

NG PSAP

User guide / Reference manual



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Introduction

The NG PSAP is part of the NIGHTINGALE toolkit. It is designed to be used by 112 operators who receive emergency requests from citizens. This tool is compatible with the PEMEA standard (ETSI TS 103 478) which allows it to receive not only emergency requests from the NIGHTINGALE SWAPP App, but also from other PEMEA compatible applications from other parts of Europe that were made in the area where the NG PSAP provides service.

In the context of NIGHTINGALE, the NG PSAP receives emergency requests from citizens using the SWAPP App. Calls are received at the NG PSAP and can be answered by an operator through the NG PSAP graphical interface. Advanced multimedia capabilities such as video calling, sending and receiving images, videos or files in general, or chatting with real-time translations can be used during call resolution.

In a mass casualty incident, the NG PSAP will allow citizens with PEMEA applications to contact 112 and send rich contextual information along with accurate information about the incident. It will allow disabled people to receive assistance and information, since the advanced capabilities available in PEMEA allow disabled people to communicate with the emergency services using their accessible emergency applications.

This guideline provides users of the tool with answers to some questions about what can be done with the tool as well as a step-by-step guide with descriptions and pictures of how to use the tool.

NG PSAP structure

The NG PSAP is formed from many sub-components

The NG PSAP has many sub-components but they can be divided in the following categories:

- PEMEA sub-components: These sub-components allow the NG PSAP to receive PEMEA calls from PEMEA applications.
- Multimedia sub-components: These sub-components are media services that allow the communication with the PEMEA applications using advanced multimedia capabilities.
- Incident Management System: This sub-component allows to register information about the received calls and exchange it with other agencies.
- PSAP user interface: This sub-component is the user interface for operators. It is integrated with the other sub-components and offers the user interface to operate the tool.

Users will only see the PSAP user interface, and this guideline explains how to use it, but the NG PSAP is a tool formed by many different pieces that work together.

Make emergency calls

The SWAP App tool is the one that allow citizens to make emergency calls. To be able to use all the functionalities available in the demo of the NG PSAP, someone has to make an emergency call, the user can do it himself following the explanation provided in the document “SWAPP-112 guideline”.

How to use

Step-by-step guideline

Open the user interface

The NG PSAP has a web application that can be opened in the web browser of any computer, laptop or tablet.

The URL is <https://psap-ui.demo.dw.int.ghale.help>.

The following screen will be presented:

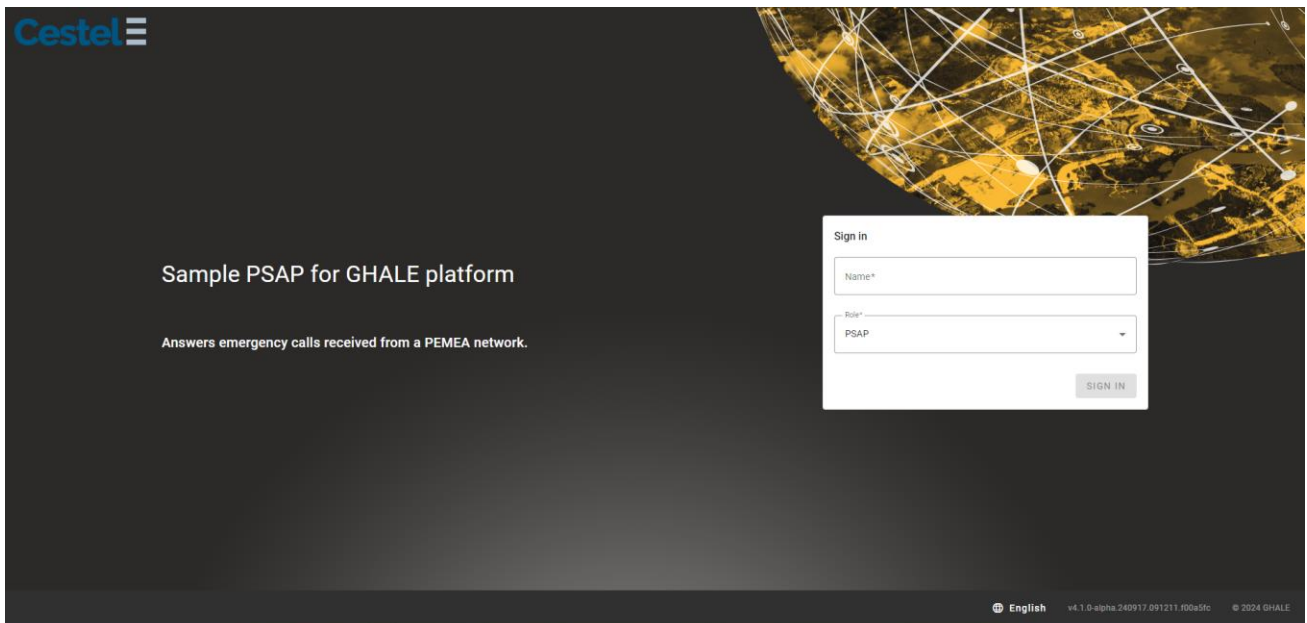


Figure 1: Login screen

For the current version, no authentication is needed, so the user just has to insert its name in the “Name” text box and press the “SIGN IN” button.

The role shall not be changed and only PSAP shall be used because other roles are made only for demonstration purposes of other functionalities outside of the scope of NIGHTINGALE.

After pressing the “SIGN IN” button, the main screen will appear.

Main screen

The main screen shows a map with the current area of operation of the NG PSAP.

Figure 2 shows the main screen when there are no emergency calls. There are some configuration buttons but they are not needed to use the tool, they allow changing language, changing the location displayed on the map, showing the current version, etc. This guideline will cover only the things that are necessary to use the tool during a mass casualty incident.

