Vitals Web
User Manual

Version 4.0

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Contents

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

1. Introduction

The Vitals Web application permits data entry and display for a variety of clinical workflows, procedures and protocols. 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.

1.1. Launching Vitals Web

To launch Vitals Web:

➢ Click the 

icon on the lateral bar.

A screen is displayed, showing the data of the patient currently selected.
Vitals web requires patient selection. If no patient is currently selected, an empty screen is displayed, reminding that “This module requires a patient”. See section 1.2.

1.2. Patient selection

To select a patient,

➢ Click the **Patient** button indicated in Fig 1 **A**.

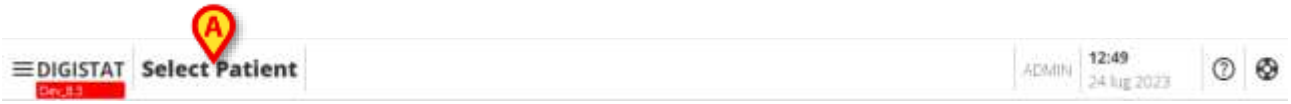

Fig 1

The Patient Explorer Web module opens. See the Digistat® Patient Explorer Web user manual (*USR ENG Patient Explorer Web*) for further instructions on patient management functionalities.
When a patient is selected the module displays the data of the selected patient.

Other modules can be configured for the patient selection in place of Patient Explorer Web, depending on the choices of the healthcare organisation. If this is the case, see the specific documentation for instructions.

2. Vitals web

2.1. Screen structure

The Vitals Web screen (Fig 2) is composed of the following items:

1) the enabled datasets list (Fig 2 **A** – see section 2.2);
2) the records table (Fig 2 **B** – see section 2.3);
3) the command bar (Fig 2 **C** – see section 2.5).

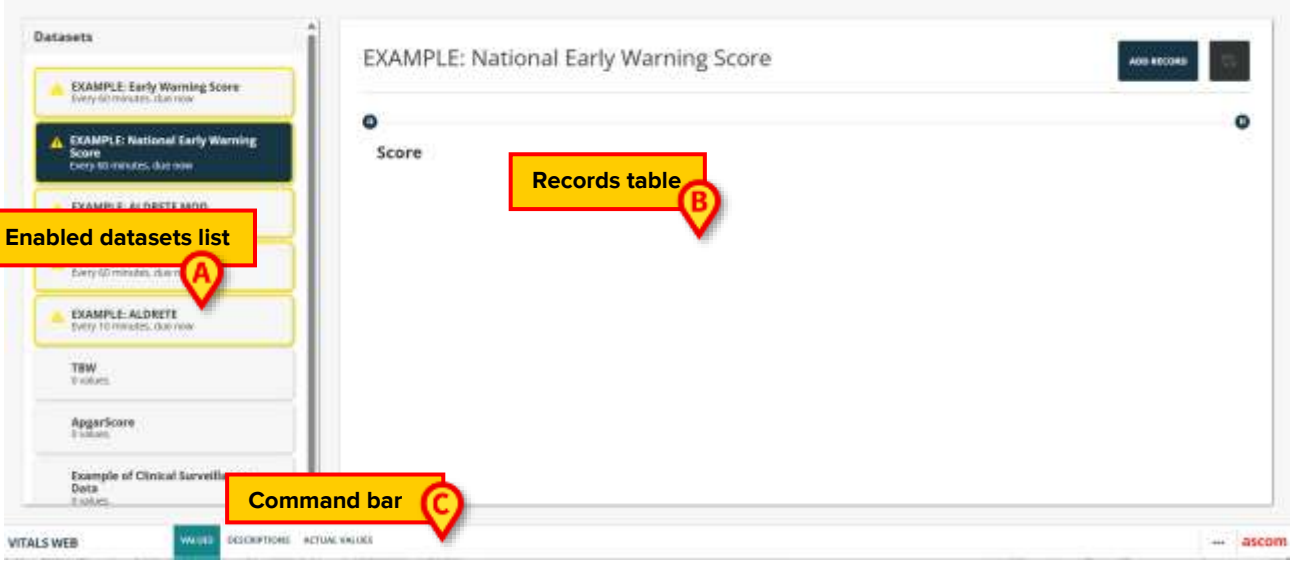

Fig 2

2.2. Enabled 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 the appropriate list of datasets can be enabled. If the datasets are enabled, they are listed in the “Datasets list” on the left (Fig 2 **A**, Fig 3). See section 2.5.1 for instructions on how to enable a dataset.

