Vitals web on Telligence
User Manual

Version 10.0

2022-03-23

ASCOM UMS s.r.l. Unipersonale
Via Amilcare Ponchielli 29, 50018, Scandicci (FI), Italy
Tel. (+39) 055 0512161 – Fax (+39) 055 829030
www.ascom.com

Contents

1. Vitals Web environment 3
1.1 Introduction 3

2. Using Vitals Web 4
2.1 Application start-up 4
2.2 User login 4
2.3 Patients list 5

2.3.1 Button Bar 6
2.3.2 List of beds 6

2.4 Datasets list 7

2.4.1 How to record a new set of data 10
2.4.2 Inserted values summary 19
2.4.3 How to edit an existing set of data 21

3. Configuration of Vitals Web 23
4. Annex – Examples of user workflows 25
4.1 Log in 25
4.2 Select Patient 25
4.3 Add a new set of data 25
4.4 Display the existing dataset summary 25
4.5 Edit an existing set of data 25

1. Vitals Web environment

For information about the Product environment, precautions, warnings and intended use see USR ENG Digistat Care (for the Digistat Suite EU) or USR ENG Digistat Suite NA (for Digistat Suite NA). The knowledge and understanding of the appropriate document is mandatory for a correct and safe use of the Vitals Web application, described in this document.

1.1 Introduction

The present User Manual describes the features and functions of the Vitals Web application.

The Vitals Web application permits data entry and display for a variety of clinical workflows, procedures and protocols within the healthcare services domain. Examples are:

- Patient vital signs data collection for normal wards.
- Patient data collection for clinical protocols associated to specific diseases, treatments or prevention of diseases.
- Generation of reminders for periodic data collection or patient examination and documentation of the activity performed and provided services.
- Documentation of patient conditions also by means of pictures and audio recordings.

IMPORTANT!

The Vitals Web application presented in this User Manual is optimized for Ascom Telligence Staff Station and in general for devices with touch screen display panel and screen resolution 740x420.

2. Using Vitals Web

2.1 Application start-up

To start the Vitals Web application:

- Touch the corresponding icon on the device screen

The Vitals Web login screen, shown in Fig 1, will open.

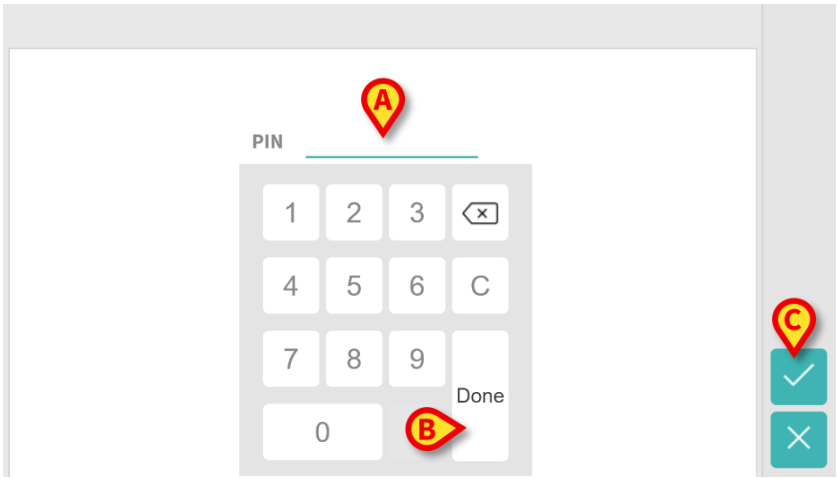


Fig 1

2.2 User login

User log in is required. There are two possible log in procedures:

1. Login via username and password;
2. Login via "pin code".

The actual log in procedure is decided by configuration. Only the "pin code" log in is described in this manual.

- Tap/Click the PIN field (Fig 1 **A**)

- Use the virtual keyboard to insert the "pin code" (numeric).

- Click either "Done" or  to confirm (Fig 1 **B** and **C**)

The Vitals Web patients list screen, shown in Fig 2, will open.

2.3 Patients list

The Vitals Web patient list screen (Fig 2) displays the list of configured beds (namely, the device "domain").

The domain of a specific Telligence Staff Station is defined by configuration. In case there is no patient on one of the configured beds, then the bed is not displayed. If the Telligence Staff Station has only one bed configured, the dataset list of the existing bed is automatically displayed (Fig 4).

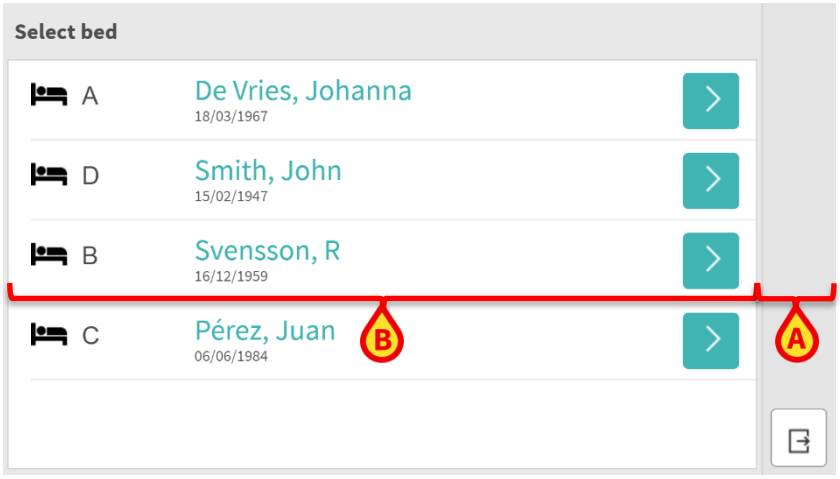


Fig 2

The patient list screen is formed of a button bar (Fig 2 **A**) and the list of beds (Fig 2 **B**).

2.3.1 Button Bar

Fig 2 **A** shows the button bar of Vitals Web on the patient list page.

Different buttons are present on the button bar, depending on the displayed page. The possible buttons are listed below:

Button	Symbol	Description
Confirmation		Confirm the data inserted in a field
Discard		Discard the data inserted in a field
Add	or or	Starts the data insertion procedure for the Dataset
Display		Displays the data of a Dataset or a parameter
Back		Go to the page previously displayed (or upper level)
Next Page		Go to the next page (for data displayed in multiple pages)
Previous Page		Go to the previous page (for data displayed in multiple pages)
Related Items		Summary of the Dataset data
Information		Show info related to a Dataset item
Edit	or	Edit the Dataset parameters
Show description		Show the description of a value
Hide description		Hide the description of a value
Exit		Exit the Vitals Web application
Configuration		Dataset configuration procedures
Switch		Switch to enable or disable a Dataset
Date		Inserts current Date/Time in a Dataset
Show Data		Shows the original data in the NumericList Datasets Summary

2.3.2 List of beds

In the list of beds, each bed is represented by a "bed tile" (Fig 3).

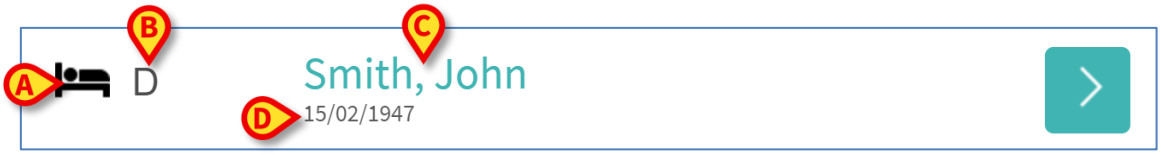


Fig 3

In the "bed tile", the following information is displayed:

- bed number (Fig 3 **A**);
- number of notifications overdue (if any - Fig 3 **B**);
- name of patient on that bed (Fig 3 **C**);
- patient data (if available: sex, age, date of birth, patient ID - Fig 3 **D**).

2.4 Datasets list

The term "Dataset" refers to a structured set of data, considered as a whole. It can be, for instance, a score calculation, a set of vital parameters etc. For each patient a list of Datasets can be configured. If the Datasets are enabled, they are listed in the "Datasets list" of the considered patient. To access the "Datasets list" i.e. the list of Datasets enabled for a patient:

- Touch the icon relating to the relevant patient (Fig 3).

The "Datasets list" page, shown in Fig 4, will open.

