



*Accelerating  
the digital transformation  
of the Health sector in the Américas*

# **ALL-IN-ONE** Telehealth Platform for the Americas

Admin manual

**PAHO**



Pan American  
Health  
Organization



World Health  
Organization

Americas Region



# **ALL-IN-ONE**

## Telehealth Platform for the Americas

Admin manual

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# 1. Introduction

**All In One Telehealth Platform For The Americas** is a platform developed by the Pan American Health Organization (PAHO) with the aim of implementing a digital public good for Latin America and the Caribbean countries. It focuses on the electronic clinical record and telehealth modules, with the purpose of being an integrated information system that promotes equitable access to healthcare services.

The implementation of a digital public good such as this platform seeks to facilitate access to healthcare for people and communities who may otherwise face difficulties. The platform is composed of applications designed to be easily implemented and scaled, adapting to different countries and contexts, and being interoperable with common systems used in the health field. To achieve this, open source components are used that respond to the needs of countries and provide multiple benefits.

## 1.1 Overview

The **All In One Telehealth Platform For The Americas** platform aims to improve care and patient follow-up, especially those with non-communicable diseases (NCDs). These diseases, such as cancer, cardiovascular diseases, diabetes, and chronic lung diseases, represent the leading cause of death and disability worldwide, being responsible for 71% of all deaths globally. In the Americas Region, around 5.5 million deaths related to NCDs are recorded.

Due to the chronic nature of these diseases, continuous care and adequate follow-up is needed. In this regard, the platform provides tools that help patients with this type of pathology to manage and control their disease effectively. In addition, it allows health professionals in remote areas to perform an **advanced triage** to assess and refer patients to an appropriate health center, thus avoiding unnecessary travel.

The **All In One Telehealth Platform For The Americas** platform was developed in 2022 with the financial support of the United States Government and is currently in the testing phase in several countries in the region. Its implementation seeks to improve the quality of healthcare, promote equity in access to healthcare services, and provide more effective care to the people and communities of Latin America and the Caribbean.





## 2. Open Source Components. Definition and advantages.

Open source components are software whose source code is publicly available and can be freely modified, distributed and used. This type of development is characterized by being free, available to the general public, modifiable according to the specific needs of users and transparent by publishing its source code. Additionally, the open source approach promotes collaboration and knowledge sharing between developers and the user community, which leads to greater flexibility, innovation and continuous product improvement.

Open source solutions allow for greater customization and adaptability to the specific needs of each country. Developers can modify and adjust the source code to adapt the solutions to local requirements, which facilitates the implementation of healthcare systems that fit the particularities and specific requirements.

In addition, the open source approach encourages collaboration and contribution from the developer community. Experts from various fields can work together to improve and expand the functionality of the solutions, correct errors, and share best practices. This leads to continuous improvement of the solutions and to a higher quality of healthcare provided.

Another important benefit of using open source solutions is transparency and security. When the source codes are available, specialists can analyze them, identify vulnerabilities and perform security audits. This provides greater confidence in the integrity and security of the data and systems used in healthcare.

The **All In One Telehealth Platform For The Americas** platform is based on OpenEMR and Jitsi Meet as open source solutions.

OpenEMR is a widely used electronic medical record (EMR) platform that provides a comprehensive solution for managing medical records, scheduling appointments and other clinical functions. OpenEMR allows customization and adaptation to the specific requirements of each country.

Jitsi Meet is a communication and video conferencing platform that is particularly relevant for telehealth, as it allows for online medical consultations, medical conferences and remote collaboration between healthcare professionals. Both solutions are easy to use, scalable and offer security options suitable for medical environments.

The choice of these open source solutions is based on their ability to integrate with the platform, their wide adoption, and the trust in their functionality, security, and scalability. The implementation of the **All In One Telehealth Platform For The Americas** platform with open source components strengthens its flexibility, adaptability, transparency, and collaboration contributing to improve healthcare and promoting equitable access to healthcare services.



## 3. Using the system

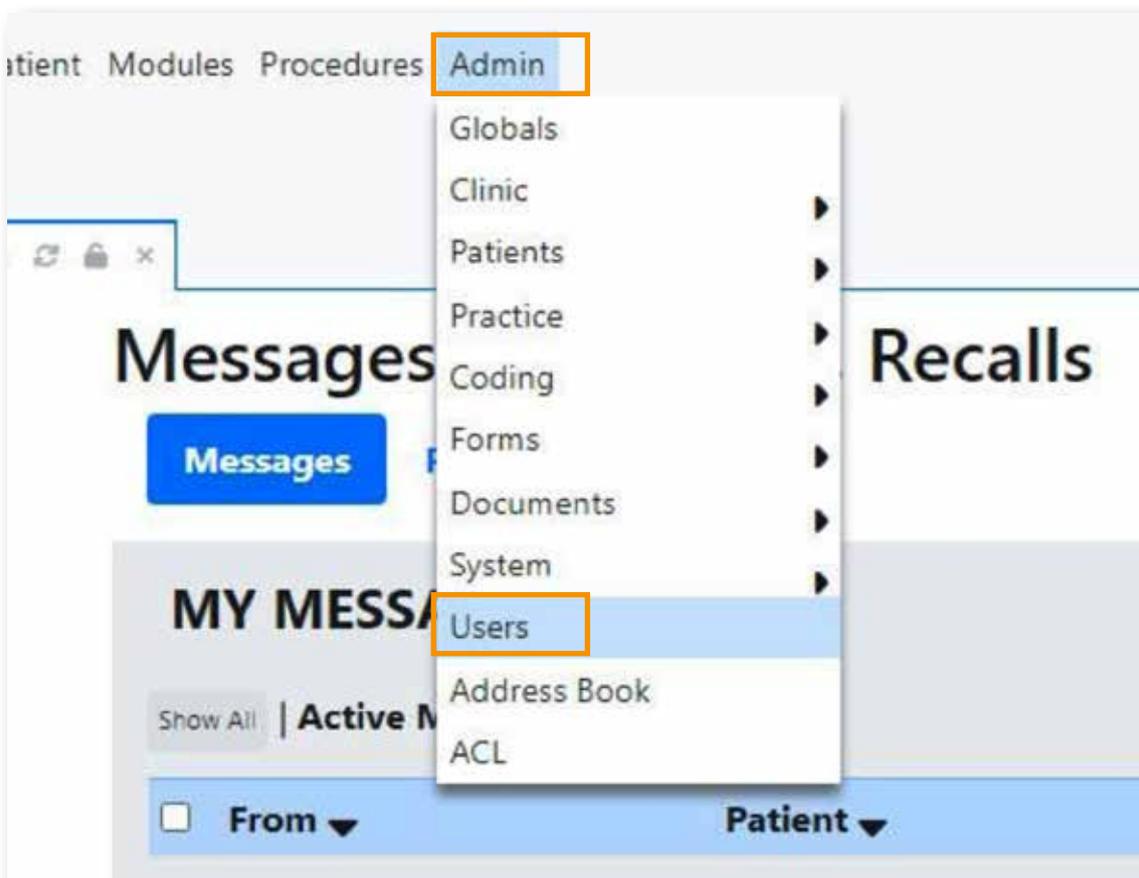
The following section contains all the information needed to use the **All-in-One Telehealth Platform for the Americas** effectively.