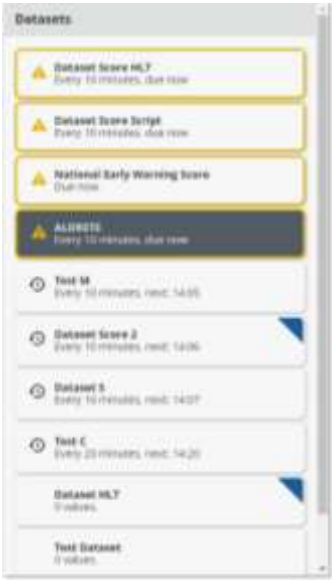

Fig 3

Each enabled dataset is displayed in a slot (Fig 4).

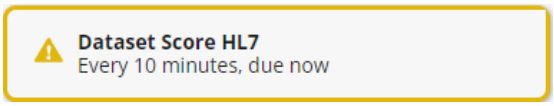

Fig 4

The slot displays the name of the dataset and additional information. The kind of information displayed depends on the dataset configuration. The dataset shown in Fig 4, for instance, is configured to be recorded every 10 minutes. Due time has passed in the example (data entry is therefore “due now”). When the due time has passed, the dataset name is circled yellow and a warning icon is displayed, as in Fig 4.

Fig 5

Fig 5 shows a dataset that is due every 10 minutes, with the next due time. The icon means that there are entries for the dataset.

Fig 6

Fig 6 shows a dataset with no configured timing (free timing), indicating the number of entries and the time of the last entry.

- Click a slot to select the corresponding dataset and display the data recorded since for that dataset (records).

If a blue triangle is displayed on the corner of a slot (Fig 7 **A**), it means that the dataset is not published yet. This possibility exists only for users with specific permissions.

Fig 7

2.3. Records table

The records table displays the data acquired for a selected dataset. The data is displayed in a grid. The columns are the different successive entries. The rows contain the single values. In Fig 8 the Aldrete score is selected as example.

Fig 8

The name of the dataset is displayed on top (Fig 8 **A**). If configured, a help icon can be present alongside the dataset name. Click the icon to open a help window.

The different entries are displayed in columns (Fig 8 **B**). The date/time of each entry is displayed on top of the column. In case of severity scores the total score is displayed as circled. The values of the single entries for the same score are specified below the total score, in the same column.

The score can be configured to highlight critical values. See Fig 9 **A**.

Fig 9 – critical values

2.3.1. How to record a new set of data

To record a new set of data

- Click the dataset on the left to select it (Fig 10 **A**).

The name of the selected dataset is displayed on top (Fig 10 **B**). The sets of data previously acquired are displayed on the records table (Fig 10 **C**).

Fig 10

- Click the **Add record** button (Fig 10 **D**).

The data entry screen opens. The data entry screen changes according to the kind of data to be entered. Fig 11 refers to the Aldrete Score. Other possibilities are described in section 2.4.

