


## SOP: KenyaEMR 3.x Laboratory Module User guide

<b>Tasks:</b>	To guide users on how to navigate Laboratory module in KenyaEMR 3.x
<b>Objective:</b>	Effectively manage lab workflow within a facility. Capture tests ordered, test approval, results capture and transmission to clinician
<b>Who:</b>	Laboratory Department, Lab technicians, Lab managers etc.
<b>Required Materials:</b>	Functional KenyaEMR 3.x
<b>Version:</b>	KenyaEMR Version
<b>Last Updated:</b>	March 2024
<b>SUMMARY:</b> The Laboratory module supports all Lab related functions including Order review and approval, including referred samples. Once the samples have been tested, the module allows for seamless entry of results. The results posted on this module also undergo internal lab quality control including the approval of results. Validly approved results are posted onto the patient clinical chart for clinical reviews and action.	

Step	Action	Screen shots
<b>Introduction</b>	This document provides a detailed workflow of the full laboratory module in the KenyaEMR system. The guide is accompanied by relevant screenshot images for illustration purposes.	
<b>Learning Objectives</b>	By the end of this session, you will be able to: <ul style="list-style-type: none"> <li>Successfully log into KenyaEMR</li> <li>Access Laboratory dashboards</li> <li>View and Process Laboratory Orders</li> <li>Record laboratory test results</li> <li>Post results to clinician</li> </ul>	

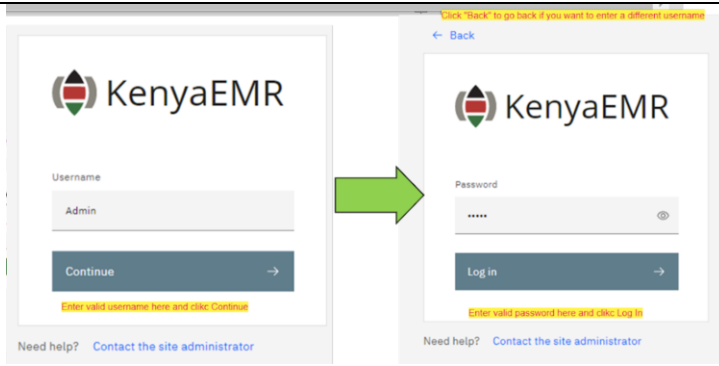
### Log into KenyaEMR

#### Login to KenyaEMR.

Enter the application server URL system. “[*ServerIpAddress:8080/openmrs*]” and click on the load button or Enter key from the keyboard. On successful loading, you should be navigated to the system login page.

Authenticate entry by providing username and password on the fields and click “**Login**” Upon successful login, you shall be navigated to KenyaEMR Home Page.

Successful login will direct you to the KenyaEMR Home Page where the landing page is displayed based on the user role.



The image shows two screenshots of the KenyaEMR login interface. The first screenshot shows the username field with 'Admin' entered and a 'Continue' button. A yellow tooltip says 'Enter valid username here and click Continue'. A green arrow points to the second screenshot, which shows the password field with masked characters and a 'Log in' button. A yellow tooltip says 'Enter valid password here and click Log in'. A 'Back' button is visible at the top of the second screenshot. Below the screenshots, there is a note:

