



FEDERAL MINISTRY OF
HEALTH

DATA.FI NIGERIA TOOL

LAMISPLUS 2.0

TRAINING MANUAL

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Data.FI
Data for Implementation

This Document is subject to updates and improvements as the system development progresses.



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1. Overview

The Lafia Management Information System (LAMIS) is an electronic medical record (EMR) storage and retrieval system suitable for recording patient information for different medical domains. The development of the LAMIS has since been optimized to birth its open-source system as LAMISPlus.

LAMISPlus has been designed to support both point of care (POC) services and retrospective data entry (RDE) along the standard health facility workflow and will enable health providers to track clients across the continuum, generating data for improving clinical care, and ultimately informing client-centered approaches and enabling cohort analyses and program monitoring.

1.1 PURPOSE OF THE MANUAL

The manual serves as both a guide for training and as a reference for questions participants may have during and after the training. It contains step by step navigation of the LAMISPlus system.

1.2 CONTENT OF THE MANUAL

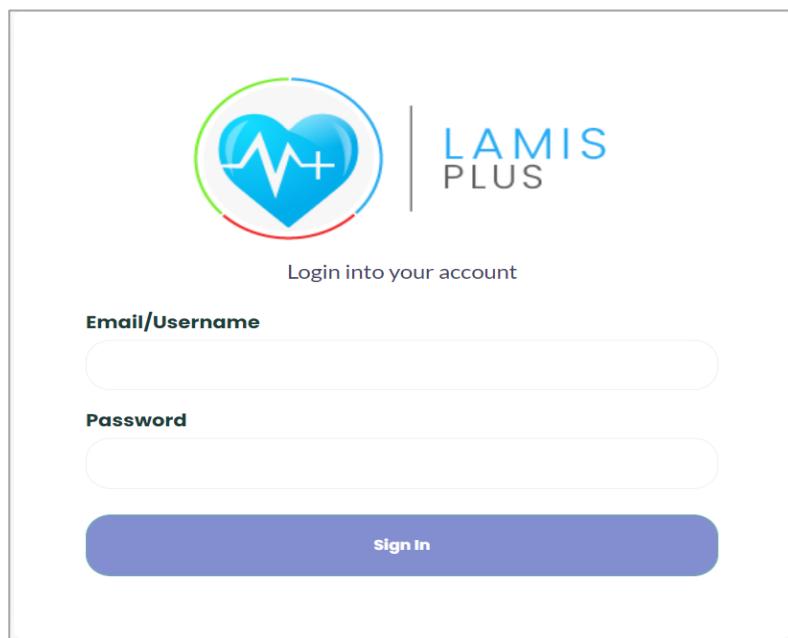
- The manual contains practical guidelines on how to navigate and use the LAMISPlus.
- The manual is accompanied by the trainee handbook to serve as a knowledge guide through the training.

2. Demo: Navigation through the System

2.1 LOGIN PAGE

Upon completion of installation, the application automatically opens up on your browser, or open your browser and type <http://localhost:8383> to access LAMISPlus application.

Figure 2.1. LAMISPlus login page



Upon login page, enter the user credentials provided (Username and Password)

2.2 LANDING PAGE

The landing page displays the menus on the left side of the screen and the facility name at the top of the screen.

Figure 2.2. LAMISPlus landing page



3. Patient Module

The first point of enrolling a patient into any service is through the patient module.

To access the patient module and search for a patient or register a new patient, Select the “**Patient module**” on the menu page (**Figure 3**).

Figure 3. Menu page



A redirected page is displayed to register a new patient or search for an existing patient, as seen in **Figure 3.1.**

3.1 PATIENT MODULE DASHBOARD

Figure 3.1. Redirected page.

The screenshot shows the LAMISPlus Patient Module Dashboard. On the left, a sidebar menu includes options like Dashboard, Patient (which is highlighted with a red box), Triage, HTS, PrEP, HIV, LIMS, PMTCT, NDR, Report, Laboratory, Biometric Setup, and Administration. The main area is titled "Welcome to : Orile Agege General Hospital" and shows a "Patient / Home" section. It has tabs for Clients, Checked-In, Patient Biometrics, and Migration DQA. Under Clients, there's a search bar with "Show PII" and "Search" buttons. A table lists client details: Hosp. Number, Sex, Date Of Birth, Age, and Actions (with "VIEW" and a dropdown menu). The "Actions" column for the first client is highlighted with a red box, showing options: Dashboard, Edit, and Delete. At the top right, there are "Guest Guest" and profile icons. A large blue button labeled "New Client" is also highlighted with a red box.

- To register a new patient, select “**New Client**” as seen in **Figure 3.1**.
- To search for an existing client. Type the client’s ID in the search box.
- To view client’s name, select “**Show PII**”. This is only available to users with the required privilege to view a patient’s name.
- The “**Checked in**” tab is used to view a list of checked in patients.
- The Biometric tab is used to view a list of clients whose biometric fingerprint has been captured.
- To go to a patient dashboard, edit a patient information or delete a patient’s information, select the down icon beside the “**View**” on the patient’s list.

3.2 REGISTERING A NEW PATIENT

Figure 3.2.

The screenshot shows the LAMISPlus Patient Registration form. The sidebar menu is identical to Figure 3.1. The main area is titled "Welcome to : Orile Agege General Hospital" and shows a "Patient / Registration" section. A red box highlights the "Basic Information" tab. Below it, there are fields for Date of Registration*, Hospital Number*, National Identification Number (NIN), First Names*, Middle Name, Last Name*, Sex*, Date Of Birth (radio buttons for Actual and Estimated), Date (mm/dd/yyyy), Age, Marital Status, Employment Status*, and Education Level. A "Back" button is at the top right.

- Fill in the “**Basic Information**” section (**Figure 3.2**) on the form with the required patient’s bio data.
- The EMR ID is auto generated, also all fields marked “*****” are compulsory fields to be filled by the user.

Figure 3.2.1.

The screenshot shows the 'Patient' information entry screen. On the left is a sidebar with various medical modules: Dashboard, Patient, Triage, HTS, PrEP, HIV, LIMS, PMTCT, NDR, Report, Laboratory, Biometric Setup, and Administration. The 'Patient' option is selected. The main area is titled 'Welcome to : Orile Agege General Hospital'. It contains two main sections: 'Contact Details' and 'Relationship / Next Of Kin'. Under 'Contact Details', there are fields for Phone Number, Alt. Phone Number, Email, Country, State, Province/District/LGA, Street Address, and Landmark. Under 'Relationship / Next Of Kin', there is a button '+ ADD A RELATIVE/NEXT OF KIN'. At the bottom left, there are 'Save' and 'Cancel' buttons, which are highlighted with a red box.

- Fill in the “**Contact Details**” and the “**Relationship/Next of Kin**” details then save the form by selecting the save button.
- The back button takes you to the patient grid, i.e., the patient module dashboard that has the list of patients registered.
- To review the patient information form for a new patient, return to the patient list and select “**View**”.

3.3 PATIENT DASHBOARD

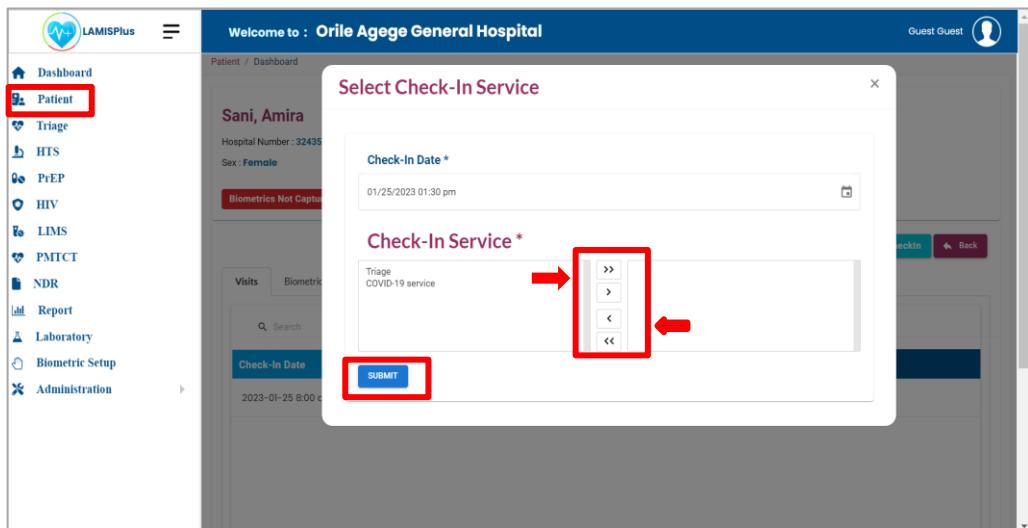
The patient dashboard displays the patient's basic bio data.

Figure 3.3.

The screenshot shows the 'Patient' dashboard for a patient named 'Sani, Amira'. The sidebar on the left shows the 'Patient' tab is selected and highlighted with a red box. The main content area displays the patient's basic information: Hospital Number (324356), Date of Birth (2005-06-15), Age (17 year(s)), Sex (Female), Phone Number (2347066449), and Address (16 Peace Street). Below this, there is a message 'Biometrics Not Captured'. At the bottom right, there are two buttons: 'Checkin' (highlighted with a red box) and 'Back'.

- The “**Check-in**” tab, (**Figure 3.3**), is used to check a patient into a service. This is implemented in a POC setting
- The “**Back**” tab is used to go back to the patient module dashboard.
- When the “**Check-in**” tab is selected, a pop-up page is displayed to select the next service to post the patient to (**Figure 3.3.1**).

Figure 3.3.1.



- You can edit the check-in date.
- Select the “**service**” and select the forward arrow. Click “**submit**” to save.
- When a patient is checked in to a service, the “**check-in**” tab is changed to “**check-out**” which is used to check the patient out of the service.

4. Biometric Capture

The process of capturing a patient's biometric fingerprint is done on the patient's module. Select the patient module on the menu pane.