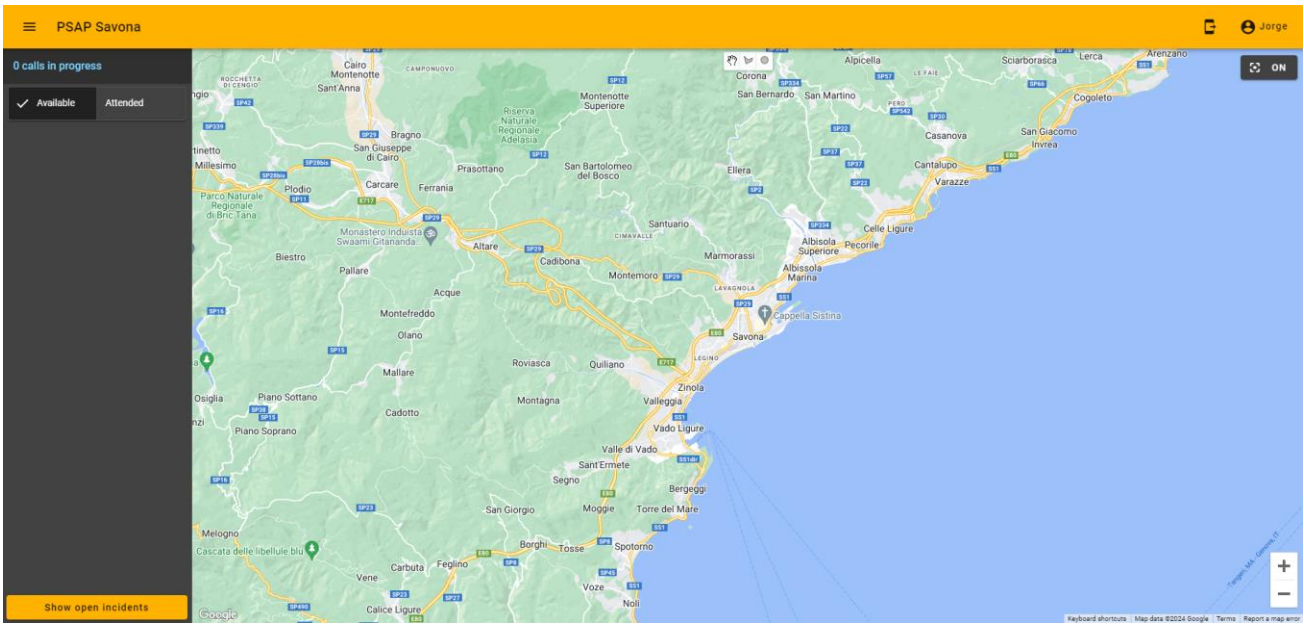


Figure 2: Main screen

When an emergency call is received in the NG PSAP, it will be displayed in the list of calls without needing to refresh the screen. It will appear in the “Available” section until it is selected by a PSAP operator, then it will be moved to the “Attended” section.

Open an emergency call

In order to open an emergency call to see its related information, a click shall be made in the emergency call. This does not trigger the communication yet, but allows the user to see the information related to the call. Figure 3 shows the main screen with an emergency call and an arrow in red points to where the click to open the emergency call should be made. In addition, when putting the cursor over an emergency call, the marker displaying its location in the map changes its colour to better know the location of the call if there are multiple calls.

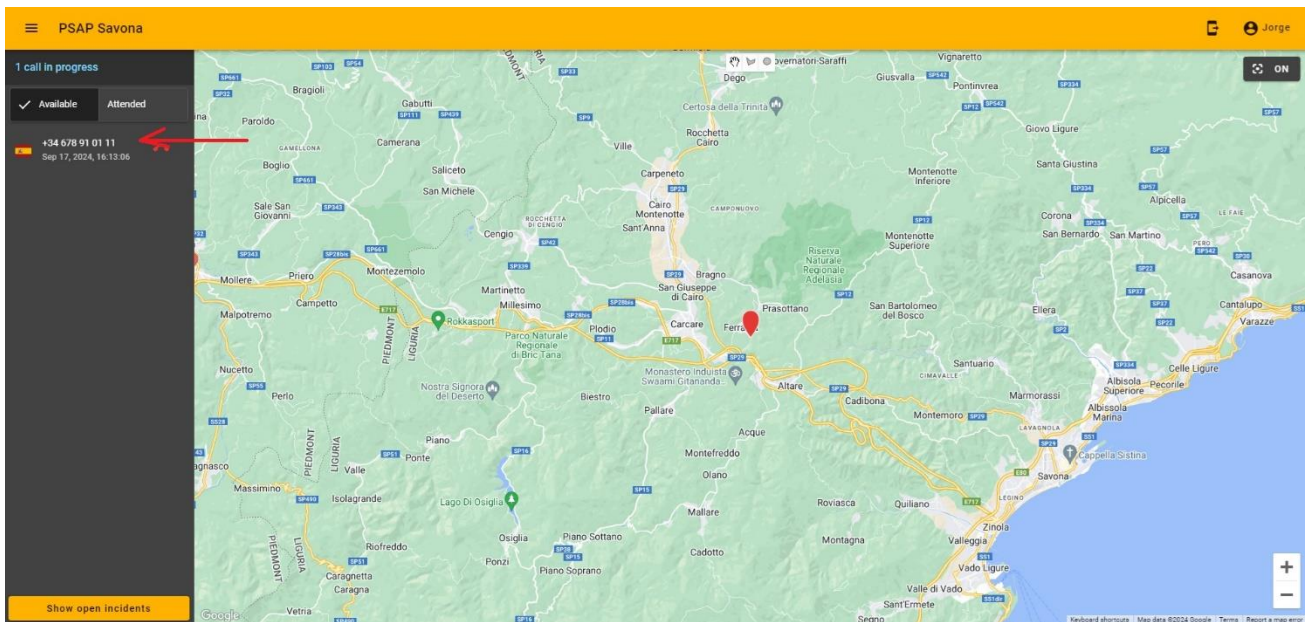


Figure 3: Main screen with emergency call

After opening an emergency call, the emergency call screen will be opened. This screen can be seen in Figure 4. The following icons can be seen on the left side of the screen in order from top to bottom:

1. Back: This button goes back to the main screen and releases the call so that it is moved to the Available section.
 2. End call: This button ends the call. If a third party agency has been invited to speak with the caller, they will be able to continue communicating, but the call will be removed from the PSAP interface so that it is not available to other PSAP operators.
 3. User: Shows or hides the information received from the caller.
 4. Apps: Not needed, changes the display mode of the communication buttons.
 5. Open incident: This button is used to open the incident associated with the emergency call. The incidents can be seen by other NIGHTINGALE agencies. See “Open incident information” section.
 6. Communication buttons: These buttons are used to start communication channels with the caller. When one is pressed, a new screen is opened showing the communication channel, and the App of the caller will receive a request for communication using the capability selected. If the button of an already opened communication capability is pressed again, the user will leave the communication session, and can join again if it opens again the communication capability pressing its communication button.
- The number of communication buttons will depend on the supported communication capabilities that the App of the caller has sent when making the call. The main communication capabilities that will be used during the exercise are:
- a. Videocall: Opens a communication channel that uses audio and/or video streaming to communicate with the caller. See “Videocall” section.
 - b. Chat: Opens a communication channel that uses text messages to communicate with the caller. See “Chat” section.

- c. File exchange: Opens a communication channel that allows the transmission of files with the caller. See “File exchange” section.
 - d. Medical data: Displays the extra medical data received from the caller. See “Medical data” section.
 - e. Location: This button is enabled by default. It shows or hides the location of the caller. It shows the current location of the caller.
7. User settings: Not needed, allows to modify certain aspects of the application.
8. Help: Not needed, just displays the version of the application.