### 3.1 Create user

To register a user on the **All In One Telehealth Platform For The Americas** platform, the following steps must be followed:

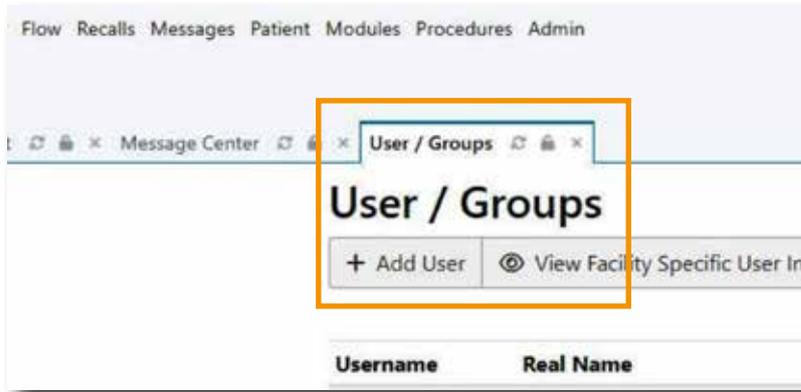
- A. In the upper banner, click on the **Admin** option.
- B. Select **Users** and click on it.

● **Figure 1.** Create user menu.



C. Select the **Add user** button to start the process of creating a new user.

● **Figure 2.** Add user.

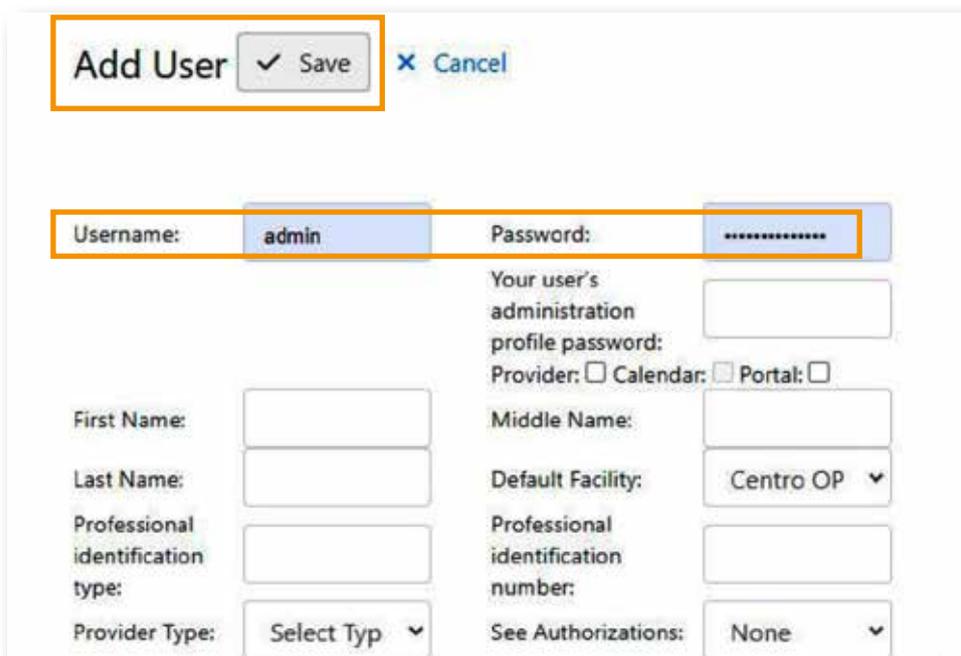


D. Fill in all applicable user details in the fields provided. This includes the access profile and password that must meet the minimum requirements (contain at least one number, one lowercase letter, one uppercase letter, and one special character), among others.

E. In the **user password** field, the password with which the platform was accessed must be completed.

F. Having filled in all the fields, you need to click **Save** to create the user. This will end the registration process and the user will be registered on the platform with the specified data and access profile.

● **Figure 3.** Create user form.