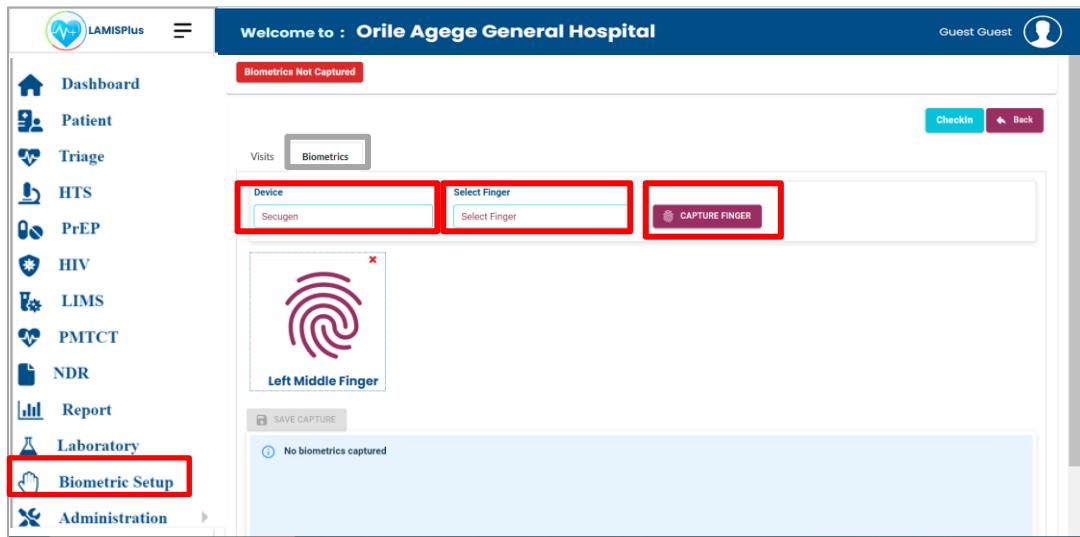
Figure 4.



- On the patient module landing page, select the “**biometric**” tab as seen in the figure below.
- Select the biometric device configured at the point of setup on the “**device**” field.
- Select each finger to be captured on the “**select finger**” field.

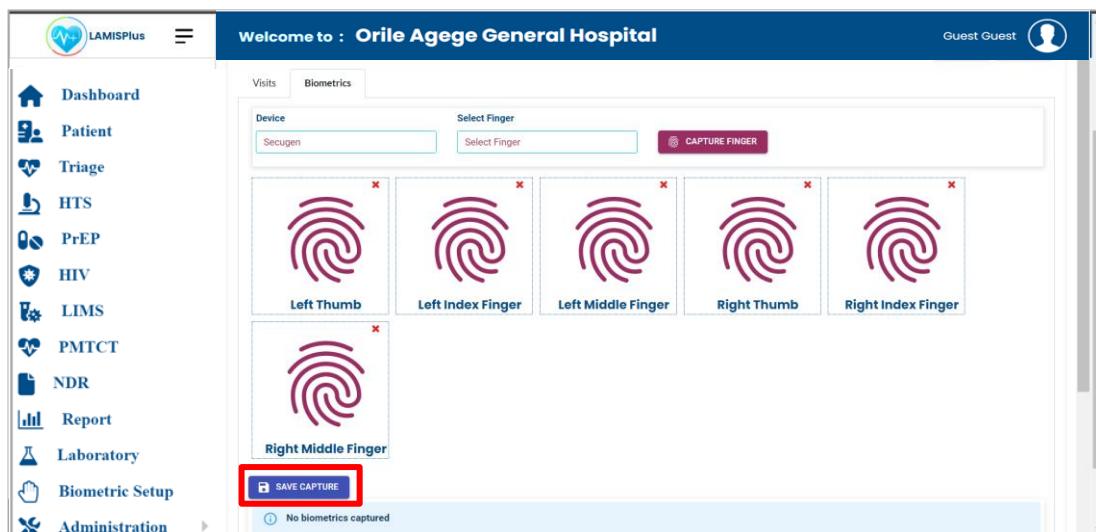
- Select “**CAPTURE FINGER**” and place the selected finger on the biometric device. The print is displayed on the screen.

Figure 4.1.



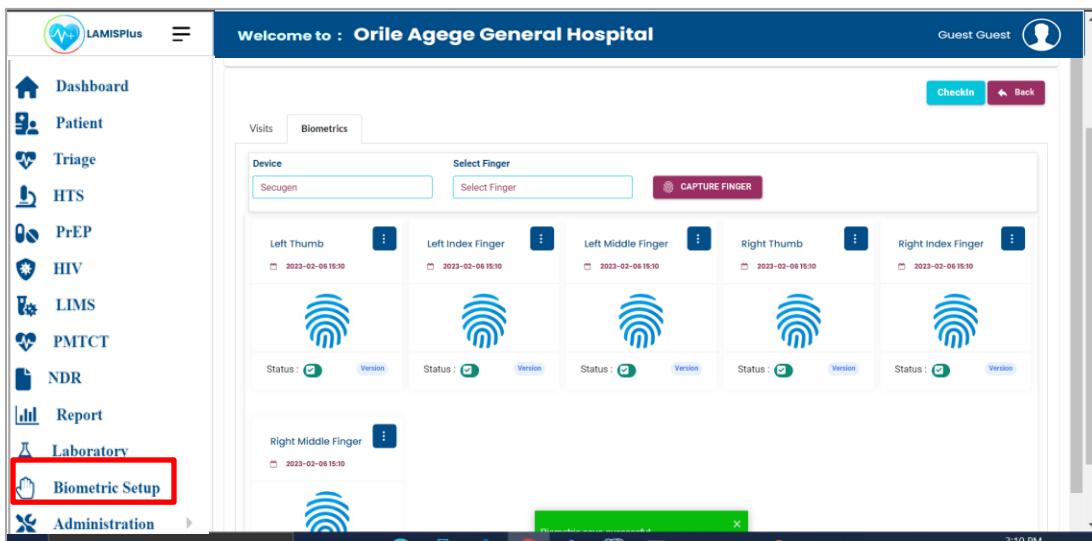
- Select each of the fingers, select capture finger while the finger selected is placed on the device
 - All fingers selected will be displayed on the screen, select “**save capture**” to save the finger print.
- N/B: the save button will not be enabled until a maximum of 6 fingers are captured. A prompt is displayed when the biometric fingerprint threshold value is below 61.

Figure 4.2.



- The fingerprints captured and saved are displayed on the biometric grid as seen below
- You can delete and retake a fingerprint by selecting the three dots by the side of each finger print

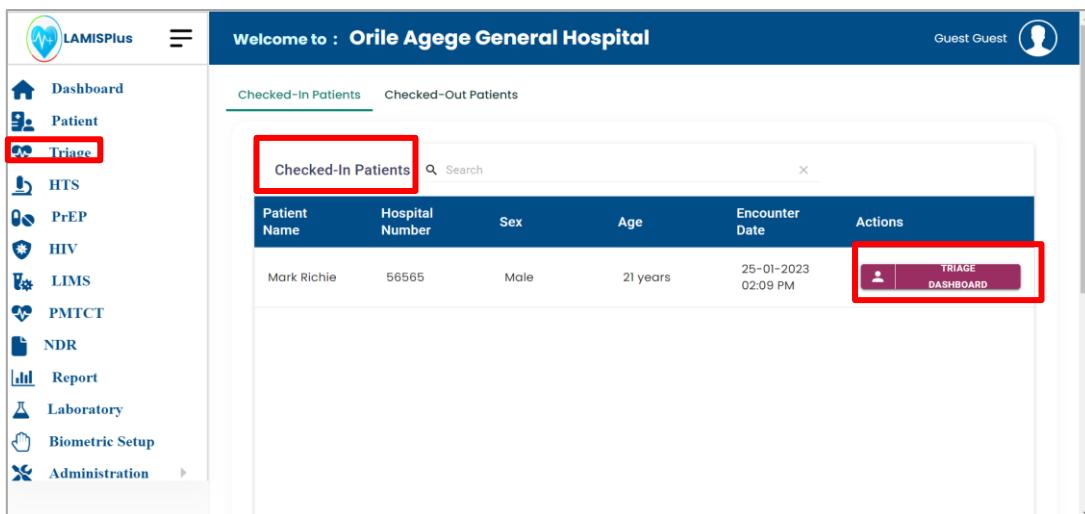
Figure 4.3



5. TRIAGE MODULE DASHBOARD

The triage module dashboard displays the patient(s) checked into the triage service. It is used to capture patient vitals on the LAMISPlus EMR.

Figure 5.



- To collect the patient's vitals, select the "Triage Dashboard" under actions (Figure 5).
- The redirected page displays the patient's vitals history (Figure 5.1).
- The "capture vitals" tab directs you to the vitals page to document the client's vitals.
- The charts tab directs you to view the patient's vitals in a chart format.
- To post the patient to another service point, select "post patient" and select the next service point to post the patient to.
- Select "Back" to go back to triage dashboard.

5.1 CAPTURE VITALS

Fill in the patient's vitals appropriately and select save to save record.

Figure 5.1.

The screenshot shows the LAMISPlus interface for the Triage module. On the left sidebar, the 'Triage' option is selected. The main area displays patient details: Richie, Mark (Active), Hospital Number: 56565, Date of Birth: 2001-06-15, Sex: Male, Age: 21 years, Phone Number: 2344567890, Address: 76. Below this, there are tabs for 'History' and 'Capture Vitals', with 'Capture Vitals' being active. The form contains fields for Date Of Vital Sign (01/24/2023 10:15 PM), Pulse (90 bpm), Respiratory Rate (65 bpm), Temperature (36 °C), Blood Pressure (systolic: 90 mmHg, diastolic: 95 mmHg), Body Weight (75 kg), Height (200 cm), and BMI (19). At the bottom are 'Update' and 'Cancel' buttons, with the 'Update' button highlighted by a red box. A 'Post Patient' button is also visible at the top right of the main area.

- Select “post patient” (Figure 5.1) to post patient to the next service area and save.

Figure 5.1.1.

This screenshot shows the 'Post Patient' dialog box overlaid on the Triage dashboard. The dialog box lists service categories: HIV Service, Covid service, Consultation service. It features a 'Save' button at the bottom left, which is highlighted with a red box. To the right of the 'Save' button is a vertical scroll bar with navigation arrows (up, down, left, right) for selecting services, with the scroll bar itself highlighted by a red box. The background Triage dashboard shows the same patient details and vital sign form as Figure 5.1.

- Select “Back” to go back to the triage dashboard.

6. HTS MODULE

The HTS module is used for the documentation of HIV testing services.

To navigate the HTS module, select “HTS” on the menu pane (**Figure 6**).

Figure 6.



6.1 HTS MODULE DASHBOARD

- The HTS module dashboard displays the list of patients registered in the facility and patients who have undergone HTS service in the facility.
- To go to a patient's dashboard, select “PATIENT DASHBOARD” under actions (**Figure 6.1**).

Figure 6.1.

HTS						
Find Patients		Data Visualisation				
<input type="checkbox"/> SHOW PII	Find Patient	<input type="text"/> Search	X			
Hospital Number	Client Code	Sex	Age	HTS Count	Actions	
00012		Male	23	1		PATIENT DASHBOARD
00901		Female	33	1		PATIENT DASHBOARD
00901		Female	33	1		PATIENT DASHBOARD
73637282		Male	25	1		PATIENT DASHBOARD
000190		Female	22	1		PATIENT DASHBOARD
097543456		Female	14	1		PATIENT DASHBOARD
746474		Male	24	1		PATIENT DASHBOARD

- Use the find patient function to search for a patient's registered on the system.