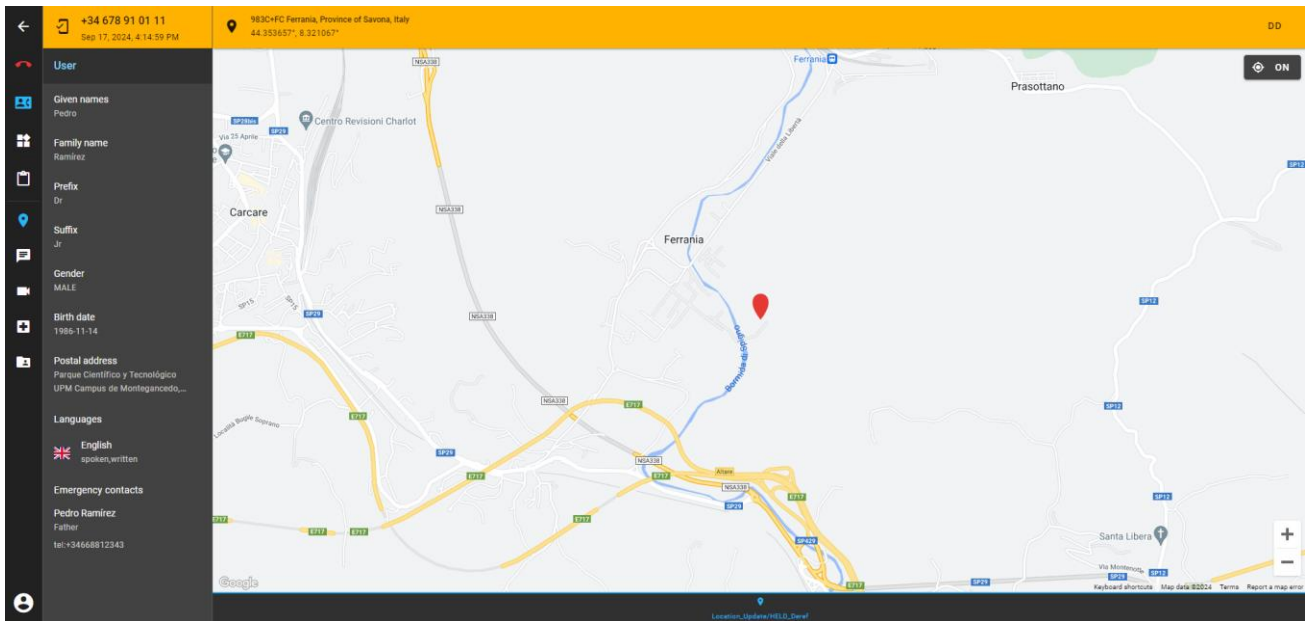


Figure 4: Emergency call screen

In addition to the mentioned buttons Figure 4 shows the user information and the location communication channel, which both are opened by default if the screen is wide enough.

In order to attend the call, one of the communication channels that allow bi-directional communication shall be opened. So at least either the videocall channel or the chat channel should be open.

Videocall

The videocall communication channel is opened the first time that the user clicks on the “Video Call” button on the left panel (When moving the mouse over it displays “Audio_Video/WEBRTC_NATIVE”). After pressing it, the App of the caller will be notified and the caller will be able to use this communication channel. The screen will change to show the screen that can be seen in Figure 5.

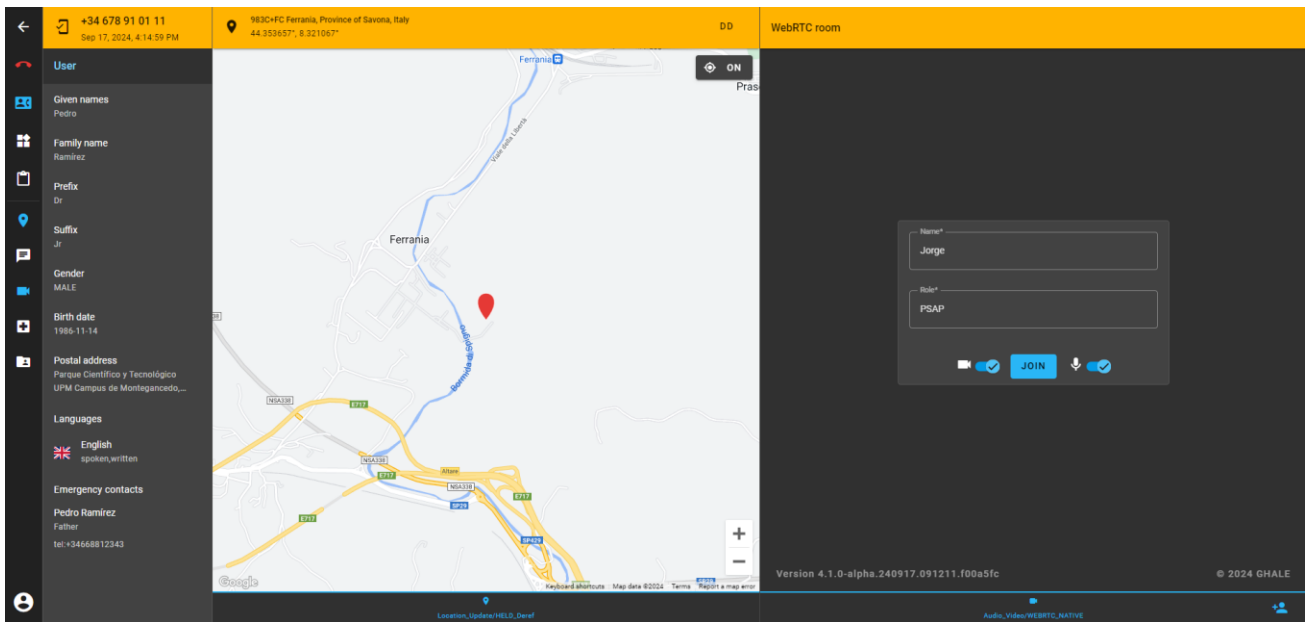


Figure 5: Videocall initial screen

This screen allows the user to select if he wants to enable audio and/or video. By default, both are enabled, they can be disabled individually pressing the video and microphone toggle buttons. To enter the videocall session the “JOIN” button shall be pressed.

Once the user has entered the videocall session, the communication with the caller can start and Figure 6 will be presented. The videocall screen has multiple options that are not needed for the exercise, only the audio or the audio and video communication are needed.