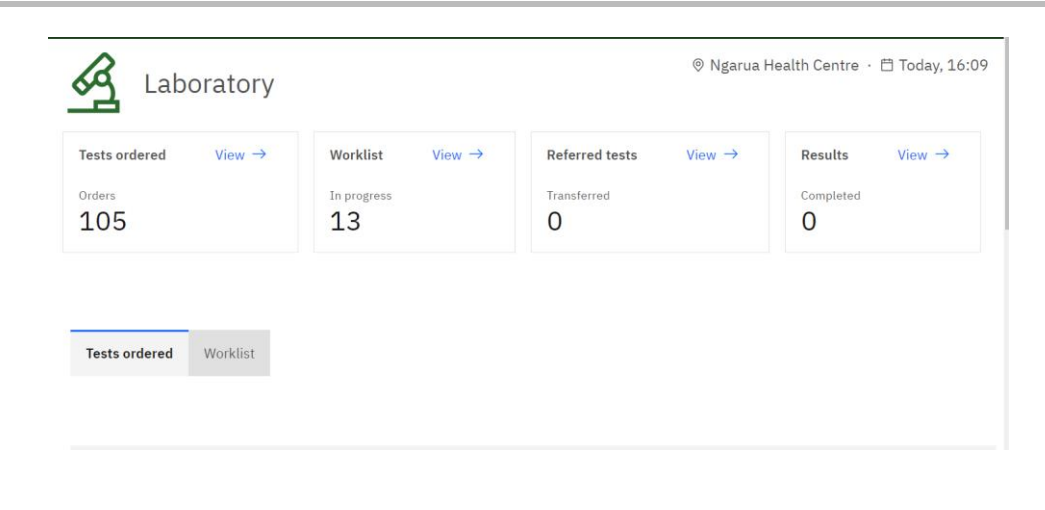
**NB:** With valid username and password, clicking Log in will take you to the KenyaEMR home page. Otherwise, you will receive a prompt for wrong username or password. If you don't have valid login credentials, click "Contact the site administrator"

Need help? [Contact the site administrator](#)

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### KenyaEMR Laboratory landing page

After a successful login, the user will be redirected to KenyaEMR Lab Dashboard. This is composed of different laboratory summaries.



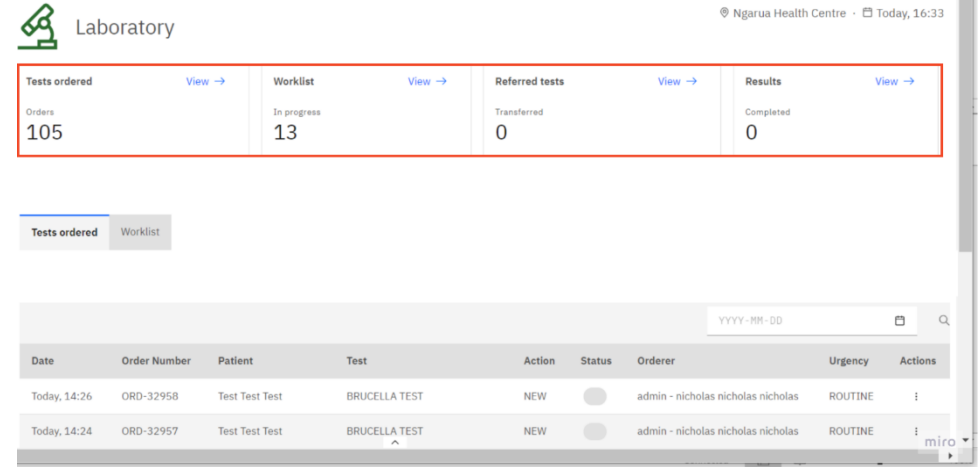
The image shows the Laboratory dashboard for Ngarua Health Centre. The dashboard includes a header with a microscope icon, the title 'Laboratory', and the location and time: 'Ngarua Health Centre · Today, 16:09'. Below the header are four summary cards:

Tests ordered	Worklist	Referred tests	Results
Orders 105	In progress 13	Transferred 0	Completed 0

Each card has a 'View' link with a right-pointing arrow. At the bottom, there are two tabs: 'Tests ordered' (selected) and 'Worklist'.