- To register a new patient for HTS, select “**New Patient**”.

6.2 HTS PATIENT DASHBOARD

The patient dashboard displays information on the HTS history of the patient. If the patient has been tested in that facility and his/her HTS information was documented, the HTS forms filled is highlighted.

Figure 6.2.

- The “**Actions**” tab is used to view and/or edit the patient’s HTS information recorded.
- “**New HTS**” tab is used to document the patient’s HTS information.

Figure 6.2.1.

- Select the “**save**” to go to the next form.
- Follow the onscreen instructions in succeeding steps to complete the HTS forms.
- Select “**Back**” to go back to the HTS dashboard.

6.3 HTS RISK STRATIFICATION

The first step to documenting the patient's HTS information is to risk stratify the patient to assess the patient's HIV risks and eligibility for testing. The risk stratification is only available for client's greater than 15 years.

- Fill the risk stratifications information (**Figure 6.3**) and select save to follow the succeeding steps to complete the HTS forms.

Figure 6.3.

The figure consists of two vertically stacked screenshots of the LAMISPlus software interface, specifically the 'HTS' module.

Screenshot 1: Risk Stratification Form

This screenshot shows the 'RISK STRATIFICATION' form. The left sidebar has 'HTS' selected. The main form fields include:

- Entry Point ***: A dropdown menu set to 'Select'.
- Visit Date ***: A date input field showing 'mm/dd/yyyy'.
- Setting ***: A dropdown menu set to 'Select'.
- Modality ***: A dropdown menu set to 'Select'.
- Target Group ***: A dropdown menu set to 'Select'.
- Date Of Birth ***: Radio buttons for 'Actual' (selected) and 'Estimated'.
- Date ***: A date input field showing 'mm/dd/yyyy'.
- Age ***: An input field for age.
- Is this HIV test based on a Clinician/Doctor/Health Care Provider's request ? ***: A dropdown menu set to 'Select'.
- Risk assessment score**: A text input field with placeholder 'Score :0'.

A red box highlights the 'Back' button in the top right corner.

Screenshot 2: HIV Risk Assessment Form

This screenshot shows the 'HIV Risk Assessment (last 3 months)' form. The left sidebar has 'HTS' selected. The main form fields include:

- When was your last HIV test done? ***: A dropdown menu set to 'Select'.
- Since your last HIV test, have you had anal or vaginal or oral sex without a condom with someone who was HIV positive or unaware of their HIV status? ***: A dropdown menu set to 'Select'.
- Since your last HIV test, have you ever injected drugs, shared needles or other sharp objects with someone known to be HIV positive or you didn't know their HIV status? ***: A dropdown menu set to 'Select'.
- Have you been diagnosed with TB or currently have any of the following symptoms : cough, fever, weight loss, night sweats? ***: A dropdown menu set to 'Select'.
- Since your last HIV test, have you experienced painful urination, lower abdominal pain, vaginal or penile discharge, pain during sexual intercourse, thick, cloudy, or foul smelling discharge and/or small bumps or blisters near the mouth, penis, vagina, or anal areas? ***: A dropdown menu set to 'Select'.
- Since your last HIV test, have you had anal, oral or vaginal sex in exchange for money or other benefits? ***: A dropdown menu set to 'Select'.
- Since your last HIV test, have you been forced to have sex? ***: A dropdown menu set to 'Select'.
- Risk assessment score**: A text input field with placeholder 'Score :0'.

A red box highlights the 'Save' button at the bottom left.

6.4 NEW HTS REGISTRATION

After documenting the risk stratification, the next step is to document the patient's basic information (**Figure 6.4**).

Figure 6.4.

The screenshot shows the LAMISPlus software interface for 'HIV COUNSELLING AND TESTING'. The left sidebar menu is open, with 'HTS' selected. A red box highlights the 'Basic Information' section under 'HTS'. The main panel displays the 'BASIC INFORMATION - CLIENT INTAKE FORM' with various input fields for client details like Target Group (MSM), Client Code, Referral Details, and Demographic information (Date of Birth, Age, Sex, Address, etc.).

- Select “**save**” to follow the succeeding steps to complete the HTS forms.
- Select the “**Back**” tab to go back to the HTS Dashboard.

Figure 6.4.1.

The screenshot shows the LAMISPlus software interface for 'HIV COUNSELLING AND TESTING'. The left sidebar menu is open, with 'HTS' selected. A red box highlights the 'Pre Test Counseling' section under 'HTS'. The main panel displays the 'PRE TEST COUNSELING' form, which includes sections for 'Knowledge Assessment' (e.g., previously tested HIV negative, client informed about HIV transmission routes) and 'Clinical TB screening' (e.g., current cough, weight loss, lymphadenopathy). A red box highlights the 'Back' button in the top right corner of the main panel.

- The succeeding steps are:
 - Pre-test counselling
 - Request and result form
 - Post-test counselling
 - HIV recency testing
 - Index notification services—elicitation

7. PrEP Module

To navigate the pre-exposure prophylaxis (PrEP) module, select “PrEP” on the menu pane (**Figure 7**).

Figure 7.



The PrEP module has a list of only HIV-negative clients and displays information on the PrEP service count provided to each patient.

- Patients can be found by inputting patient's name, hospital number, or age into the search bar. Information entered on the search bar displays list of matches for the search (**Figure 7.1**).

Figure 7.1.

Patient Name	Hospital Number	PrEP Code	Sex	Age	PrEP Status	Actions
Joyce Richie	00901	0090	Female	33	Default	PATIENT DASHBOARD
Joyce Richie	00901	00998	Female	33	Not Commenced	PATIENT DASHBOARD
David Cole	00012	10090	Male	23	Default	PATIENT DASHBOARD
Demo Test	627262727272	458	Male	30	Default	PATIENT DASHBOARD

- The “Data visualization” tab gives users the luxury of viewing the data of a facility in a well-presented manner for specific indicators.
- To navigate to the patient dashboard, click on "PATIENT DASHBOARD" on the landing page of the PrEP module.
- To navigate and access the patient dashboard, click on "PATIENT DASHBOARD" on the landing page of the PrEP module.

7.1 PREP DASHBOARD

The "PATIENT DASHBOARD" (Figure 7.1) displays the basic patient's bio data and a summary of patient previous visit encounters.

Figure 7.1.

The screenshot shows the LAMISPlus PrEP dashboard. On the left is a sidebar with icons for Dashboard, Patient, HIV, HTS, PrEP (which is highlighted with a red box), LIMS, PMTCT, Triage, NDR, Report, Laboratory, Biometric Setup, and a help icon. The main area has a header "Welcome to : Orile Agege General Hospital" and a sub-header "PrEP". Below this is a "Find Patients" section with tabs for "Find Patient" and "Data Visualisation". A search bar is present. A table lists patients:

Patient Name	Hospital Number	PrEP Code	Sex	Age	PrEP Status	Actions
Joyce Richie	00901	0090	Female	33	Default	PATIENT DASHBOARD
Joyce Richie	00901	00998	Female	33	Not Commanded	PATIENT DASHBOARD
David Cole	00012	10090	Male	23	Default	PATIENT DASHBOARD
Demo Test	627262727272	458	Male	30	Default	PATIENT DASHBOARD

A message at the bottom right says "Go to Settings to activate Windows." Red boxes highlight the "PrEP" menu item in the sidebar and the "PATIENT DASHBOARD" button in the table row for the first patient.

- The “PrEP Eligibility Screening Form” will be filled to ascertain the patient’s eligibility for enrolling into PrEP services.
- The PrEP enrollment form will be required to be filled before filling the PrEP commencement form.
- The PrEP visit, PrEP discontinuation and interruption and the History page will be made available after the PrEP commencement form is filled.

Figure 7.1.1.

The screenshot shows the PrEP Patient Dashboard for Joyce Richie. The sidebar on the left is identical to Figure 7.1. The main area has a header "Welcome to : Orile Agege General Hospital" and a sub-header "PrEP / Patient Dashboard". It displays patient details: Patient ID: 00901, Gender: Female, Date Of Birth: 1989-06-15, Phone Number: 2346578908, Status: Negative, Age: 0 month(s), Address: Block 76. Below this is a navigation bar with tabs: Home (highlighted with a red box), PrEP Eligibility Screening, PrEP Visit, PrEP Discontinuations & Interruptions, and History. The "PrEP Eligibility Screening" tab is active. The dashboard is divided into sections: "Recent Activities" (listing an encounter on 2022-01-01) and "Summary". The "Summary" section includes a "Current Regimen Given" box (TDF(300mg)+3TC(50mg)), a "Next Appointment Date" box (03/03/2023), and two graphs for "Weight" and "Height", both showing "Normal" status. A message at the bottom right says "Go to Settings to activate Windows."

7.2 PrEP

The PrEP Eligibility Screening Form (Figure 7.2) is a lengthy form that consists of sections such as HIV Risk Assessment, Sex partner risk assessment, Drug use history, and Syndromic STI screening.

The form should be well documented and save the form by clicking on "save" button at the bottom of the form.

Figure 7.2.

The figure consists of three side-by-side screenshots of a computer application window titled "Welcome to : Orile Agege General Hospital".
1. The left screenshot shows the "PrEP Eligibility Screening Form" with fields for "Visit Date" (mm/dd/yyyy), "Sex partners*", "Type of counseling*", and "HIV Risk Assessment (last 3 months)".
2. The middle screenshot shows the "Sex Partner Risk Assessment (last 3 months)" section with dropdown menus for various risk factors.
3. The right screenshot shows the "Syndromic STI Screening" section with dropdown menus for symptoms like vaginal discharge, abdominal pain, and lymph node swelling.
Red boxes highlight the "PrEP Eligibility Screening Form" title, the "Sex Partner Risk Assessment" section, and the "Syndromic STI Screening" section.

7.3 PrEP ENROLLMENT AND COMMENCEMENT

The “PrEP Enrollment” form (Figure 7.3) can only be accessed after the PrEP Eligibility Screening Form is filled and saved. To get to this form, go to the PrEP Enrollment form, click on the “PrEP dashboard” and it displays the tab to the form as shown in the figure.

Figure 7.3.

The figure shows a screenshot of the "PrEP Enrollment" form within the LAMISPlus application.
The sidebar on the left has tabs for Dashboard, Triage, Laboratory, Biometric Setup, NDR, LIMS, PMTCT, PrEP (which is highlighted with a red box), Report, HIV, and Administration.
The main form area has fields for:

- Unique Client's ID *
- Partner ANC/Unique ART No
- Date enrolled in PrEP *
- PrEP Risk Type*
- Date Referred for PrEP *
- PrEP Supporter
- Relationship
- PrEP Supporter Phone Number

At the bottom, there are "Save" and "Cancel" buttons, both highlighted with red boxes.