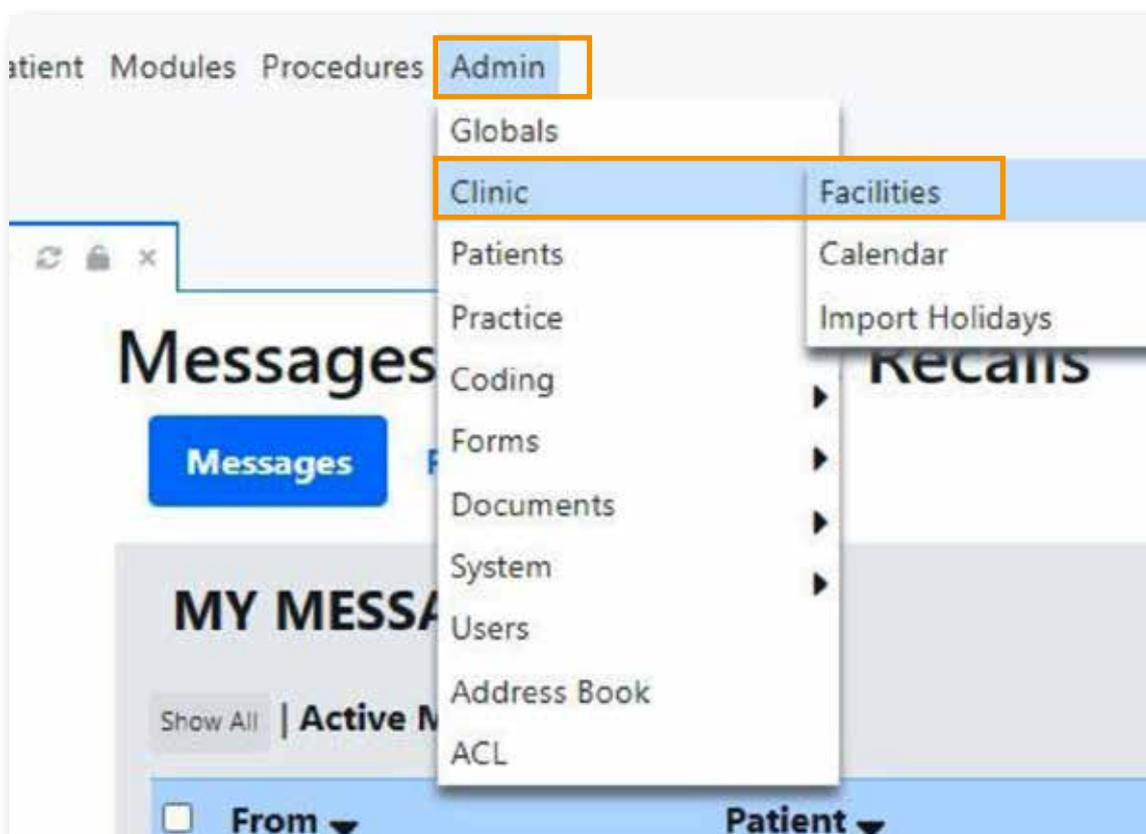
A screenshot of a 'Create user form' dialog box. At the top, there are three buttons: 'Add User', 'Save', and 'Cancel'. The 'Add User' button is highlighted with an orange rectangular box. Below the buttons, there are several input fields. The 'Username' field contains the text 'admin' and is highlighted with an orange rectangular box. The 'Password' field contains a series of dots. Below these fields, there are several other fields: 'Your user's administration profile password:', 'Provider:  Calendar:  Portal: ', 'First Name:', 'Middle Name:', 'Last Name:', 'Default Facility:' (with a dropdown menu showing 'Centro OP'), 'Professional identification type:', 'Professional identification number:', 'Provider Type:' (with a dropdown menu showing 'Select Typ'), and 'See Authorizations:' (with a dropdown menu showing 'None').

## 3.2 Create facilities

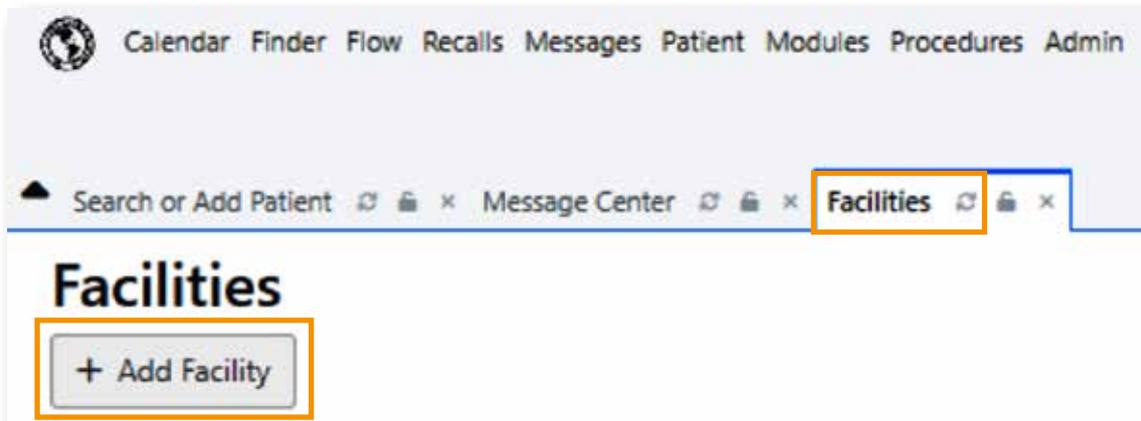
To create facilities on the **All-in-One Telehealth Platform for the Americas** platform, the following steps must be followed:

1. On the top banner, click on the **Admin** option.
2. Next select **Clinic and then Facilities**.
3. Click on **+ Add Facilities** in which a popup window is generated. Complete the fields as appropriate.

● **Figure 4.** Add facilities.



● **Figure 5.** Add facility.



● **Figure 6.** Add facility form

A screenshot of the 'Add Facility' form. The form title is 'Add Facility'. At the top left, there are two buttons: 'Save' (with a checkmark icon) and 'Cancel' (with an 'X' icon). The 'Save' button is highlighted with an orange box. The form contains several input fields arranged in two columns. The left column includes: Name\*, Address, City, State, Country, Website, IBAN, Billing Location (checkbox), Accepts Assignment (checkbox, with subtext 'only if billing location'), and Service Location (checkbox). The right column includes: Phone, Fax, Zip Code, Tax ID (with a dropdown menu showing 'EIN'), Facility NPI, Facility Taxonomy, Email, Billing Attr, and Facility ID.