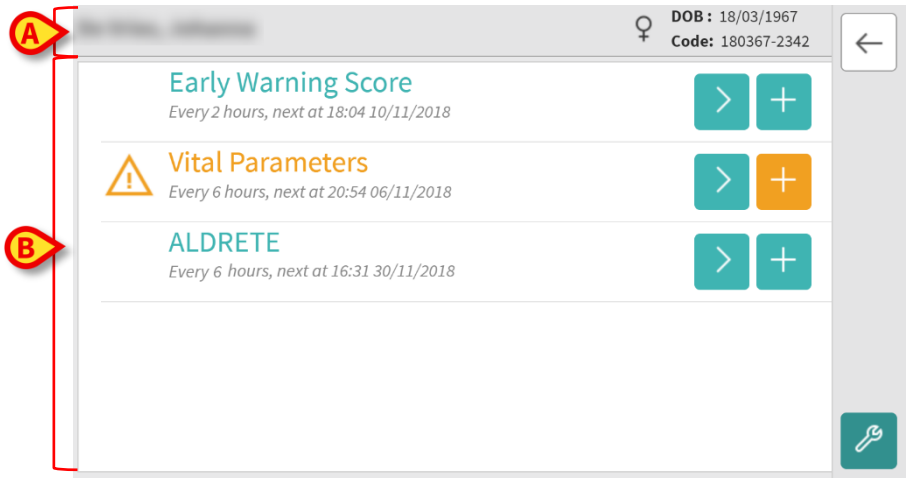


Fig 4

The "Datasets list" screen is formed of two areas: a heading area (Fig 4 **A**) and the list of datasets (Fig 4 **B**).

The heading area displays the following information:

- name of patient on that bed;
- patient data (if available: sex, age, date of birth, patient ID).

The heading area remains visible on all the pages of the Vitals Web application.

In the "Datasets list" the datasets are displayed as "Dataset tiles". Each "Dataset tile" represents a dataset.

The information displayed inside the "Dataset tiles" depends on the kind of dataset and the way the dataset is configured.

Fig 5 shows an example of a "Dataset tile".

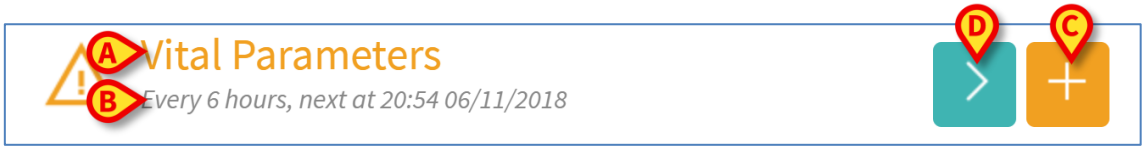


Fig 5

The Dataset name is displayed inside the tile (Fig 5 **A**).

Below the Dataset name, information is displayed relating the data acquisition modalities (i.e. when the Dataset shall be acquired, when is the next acquisition due etc. - these data depend on how the Dataset is configured - Fig 5 **B**).

The  button (Fig 5 **C**) makes it possible to insert new data (see paragraph 2.4.1).

The  button (Fig 5 **D**) makes it possible to display the previously acquired data.

A Dataset can be configured to be acquired at scheduled time intervals. If this is the case, the Dataset appears as the one shown in Fig 5. The scheduled time interval is specified below the dataset name.

The Datasets can be configured to provide a notification at scheduled times, as a reminder, when they should be acquired. After the scheduled time, the following symbol is displayed in the Dataset tile, meaning that an action was due at a certain time but the action was not performed:

The same symbol can be shown in the patient list in the patient tile.
A badge is shown on the Telligence Staff Station icon in case of expired datasets. At the same time, the data entry button turns yellow:

If the  button is not present in the Dataset tile it means that the Dataset is not enabled (see section 3 for more information), or that the user permission level enables them to view it but not to edit it.

Fig 6 shows an example of this type.

Fig 6

Click the  button to display the previously acquired data. The following page is displayed ("Dataset Records" – Fig 7 and Fig 8):

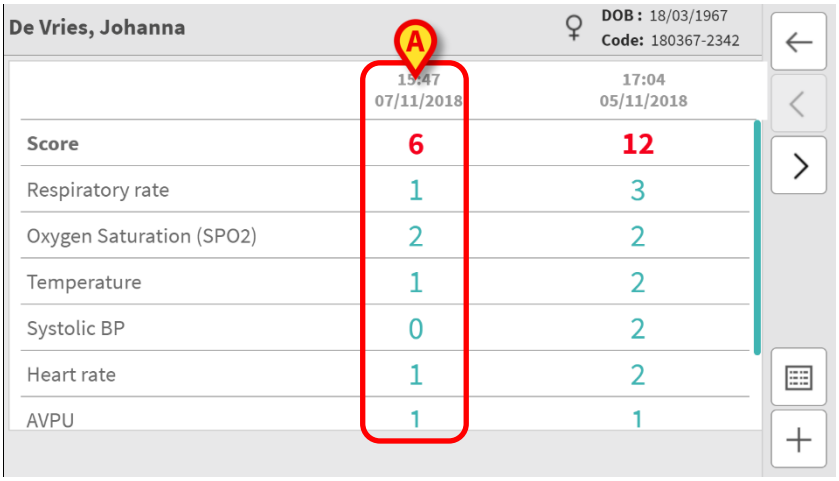


Fig 7

Scroll down to display the possible rows that are not displayed.

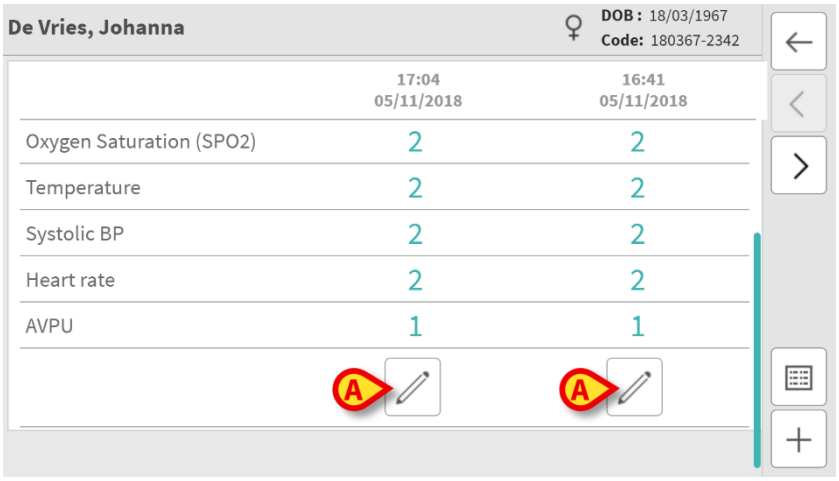


Fig 8

For each entry (i.e. a set of values), date and time are displayed on top. The recorded values are displayed below. See for instance the column indicated in Fig 7 **A**.

The "pen" icon indicated in Fig 8 **A** means that the corresponding score can be edited by the user. Otherwise, no icon is displayed.

The button in the button bar displays the description of the acquired data at the top of the column (Fig 9 **A**) and the range of normality (Fig 9 **B**).

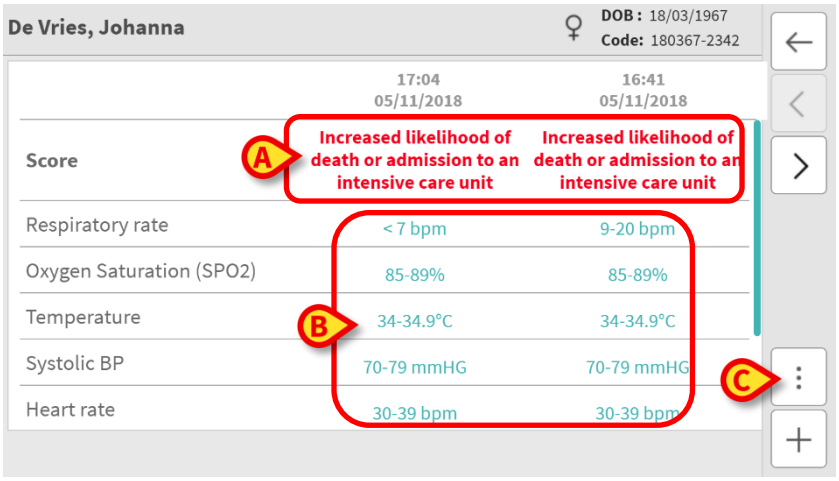


Fig 9

Click the ⋮ button to hide the score description and the parameters range (Fig 9 **C**). Unit of measure unit is also displayed (Fig 10).