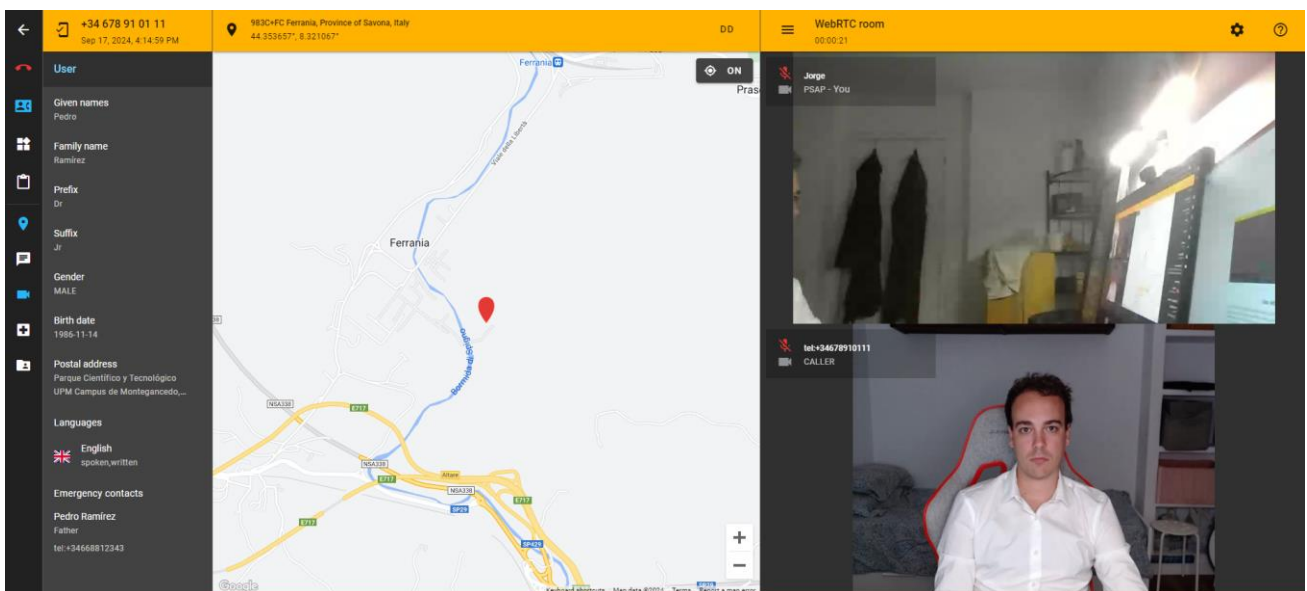


Figure 6: Videocall main screen

Chat

The chat communication channel is opened the first time that the user clicks on the “Chat” button on the left panel. After pressing it, the App of the caller will be notified and the caller will be able to use this communication channel. The screen will change to show the screen that can be seen in Figure 7.

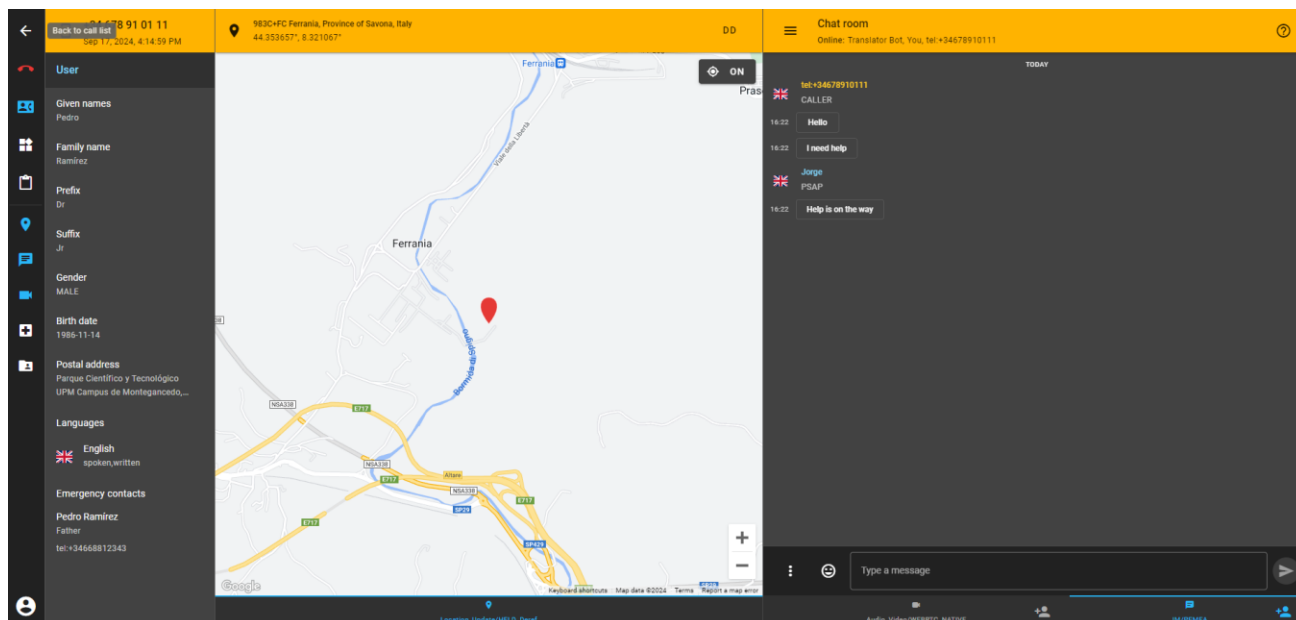


Figure 7: Chat screen

This screen allows the user to communicate with the caller using text messages. To write new messages, the text shall be typed on the text input box with the text “Type a message” and to send the message, the user shall press the enter key or the button to the right of the text box. The user can reply to previously written text messages by clicking on the message he wants to reply, and then writing a message normally. To stop replying to a message, a cross button will be present over the text box.

The chat screen has multiple options that are not needed for the exercise, only the chat communication is needed. One of these options is the automatic translations feature. The languages configured in the browser of the user will be selectable in the “EN” button at the left of the text input box. There the user can change the language he is using in the chat, and his messages will then be sent using that language. If the caller sends messages in another languages, these messages will be automatically translated to the selected language of the user. The translations can be enabled or disabled to see the original text using the same menu that is used to change the language in use.

File exchange

The file exchange communication channel is opened the first time that the user clicks on the “Shared files” button on the left panel. After pressing it, the App of the caller will be notified and the caller will be able to use this communication channel. The screen will change to show the screen that can be seen in Figure 8.