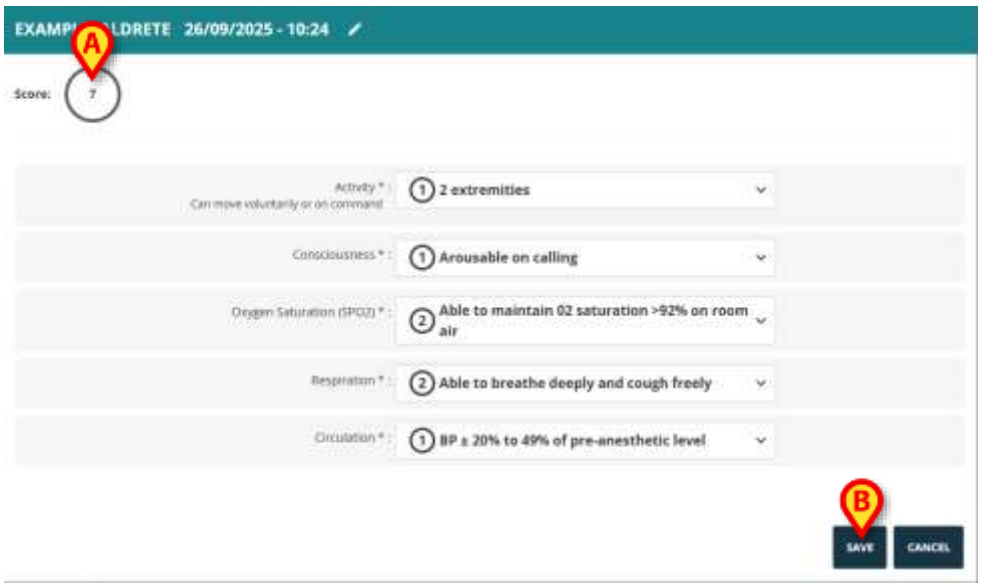

Fig 11

- Insert the required values according to the field type. The different types are described in section 2.4.

The fields indicated by the asterisk, as  , are mandatory. I.e.: the record cannot be saved if they are not specified.

A textual description can be displayed below the field as a guide to data entry.

In Fig 12 the circled value is the score, the range displayed alongside the score refers to the actual value (respiratory rate in the example). The single choices can be associated to a color if required.

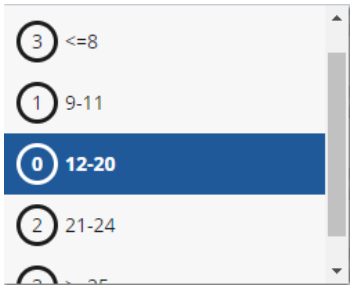

Fig 12

Some of the values can be configured to be automatically acquired from the medical devices and inserted in the appropriate fields.

- Click the icon to refresh the values automatically acquired (Fig 13 **A**).

Fig 13

If the dataset is a “Score” type, when all the fields are filled, the total score is displayed in the data entry window (Fig 11 **A**). As shown in the figure, a dataset can be configured to highlight certain values as “critical” (usually red - the color is configurable) or “requiring attention” (usually yellow/orange). A textual description can be associated to those values (usually instructions and/or clinical procedures).

Fig 14

- Click **Save** when done (Fig 11 **B**).

The new record is added to the records table (Fig 15 **A**).

Fig 15

2.3.2. Editing an existing set of data

To edit an existing set of data,

- Click the column corresponding to the relevant set of data (Fig 16 **A**).

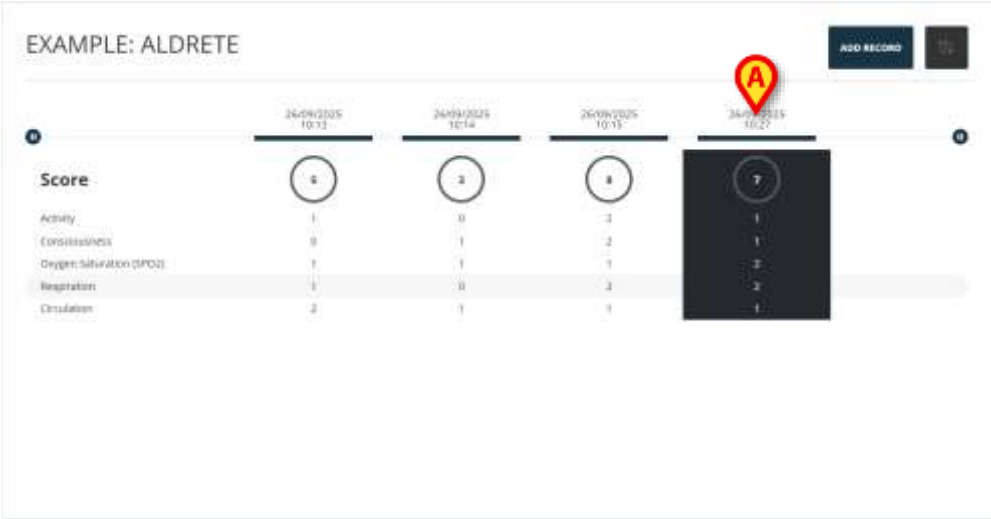

Fig 16

The corresponding data entry window opens (Fig 17).