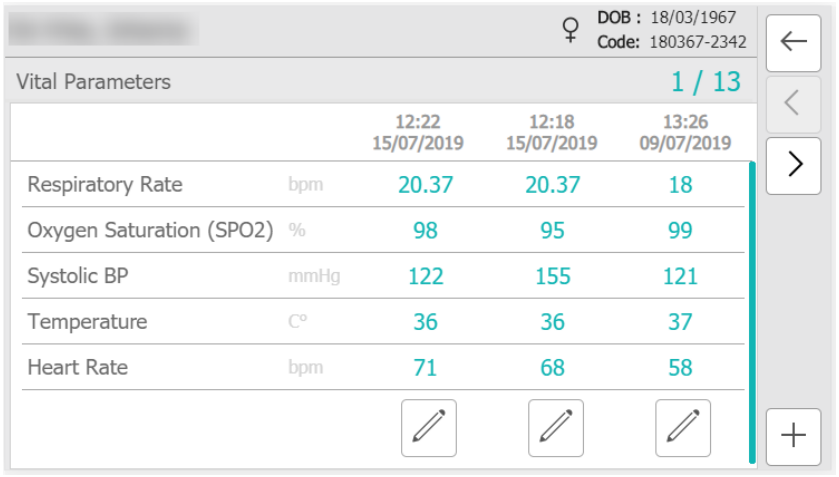


Fig 10

2.4.1 How to record a new set of data

To record a new set of data

- Touch the + icon on the tile corresponding to the wanted dataset (Fig 11).

Fig 11

The data entry screen will be displayed.

The data entry screen features depend on the kind of Dataset selected.

See Fig 12 for an example of "Parameter" type Dataset:

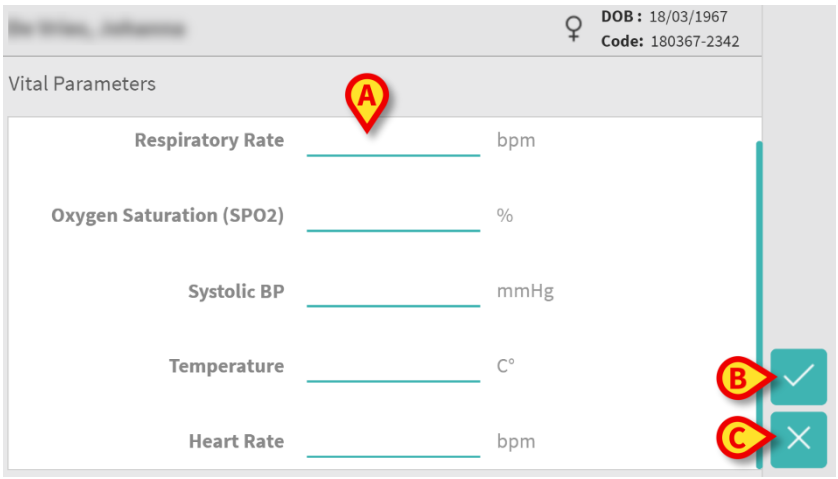


Fig 12

For "Parameters" type Dataset, data specification is performed on successive screens (one for each kind of data/question/parameter).

- Insert the required value/s on each screen (Fig 12 **A**).
- Touch the "Confirmation" button to save the data inserted in the Dataset (Fig 12 **B**).
- Touch the "Discard" button to cancel the data inserted in the Dataset (Fig 12 **C**).

See Fig 13 for an example of "Score" type Dataset (multiple selection):

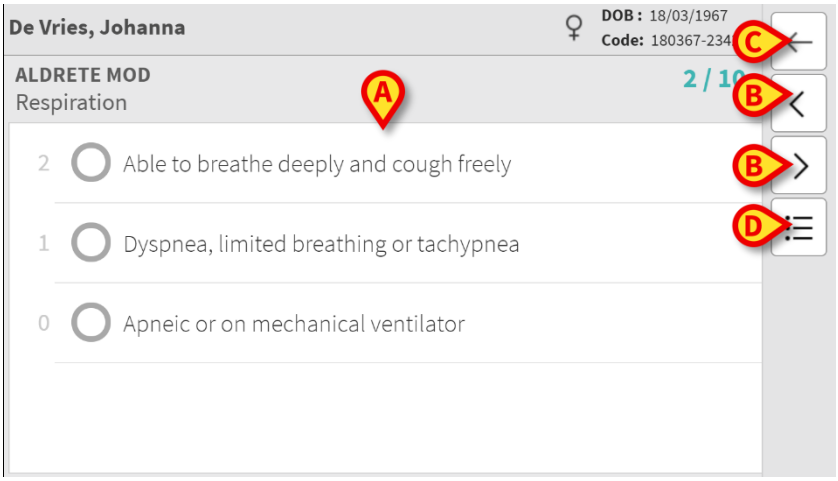


Fig 13

A Score Dataset can be configured to indicate with a color code the degree of urgency/severity of the available values. The same color code will be then applied to the result. In addition, it is possible to configure a text indication about the therapy/treatment that can be associated to a certain results range.

For "Score" type Dataset, data specification is performed on multiple successive screens divided in a number of different screens (one for each kind of data/question/parameter). The user is requested to:

- Insert the required value/s on each screen (Fig 13 **A**).
- Move to next/previous screen using the arrows and indicated in Fig 13 **B**.
- The arrows indicated in Fig 13 **B** has to be used even if the last data of the Dataset was just inserted and the user is going to save data.

In addition, the user can do one of the following actions:

- Stop data insertion and go back to Datasets list page (- Fig 13 **C**).
- Skip data insertion and go to Dataset Summary page (- Fig 13 **D**). See Fig 14 for Dataset Summary page.

When all the (relevant/known) values have been specified, for Score type Datasets the Dataset Summary page is displayed (Fig 14):

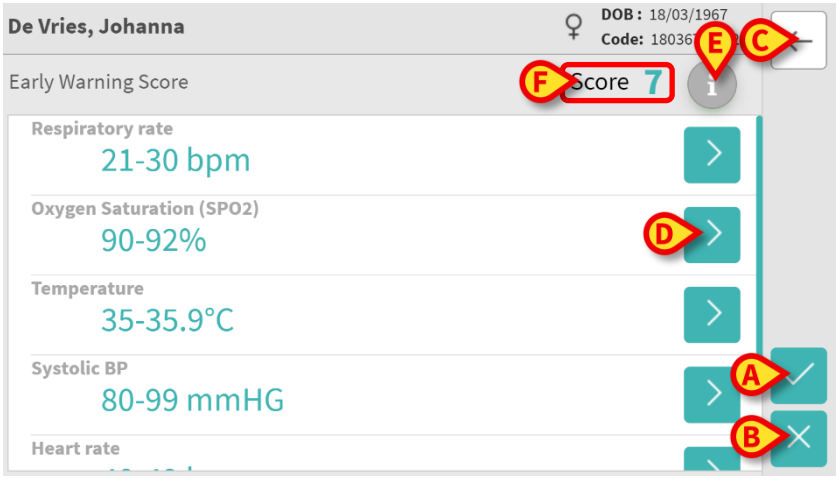


Fig 14

The user is requested to:

- Touch the "Confirmation" button to save the data inserted in the Dataset (Fig 14 **A**).
- Touch the "Discard" button to cancel the data inserted in the Dataset (Fig 14 **B**).

In addition, the user can do one of the following actions:

- Touch the "Back" button to go to previous page (Fig 14 **C**).
- If the user touches again the "Back" button then the data insertion procedure will be stopped and the Datasets list page will be shown (Fig 4).

- Touch the "Display" button  to visit the page related to a specific parameter inserted in the Dataset itself (Fig 14 **D**). The page related to the considered parameter will be shown (just as example Fig 13 and Fig 12).

- Touch the "Information" button  (Fig 14 **E**). A pop up window will be shown containing the text configured for the range value of the considered Dataset (Fig 15). A confirmation from the user is thus expected.

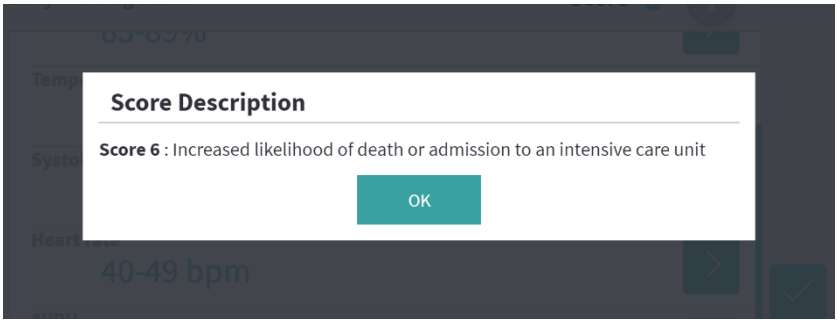


Fig 15

In addition to the insertion scheme above explained, it is moreover possible to configure the Dataset in order to show all the requested parameter in a single page (Fig 16).