### KenyaEMR Laboratory Summary

- i. Test orders**
  - This refers to number of all lab orders that have requested/ordered from different clinical service points
- ii. Worklist**
  - This represents all picked lab requests that are in progress of processing
- iii. Referred Tests**
  - This represents to all lab orders that are sent out for processing in other facilities
- iv. Results**
  - This refers to all lab orders that have been completely processed and completed and dispatched to the respective service points



**Laboratory** | Ngarua Health Centre | Today, 16:33

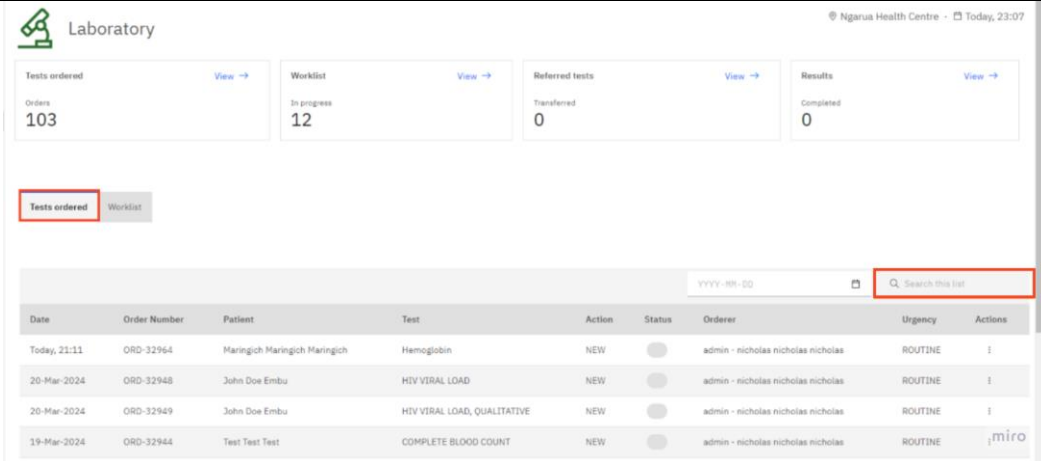
Tests ordered	View →	Worklist	View →	Referred tests	View →	Results	View →
Orders <b>105</b>		In progress <b>13</b>		Transferred <b>0</b>		Completed <b>0</b>	

Tests ordered | Worklist

Date	Order Number	Patient	Test	Action	Status	Orderer	Urgency	Actions
Today, 14:26	ORD-32958	Test Test Test	BRUCELLA TEST	NEW	●	admin - nicholas nicholas nicholas	ROUTINE	⋮
Today, 14:24	ORD-32957	Test Test Test	BRUCELLA TEST	NEW	●	admin - nicholas nicholas nicholas	ROUTINE	⋮

### Locate the test ordered

The user is able see all tests ordered as a line list or Search for a specific request by Name or the clients ID



**Laboratory** | Ngarua Health Centre | Today, 23:07

Tests ordered	View →	Worklist	View →	Referred tests	View →	Results	View →
Orders <b>103</b>		In progress <b>12</b>		Transferred <b>0</b>		Completed <b>0</b>	

Tests ordered | Worklist

Search this list

Date	Order Number	Patient	Test	Action	Status	Orderer	Urgency	Actions
Today, 21:11	ORD-32964	Maringich Maringich Maringich	Hemoglobin	NEW	●	admin - nicholas nicholas nicholas	ROUTINE	⋮
20-Mar-2024	ORD-32948	John Doe Embu	HIV VIRAL LOAD	NEW	●	admin - nicholas nicholas nicholas	ROUTINE	⋮
20-Mar-2024	ORD-32949	John Doe Embu	HIV VIRAL LOAD, QUALITATIVE	NEW	●	admin - nicholas nicholas nicholas	ROUTINE	⋮
19-Mar-2024	ORD-32944	Test Test Test	COMPLETE BLOOD COUNT	NEW	●	admin - nicholas nicholas nicholas	ROUTINE	⋮

**Picking a Lab Request**

The user chooses the patient of interest from the line list in the **Tests ordered** tab and proceeds to the **Action** column to click on the dots to pick a lab request or Reject order