- Document the form and click on "save" to save the form.

The “PrEP Commencement” form (Figure 7.3.1) can only be accessed after filling and saving the PrEP Enrollment form. To navigate to this form, click on the PrEP dashboard and the form will be displayed as shown on the figure below.

Figure 7.3.1.

Welcome to : Orile Agege General Hospital

PrEP Commencement

Date of Initial Adherence Counseling: 01/dd/2023

Date PrEP started*: 01/dd/2023

Body Weight: _____ kg Height: _____ cm _____ m

History of drug Allergies: _____

Urinalysis Result: _____

referred: _____

Date referred: mm/dd/yyyy

PrEP Regimen: Select

Save **Cancel**

- Document the form and click on "save" to save the form.

7.4 PrEP VISIT & DISCONTINUATIONS AND INTERRUPTIONS

To get to the “PrEP visit” form, (Figure 7.4), select the “PrEP visit” tab on the “PrEP dashboard”, the form will be displayed with sections such as Vital signs, Urinalysis test, Hepatitis test, Syphilis test, Other test, and Next appointment date. The form is to be documented and then saved.

Figure 7.4.

Welcome to : Orile Agege General Hospital

Home | PrEP Eligibility Screening | **PrEP Visit** | PrEP Discontinuations & Interruptions | History

CLINIC VISIT HISTORY

Clinic Follow-up Visit

VITAL SIGNS

Date of Visit *: mm/dd/yyyy

Pulse: _____ bpm Respiratory Rate: _____ bpm Temperature: _____ °c

Body Weight: _____ kg Height: _____ cm _____ m

Blood Pressure: _____

To navigate to the “PrEP discontinuations and interruptions” form (Figure 7.4.1), select the “PrEP discontinuations and interruptions” tab on the PrEP dashboard, select the “PrEP interruption” from the drop-down list and fill the required fields depending on the interruption then save the form.

Figure 7.4.1.

The screenshot shows the LAMISplus PrEP Patient Dashboard for 'Joyce Madun'. The left sidebar menu is visible with various icons and labels: Dashboard, Patient, HIV, HTS, PrEP (highlighted with a red box), LIMS, PMTCT, Triage, NDR, Report, Laboratory, Biometric Setup, and Administration. The main header says 'Welcome to : Orile Agege General Hospital'. Below it, the patient's name 'Joyce Madun' is displayed along with her ID (000190), date of birth (2000-06-15), gender (Male), phone number (2345678909), age (0 month(s)), and address (Block 10). A status box indicates 'STATUS : Negative'. The navigation bar at the top includes Home, PrEP Eligibility Screening, PrEP Visit, PrEP Discontinuations & Interruptions (highlighted with a red box), and History. The 'PrEP Discontinuations & Interruptions' section contains a dropdown menu labeled 'Select', a 'Save' button, and a 'Cancel' button. A watermark for 'Activate Windows' is present in the bottom right corner.

7.5 PrEP HISTORY

The “History tab” (Figure 7.5), is the last tab on the PrEP dashboard. It the page that displays all the PrEP forms that have been filled and saved.

There is also an option to “view”, “edit” and “delete” saved forms. This can be achieved by selecting the “Action” drop-down button to see the actions that can be carried out on a form.

Figure 7.5.

The screenshot shows the LAMISplus PrEP Patient Dashboard for 'Demo Test'. The left sidebar menu is visible with various icons and labels: Dashboard, Triage, Laboratory, Biometric Setup, NDR, LIMS, PMTCT, PrEP (highlighted with a red box), Report, HIV, Patient, HTS, and Administration. The main header says 'Welcome to : Orile Agege General Hospital'. Below it, the patient's name 'Demo Test' is displayed along with her ID (627262727272), date of birth (1993-01-17), gender (Male), phone number (08064785555), age (30 year(s)), and address (Street). The navigation bar at the top includes Home, PrEP Visit, PrEP Discontinuations & Interruptions, and History (highlighted with a red box). The 'Patient History' section shows three entries: 'Prep Commencement' (Encounter Date: 2023-01-17), 'Prep Eligibility' (Encounter Date: 2023-01-17), and 'Prep Enrollment' (Encounter Date: 2023-01-17). A red box highlights the 'Actions' dropdown menu for the first entry, which includes options: View, Edit, and Delete. A watermark for 'Activate Windows' is present in the bottom right corner.

8. HIV MODULE

To navigate the HIV module, select “HIV” on the menu pane (**Figure 8**).

Figure 8.



8.1 HIV MODULE DASHBOARD

The HIV Module dashboard displays the patient list. The patient list consists of patients registered in the facility database and is disaggregated by patients not enrolled into HIV and patients who have been enrolled into HIV service and on ART. The ART status column also highlights the HIV enrollment status of the patient. This is to cater for an entire facility service implementation.

Figure 8.1.

A screenshot of the LAMISPlus HIV module patient list dashboard. The left sidebar shows the same list of modules as Figure 8. The main area is titled "ART" and contains a table of patient records. The table columns are Hospital Number, Sex, Age, ART Status, and Actions. The first row shows a female patient (Hospital Number 7383638373) with an "Not Enrolled" status and an "ENROLL PATIENT" button. The second row shows a male patient (Hospital Number 646566788) with an "Not Enrolled" status and an "ENROLL PATIENT" button. The third row shows a male patient (Hospital Number 7363727) with an "Not Enrolled" status and an "ENROLL PATIENT" button. The fourth row shows a male patient (Hospital Number 627262727272) with an "Not Enrolled" status and an "ENROLL PATIENT" button. A red box highlights the "Find Patients" tab in the navigation bar. Another red box highlights the "New Patient" button in the top right corner. The bottom right corner of the dashboard has a watermark: "Activate Windows Go to Settings to activate Windows".

- The “**New Patient**” tab takes you to the patient registration page to register a new patient.
- The “Data visualization” tab displays patient charts for some reporting indicators.
- The actions column highlights the required action for the registered patient.
- The “IIT” tab displays the list of clients who have interrupted treatment based on the reporting guideline.

Figure 8.1.1.

Welcome to : Orile Agege General Hospital

ART

Find Patients IIT Data Visualisation

Hospital Number Sex Age ART Status Actions

73637282	Male	25 year(s)	ART	PATIENT DASHBOARD
----------	------	------------	-----	-------------------

Newly Diagnosed HIV+ 3280

Currently On ART 2570

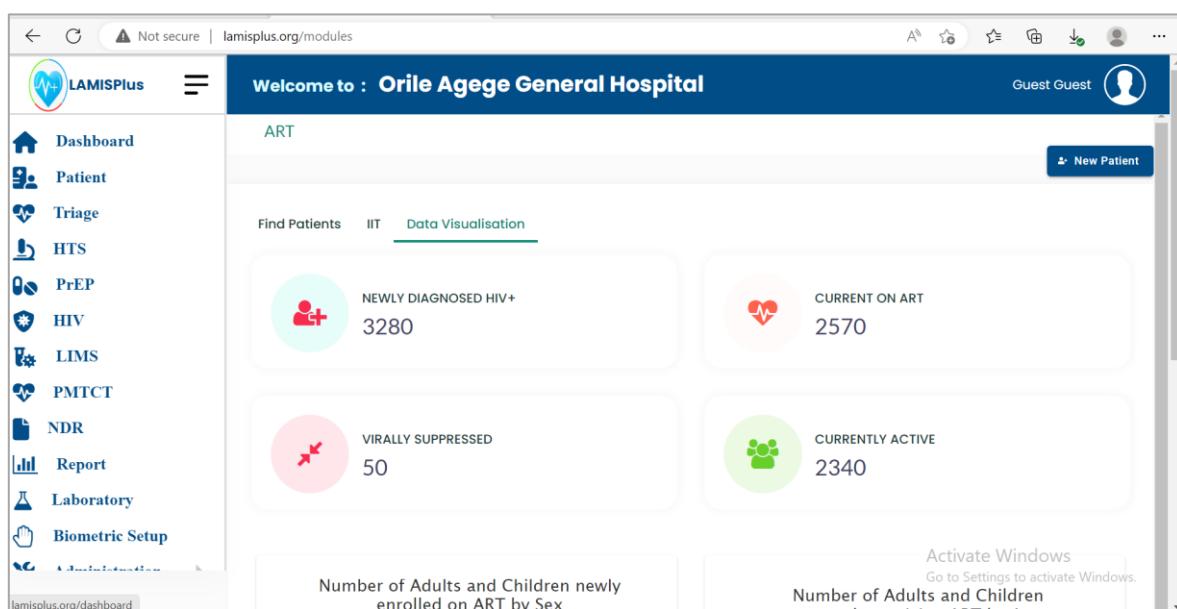
Virally Suppressed 50

Currently Active 2340

Activate Windows Go to Settings to activate Windows.

- Select “**PATIENT DASHBOARD**” under Actions to go to the patient’s dashboard.
- The “**Data visualization**” tab displays patient charts for some reporting indicators.
- Select “**New Patient**” to register a new patient.

Figure 8.1.2.



8.2 NEW PATIENT REGISTRATION

Fill the patient's bio data and contact details.

- The Relationship/Next of kin section is used to document the patient's next of kin information.

Figure 8.2.

Figure 8.2 displays two screenshots of the LAMISPlus HIV Patient Registration interface. The top screenshot shows the 'Basic Information' section, which includes fields for Date of Registration, Hospital Number, EMR Number, First Name, Middle Name, Last Name, Sex, Date of Birth, Marital Status, Employment Status, Education Level, and National Identity Number (NIN). The bottom screenshot shows the 'Relationship / Next Of Kin' section, which includes fields for Phone Number, Alt. Phone Number, Email, Country, State, Province/District/LGA, and a button to 'Add A RELATIVES/OF KIN'. Both screenshots include a sidebar with navigation links like Dashboard, Patient, Triage, HTS, PrEP, HIV, PATCT, NDR, Report, Laboratory, Biometric Setup, and Administration.

- Select “Add” under the Relationship/Next of kin section to add the patient’s next of kin information.
- The “Back” tab is used to go back to the HIV dashboard.

8.3 NEW PATIENT REGISTRATION – HIV ENROLLMENT

To enroll a patient, enter the patient’s enrollment information and select “Save” to save information.

Figure 8.3.

The screenshot shows the LAMISPlus software interface for HIV enrollment. On the left is a navigation sidebar with icons for Dashboard, Patient, Triage, HTS, PrEP, HIV, PMTCT, NDR, Report, Laboratory, Biometric Setup, and Administration. The main area is titled "Welcome to : Orile Agege General Hospital". It has two tabs: "Basic Information" and "HIV Enrollment". Under "Basic Information", there are fields for Name (Iyeddy hahah), Hospital Number (7883727), Sex (Male), and Age (30). Under "HIV Enrollment", there are fields for Unique ID No (7883727), Date of Enrollment (01/08/2023), Care Entry Point (Registration), HIV Status at Registration (Select), Date of Confirmed HIV Test (mm/dd/yyyy), Source of Referral (Select), Enrollment Setting (Select), TB Status (Select), and Target Group (Select). At the bottom right of the form are "Save" and "Cancel" buttons, which are highlighted with a red box.