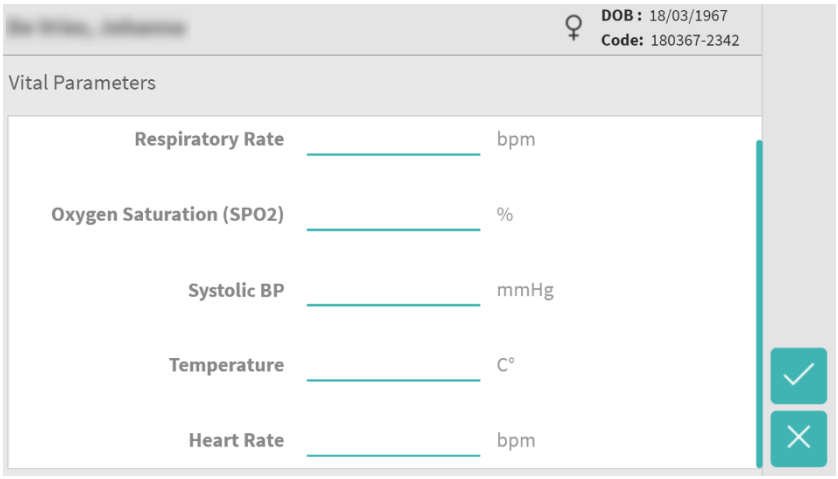


Fig 16

The Vitals Web can be configured to consider as "Valid" only the values included in a determined range and to therefore not accept values outside the configured range.

If values outside the range are inserted, the Vitals Web rejects them with a message informing the user about the range of acceptable values. See for instance Fig 17 **A**.

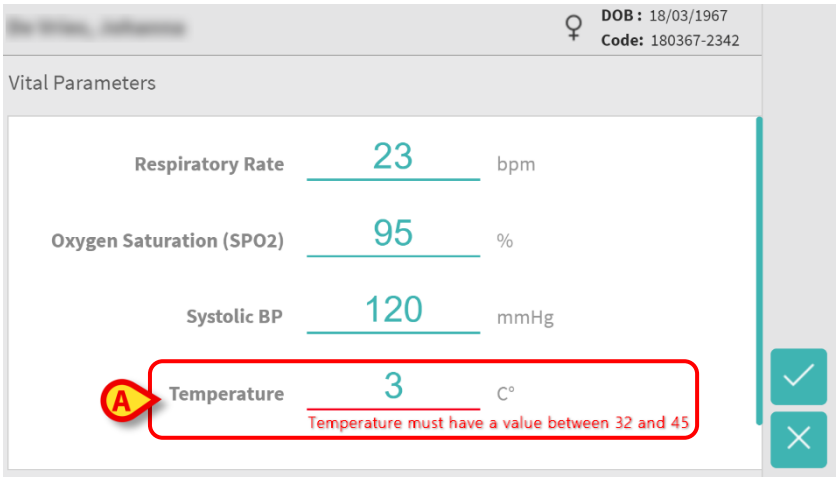


Fig 17

Please note that certain parameters (just like Respiratory Rate or Oxygen Saturation) for some patients are currently measure from devices connected to patients itself. In these cases, the currently measured value is automatically inserted: the user can anyway change it:

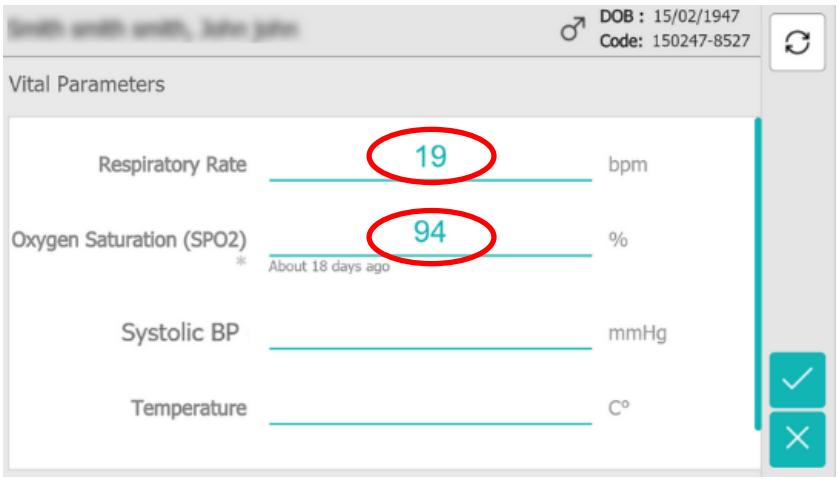


Fig 18

Dataset can also take into account the date or date-and-time inserted by the user by means of specific entry type.

Please consider as example the following pictures, representing the same entry type "Date" (Fig 19):

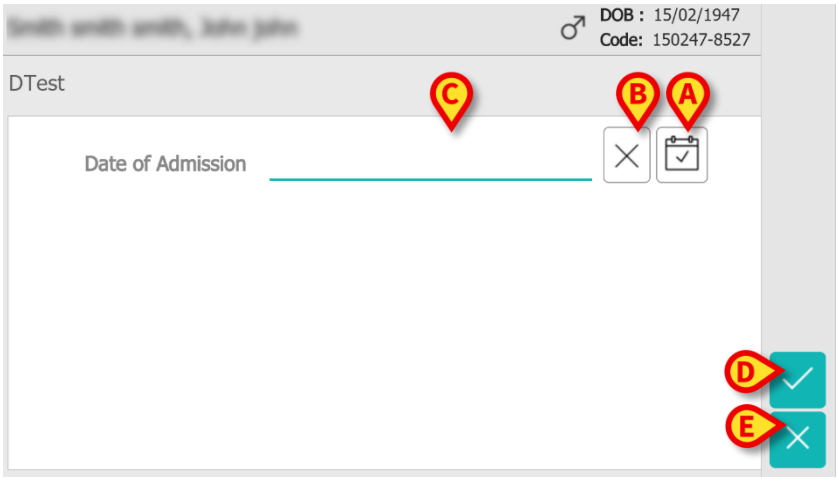
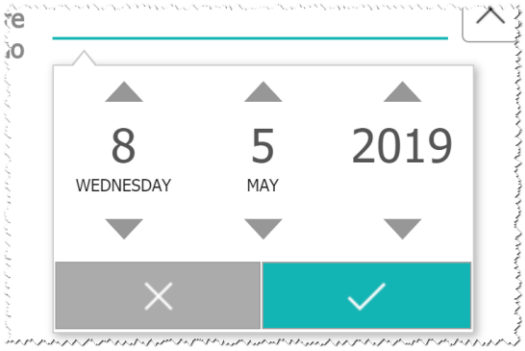


Fig 19

By means of "Date" entry type, the user can select and insert into the properly configured dataset the current date value.

- Touch the  icon to insert the current date (Fig 19 **A**);
- Touch the  icon to cancel the inserted value (Fig 19 **B**);
- Touch the space above the date line ——— to insert a specific date. The following popup window will appear (Fig 19 **C**):



  Use the buttons **Arrows** ▲ and ▼ to select the requested date, the button **Select** ☑ to insert the selected data and the button **Cancel** ☒ to cancel the selected data and hide the popup window. Do these actions also to update a value previously inserted.

- Touch the "Confirmation" button ☑ to save the data inserted in the Dataset (Fig 19 **D**);
- Touch the "Discard" button ☒ to cancel the data inserted in the Dataset (Fig 19 **E**).

By means of "Date-and-Time" data entry, the user can select and insert into the properly configured dataset a specific date and time value.