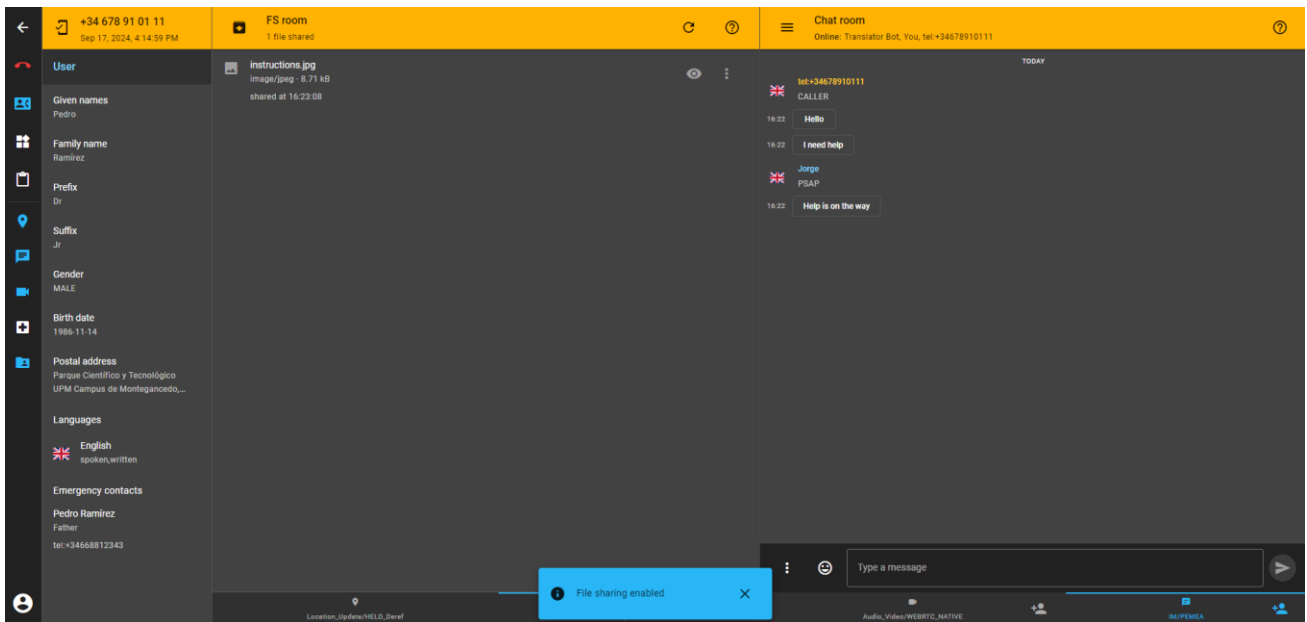


Figure 8: File exchange screen

This screen allows the user to communicate with the caller by exchanging files. During the exercise it will be used mainly to receive photos or videos from the scene. Figure 8 shows 2 files that have already been exchanged, to see any of them, the user shall click over the file.

In the case that new files want to be added, the button on the top left part of the file exchange screen shall be pressed. A menu will be displayed that allows the user to upload files. To upload a file the second button on the top right shall be pressed, then the user will be able to select which files from the computes he wants to send. Multiple files can be sent at the same time, to unselect some selected files before sending them, they can be unselected before pressing the “UPLOAD FILES” button.

Medical data

In order to see the medical information sent by a caller, the user shall click on the “Medical Information” button on the left panel. After pressing it, the menu showed in Figure 9 will be presented. This medical information is the information that the user has previously entered in his App when he downloaded and configured it.

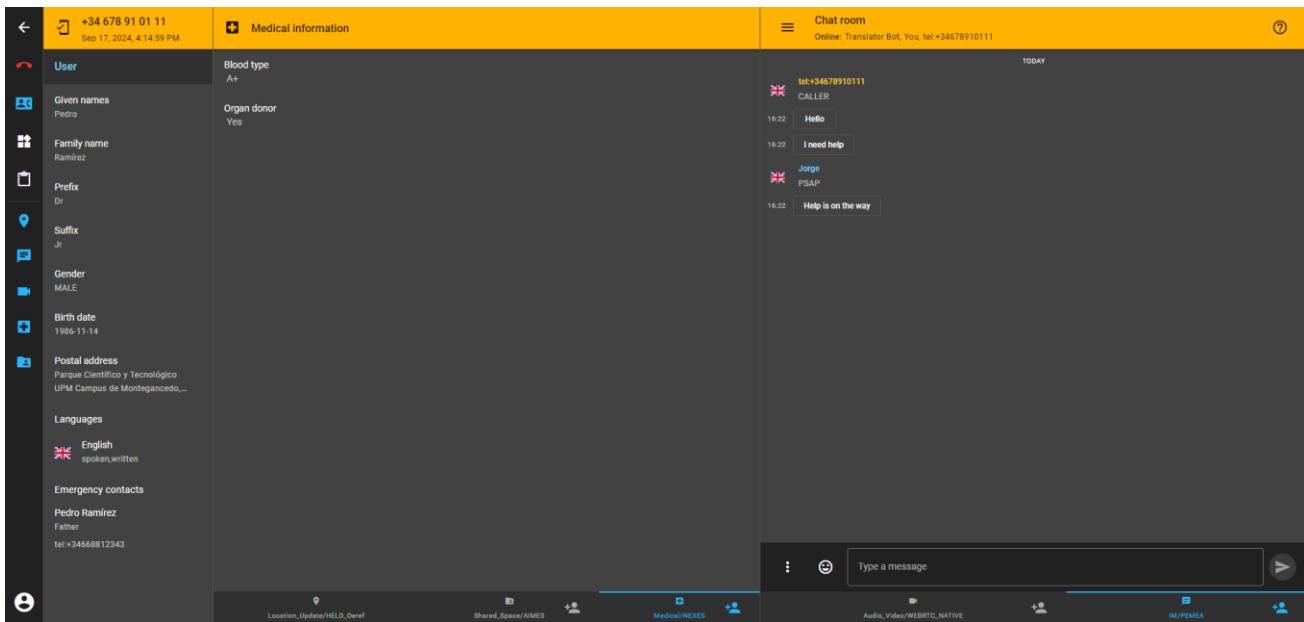


Figure 9: Medical data screen

Add First Responder to the call

During a videocall, the user can ask a First Responder from the NIGHTINGALE's C3I/IMS tool to join the conversation. This is done by pressing the invite button in the lower right part of the videocall screen, it is located just at the right of the "Video Call" text. Figure 10 shows the menu that will appear when pressing the invite button, in order to successfully invite a First Responder from the NIGHTINGALE's C3I/IMS, the following fields should be entered:

1. Mode: "Remote".
2. Protocol: "WEBRTC_NATIVE".
3. Invited's role: The desired First Responder role (e.g. "Doctor").
4. Dispatch URL: It is automatically fixed so that it does not need to be modified.
5. Authentication header: "Authorization". It is the default value, there is no need to modify it.
6. Token: It is automatically fixed so that it does not need to be modified.
7. Send user information: Should be checked.

After filling the fields and pressing the "INVITE" button, a request is made to the C3I/IMS tool and a First Responder will join the call. The invite option is present in many communication channels, but only the videocall and the chat are currently integrated in the C3I/IMS.

After adding a third party agency to the communication, the user may leave the conversation by ending the call with the "End call" button in the upper left corner. This will remove the call from the call list of the NG PSAP but the conversation between the caller and the third party will continue.