Laboratory Ngarua Health Centre · Today, 16:37

Tests ordered View → | Worklist View → | Referred tests View → | Results View →

Orders: 103 | In progress: 13 | Transferred: 0 | Completed: 0

Tests ordered | Worklist

Date	Order Number	Patient	Test	Action	Status	Orderer	Urgency	Actions
Today, 14:19	ORD-32956	Test Test Test	BRUCELLA TEST	NEW	<input type="radio"/>	admin - nicholas nicholas nicholas	ROUTINE	<input type="button" value="Pick Lab Request"/>
20-Mar-2024	ORD-32948	John Doe Embu	HIV VIRAL LOAD	NEW	<input type="radio"/>	admin - nicholas nicholas nicholas		<input type="button" value="Pick Lab Request"/>
20-Mar-2024	ORD-32949	John Doe Embu	HIV VIRAL I <sup>1</sup> / <sub>4</sub> D, QUALITATIVE	NEW	<input type="radio"/>	admin - nicholas nicholas nicholas		<input type="button" value="Reject Order"/> <input type="button" value="miro"/>

**Selecting Specimen type**

After picking the Lab Request the User types in the specimen ID and selects the specimen type from the list provided. The specimen type should correspond to the lab request ordered.

Worklist

Pick Lab Request

Specimen ID:

Specimen Type:  ▼

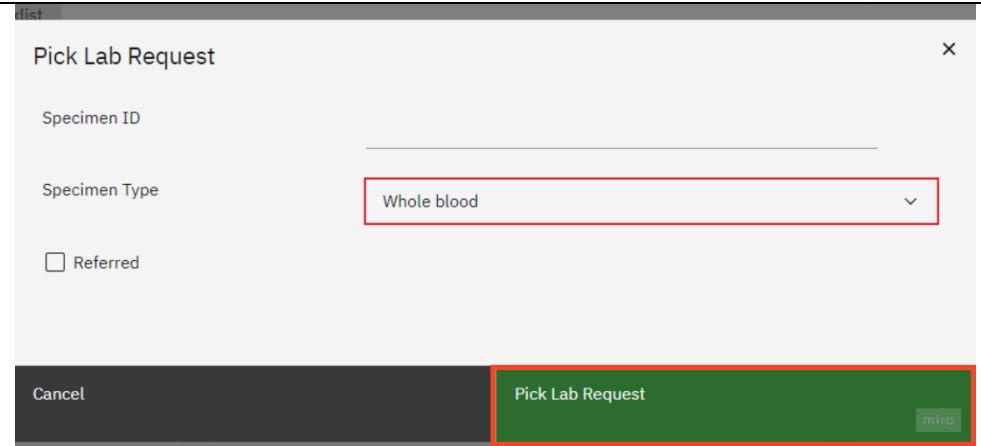
Referred

- Select Specimen Type
- Whole blood
- Serum
- Plasma
- Urine
- Stool
- High Vaginal Swab
- Urethral Swab
- Sputum
- Cerebrospinal Fluid
- Pus
- Nasal Swab
- Oropharyngeal Swab
- Semen
- Bone Marrow
- Synovial Fluid
- Tissue Biopsies
- Saliva
- Amniotic Fluid
- Pleural fluid

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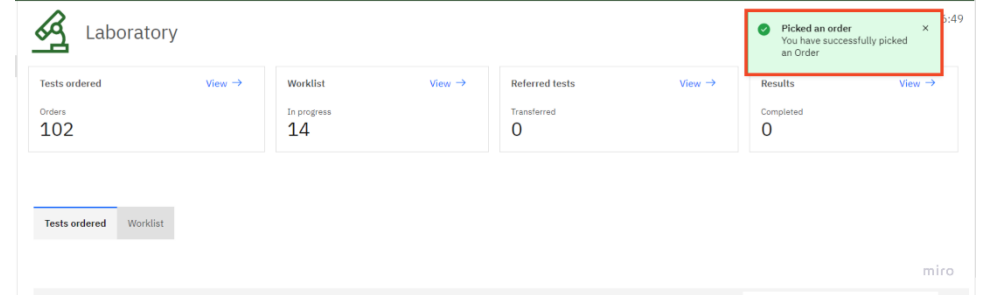
**Saving Pick Lab Request**

The user proceeds to click on the **pick lab request tab** after filling in specimen ID and selecting the specimen type.