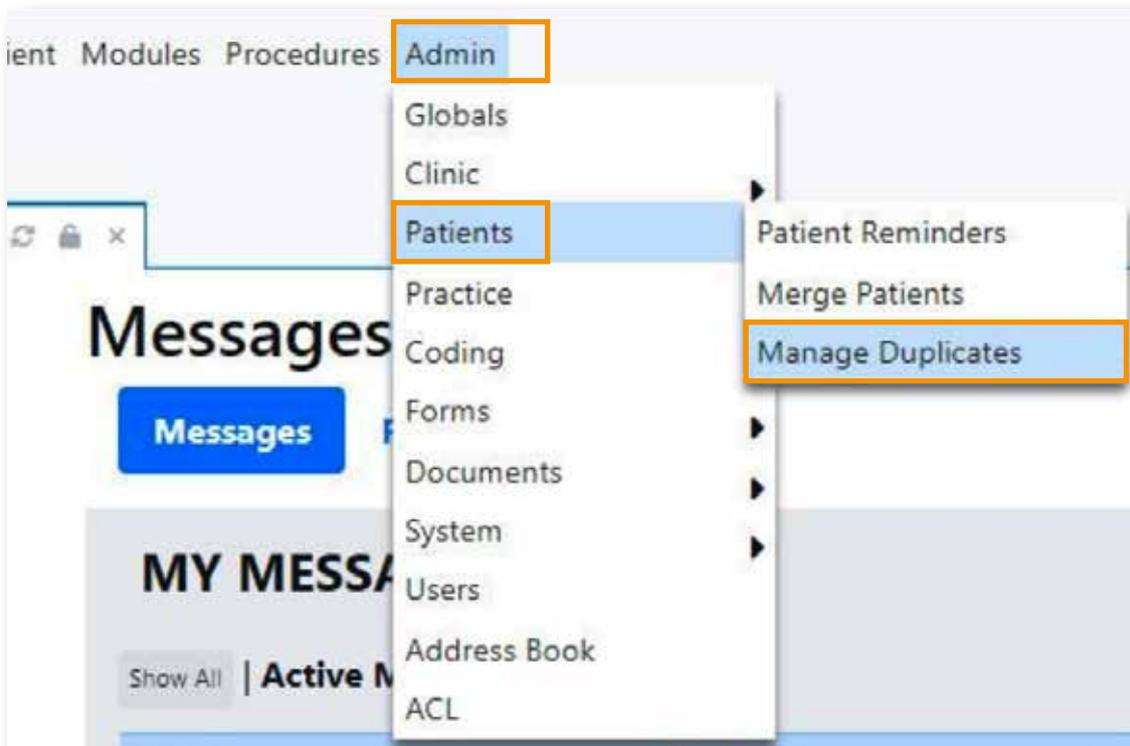
4. **Save.** And the installation will be displayed in the calendar.

### 3.3 Manage Duplicates

To view possible duplicate patients on the **All In One Telehealth Platform For The Americas** platform, follow these steps:

- A. In the top banner, click on the **Administrative** option
- B. Select “Patients” and then **Manage Duplicates**. Click on it.

● **Figure 7.** Manage duplicates Menu



- C. In the same place, you will see the **management of duplicate patients**, where you can select options to merge the patients.

● **Figure 8.** Duplicate Patient Management

A screenshot of a web application interface showing a table titled 'Duplicate Patient Management'. The table has columns for 'Actions', 'Score', 'Pid', 'ID', 'Name', 'DOB', 'SSN', 'Email', 'Telephone', 'Registered', 'Home Facility', and 'Address'. There are two rows of data, both with a score of 14 and a name of 'Prueba1, Prueba'. The first row has a Pid of 7 and an ID of 7, and the second row has a Pid of 6 and an ID of 6. Both rows have a DOB of 06/09/2023 and a Registered date of 06/09/2023. There are 'Refresh' and 'Print' buttons above the table.

Actions	Score	Pid	ID	Name	DOB	SSN	Email	Telephone	Registered	Home Facility	Address
▼	14	7	7	Prueba1, Prueba	06/09/2023				06/09/2023		
▼	14	6	6	Prueba1, Prueba	06/09/2023				06/09/2023		

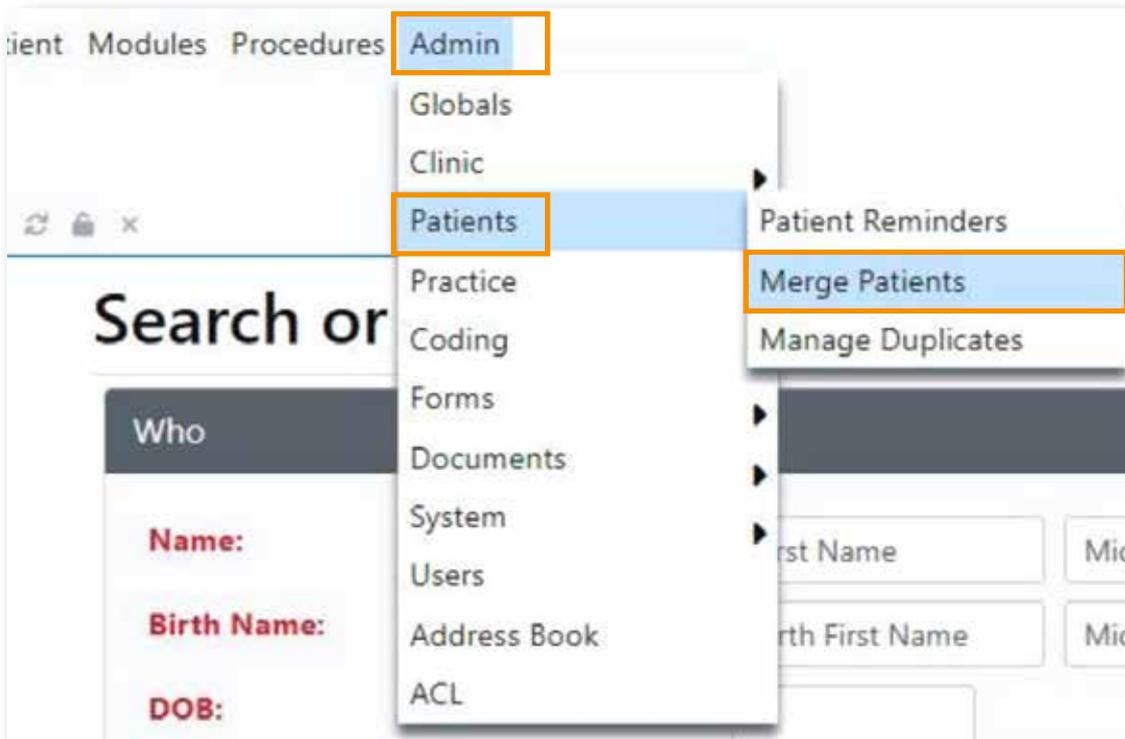
- D. If you select **Merge Patients**, continue with the following steps described in the next point.