There are some logic conditions built on the patient registration and HIV enrollment form

8.4 HIV MODULE – NEW PATIENT DASHBOARD

This displays the dashboard of a patient yet to commence ART.

Some forms must be filled (**Figure 8.4**), for a patient who is yet to commence ART and is newly enrolled into HIV, also, the patient's biometric must be captured before filling the ART Commencement form. Forms required are the:

- Initial Evaluation
- ART Commencement
- Mental Health Screening: This is only available to key population (KP) patients.

Figure 8.4.

The screenshot shows the LAMISPlus HIV / Patient Dashboard for a patient named Amira Sani. The top navigation bar is highlighted with a red box and contains tabs for Home, Initial Evaluation, Art Commencement, Mental Health Screening, and History. The main dashboard area shows Amira Sani's profile: Patient ID: 324356, Gender: Female, Date Of Birth: 2005-06-15, Phone Number: 2347066449, Age: 17 year(s), and Address: null 16 Peace Street. Below the profile, there are three cards: "Recent Activities" (Visit Date: 25 Jan, 2023), "Laboratory Orders" (No Laboratory Test Order Yet), and "Refill Summary" (No Pharmacy Drug Refill). A message at the bottom right says "Activate Windows Go to Settings to activate Windows."

- The “History” tab is used to view the patient’s encounter history.

- The “**Back**” tab takes you back to the HIV dashboard.
- The “**Recent Activities**” tab displays the patient’s recent encounters documented.
- The “**Laboratory Order**” displays the lab orders and result documented for the client.
- The “**Refill Summary**” displays the list of patient’s drug prescription.

8.5 ADULT INITIAL CLINICAL EVELUATION

The Adult initial clinical evaluation form is the first form required to be filled.

- Select the “**Adult initial clinical evaluation**” form and fill the required information on each section (**Figure 8.5**).

Figure 8.5.

- After filling the Adult initial clinical evaluation form, select the ART commencement form and enter the required information (**Figure 8.5.1**).

Figure 8.5.1.

- For KP patients, the next form to be filled is the Mental health screening form.

Figure 8.5.2.

Mental Health Screening Form

Date of Observation *
01/01/2023

Have you ever been depressed for weeks at a time, lost interest, or pleasure in most activities, had trouble concentrating and making decisions, or thought about killing yourself ? *

Select

Have you ever had spells or attacks when you suddenly felt anxious, frightened, uneasy to the extent that you began sweating, your heart began to beat rapidly, you were shaking or trembling, your stomach was upset, you felt dizzy or unsteady, as if you would faint ? *

Select

Have you ever had nightmares or flashbacks because of being involved in some traumatic/terrible event? For example, domestic violence, rape, police raid or arrest, blackmail. *

Select

Have you used drugs other than those required for medical reasons? For example, cannabis, cocaine, stimulants, or narcotics (e.g., heroin). May equally ask about the abuse of alcohol and other local drugs or psychoactive substances. *

Select

Activate Windows
Go to Settings to activate Windows.

8.6 PATIENT ON TREATMENT

This displays the dashboard of a patient who is on treatment.

Figure 8.6.

HIV / Patient Dashboard

Amira Sani

Patient ID : 324356
Gender : Female
ART STATUS : HIV+ Not ART
Biometric Status : Not Captured

Date Of Birth : 2005-06-15
Phone Number : 2347066449
Age : 17 year(s)
Address : null 16 Peace Street

Recent Activities

Visit Date : 25 Jan, 2023 +
AC ART Commencement 2023-01-25
CE Clinical evaluation

Laboratory Orders

No Laboratory Test Order Yet

Refill Summary

No Pharmacy Drug Refill

Activate Windows
Go to Settings to activate Windows.

- Select the tabs to navigate the patient dashboard and fill the required forms.
- The “Back” tab takes you back to the HIV dashboard.

8.7 HIV MODULE – CARE CARD

The Care card is used to document patient's clinical encounter.

- The information on the left side of the screen (clinic follow-up visit) displays the patient's previous encounters.
- Enter the patient's encounter information on the form as seen in (**Figure 8.7**).

Figure 8.7.

The figure consists of two vertically stacked screenshots of the LAMISPlus HIV Patient Dashboard. Both screenshots show a left sidebar with navigation links for Dashboard, Patient, Triage, HTS, PrEP, HIV (which is highlighted with a red box), PMTCT, NDR, Report, Laboratory, Biometric Setup, and Administration. The top screenshot shows the 'Clinic Follow-up Visit' tab selected. It displays sections for Vital Signs (with a note 'No Vital Signs'), Consultation (with a note 'No Clinical Notes'), and Previous Clinical Notes (with a note 'No Clinical Notes'). The bottom screenshot shows the 'Laboratory' tab selected. It displays sections for ACR (with a note 'Select'), TB Screening (with a note 'Select'), ARV DRUGS Regimen (with a note 'Select'), and Lab & Viral Load Order (with a note 'Select...'). A red box highlights the 'Save' button at the bottom right of the laboratory section.

- Click the “**save**” button to save patient’s clinic encounter information.
- The “History tab” is used to view all the patient’s previous encounters.

8.8 HIV MODULE – LABORATORY

The Laboratory tab is divided into two sections – the “**Laboratory Order and Result**” and the “**Viral Load Order and Result**”

Figure 8.8.

This screenshot shows the 'Laboratory Order and Result' section of the HIV module. The left sidebar has a red box around the 'HIV' link. The main form includes fields for Sample Number (300000) and Select Test (GLUCOSE). It also includes Date Sample Collected (01/01/2023 10:01 PM), Date Result Received (01/02/2023 10:01 PM), Result (200), and Checked by (empty). Below this is a table with columns: Test Group, Test, Date Sample Collected, Date Result Received, and Result. One row shows Chemistry, GLUCOSE, 2023-01-01 23:01:00, 2023-01-02 12:01:00, and 200. At the bottom is a red box around the 'Save' button.

- Click the “**Laboratory**” tab to select the lab order and result or viral load order and result to fill in the appropriate lab order details.
- The form displayed in **(Figure 8.8)** above is the lab order and result form.
- Fill in the required lab order and result information and select “**Add**” button.
- Click “**Save**” to save lab order and result information.
- The “**History tab**” is used to view all the patient’s previous lab information documented.

8.9 HIV MODULE – VIRAL LOAD ORDER AND RESULT

- Select the “**Viral load order and result**” option under the Laboratory tab.
- Fill the viral load order information and save.
- Select the “**Has Result?**” checkbox to document the viral load result information.
- Select the “**Has PCR Lab Details?**” to document the PCR lab details if available.
- Select “**Save**” to save patient’s viral load.
- The “**History tab**” is used to view all the patient’s previous viral load information documented.

Figure 8.9.

The figure consists of two screenshots of a software application interface. Both screenshots have a dark blue header bar with the text "Welcome to: Orle Agege General Hospital" and "HIV Patient Dashboard". Below the header is a sidebar with icons for Dashboard, Patient, Stage, MTB, NTR, PACT, NDR, Report, Laboratory, Biomass Setup, and Administration. The main area is titled "Viral Load Order & Result".

Screenshot 1 (Top): This shows the initial form for entering a viral load order. It includes fields for "Laboratory Number" (dropdown), "Sample Number" (text input), "Sample Type" (dropdown), "Date Ordered" (text input), "Date Received" (text input), "Specimen Collected" (dropdown), "Specimen Collected by" (text input), "Specimen Collected date" (text input), "Specimen Collected time" (text input), "Specimen Collected location" (text input), and "Specimen Collected notes" (text area). A red box highlights the "Add Result" button at the bottom right of the form.

Screenshot 2 (Bottom): This shows the same form after data has been entered. The "Has Result?" checkbox is checked, and the "New PCR Submissions" button is highlighted with a red box. The rest of the form fields are filled with sample data.

8.10 HIV MODULE – PHARMACY

To document the patient's drug prescription, select the "Pharmacy" tab.

Figure 8.10.

The screenshot shows the LAMISPlus HIV Patient Dashboard. On the left sidebar, under the 'HIV' section, the 'Pharmacy' tab is highlighted with a red box. The main content area displays the 'Pharmacy Drug Refill' form. At the top right of the form, there is a 'Save' button. The form includes fields for Visit Type (Select), Refill (Select), Encounter Date (01/01/2023), Substitution/Switch (Select), Refill Period (days) (60), Date of Next Appointment (03/03/2023), DSD Model (Select), and DSD Model Type (Select).

- Fill in the drug prescription information(s).
- Select “Add” to add each drug information.

Figure 8.10.1.

The screenshot shows the LAMISPlus HIV Module. The left sidebar has the 'Pharmacy' tab selected. The main area displays a table of drug prescriptions. The first row shows an ART regimen: 'ART Regimen Line' (ART First line Adult) and 'Regimen' (AZT(300mg)+3TC(150mg)+NVP(200mg)). The second row shows an OI regimen: 'OI's' (Select) and 'Drugs' (Select). The third row shows a TB treatment: 'TB Treatment' (Select) and 'Drugs' (Select). Below the table is a summary table with columns: Regimen Drug, Frequency, Duration, Quantity Prescribed, and Quantity Dispensed. A single row is shown: AZT(300mg)+3TC(150mg)+NVP(200mg) with values 00, 60, 60, and 60. At the bottom left is a blue 'Save' button, which is highlighted with a red box.

- Select “Save” to save drug information.
- You can use the delete icon to delete a drug already added.

8.11 PHARMACY HISTORY

The History tab displays the patient's previous drug prescription(s).

- To view and update the drug information prescribed for the patient, select “Update” under the Actions button, and select delete to delete the drug prescription.

Figure 8.11.

The screenshot shows the LAMISPlus application interface for Orile Agege General Hospital. The left sidebar contains icons for various modules: Dashboard, Patient, Triage, HTS, PrEP, HIV, LIMS, PMTCT, NDR, Report, Laboratory, Biometric Setup, and a link to lamisplus.org/dashboard. The main header says "Welcome to : Orile Agege General Hospital". Below the header, a navigation bar includes Home, Care Card, Laboratory, Pharmacy (which is highlighted with a red box), EAC, Tracking Form, Intensive Follow Up, Transfer, Chronic Care, and History. Under the Pharmacy tab, there is a sub-section titled "Pharmacy Drug Refill" with a "History" tab highlighted with a red box. A table displays a single row of data: Visit Date (2023-01-25), Refill Period (15), Next Appointment (2023-02-09), Regimen Name (Ethambutol/Isoniazid), and an "Action" button with a dropdown menu containing "Update" and "Delete" options, also highlighted with a red box. At the bottom right, there is a message: "Activate Windows Go to Settings to activate Windows."