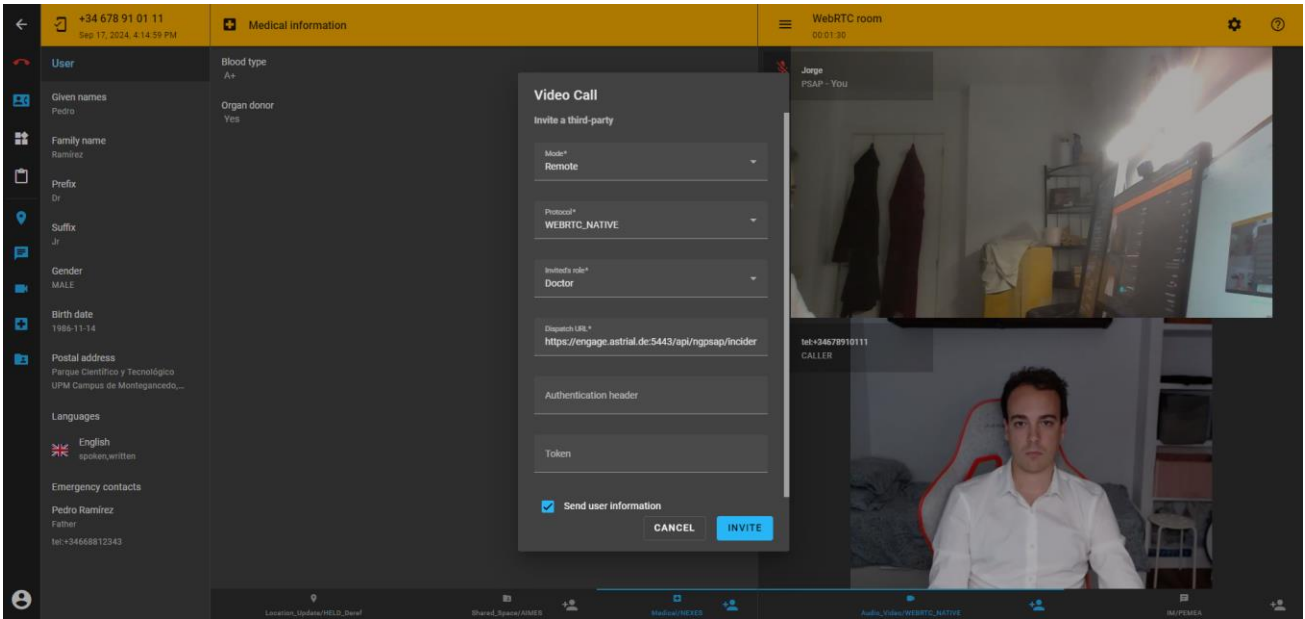


Figure 10: Invite First Responder

Open incident information

To open the incident related with a call there are 2 options:

1. Press the “Open incident” button in the left menu of the emergency call screen that is explained in the “Open an emergency call” section.
2. Press the “Show open incidents” button at the bottom left corner of the main screen. Then Figure 11 will be presented, which present a search tool for all the incidents. To open an incident, it shall be clicked.

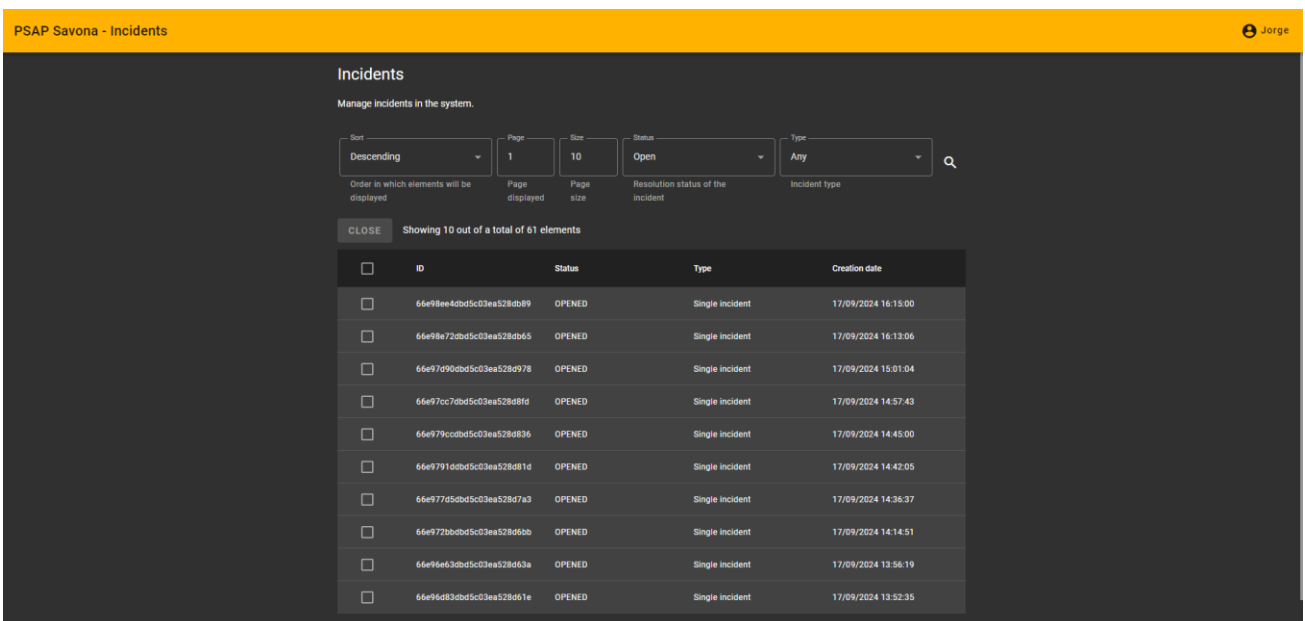


Figure 11: Incident list screen

Figure 12 shows what is presented when an incident is opened. There is a navigation menu on the left which allows to navigate between 4 sections:

1. Overview: This is the screen opened by default, it presents the information of the incident.
2. Notes: This screen allows to open information notes attached to the incident.
3. Add note: This screen allows the user to add extra information to the incident that have been obtained when attending the call.
4. Link: This screen allows to link an incident with other associated incidents.

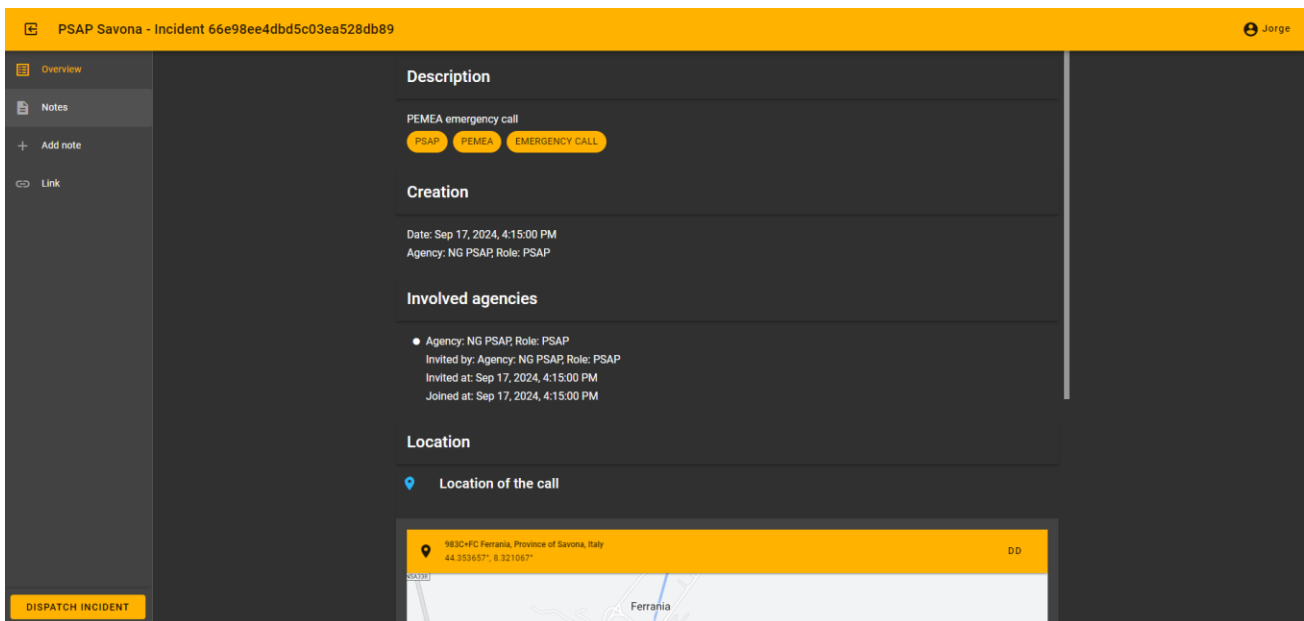


Figure 12: Incident screen

In the overview section, the following information is presented to the user:

1. Description: Description tags associated with the incident.
2. Creation: Time at which the incident was created.
3. Linked incidents (Optional): If this section appears is because there are incidents linked to the incident being shown. If the user clicks on one of them, the overview section of that incident will be opened.
4. Involved agencies: Information about the agencies that are officially collaborating on the incident resolution.
5. Location: The location of the incident.
6. Type: Whether the incident is single type or mass type (multiple). This section also has a button that allows to promote an incident from single to mass type.
7. Status: Whether the incident is open or closed.

Add information to an incident

After having attended a call, the user will have information about what happened. He shall then open the incident, go to the “Add note” section, and add the relevant information. Figure 13 shows the “Add note” section.

Here there are 3 buttons:

1. Add disease of victim: If some diseases were identified when attending the incident, they can be added with this button. It will display a predefined list that would be useful for NIGHTINGALE's decision-making tools. Figure 14 shows the add disease of victim form.
2. Add medications of the victim: If some medications were identified when attending the incident, they can be added with this button. It will display a predefined list that would be useful for NIGHTINGALE's decision-making tools.
3. Add note about the incident: For any extra information that the user wants to add to the incident, it can be done using this button. A form will be presented where the only field that need to be modified is the first text box ("Note content").

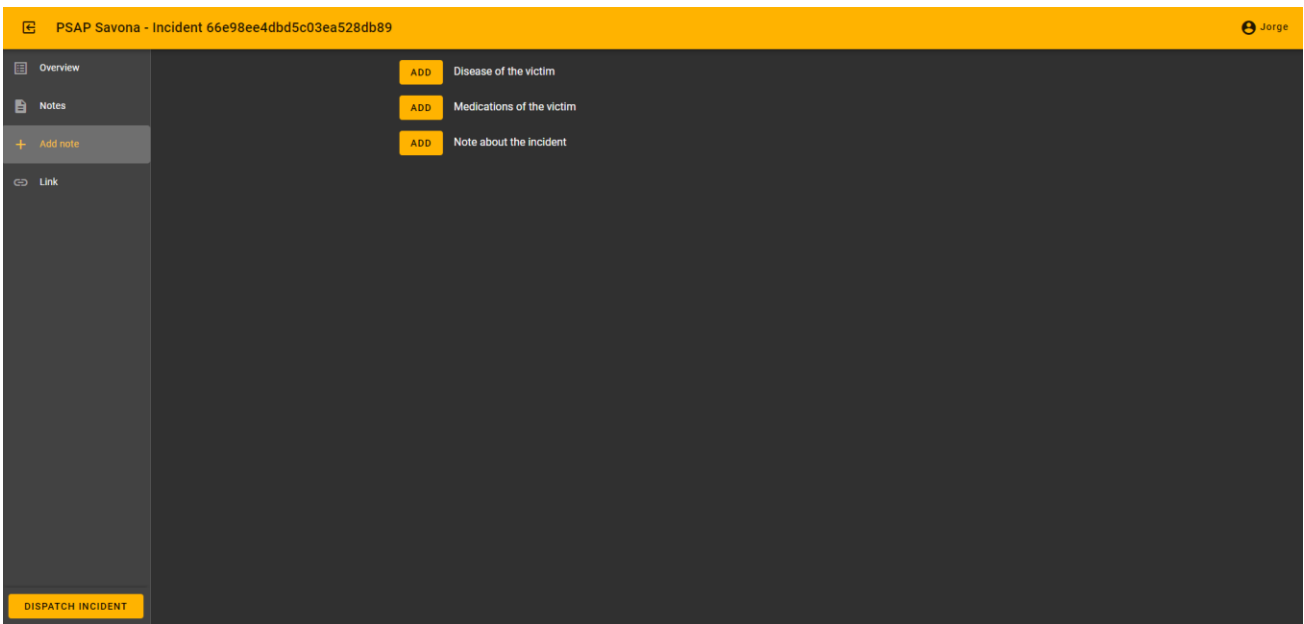


Figure 13: Add information to an incident

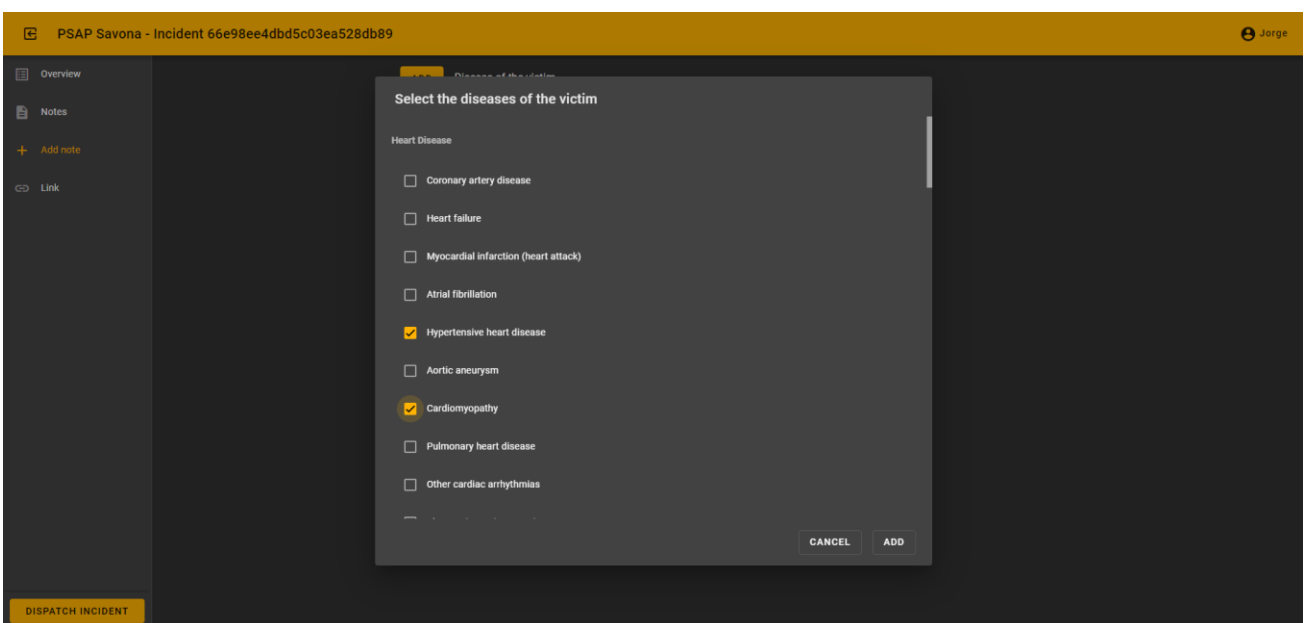


Figure 14: Add diseases to an incident's information

Dispatch the incident to the First Responders

When an incident or a multi case incident wants to be reported to the First Responder agency, the “DISPATCH INCIDENT” button shall be pressed. This button is present at the bottom left corner of the incident screen. After pressing the button, a form will be presented. In the form, the Remote mode should be selected, and no more information needs to be modified.