### 3.4 Merge Patients

To merge patients in the **All In One Telehealth Platform For The Americas** platform, follow these steps:

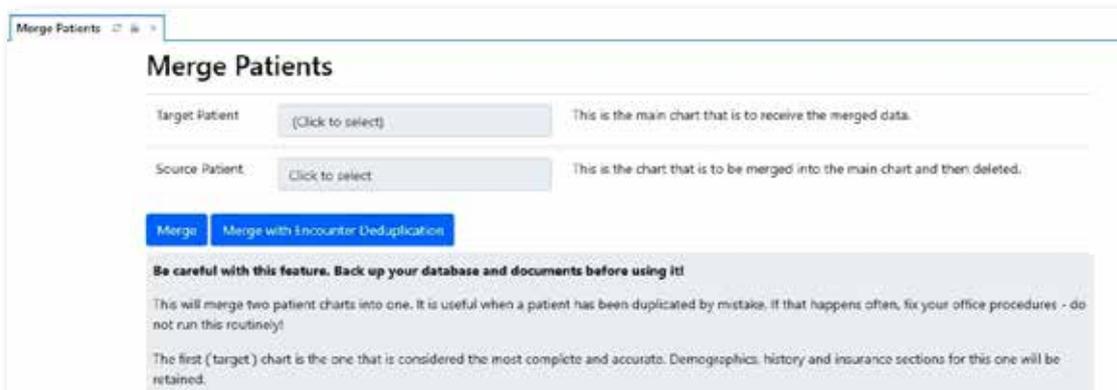
- A. In the top banner, click on the **Administrative** option.
- B. Select "Patients" and then **Merge Patient**. Click on it.

● **Figure 9.** Merge Patients Menu.

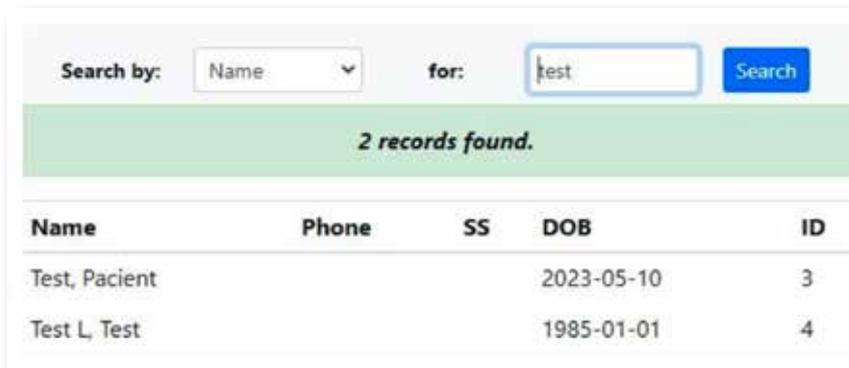


- C. You will see the **Merge Patients** screen. You must click on the target patient and the source patient, which will display a patient search pop-up.

● **Figure 10.** Merge Patients



● **Figure 11.** Duplicate Patients Finder.



D. Then click on **Merge** and the patients will be merged. Keep in mind that this should not be a routine task, only in case of duplication and verify that it corresponds to the same patient, because it will merge the medical records of the selected patients.

### 3.5 Create forms

To create forms on the **All in One Telehealth Platform For The Americas** platform, the following steps must be followed:

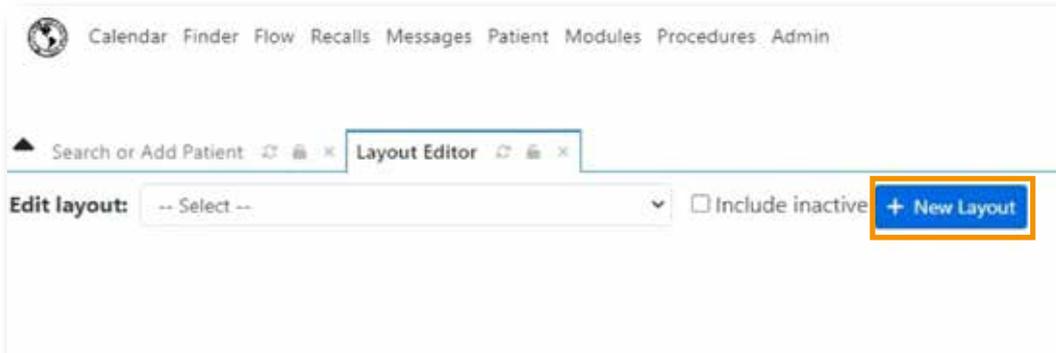
1. In the upper banner, click on the **Admin** option. Select Forms and then Layout.

● **Figure 12.** Create Forms Menu.