8.12 ENHANCED ADHERENCE COUNSELLING

The EAC is used to document patient's enhanced adherence counselling sessions for patients whose viral load result is greater than 1000.

- Select “Add session” tab to add an EAC session.

Figure 8.12.

The screenshot shows the LAMISPlus application interface for patient Amira Sani. The left sidebar has a red box around the "HIV" icon. The main header says "Welcome to : Orile Agege General Hospital". The patient profile for Amira Sani is shown, including Patient ID: 324356, Gender: Female, ART Status: HIV+ non ART, and Biometric Status: Not Capture. The patient's date of birth is 2005-06-15, phone number is 2347066449, age is 17 years, and address is null 16 Peace Street. The navigation bar includes Home, Care Card, Laboratory, Pharmacy, EAC (which is highlighted with a red box), Tracking Form, Intensive Follow Up, Transfer, Chronic Care, and History. Below the navigation bar, there are two buttons: "Add Session" and "Stop EAC", both highlighted with red boxes. A table displays the EAC session details: Follow Up Date (2023-01-25), Barriers (1 Barriers), Interventions (1 Interventions), Comment (Good), Status (FIRST EAC), and an "Action" button with a dropdown menu, also highlighted with a red box. At the bottom right, there is a message: "Activate Windows Go to Settings to activate Windows."

- Fill the EAC session information and save. The EAC session information is displayed on the EAC dashboard.
- The prompt for the next EAC session is made available after filling and saving each session form.
- Select “Back to EAC session” to go back to the EAC landing page.

Figure 8.12.1.

Welcome to : Orile Agege General Hospital

New EAC Session

Viral Load : 1005 Date of Viral Load : 2023-01-25 EAC Status: NOT COMMENCED

Session Date: mm/dd/yyyy Adherence: Select Any missed pharmacy drug pick-ups? Select

Barriers: Forgot Knowledge/beliefs, Side effects, Physical illness, Substance use, Depression

Intervention: Education, Counseling (ind), Counseling (grp), Peer support, Treatment buddy

Activate Windows
Go to Settings to activate Windows.

- To stop a patient's EAC service, select “Stop EAC”.

8.13 HIV MODULE – CERVICAL CANCER

The cervical cancer tab is only available for female clients.

- Select the “Cervical Cancer” tab to document the cervical cancer screening and treatment information for the client.

Figure 8.13

Welcome to : Ikot Abasi General Hospital

HIV / Patient Dashboard

Miranda Daniel

Patient ID: 5678 Gender: Female Date Of Birth: 1989-06-15 Phone Number: 2348409408 Age: 33 year(s)
Address: Block 21

Home Care Card Laboratory Pharmacy EAC Cervical Cancer Tracking Form Intensive Follow Up History

Cervical Cancer

Date of Screening * mm/dd/yyyy Screen Type

Screening Method Screening Result *

Save Cancel

- To save information documented, click on “Save”, and select “Back” to go back to the HIV module home page.

8.14 HIV MODULE – TRACKING FORM

The tracking form is used to document patient tracking information for the following categories of patient:

- Patient who missed appointment

- Patients who missed pharmacy refill
- Patients who have interrupted treatment
- Patients who require intensive follow up
- Fill the required information and select the “Add” button.

Figure 8.14.

The screenshot shows the "Client Tracking & Discontinuation Form" section of the LAMISPlus application. It includes fields for Date of Observation, Duration on ART, Reason for Tracking, Date of Last Actual Contact/Appointment, Date of Missed Scheduled Appointment, Attempted to Contact (Attempt Date, Who Attempted Contact, Mode of Contact, Person Contacted), Reason for Defaulting, Patient Care in Facility Discontinued, and a Save button.

- Click “Save” to save information.

8.15 HIV MODULE – INTENSIVE FOLLOW UP

Figure 8.15.

The screenshot shows the "Intensive Follow Up Form" section of the LAMISPlus application. It includes fields for Date of Observation, Attempted to Contact (Date of call, How do you feel generally, Do you have any of the following symptoms), Have you missed any doses of your medications in the past 7 days, Comment, Outcome of the call, Initials of the caller, and a Save button.

- Select the “Intensive follow-up” tab to fill the intensive follow-up form.
- Click “Save” to save the form.

8.16 HIV MODULE – CHRONIC CARE

Figure 8.16.

The screenshot shows the LAMISPlus HIV Chronic Care module. The top navigation bar includes links for Home, Care Card, Laboratory, Pharmacy, EAC, Tracking Form, Intensive Follow Up, Transfer, Chronic Care (which is highlighted with a red box), and History. The left sidebar lists various modules: Dashboard, Patient, HIV, HTS, PrEP, LIMS, PMTCT, Triage, NDR, Report, Laboratory, Biometric Setup, and Administration. The main content area is titled 'Chronic Care' and contains sections for Eligibility Assessment, Nutritional Status Assessment, Gender Based Violence Screening, Screening for Chronic Conditions, Positive Health Dignity and Prevention(PHDP), and Reproductive Intentions. Below these sections are fields for Visit Date (mm/dd/yyyy), Type Of Client (dropdown), Pregnancy/Breastfeeding Status (dropdown), ART Status (Pre-ART), and Current Clinical Status (WHO Staging) (dropdown). A note at the bottom right says 'Activate Windows Go to Settings to activate Windows.'

- The chronic care form is used to document the facility care and support checklist services provided to the patient.
- Select the chronic care tab on the patient dashboard menu and fill the forms appropriately in a succeeding step

8.17 HIV MODULE – HISTORY

- The History tab displays the list of patient encounters documented for the patient
- Each patient encounter can be viewed, edited, or deleted.

Figure 8.17.

The screenshot shows the LAMISPlus HIV Patient History module. The top navigation bar includes links for Home, Care Card, Laboratory, Pharmacy, EAC, Tracking Form, Intensive Follow Up, Transfer, Chronic Care (highlighted with a red box), and History. The left sidebar lists various modules: Dashboard, Patient, Triage, HTS, PrEP, HIV, PMTCT, NDR, Report, Laboratory, Biometric Setup, and Administration. The main content area shows a table of patient history encounters for 'David Cole'. The table has columns for Name, Encounter Date, and Action. The entries are: Client Tracker (2022-01-10), Pharmacy refill (2023-01-01), EAC (2022-12-14), Clinical evaluation (2022-01-01), and HIV Enrolment (2022-01-01). The 'Action' column for each row contains a purple 'Action' button with a dropdown arrow. A red box highlights the 'History' tab in the top navigation bar, and another red box highlights the 'Action' button in the table row for the HIV Enrolment entry.

- On each form, select the “Action” tab to view, edit or delete each patient encounter.

9. LIMS

To navigate the Laboratory Information Management System (LIMS) module, select LIMS on the menu pane. The LIMS dashboard displays the list of manifests created.

Figure 9.

The screenshot shows the LAMISPlus LIMS dashboard for Orile Agege General Hospital. On the left, a sidebar menu lists various modules: Dashboard, Patient, HIV, HTS, PrEP, LIMS (which is highlighted with a red box), PMTCT, Triage, NDR, Report, Laboratory, Biometric Setup, and Administration. The main content area is titled "Welcome to : Orile Agege General Hospital" and shows a table of "Previous Manifests". The table columns include Manifest Id, Pickup Date, Created Date, Receiving Lab, Packaged By, Total Samples, Total Results, Status, and Action. A single row is visible with the following data: XxYNikLvpEo/2023-01-26/040938, 2023-01-01 10:09, 2023-01-26 04:09:38.356, NRL, Grace, 2, 0, Submitted. The "Action" column for this row contains three options: "VIEW" (with a dropdown arrow), "Results" (with a blue icon), and "Add RSL Result" (with a green icon). A red box highlights the "VIEW" button and its dropdown.

- To view the details of the manifest, select “View” under the action.
- To view result auto populated from the LIMS server, select “Results”, a redirected page is displayed to view the results from the LIMS server.
- To document sample results, select “Add Result”, and a redirected page is displayed to document the sample result.

9.1 VIEW RESULT FROM LIMS

This displays the results auto populated from the LIMS server.

- To manually add a result, select the “Add Result” button at the top of the screen, a pop-up page is displayed as seen in the figure below.

Figure 9.1.

The screenshot shows the "PCR Sample Results" page within the LAMISPlus LIMS module. The top navigation bar includes "Guest Guest" and buttons for "+ ADD RESULT", "REFRESH", and "BACK HOME" (highlighted with a red box). The main content area is titled "PCR Sample Results" and "NISR SAMPLE RESULTS". It displays a table with columns: ManifestID, Facility Name, Facility Id, Test Type, Receiving Lab Name, Receiving Lab Number, Sample ID, Approval Date, Date Result Dispatched, PCR Sample Number, Sample Status, Sample Testable, Test Result, and Print. The "ManifestID" column shows XxYNikLvpEo/2023-01-26/040938, "Facility Name" shows Orile Agege General Hospital, "Facility Id" shows XxYNikLvpEo, "Test Type" shows Viral Load, "Receiving Lab Name" shows NRL, and "Receiving Lab Number" shows LIMSI50002. A message at the bottom says "Please Wait, Syncing with LIMS server...". The footer indicates "LAMISPlus 2.0 Wednesday, Jun 26, 2023".

Figure 9.1.1.

Date Result Dispatched *

Date Sample Received at PCR Lab *

Sample ID *

Approved By*

Sample Status *

Assay Date *

Test result *

Sample Testable *

Approval Date *

Pcr Lab Sample No *

Test By *

Result Date *

- You can refresh the page using the refresh button and print the result using the print function.
- Enter the result and save.

9.2 LIMS REMOTE SAMPLE LOGIN

To login samples to LIMS server remotely, select the “**Add result**” under Actions on the Manifest list.

A redirected page is displayed as seen below.

Figure 9.2.

Welcome to : Orile Agege General Hospital

Basic Manifest Information

Manifest Id: XmhkVp6n/2023-01-26/040938 Test Type: Viral Load

Facility: Orile Agege General Hospital Facility ID: XmhkVp6a Receiving Facility: NIL Receiving Facility ID: LMS160002

PCR Sample Details

Sample ID *: Select Sample Id Sample Testable *: Is Sample Testable ? Sample Status *: Select Sample status Assay Date *: mm/dd/yyyy

Transfer Status: Select transfer status Reason Not Tested: What is the reasons not tested? Approved By*: approvellyy Approval Date *: mm/dd/yyyy

Date sample at PCR Lab *: mm/dd/yyyy Date Result Dispatched *: mm/dd/yyyy Pcr Lab Sample No *: Pcr Lab Sample Number

Result Date *: mm/dd/yyyy Test result *: Test result

- Fill in the sample details and save.
- You can add more sample information and remove a sample documented using the “Add More” tab and “Remove PCR Sample” tab

9.3 CREATE MANIFEST

- Viral load samples collected and documented from the HIV module (Laboratory – Viral Load Order and Result) are populated on the LIMS for manifest generation.
- To create a manifest, select the samples collected that will be batched to each manifest.