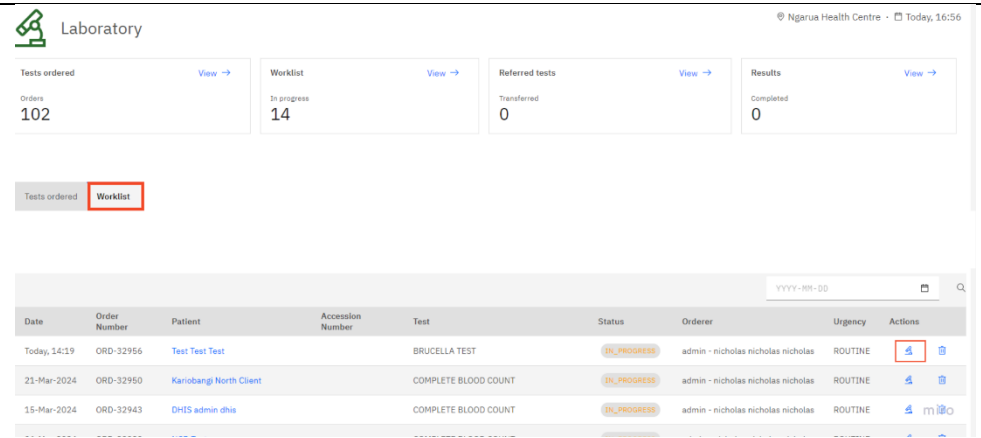
**Picking Lab Order**

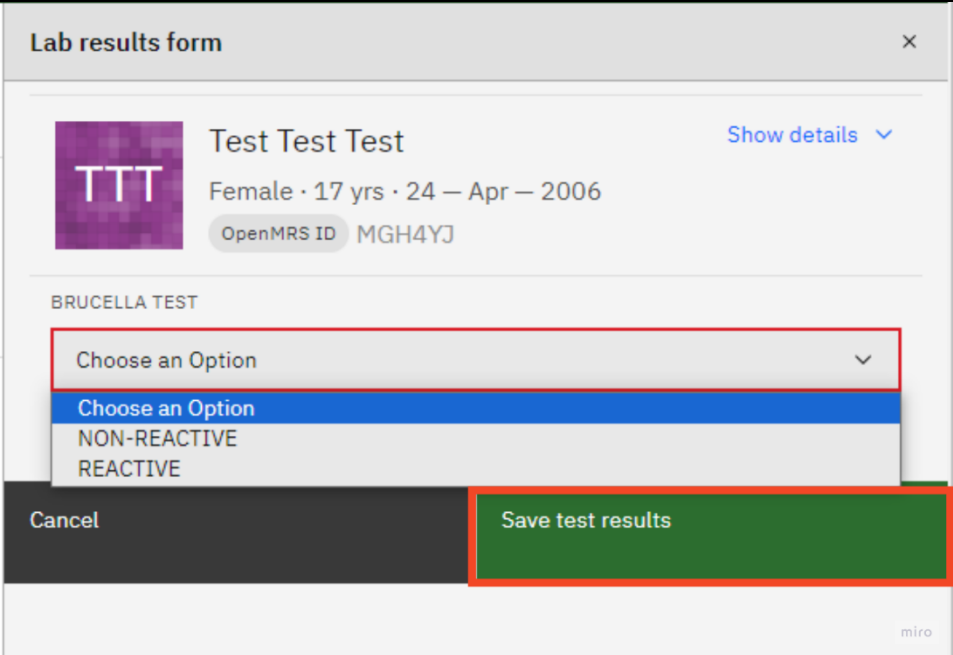
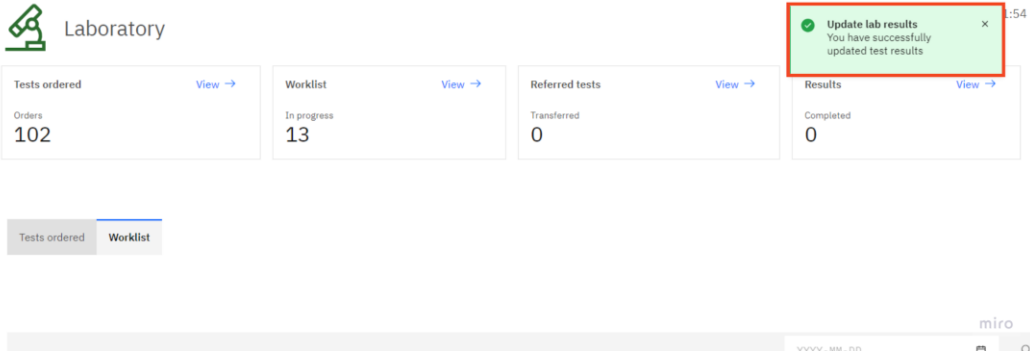
Upon successful pick up of a lab order, the system should flag the user that they have successfully picked the order.