Fig 17

- Click **Edit** (Fig 17 **A**).

The window turns to edit mode (Fig 18).

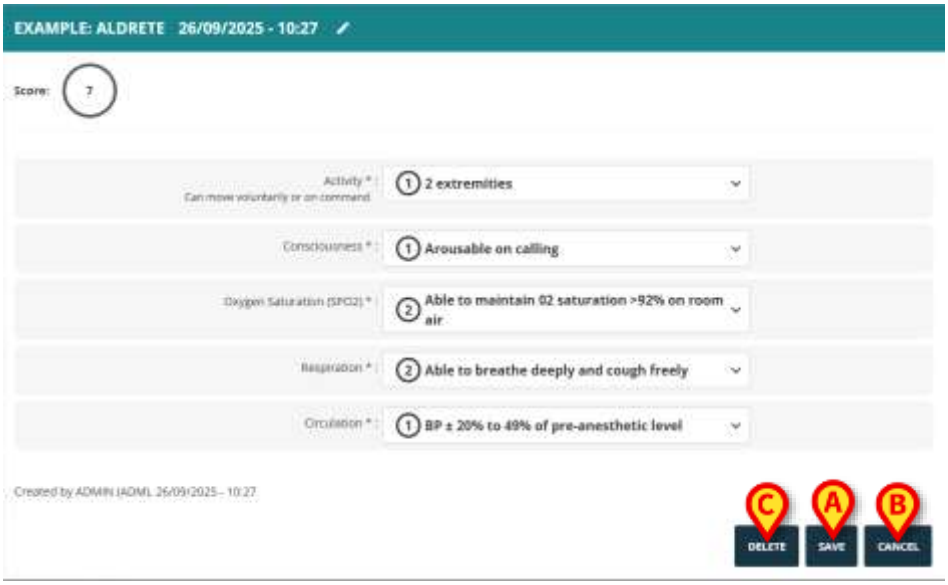

Fig 18

- Edit the fields requiring to be edited.
- Click **Save** to publish the updated set of data (Fig 18 **A**).
- Click **Cancel** to close the window without editing (Fig 18 **B**).

2.3.3. Deleting an existing set of data

Use the procedure described in the previous section (2.3.2) until the data entry window is in edit mode (Fig 18).

- Click **Delete** (Fig 18 **C**).

User confirmation is required to complete the deletion procedure. Also, it is required to specify the reason for deletion (Fig 19 **A**) and then confirm (Fig 19 **B**).

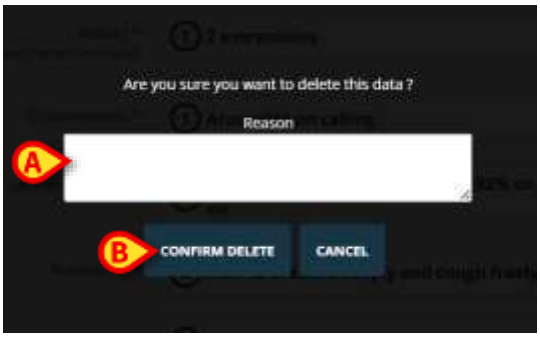

Fig 19

After user confirmation the corresponding column is removed from the records table (Fig 20).