Figure 9.3.

The screenshot shows the LAMISPlus software interface for 'Orile Agege General Hospital'. The left sidebar has a red box around the 'LIMS' icon. The main header says 'Welcome to : Orile Agege General Hospital'. Below it, there are tabs: 'Manifest List', 'Create Manifest' (which is highlighted with a red box), 'Samples Tracker', and 'Configuration'. A sub-header says 'Select Collected Samples'. There are buttons for 'Complete & Send Manifest Form', 'Print Manifest', 'PREVIOUS PAGE', and 'NEXT PAGE'. Below these are fields for 'Start Date' and 'End Date'. A table titled 'Sample Collection List' with columns: Type code, Hospital ID, First Name, Surname, Sex, DOB, Age, Test Type, Sample ID, Sample Type, Sample Orderby, Orderby Date, Collected By, and Date Collected. A message at the bottom says 'No records to display'.

- You can select a time frame using the start and end date to display the samples documented within the select dates.
- The manifest creation process is highlighted as you take each step.

9.4 LIMS CONFIGURATION

The LIMS configuration lets you configure the integration settings to the LIMS server to enable the integration of lab sample data from the EMR to LIMS server.

Figure 9.4.

The screenshot shows the LAMISPlus software interface for 'Orile Agege General Hospital'. The left sidebar has a red box around the 'LIMS' icon. The main header says 'Welcome to : Orile Agege General Hospital'. Below it, there are tabs: 'Manifest List', 'Create Manifest', 'Samples Tracker', and 'Configuration' (which is highlighted with a red box). A sub-header says 'LIMS Configuration Details'. There are input fields for 'Server Name' (with placeholder 'Select Configuration Server'), 'URL' (with placeholder 'Server URL'), 'Email' (with placeholder 'E-Mail'), and 'Password' (with placeholder 'configuration password'). To the right is a table with columns: S/N, Server Name, URL, Email, and Actions. One row is shown with S/N 4, Server Name 'Demo Server', URL 'https://lims.ng/epidemo/', Email 'lomistest2@lims.ng', and a red delete button in the Actions column. At the bottom is a blue 'SAVE' button with a red box around it.

- Enter the configuration details supplied and save.
- Use the delete button to delete a configuration setup.

10. PMTCT Module

To navigate the PMTCT module, click on "PMTCT" on the menu panel.

Figure 10.



10.1 FIND PATIENTS AND ACTIVE ANC PATIENTS

- To find a registered patient, click on the search bar and input the name or hospital number of the patient, possible matches will then be displayed. (Figure 10.1).
- The "Active ANC patients" tab displays the list of patients who are active on antenatal care (ANC). There is also the "Find Patient" feature on this tab to enable patients to be found faster.

Figure 10.1.

The screenshot shows the PMTCT module's 'Find Patients' tab. The sidebar on the left has the PMTCT module selected. The main area has three tabs: 'Find Patients' (highlighted with a red box), 'Active ANC Patients', and 'Data Visualisation'. Below the tabs is a search bar with the placeholder 'Find Patient' and a magnifying glass icon. A table lists five patient records:

Patient Name	Hospital Number	Sex	Age	Actions
Ugo Vee	22222	Female	23 year(s)	<button>ENROLL PATIENT</button>
Martha Louis	00901	Female	22 year(s)	<button>ENROLL PATIENT</button>
Demo Demo Demo	7383638373	Female	30 year(s)	<button>ENROLL PATIENT</button>
Joyce Richie	00901	Female	33 year(s)	<button>ENROLL PATIENT</button>

- The “Data visualization” tab displays patient charts for some reporting indicators.

Figure 10.1.1.

The screenshot shows the LAMISPlus interface for the PMTCT module. The left sidebar has a red box around the 'PMTCT' icon. The main content area is titled 'Welcome to : Orile Agege General Hospital' and 'PMTCT'. It features tabs for 'Find Patients', 'Active ANC Patients' (which is highlighted with a red box), and 'Data Visualisation'. Below these tabs is a search bar with 'Find Patient' and 'Search' buttons. A table lists two patients: Joyce Madun (Hospital Number 000190, Female, 22) and Baba Baba (Hospital Number 097543456, Female, 14). Each patient row has a 'PATIENT DASHBOARD' button.

10.2 PMTCT ENROLLMENT

To enroll a patient into PMTCT, go to the PMTCT landing page and select "**Enroll Patient**" of a patient.

Figure 10.2.

This screenshot is similar to the one above, but the 'ENROLL PATIENT' button for each patient in the list is highlighted with a red box. The patients listed are Ugo Vee, Martha Louis, Demo Demo Demo, and Joyce Richie, all female, with ages ranging from 22 to 33 years.

- Fill in ALL required fields on the form and select "**Save**" to save the form or "**Cancel**" to delete the entries on the form, (Figure 10.2.1).

Figure 10.2.1.

This screenshot shows the 'ANC Enrollment' form. The left sidebar has a red box around the 'PMTCT' icon. The form fields include:

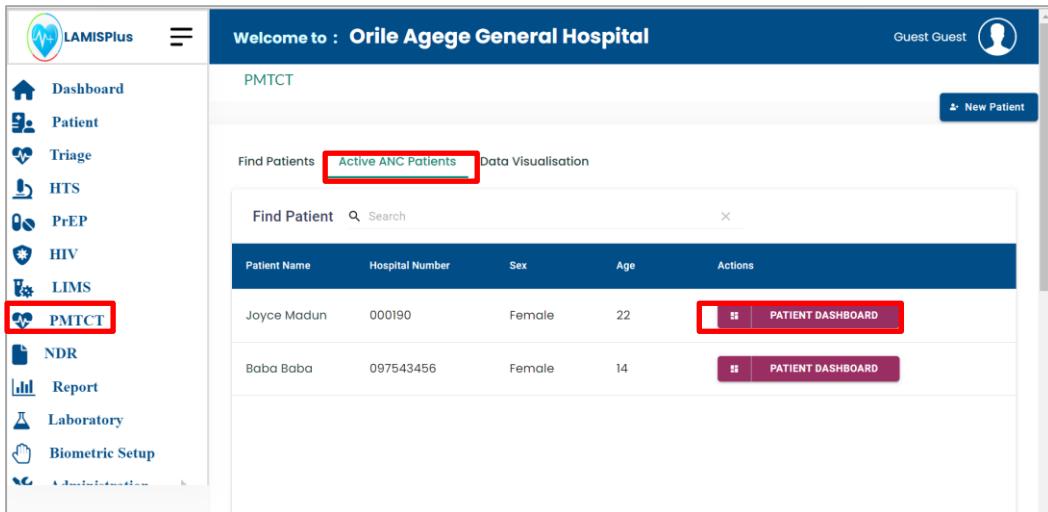
- ANC No * (text input)
- Date of Enrollment * (date input)
- Gravida * (text input)
- Parity * (text input)
- Date Of Last Menstrual Period * (date input)
- Gestational Age (Weeks) * (text input)
- Source of Referral * (dropdown menu)
- Tested for syphilis * (dropdown menu)
- Syphilis test result * (dropdown menu)
- Treated for syphilis (penicillin) * (dropdown menu)
- Referred Syphilis +ve client * (dropdown menu)

 At the bottom are 'Save' and 'Cancel' buttons, with the 'Save' button highlighted with a red box.

10.3 PATIENT DASHBOARD

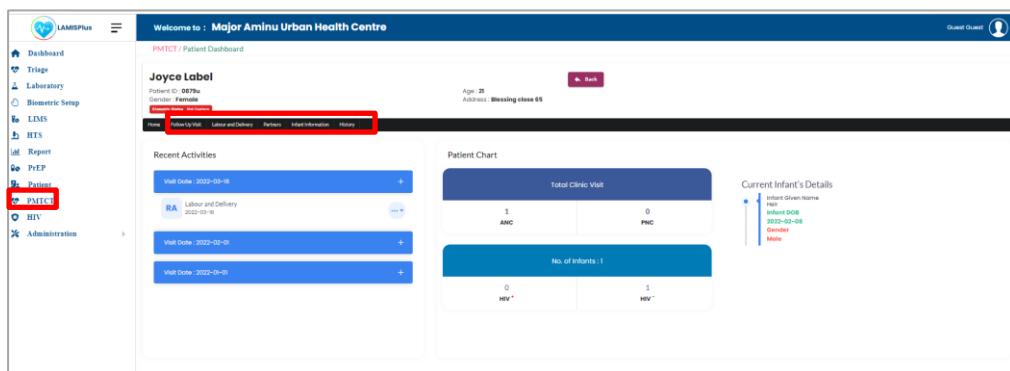
The patient dashboard can be navigated by selecting the "Patient Dashboard" on the "Active ANC patient" tab.

Figure 10.3.



- The patient dashboard has several forms such as the Follow-up Visit, Labour and Delivery, Partners, Infant information, PMTCT-HTS, and History (Figure 10.3.1)

Figure 10.3.1.



10.4 PMTCT – FOLLOW UP VISIT

- The mother follow-up visit is as shown (**Figure 10.4**). Fill the sections of the form and save the form.
- Child follow-up visit is also shown. Also fill the sections of the form and save.

Figure 10.4.

The screenshot shows the LAMISPlus software interface for a patient named Joyce Madun. The left sidebar has a red box around the 'PMTCT' icon. The main header says 'Welcome to : Orile Agege General Hospital'. Below it, the patient's name 'Joyce Madun' is displayed along with her ID (000190), gender (Female), and biometric status (Not Capture). Her age is listed as 22 and address as Block 10. The navigation bar includes 'Home', 'FollowUpVisit' (which is highlighted with a red box), 'Labour and Delivery', 'Partners', 'Infant Information', 'PMTCT HTS', and 'History'. Below the navigation bar are two buttons: 'MOTHER FOLLOW UP VISIT' and 'CHILD FOLLOW UP VISIT', both of which are highlighted with red boxes. The main content area is titled 'Mother Follow-up Visit' and contains a 'VITAL SIGNS' section with fields for Date of Visit (mm/dd/yyyy), Point of Entry (Select), FP Counselling (Select), and FP Method (Select).

10.5 PMTCT – Labour and Delivery

Document the Labour and delivery form, fill all necessary fields, and save form (**Figure10.5**).

Figure 10.5.