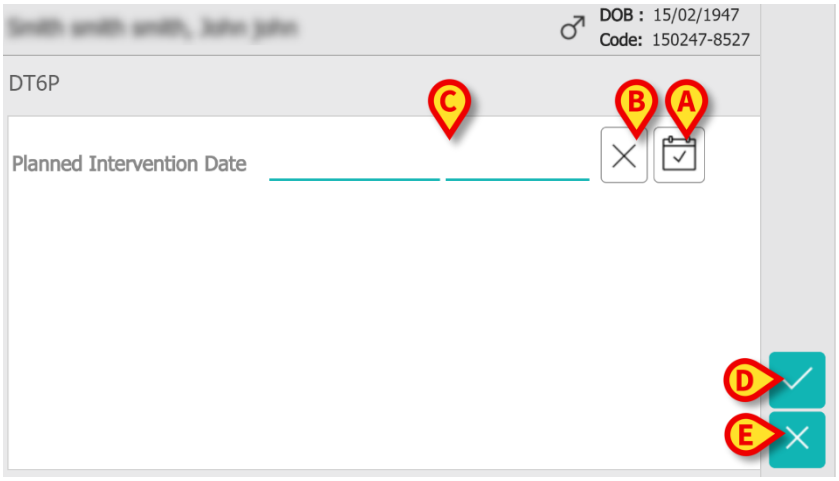


Fig 20

- Touch the  icon to insert the current date and time (Fig 20 **A**);

- Touch the  icon to cancel the inserted value (Fig 20 **B**);

- Touch the space above the date and time line ——— to insert a specific value (Fig 20 **C**). The following popup windows will appear (Fig 21 and Fig 22):

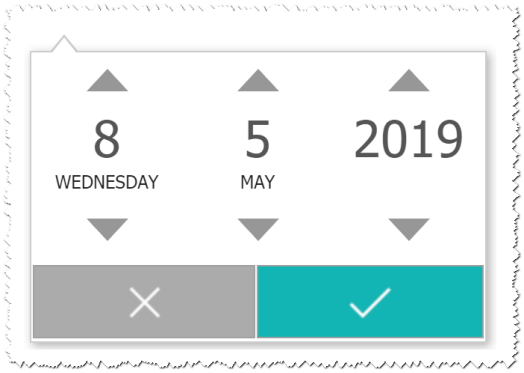


Fig 21

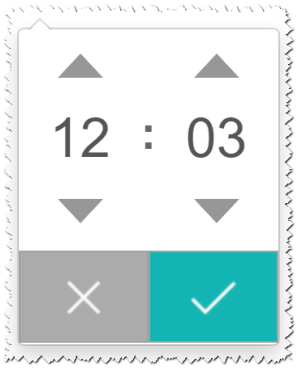


Fig 22

Once the user inserts the requested date, then the time popup window will open automatically.

The "OpenList" entry type collects elements usually not taken into account for scores. Some items of the list can be configured to be suggested: the user can however set a specific value different from the ones suggested. The "OpenList" dataset is displayed below (Fig 23):

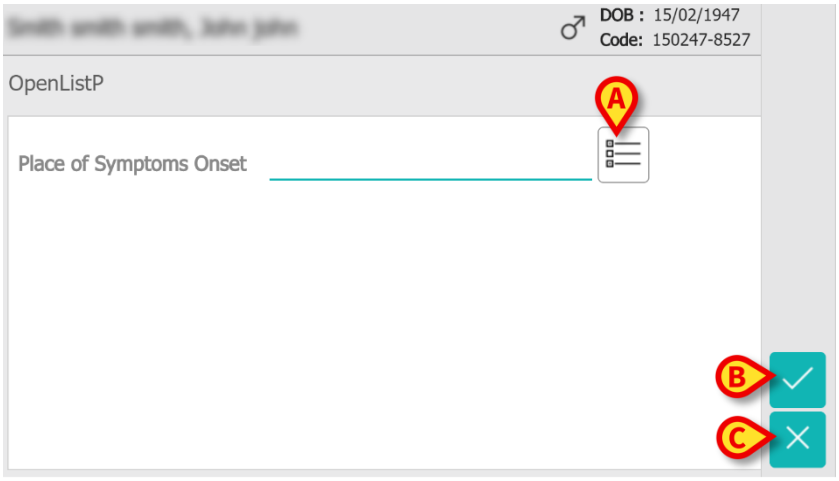


Fig 23

- Touch the button to display and select one of values of configured list (Fig 23 **A**). The following pop-up window will open allowing thus the selection (Fig 24):

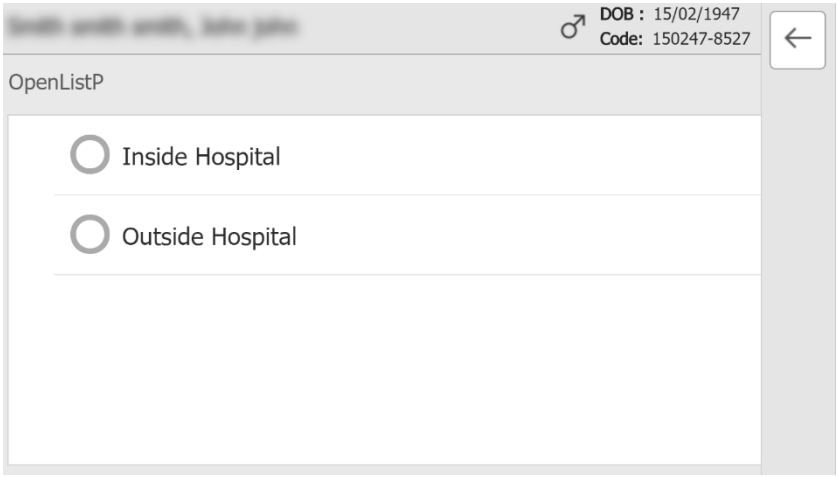


Fig 24

- Touch the "Confirmation" button to save the data inserted in the Dataset (Fig 23 **B**);
- Touch the "Discard" button to cancel the data inserted in the Dataset (Fig 23 **C**).

The "NumericList" entry type is related to score datasets. The user inserts a numeric value: such a value is mapped on an item label concurring to the calculation of the score itself.

- Touch the space above the parameter line _____ to insert a specific value. A numeric keyboard will appear allowing the user to insert the requested value.
- Insert the proper value the parameter requested by the score and for each screen press the **Done** button. The score will be in this way calculated (Fig 25).

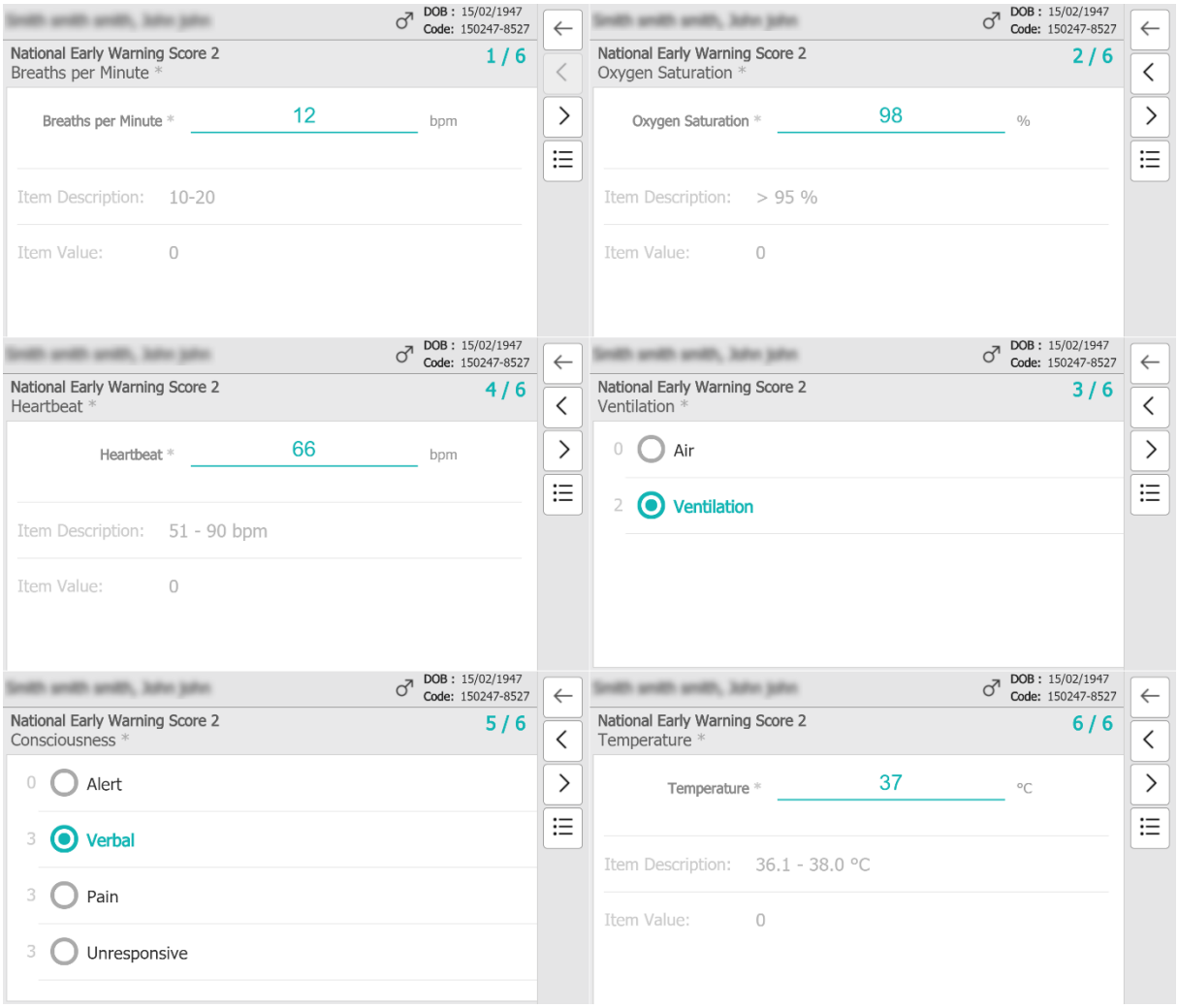


Fig 25

➢ Touch the **Next page** button to view the Dataset Summary page (Fig 26)