2. Click on **+ New Layout** in which a pop up is generated. Complete the fields as appropriate.

● **Figure 13.** New Layout



3. Complete the fields as appropriate. The Layout ID should always start with LBT and then the name you want to add.
4. Once the Design ID is created. Select the Layout created and to add what corresponds to the form click on **Add group**. Then enter the name of the group and click on **Save New Group**.
5. Once the group is created, click on **+ Add Field**. The fields to load will be displayed and select the type of data you want for that field and finally save the field. You can continue adding more options by clicking on **add field**. The fields to load will be displayed and select the type of data you want for that field and finally save the field.

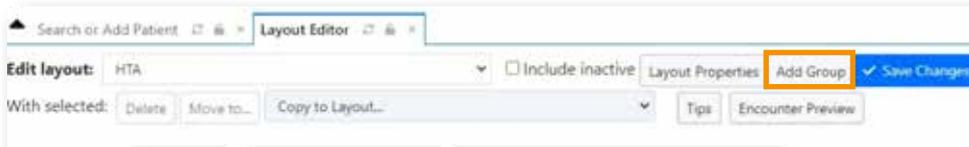
● **Figure 14.** Layout Properties

The image shows a 'Layout Properties' dialog box with a close button (X) in the top right corner. It contains several input fields and checkboxes:

- Layout ID: An empty text input field.
- Title: A text input field with a note above it: 'Visit form ID must start with LBF. Transaction form ID must start with LBT.'
- Subtitle: An empty text input field.
- Category: A dropdown menu with 'Clinical' selected. A note above it says: 'For transactions, change category to Transactions'.
- Active: A checked checkbox.
- Sequence: A text input field containing '0'.
- Repeats: A text input field containing '0'.
- Layout Columns: A dropdown menu with '4' selected.
- Font Size: A dropdown menu with '9' selected.
- Issue Type: A dropdown menu.
- Access Control: A dropdown menu.
- Show Services Section: An unchecked checkbox.

6. You can continue adding more options by clicking on **add field**.

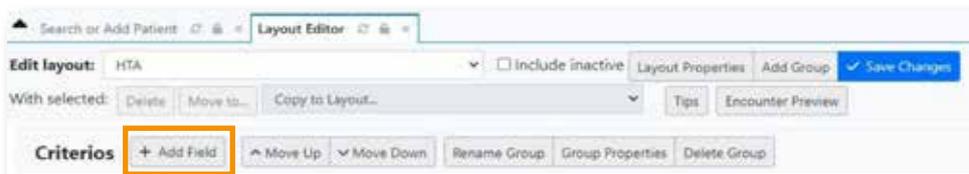
● **Figure 15.** Add group.



7. Enter the group name and create a new group.

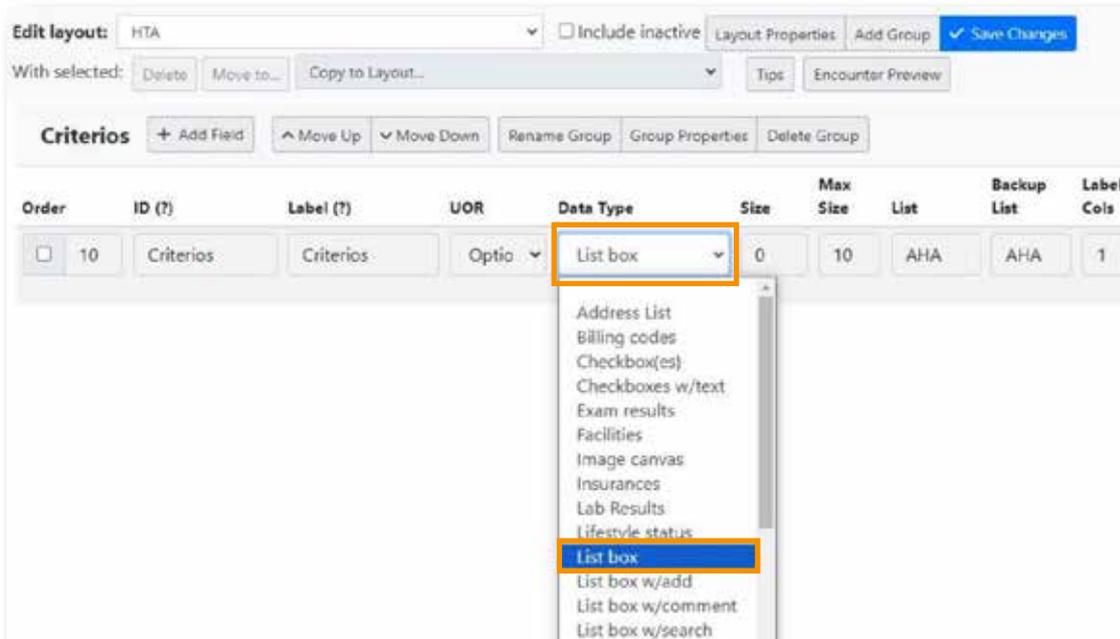
8. Once the group is created, click **Add Field**, which will be used to add options to the form.

● **Figure 16.** Add field.



9. After creating a form question, fields will be displayed to complete. In these fields, you can select what type of data the answer to that question will have. You can also create lists of options for the answers, which will be explained later.