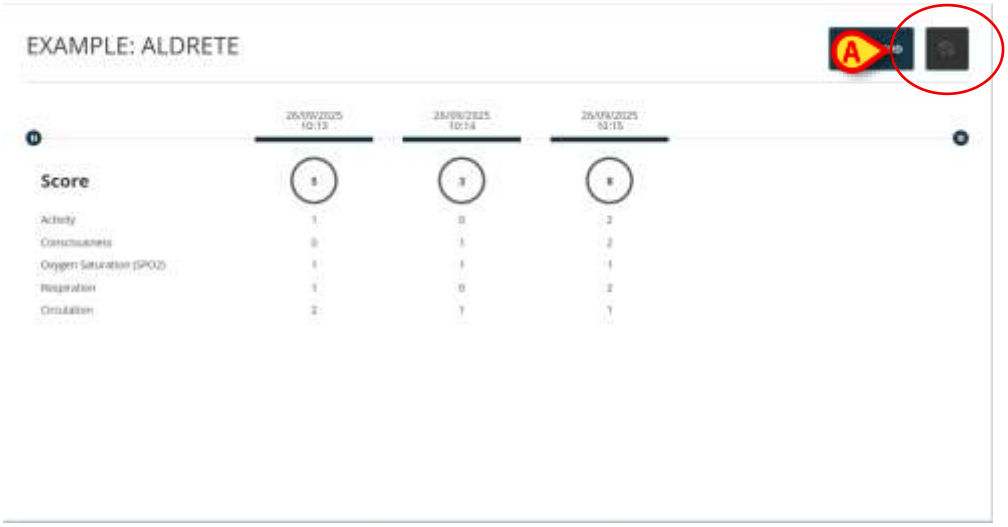

Fig 20

The deleted sets of data can be displayed again. To do that:

- Click the  button placed on the top-right corner of the window (Fig 20 **A**).

The deleted sets of data are displayed again on the table, characterized by the grey color. See, for example, Fig 21 **A** and **B**.

Fig 21

The deleted sets of data can be clicked to display their details.

To hide the deleted sets of data again (Fig 21 **C**).

- Click the button one more time.

2.4. Data entry modes

The type of entered data and the entry mode depend on the kind of information that must be specified.
In all cases, if an incorrect type is inserted (for example a letter in a numeric field), a message error is displayed.
Also, accettable ranges can be configured for a certain field. If a value outside of the allowed range is inserted, a message error is provided.
The possible data entry field types are:

- **Numeric**

Only numbers are accettable values. Type the number in the field.

- **Numeric list**

Numeric value to be selected on a drop-down menu. The actual values are associated to another value for score calculation;

- **String**

Free alphanumeric string. Type the string in the field.

- **List**

Select an item from a pre-configured list of items to be selected on a drop-down menu.

- **Boolean**

Only “Yes” or “No” values are possible. Select a checkbox to indicate “Yes”.

- **Image**

Image acquired by the user with the device camera. Can be acquired only on mobile devices, readable on any device.

- **Audio**

Recorded by the user with the device recorder. Can be acquired only on mobile devices.

- **String with presets**

Alphanumeric string with suggestions. It is possible to type a string and select the value on a drop-down list.

- **Date**

Insert a date. Click the icon indicated in Fig 22 **A** to open a calendar to be used for date selection.

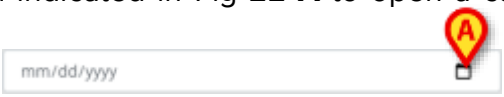

Fig 22

- **Date/Time**

Insert date and time. Click the icon indicated in Fig 22 **A** to open a calendar and clock to be used for date/time selection.

- **Conditional**

A field can be configured to be displayed only if certain conditions are met. For example: a field is displayed only if the user selects a specific value from a previous list.

2.5. The command bar

Fig 23

The name of the web application currently selected is displayed on the left of the command bar (Fig 23 **A**).

For “Score” type datasets, three buttons, indicated in Fig 23 **B**, make it possible to change the way the values are displayed on screen.

Values – Displays the values as they are configured for a certain dataset.
Description – For some Scores a certain value corresponds to the description of a patient’s state. The “Description” display mode shows the descriptions corresponding to the values.
Actual values – When an actual value corresponds to a score (for example: if the oxygen saturation is 89, then the score is 2), the “Actual values” display mode shows the actual values instead of the score values.

Fig 24 and Fig 25 show the same dataset records displayed as “Values” (left) and “Description” (right).