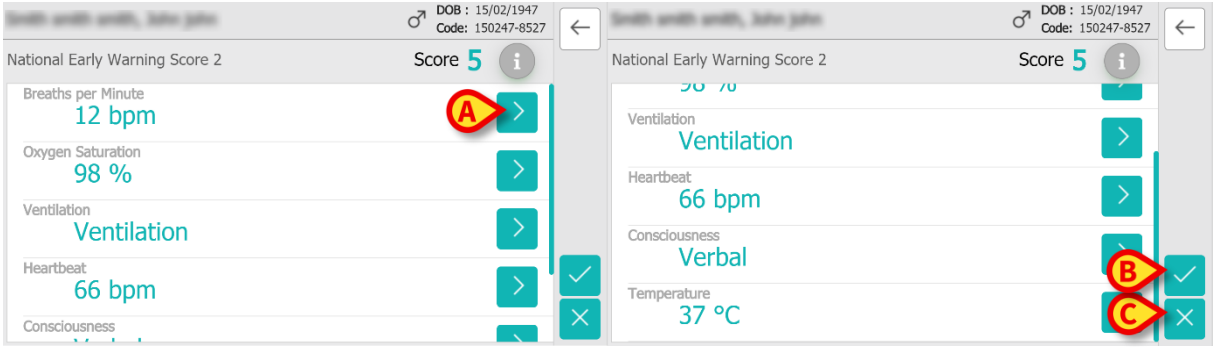


Fig 26

➢ Touch the **Display** button to show the data insertion page (Fig 25 **A**);

➢ Touch the **Confirmation** button to save the data inserted in the Dataset (Fig 25 **B**);

➢ Touch the **Discard** button to cancel the data inserted in the Dataset (Fig 25 **C**).

The "NumericList" entry type can be in addition configured to read data from connected devices by means of installed drivers. Let us consider the example below (Fig 27):

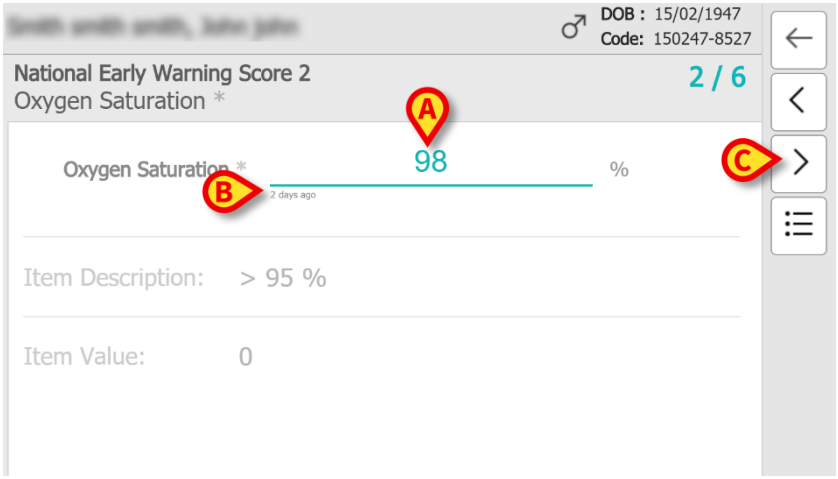


Fig 27

- The numeric value (Fig 27 **A**) is automatically read from the driver;
- A time counter (Fig 27 **B**) informs the user about the time elapsed since the last data reading;
- Touch the **Next page** button [>] to view the next screen of score calculation (Fig 27 **C**).

2.4.2 Inserted values summary

After one of the actions above explained the "Dataset Records" page, containing the last saved records for the considered Dataset, will be shown (Fig 28). Please note the screen features depend on the kind of dataset acquired.

See Fig 28 for an example.

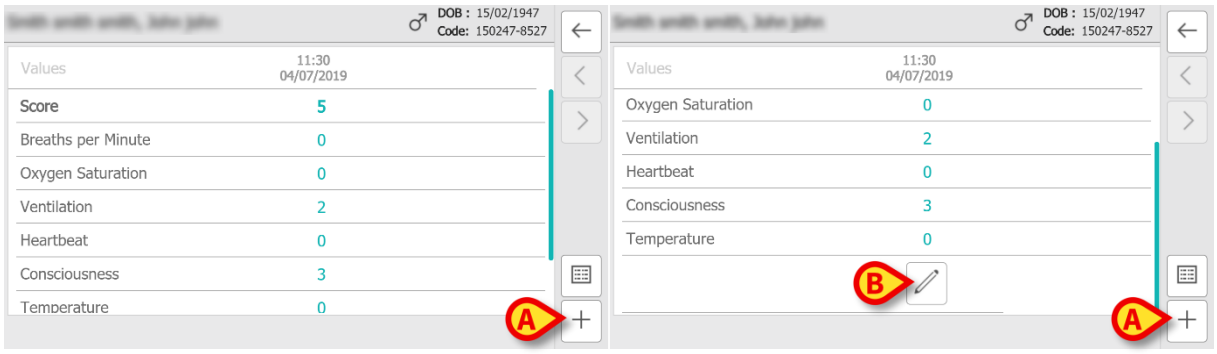


Fig 28

The user can do one of the following actions:

- Touch the "Add" button [+] to add another set of data (Fig 28 **A**).
  This was explained in Paragraph 2.4.1.

- Use the "Edit" button to edit the data of an existing set (Fig 28 **B**).
  This was explained in Paragraph 2.4.3.

In both the actions above described, the first page of data insertion for the considered Dataset will be shown. The only difference is that in case of Dataset "Edit" the parameters are yet valorized.

In case of "NumericList" entry type, the **Show Original Data** button can be displayed in the summary screen to view the original numeric data instead of the associated label.

- Touch the **Show Description** button. The following window will appear (Fig 29):

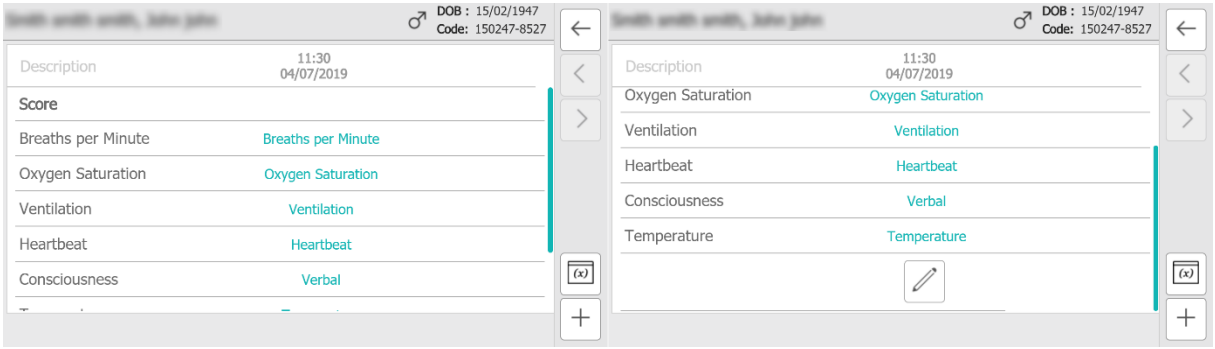


Fig 29

- Touch the **Show Original Data** button to view the original numeric data. The following window will appear (Fig 30):