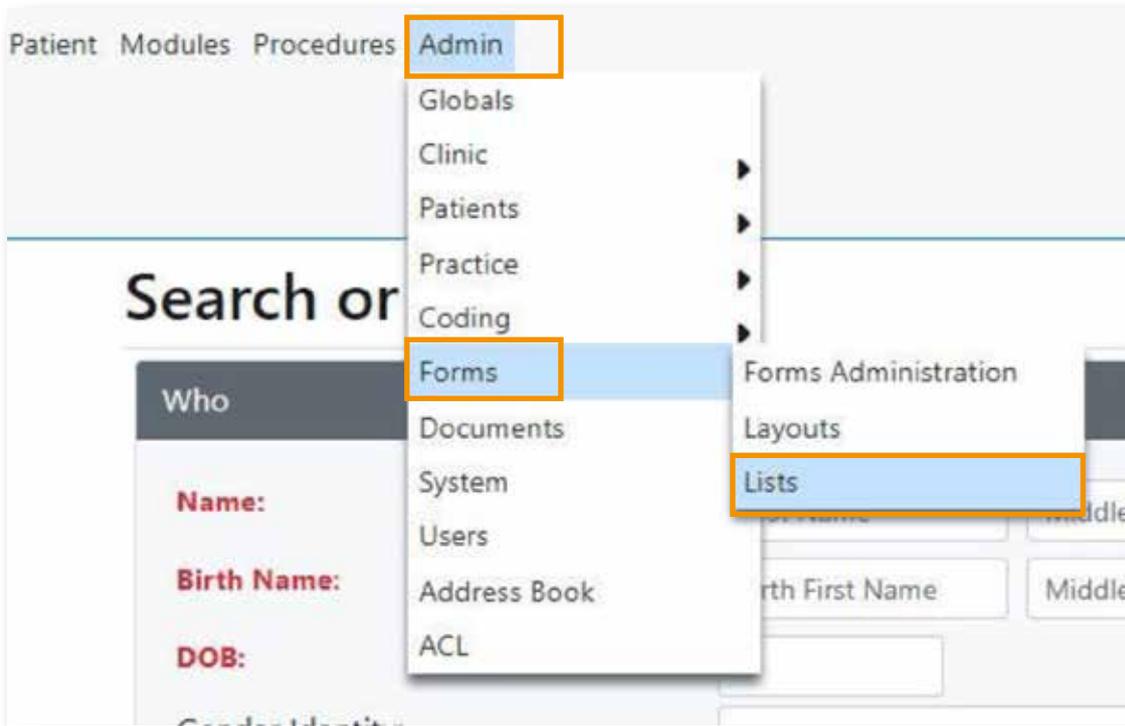
● **Figure 17.** Field Data Type



10. To create lists, you must follow the following steps:

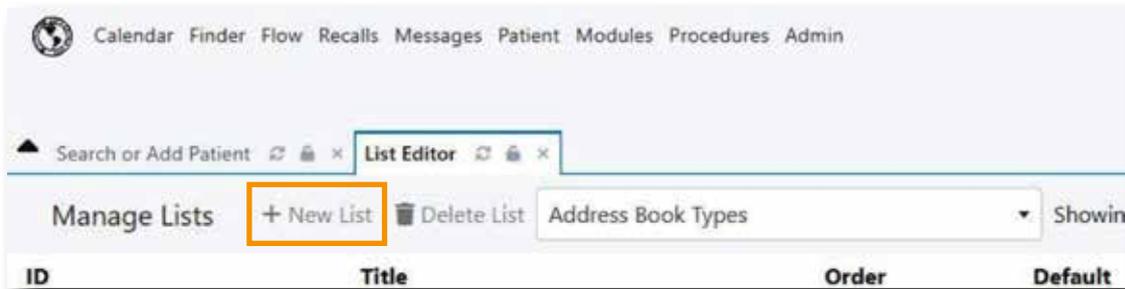
- a. In the top banner, click on the **Administrative** option.
- b. Select **Forms** and then **Lists**. Click on it.

● **Figure 18.** Create List Menu.

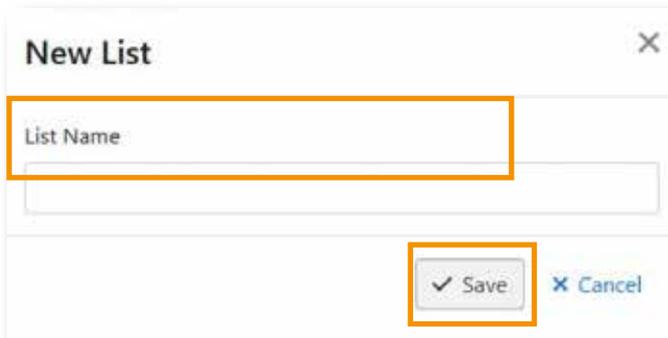


c. Click on **New Lis**, then a new list pop-up will be displayed. Enter the name of the list and click on **save**.

● **Figure 19.** New List



● **Figure 20.** New List Name



d. Once the name of the new list is created, search and then complete the data according to the options required for the form.

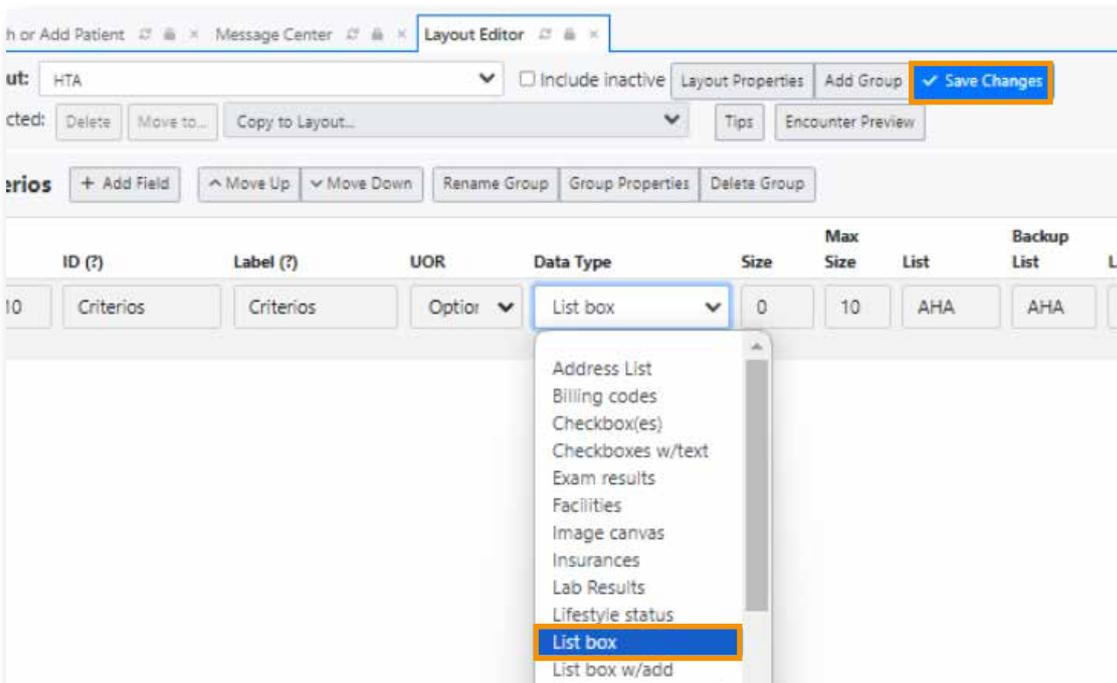
● **Figure 21.** Create a new list.



