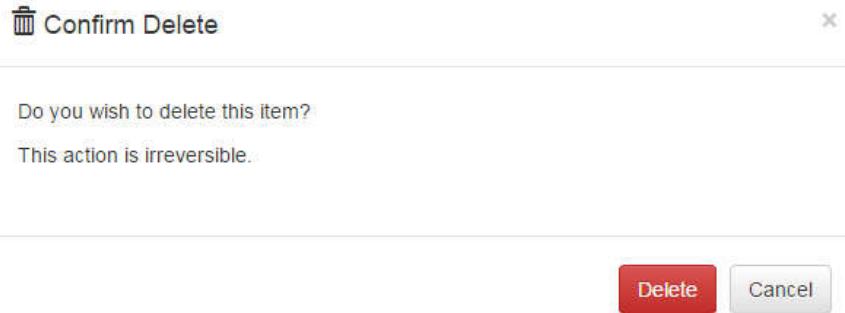
3. Click the  button to save the supplier to the system

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

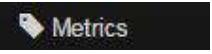


5. Click the  button on the pop-up if you are sure to delete, otherwise, click the  button or  icon to dismiss.

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

Metrics List		Add Metrics
Show 10 entries		
Unit of Issue	Description	Actions
mg	milligram	 
Showing 1 to 1 of 1 entries		
Previous  Next		

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.

Metrics List		Add Metrics
Show	10 entries	Search: dawefgf
Unit of Issue	Description	Actions
No matching records found		
Showing 0 to 0 of 0 entries (filtered from 1 total entries)		
		Previous Next

6.6.3 Adding a new metric



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

Metrics	
Unit of Issue	<input type="text"/>
Description	<input type="text"/>
<input type="button" value="Save"/>	

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

6.6.4 Updating metric details

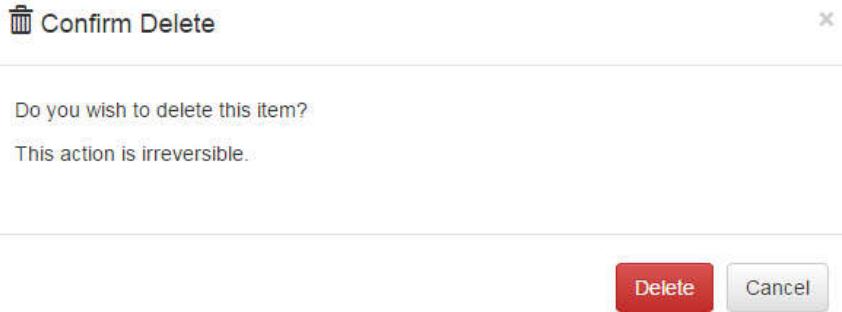


1. Click the **Edit** button to open a form with pre-filled values.
2. Make the necessary modifications such as the unit of issue, description and so forth.
3. Click the **Save** button to save the changes.

6.6.5 Deleting a metric



1. Click the **Delete** 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  **Quality Controls** link on the navigation bar



The screenshot shows a table with the following structure:

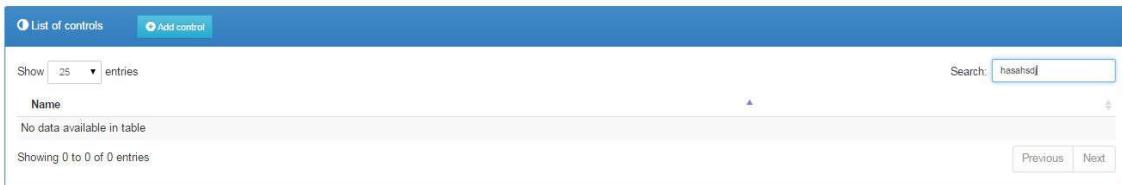
Name	Search	Previous	Next
No data available in table			
Showing 0 to 0 of 0 entries			

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.



The screenshot shows a table with the following structure:

Name	Search	Previous	Next
No data available in table	hasahsdj		
Showing 0 to 0 of 0 entries			