Fig 24

Fig 25

The button on the right of the command bar (Fig 23 **C**) allows to access the list of available datasets. See next chapter.

2.5.1. Available datasets list

Only a subset of the available datasets is enabled for a patient.

A dataset can be enabled/disabled on the application by users having specific permissions. To do that:

- Click the ··· button on the command bar (Fig 23 **C**).

The list of available datasets opens (Fig 26).

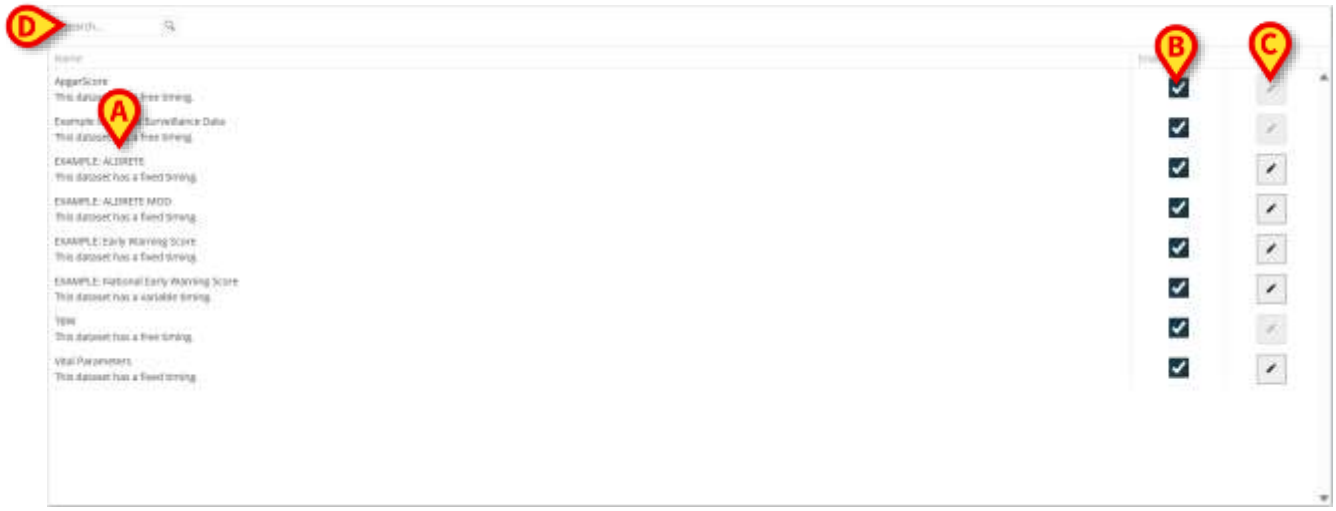

Fig 26

The available datasets are listed on the left (Fig 26 **A**). For each dataset the name and the timing mode are specified. Three timing modes are possible:

- **Free** – whenever required. No evaluation interval is specified.
- **Fixed** – to be evaluated at fixed time intervals (for example: “every 15 minutes”).
- **Variable** - to be evaluated at variable time intervals, depending on the patient state.

The timing mode is defined during configuration.
A search tool is available, making it possible to search for a specific dataset (Fig 26 **D**).

The checkboxes in the “Enabled” column (Fig 26 **B**) indicate which datasets are currently enabled. The enabled datasets are available for data entry on the application main screen.

- Select/Deselect a checkbox to Enable/Disable a dataset.

The buttons on the right (Fig 26 **C**) make it possible to edit some settings of the corresponding dataset.

- Click the  button (Fig 26 **C**) to open the following window (Fig 27).

Fig 27

The name of the dataset is indicated on top (Fig 27 **A**).

The “Interval” field sets the fixed time span after which the specific set of data must be collected (Fig 27 **B**). This field is enabled only for datasets with fixed timing.

The “Reminder” checkbox (Fig 27 **C**) enables notifications display on mobile devices (at the interval specified).

- Click the **Save** button to save the settings (Fig 27 **D**).

To close the available datasets list and go back to the module main screen,

- Click **Close Settings** on the command bar (Fig 28 **A**).

Fig 28