The screenshot shows the LAMISPlus software interface for a patient named Joyce Madun. The left sidebar has a red box around the 'PMTCT' icon. The main header says 'Welcome to : Orile Agege General Hospital'. Below it, the patient's name 'Joyce Madun' is displayed along with her ID (000190), gender (Female), and biometric status (Not Capture). Her age is listed as 22 and address as Block 10. The navigation bar includes 'Home', 'FollowUpVisit', 'Labour and Delivery' (which is highlighted with a red box), 'Partners', 'Infant Information', 'PMTCT HTS', and 'History'. Below the navigation bar is a section titled 'labour and Delivery' with fields for ANC ID (3333), Date of Delivery (mm/dd/yyyy), ROM to Delivery Interval, Episiotomy, Booking Status (Select), Gestational Age (weeks), Mode of Delivery (Select), and a note indicating 'Vaginal Tear'.

10.6 PMTCT – PARTNERS

- To register a new partner, select "New partner" in the partner tab (Figure 10.6) to display the form.

Figure 10.6.

The screenshot shows the LAMISPlus software interface for Orile Agege General Hospital. The left sidebar has a 'PMTCT' icon highlighted with a red box. The main content area displays a patient profile for 'Joyce Madun' (Patient ID: 000190, Female). The 'Partners' tab is selected and highlighted with a red box. A 'New Partner' button is visible at the bottom right of the main content area.

- Fill in all required fields and save the form.

Figure 10.6.1.

The screenshot shows the 'New Partner' form in the LAMISPlus software. The 'PMTCT' icon in the sidebar is highlighted with a red box. The form contains fields for Partner age (3033), Pre-test counseled (dropdown menu), Partner accepts HIV test (dropdown menu), Post-test counseled/received test result (dropdown menu), HBV status (dropdown menu), HCV status (dropdown menu), Syphilis status (dropdown menu), and Referred To (dropdown menu). At the bottom are 'Save' and 'Cancel' buttons, with the 'Save' button highlighted with a red box.

The partners registered populates on the "List of Partners" page.

10.7 PMTCT – INFANT INFORMATION

To register HIV-exposed infant information, select "New Infant" on the infant information. Fill in all required fields on the form and save (Figures 10.7 and 10.7.1).

Figure 10.7.

The screenshot shows the 'Infant Information' tab selected in the LAMISPlus software. The 'PMTCT' icon in the sidebar is highlighted with a red box. The main content area displays a patient profile for 'Joyce Madun' (Patient ID: 000190, Female). The 'Infant Information' tab is selected and highlighted with a red box. A 'New Infant' button is visible at the bottom right of the main content area.

Figure 10.7.1.

- Infants registered will automatically display on the "list of patients" page.

10.8 PMTCT – HTS

The PMTCT – HTS tab displays the cascade for HIV testing.

Figure 10.8.

- The Risk stratification form must be filled before filling the HIV counselling and testing forms.

10.9 PMTCT – HISTORY

The History tab displays the forms that have been filled and saved.

- Forms can be viewed, edited, searched, and deleted on the "History" tab.

Figure 10.9.

The screenshot shows the LAMISPlus software interface for Orile Agege General Hospital. The left sidebar contains icons for various modules: Dashboard, Patient, Triage, HTS, PrEP, HIV, LIMS, PMTCT (highlighted with a red box), NDR, Report, Laboratory, Biometric Setup, and Administration. The main content area has a header 'Welcome to : Orile Agege General Hospital' and a sub-header 'Patient History'. Below this is a search bar and a table with columns 'Description', 'Encounter Date', and 'Actions'. A message at the bottom says 'No records to display'.

11. NDR

The NDR module is used to generate XML file for upload to the National Data Repository (NDR).

- Select the facility checkbox you intend to generate the XML file.

Figure 11.

The screenshot shows the LAMISPlus software interface for Orile Agege General Hospital. The left sidebar contains icons for various modules: Dashboard, Patient, Triage, HTS, PrEP, HIV, LIMS, PMTCT, NDR (highlighted with a red box), Report, Laboratory, Biometric Setup, and Administration. The main content area has a header 'Welcome to : Orile Agege General Hospital' and a sub-header 'GENERATE MESSAGES' and 'DOWNLOAD FILES'. Below this is a button labeled 'Generate Messages' (highlighted with a red box). A message box says 'Info: Please check the Facilities you want' with a checkbox next to 'Orile Agege General Hospital' which is checked (highlighted with a red box). A message at the bottom right says 'Activate Windows Go to Settings to activate Windows.'

- Select “Generate Message” to generate the XML file

Figure 11.1.

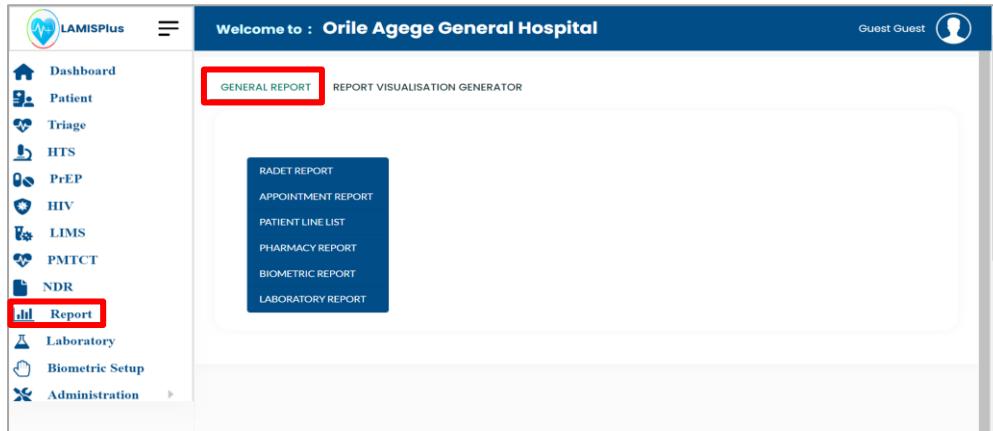
The screenshot shows the LAMISPlus software interface for Orile Agege General Hospital. The left sidebar contains icons for various modules: Dashboard, Patient, Triage, HTS, PrEP, HIV, LIMS, PMTCT, NDR (highlighted with a red box), Report, Laboratory, Biometric Setup, and Administration. The main content area has a header 'Welcome to : Orile Agege General Hospital' and a sub-header 'GENERATE MESSAGES' and 'DOWNLOAD FILES'. Below this is a table titled 'List of Files Generated' with columns 'Facility Name', 'Number of Files Generated', 'File Name', 'Date Last Generated', and 'Action'. Two rows are shown: one for 'Orile Agege General Hospital' with 564 files and another for 'Orile Agege General Hospital' with 3 files. To the right of the table is a blue cloud icon with a white arrow pointing up. A message at the bottom right says 'Activate Windows Go to Settings to activate Windows.'

- To view the XML file generated, select “**Download Files**” and the xml files generated is available for download.

12. REPORT

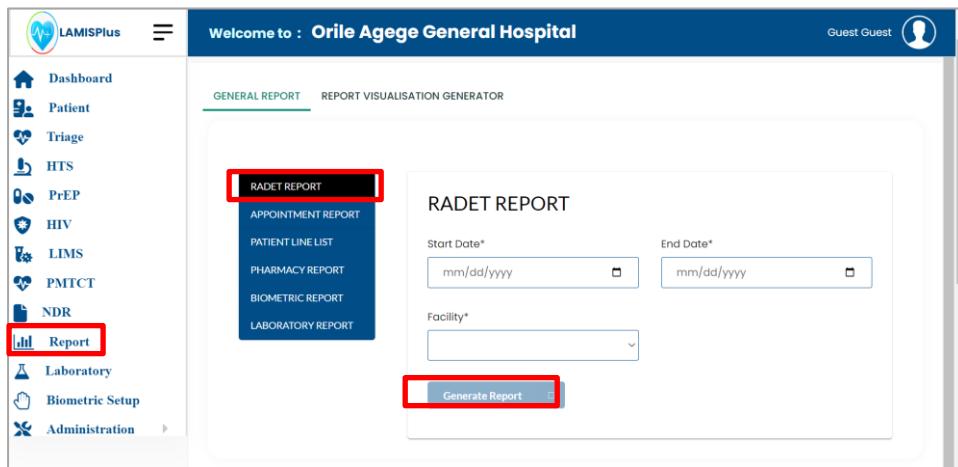
- To navigate the report module, select “**Report**” on the Menu pane.
- A list of report available is displayed on the screen as seen below.

Figure 12.



- Select the report you intend to generate.

Figure 12.0.



- Select the required field to generate the report in the desired format.

12.1 REPORT VISUALIZATION

- This lets you generate data visualizations for different data sets in different format
- Select the Data Category, Data Element, the Chart Type, and other required parameters.

Figure 12.1.



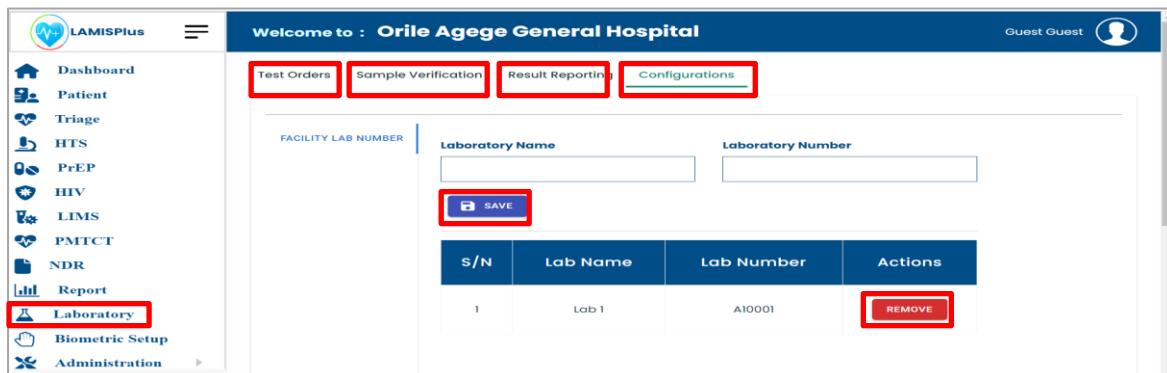
- Select “Generate Chart Report”.

13. Laboratory Module

The Laboratory module is a standalone module used for the documentation of other laboratory services for a patient in the facility.

- To access the laboratory module, select “**Laboratory**” on the menu page, and the below above is displayed.
- The Lab configuration is used to set up Facility labs. This support creation of lab numbers/IDs for facilities who have more than one lab.

Figure 13.



- On the configuration page, enter the facility Lab name and number and save.
- This will enable you select lab information when documenting lab sample collection process.
- The Test order tab is used to view lab test ordered.
- The Sample verification page is used to verify samples collected.
- The Result reporting page is used to view and document the lab sample results.
- You can delete labs that have been configured by selecting the “**REMOVE**” button.

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