The only field that should be modified is the Role. This field allows to select to which agency it is being dispatched.

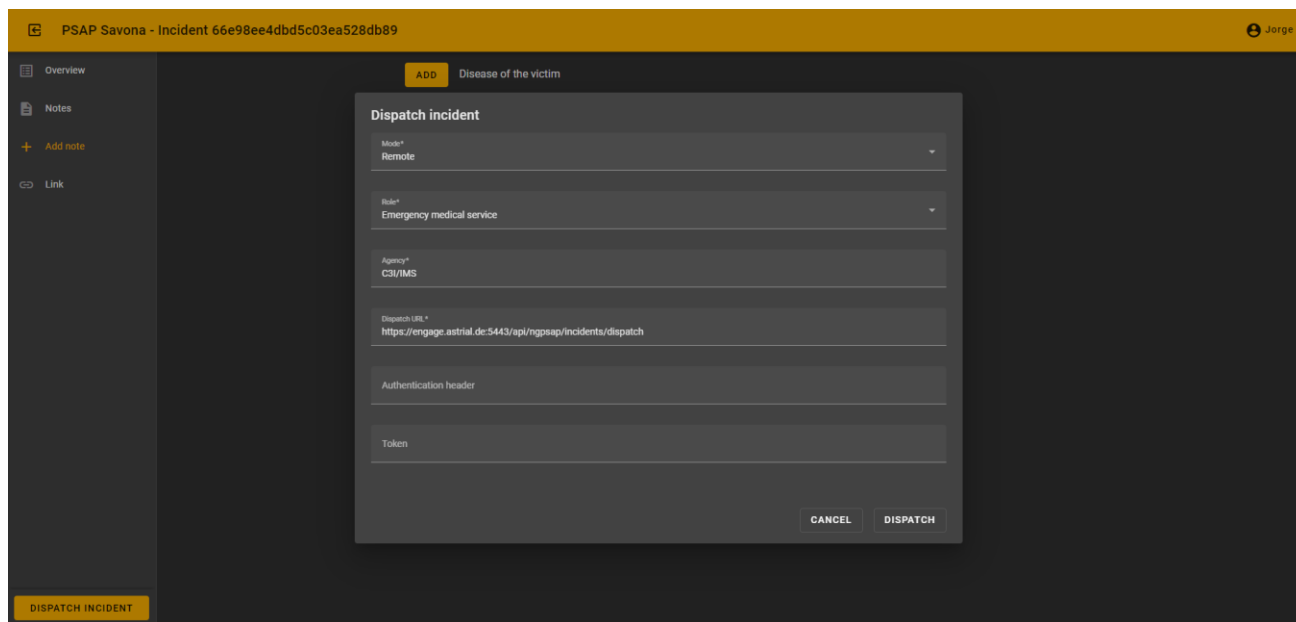


Figure 15: Incident dispatch

To link an incident with others, the link section shall be used. Figure 16 shows the link section. Here, incidents can be searched with different options present on the top of the screen. These options allow to navigate between all the incidents of the system.

When linking an incident, the incidents associated with the incident should be selected, these incidents can be selected pressing the “SELECT” button in each incident. When an incident is selected, the “SELECT” button will be changed with an “UNSELECT” button that allows to unselect the incident. It is also possible to navigate to the incident description by pressing the “SHOW INCIDENT” button.

When the linked incidents are selected, the “LINK INCIDENTS” can be pressed to link the incidents.

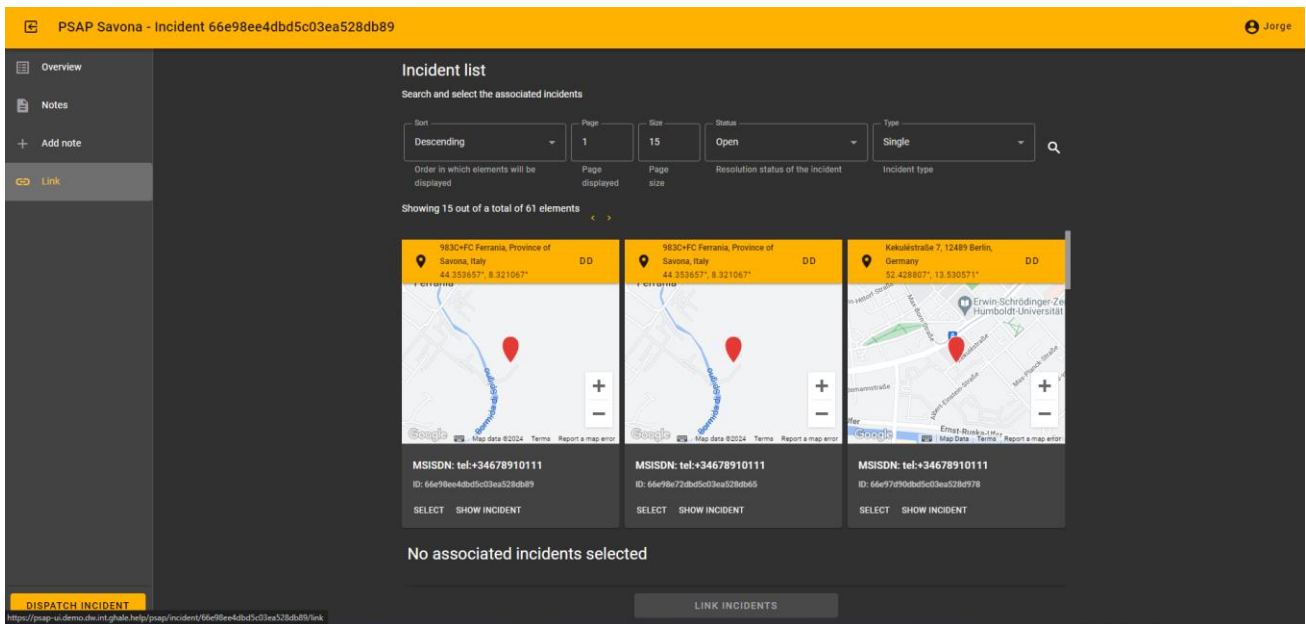


Figure 16: Incident link screen

During exercises, only one incident should be dispatched, which should be promoted to mass type and linked with other incidents.

Close incident

Incidents can be closed from the incident list screen that can be seen in Figure 11. To close incidents, select them with the checkbox they have on the left and press the “CLOSE” button.