7.2 Controls Results

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

Home / Control Results

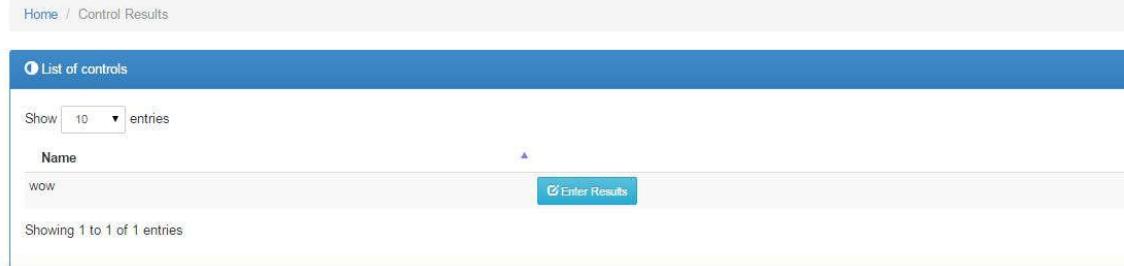
List of controls

Show 10 entries

Name
wow

Showing 1 to 1 of 1 entries

Enter 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

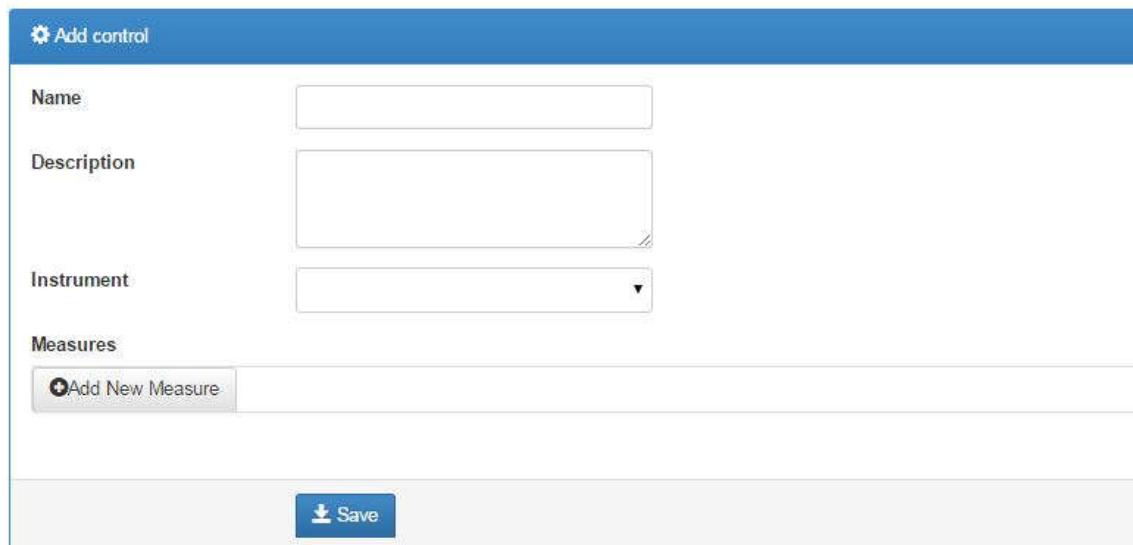
Add control

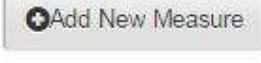
Name

Description

Instrument

Measures



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

The screenshot shows a 'Add control' form. At the top, there's a 'Name' field, a 'Description' field, and an 'Instrument' dropdown. Below these, a 'Measures' section contains four input fields: 'Name', 'Measure Type', 'Expected value', and 'Unit'. Underneath these are two buttons: 'Add New Range' and 'Add New Measure'.

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

The screenshot shows a 'Lots' page. At the top, there's a navigation bar with 'Lots' and 'Add lot' buttons. Below is a table with columns 'Name' and 'Description'. A message 'No data available in table' is displayed. At the bottom left, there's a search bar with the placeholder 'Search:'.

7.4.2 Searching for a lot

1. Begin typing the lot name on the search field

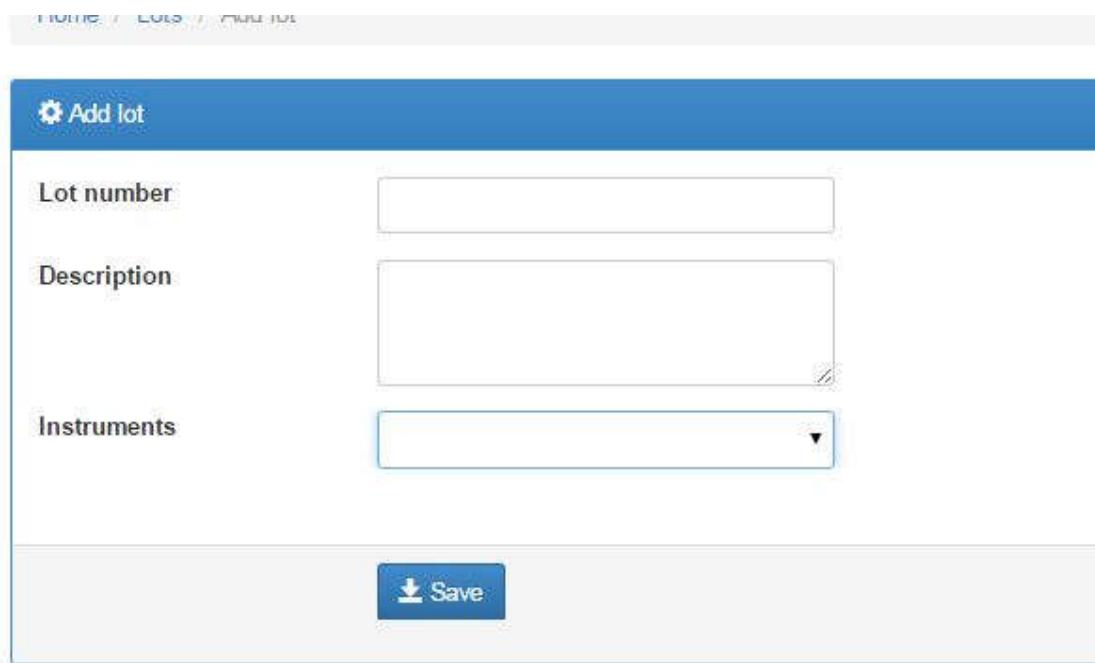
The screenshot shows a search interface with a text input field labeled 'Search:'.

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

Lots		Add lot
Show:	10	▼ entries
Name	Description	Search: sadfdfsdf
No data available in table		▼
Showing 0 to 0 of 0 entries		Previous Next

7.4.3 Adding a new lot

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



The screenshot shows the 'Add lot' form. At the top, there's a blue header bar with the title 'Add lot'. Below it is a white form area with three fields: 'Lot number' (an empty text input), 'Description' (an empty text area), and 'Instruments' (a dropdown menu). At the bottom of the form is a blue 'Save' button with a white downward arrow icon.

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.