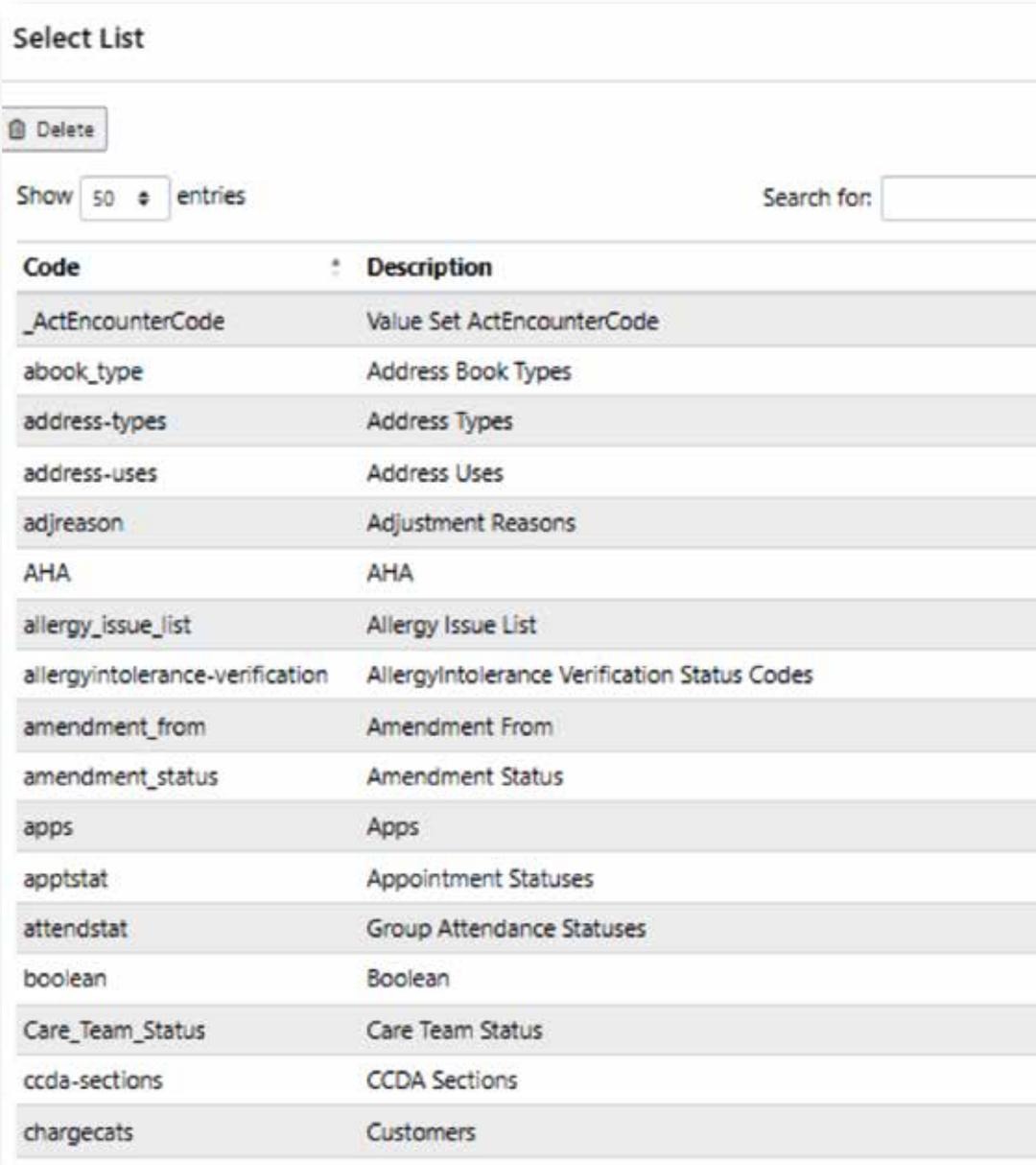
e. Once the list is created, click on **Save**.

11. With the list created in the established options, click on the Backup List field. Where all the created lists will be displayed, select the appropriate one.

● **Figure 22.** Add backup list.



● **Figure 23.** Back up lists view



The screenshot shows a web interface titled "Select List". At the top left, there is a "Delete" button with a trash icon. Below it, the text "Show 50 entries" is displayed next to a dropdown arrow, and a "Search for:" text box is on the right. The main content is a table with two columns: "Code" and "Description". The table lists various codes and their corresponding descriptions.

Code	Description
_ActEncounterCode	Value Set ActEncounterCode
abook_type	Address Book Types
address-types	Address Types
address-uses	Address Uses
adjreason	Adjustment Reasons
AHA	AHA
allergy_issue_list	Allergy Issue List
allergyintolerance-verification	AllergyIntolerance Verification Status Codes
amendment_from	Amendment From
amendment_status	Amendment Status
apps	Apps
apptstat	Appointment Statuses
attendstat	Group Attendance Statuses
boolean	Boolean
Care_Team_Status	Care Team Status
ccda-sections	CCDA Sections
chargetcats	Customers

12. Once the field options of the form are created, you will be able to view the preview of the meeting.



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