**Worklist Flow**

Upon successful pick up of a lab order the patient's name transitions from test ordered tab to worklist tab. The user proceeds to the action column and clicks on the Microscope icon to record test results. This opens a dialogue box where the user enters the results



<p><b>Saving Lab Results</b></p>	<p>Upon successful entering of the lab results in the dialogue box the user should click on Save test results tab to Save the entered results.</p>	
<p><b>Saving Lab Results Pop-up</b></p>	<p>On Successful saving of the test results, the user gets a pop-up message that the results were updated and successfully and the results have been dispatched to the clinicians and are accessible in the patient summary</p>	

**Rejecting Lab order**

During processing of the lab orders the user is able to reject a test order by clicking on the delete icon on the action column.

Date	Order Number	Patient	Accession Number	Test	Status	Orderer	Urgency	Actions
15-Mar-2024	ORD-32943	DHIS admin dhis		COMPLETE BLOOD COUNT	IN_PROGRESS	admin - nicholas nicholas	ROUTINE	[Delete Icon]
06-Mar-2024	ORD-32929	NCD Test		COMPLETE BLOOD COUNT	IN_PROGRESS	admin - nicholas nicholas	ROUTINE	[Delete Icon]

**Rejecting Order**

The system opens up a dialogue box where the user is able to type in comments on why they are rejecting an order and then clicks on the Reject Order tab

**Reject Order**

· IN\_PROGRESS · ORD-32950

Enter Comments 0/500

Please enter comment

Cancel **Reject Order**

### Reject Order Message

The system should pop-up a message on successful order rejection to show that the order was rejected.

Tests ordered
Worklist

✔ **Reject Order** x

You have successfully rejected an Order with OrderNumber ORD-32950

YYYY-MM-DD 🗑️ 🔍

Date	Order Number	Patient	Accession Number	Test	Status	Orderer	Urgency	Actions
21-Mar-2024	ORD-32950	<a href="#">Kariobangi North Client</a>		COMPLETE BLOOD COUNT	IN_PROGRESS	admin - nicholas nicholas nicholas	ROUTINE	<a href="#">🔍</a> <a href="#">🗑️</a>
15-Mar-2024	ORD-32943	<a href="#">DHIS admin dhis</a>		COMPLETE BLOOD COUNT	IN_PROGRESS	admin - nicholas nicholas nicholas	ROUTINE	<a href="#">🔍</a> <a href="#">🗑️</a>
06-Mar-2024	ORD-32929	<a href="#">NCD Test</a>		COMPLETE BLOOD COUNT	IN_PROGRESS	admin - nicholas nicholas nicholas	ROUTINE	<a href="#">🔍</a> <a href="#">🗑️</a> <a href="#">mir</a>

**THE END**