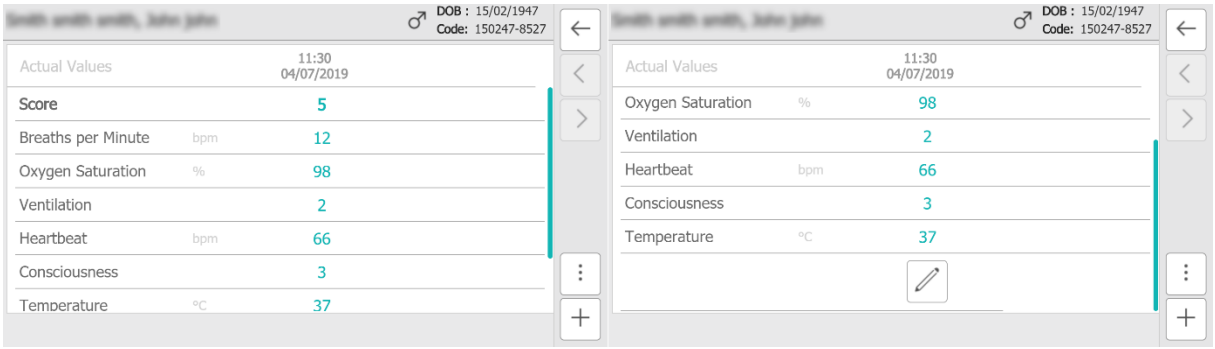


Fig 30

- Touch the **Hide Description** button to restore the original Summary page (Fig 28):

2.4.3 How to edit an existing set of data

To edit an existing set of data, on the Datasets list screen (Fig 31),

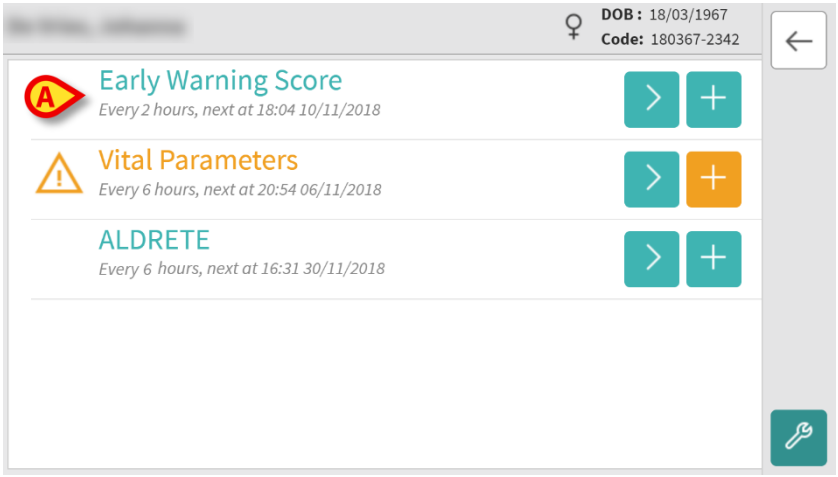


Fig 31

- Select the relevant Dataset (Fig 31 **A,** for instance) and touch the "Display" button . The acquired Datasets Summary page will open (Fig 32).

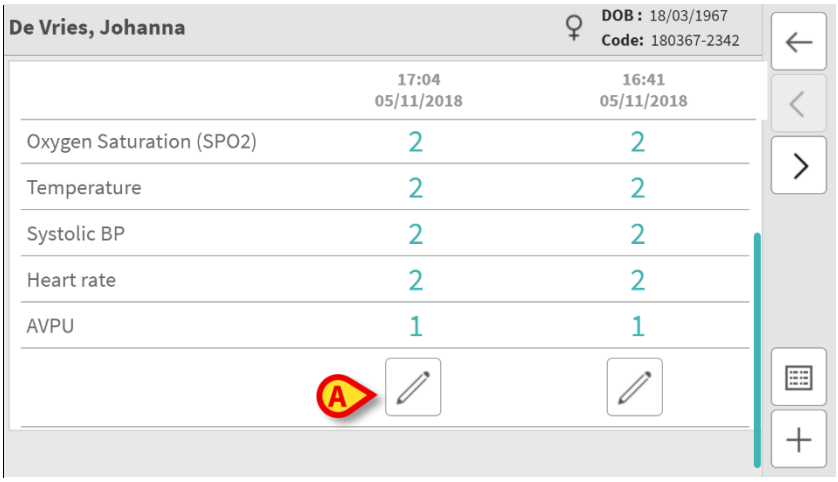


Fig 32

- Touch the "Edit" icon corresponding to the set to be edited (Fig 32 **A**)

The data entry screen will open (Fig 33).

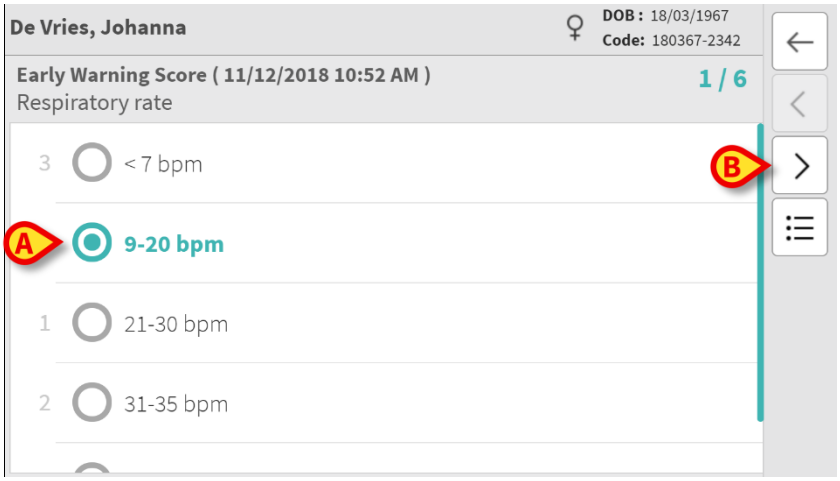


Fig 33

- Edit inserted data (Fig 33 **A**).
- Navigate with arrow buttons (- Fig 33 **B**) until Dataset Summary page is shown (Fig 14).
- Touch the "Confirmation" button to save the data inserted in the Dataset (Fig 14 **A**).

The Dataset is this way edited.

3. Configuration of Vitals Web

The functionalities described in this paragraph are reserved to "super users" or System Administrators and require therefore a specific permission level.

To access the Dataset Configuration page, after the patient selection, on the Datasets list screen (Fig 34),

- Touch the "Configuration" button (Fig 34 **A**).

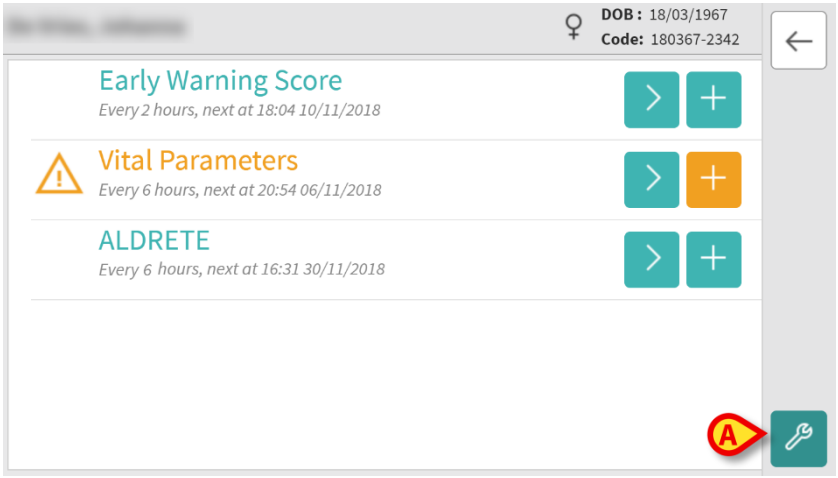


Fig 34

The list of all the existing Datasets (defined by configuration) will open (Fig 35). The list of all existing Dataset is configured. As previously noticed, if the number of configured Datasets exceeds the screen size then the Datasets list is paged.

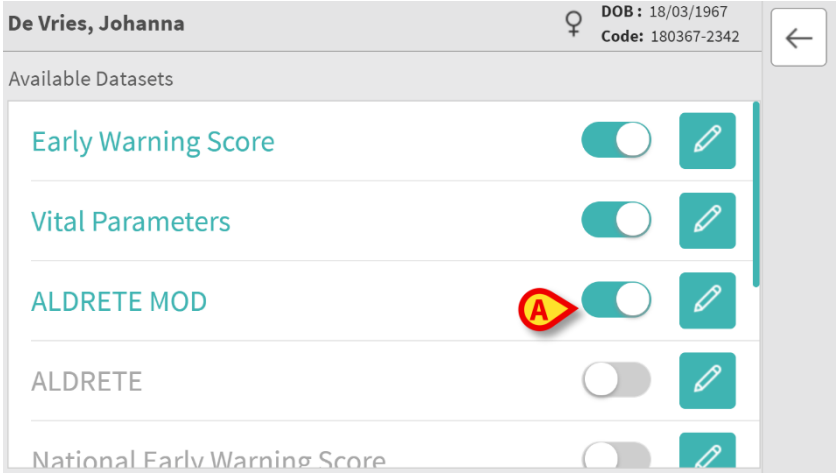


Fig 35.

Use the switch to enable/disable a Dataset for the selected patient (Fig 35 **A**).

When the Dataset is enabled the "Add" button (or) is displayed within the Dataset tile (Fig 36 **A**).

Fig 36

For each Dataset in the Dataset Configuration page the name is displayed.

To configure the Dataset

- Touch the "Edit" button (Fig 36 **B**).

The following screen will open (Fig 37).

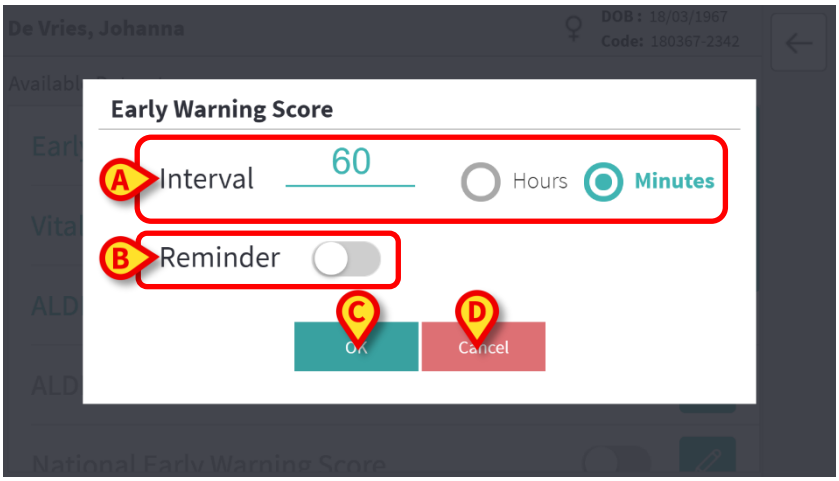


Fig 37

- Set the "Interval" field to decide the dataset timing value and measure unit (Fig 37 **A**).
- Select the "Reminder" checkbox to get automatic reminders on when the Dataset acquisitions are due (Fig 37 **B**).

After configuring the dataset,

- Touch the **OK** button to save the changes made (Fig 37 **C**).
- Touch **Cancel** to go back to the datasets list (Fig 37 **D**).

4. Annex – Examples of user workflows

4.1 Log in

- Open the Vitals Web application. The login screen is displayed (Fig 1).
- Tap/Click the "PIN" field (Fig 1 **A**)
- Use the virtual keyboard to insert the pin code (numeric).
- Click either **Done** or  to confirm (Fig 1 **B** and **C**)

The "Patient list" screen opens (Fig 2).

4.2 Select Patient

The "Patient list" screen lists the configured beds (Fig 2). To display the list of the existing datasets for a patient:

- Click the  icon placed alongside the patient name (Fig 2 **D**).

The dataset list for the selected patient is displayed (Fig 3). The patient is selected.

4.3 Add a new set of data

The dataset list for a patient lists all the datasets enabled for that patient (Fig 3). To add a new set of data to one of the datasets:

- Click the  icon placed alongside the dataset name (Fig 3 **E**).

The data entry screen is displayed (Fig 4). The data entry procedures change according to the kind of dataset (value, multiple choice, text etc.).

- Enter Data (Fig 4 **F**).
- When done, touch the "Confirmation" button  (Fig 4 **G**) to save the data inserted in the Dataset.
- A summary is displayed in the "Dataset summary page" (Fig 5).

4.4 Display the existing dataset summary

To display a summary of all the acquired sets of data for a given dataset (Fig 5):

- Click the  icon placed alongside the dataset name (Fig 3 **H**). The screen shown in Fig 5 is displayed.

Each column corresponds to a set of values. Acquisition date and time are displayed on top.

4.5 Edit an existing set of data

To edit an existing set of data

- Click the "Pen" icon placed at the bottom of the column representing the dataset to be edited Fig 5 - **I**.

The data entry screen is displayed again (Fig 4). If the icon is not present, then that set of data is not editable for the current user.

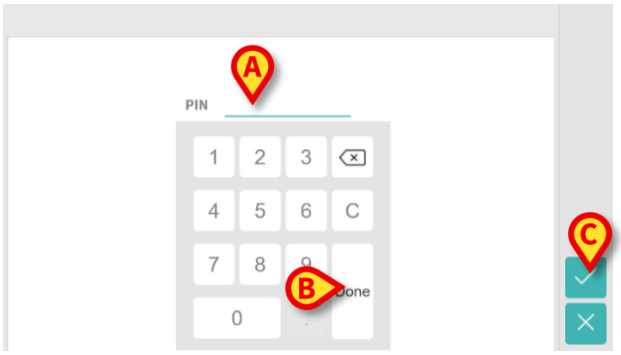


Fig 1

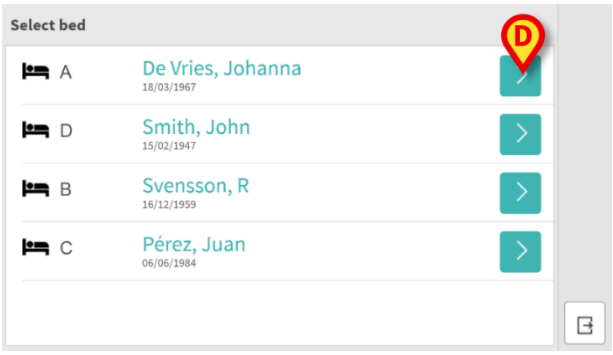


Fig 2

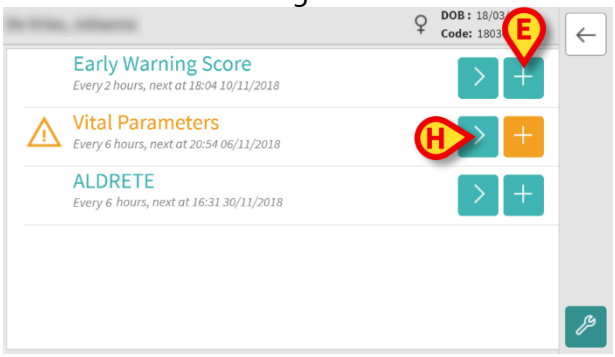


Fig 3

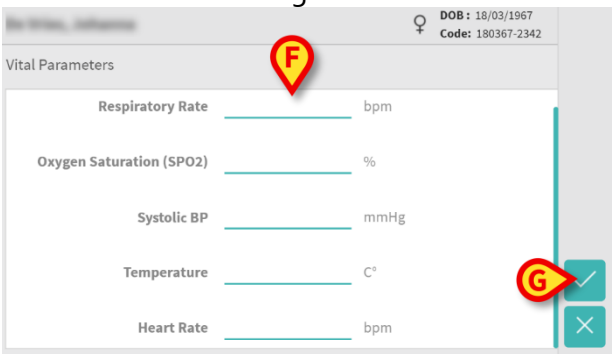


Fig 4

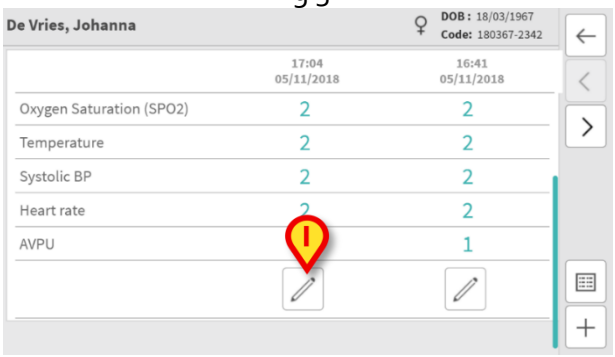


Fig 5