Therapy Web
User Manual

Version 2.0

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Contents

Therapy Web

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 Therapy Web, described in this document.

The treatments displayed in the figures of this manual are examples created to better explain the procedures of Therapy Web. Their features (as, for example, dosages and names) are not intended to be in any way clinically relevant.

1. Introduction

Digistat® "Therapy Web is a web application that can be of help for the clinical staff for the documentation of the prescription and administration of treatments.

2. Module selection

Digistat® "Therapy Web" is formed of two modules: "Therapy Prescription" for the treatment prescription documentation, mainly used by physicians; "Therapy Execution" for the treatment administration documentation, mainly used by the nursing staff.

On the lateral bar:

- Click the  icon to launch "Therapy Prescription".
- Click the  icon to launch "Therapy Execution".

2.1. Patient selection

If no patient is selected, no data is displayed.

To select a patient,

- click the **Patient** button on the Control Bar (Fig 1)

Fig 1 - Patient selection button

The "Patient Explorer Web" module opens. See the "Patient Explorer Web" module user manual for the operating instructions (*USR ENG Patient Explorer Web*).

Other modules can be configured for the patient selection in place of "Patient Explorer Web", depending on the configuration of the Digistat Suite. If this is the case, see the specific documentation for instructions.

When a patient is selected the patient name is displayed on the **PATIENT** button instead of "**Choose Patient**".

The "Therapy Prescription" and "Therapy Execution" modules display the data of the selected patient.

3. Basic concepts

This section explains some basic notions whose preliminary understanding is essential to the appropriate use of "Digistat Therapy".

3.1. Prescription status

The "Therapy Prescription" module (described in section 4) allows to create a treatment plan and keep it active in time after periodic confirmations. Possible variations can be recorded quickly while the general plan remains the same.

The patient's treatment plan is summarized and displayed in a table (Fig 2). Each row corresponds to a treatment prescription.

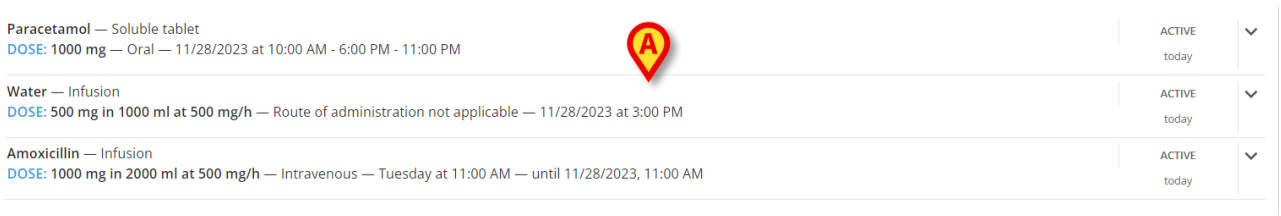


Fig 2

Each prescription generates a certain number of orders. The orders correspond to the single administrations of the treatment.

A prescription is terminated when all the orders that it generated are executed and no other order will be generated by it in the future.

The prescription status is displayed on the right (Fig 3).

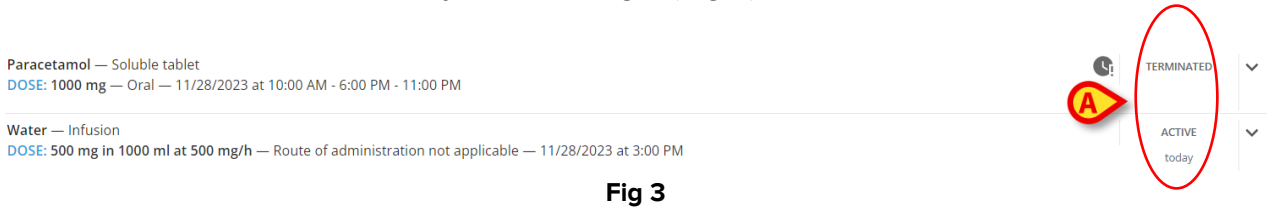


Fig 3

There are four possible prescription statuses:

1. “Active” - when a prescription is in “Active” status, the prescription values can be displayed and edited. Click the corresponding row to open the related “prescription specification” window.

2. “Terminated” - a prescription is terminated when all the orders that it generated are executed and no other order will be generated by it in the future. Terminated prescriptions are still active. That means that the prescription values can be displayed and edited. Double-click the row corresponding to the prescription to expand the row and display the related “prescription specification” tools.

3. “Suspended” - the prescription suspension, performed using the **Suspend** button (see section 4.5), deletes the prescription from the prescription plan and deletes all the related administration orders. The suspended prescriptions can be displayed again (in strikethrough text) by means of the available filter (see section 4.10 for the filters explanation). Suspended prescriptions can then be resumed (section 4.5). A suspended prescription does not generate administration orders.

4. “Removed” - a prescription can be removed by means of the **Remove** button (see section 4.6). All the administration orders generated by it are deleted. The removed prescriptions can be displayed again (in strikethrough text) by means of the available filter (see section 4.10 for the filters explanation). Removed prescriptions do not generate administration orders and cannot be resumed.

3.2. Repeatable vs. Not Repeatable Prescriptions

Repeatable prescriptions
A prescription is “***Repeatable***” if it generates orders that must be administered at given intervals. For example: a prescription can state that a drug must be administered every day at a certain time. In this case the prescription is repeatable; it generates the corresponding orders placing each of them in the required days at the required time/s.

Non-repeatable prescriptions
Non-repeatable prescriptions generate only the administration orders explicitly specified in the prescription. When all the orders are executed, the prescription is “Terminated” (see section 3.1).
The repeatability of a prescription is set by a specific checkbox on the prescription specification window (see Fig 44 for an example).

The repeatability of a prescription is indicated by a specific icon - - on the prescriptions table of the “Therapy Prescription” module (see, for example, Fig 4 **A**).

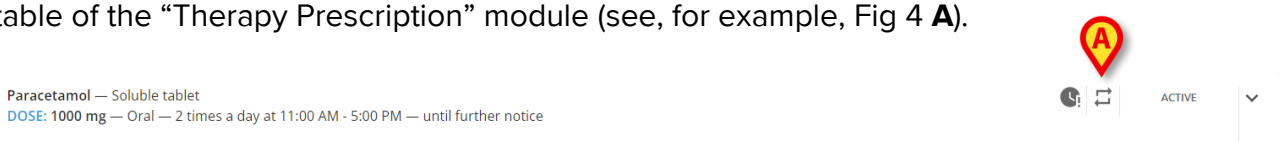


Fig 4

3.3. Punctual vs. Durative administrations

Punctual administrations start and end in one moment (it's the case of a tablet, for instance).

Durative administrations last a certain amount of time (it's the case of a drip, for instance).

Punctual and durative administrations are characterized by different graphic features and different management procedures on the Therapy Execution module. See section 5.3 for the description of the possible administration types on Therapy Execution.

3.3.1. The therapy cycle - treatment plan re-confirmation

The validity of the treatment plan created on "Digistat Therapy" is limited in time and needs to be re-confirmed by the medical staff. The treatment plan validity period is called "Therapy Cycle". The "Therapy Cycle" re-confirmation is a safety procedure that forces to check and verify the treatment plan at specified intervals. The "Therapy Cycle" duration is configurable. See section 4.16 for the therapy cycle update procedure.

3.3.2. Orders generation

This paragraph explains how the system generates the orders from a prescription specified in the treatment plan.
At prescription time, i.e. when the **Save** button on the "Summary" screen is clicked (Fig 60 **A**, see paragraph 4.13.3), the system generates the orders corresponding to the prescription specifications.

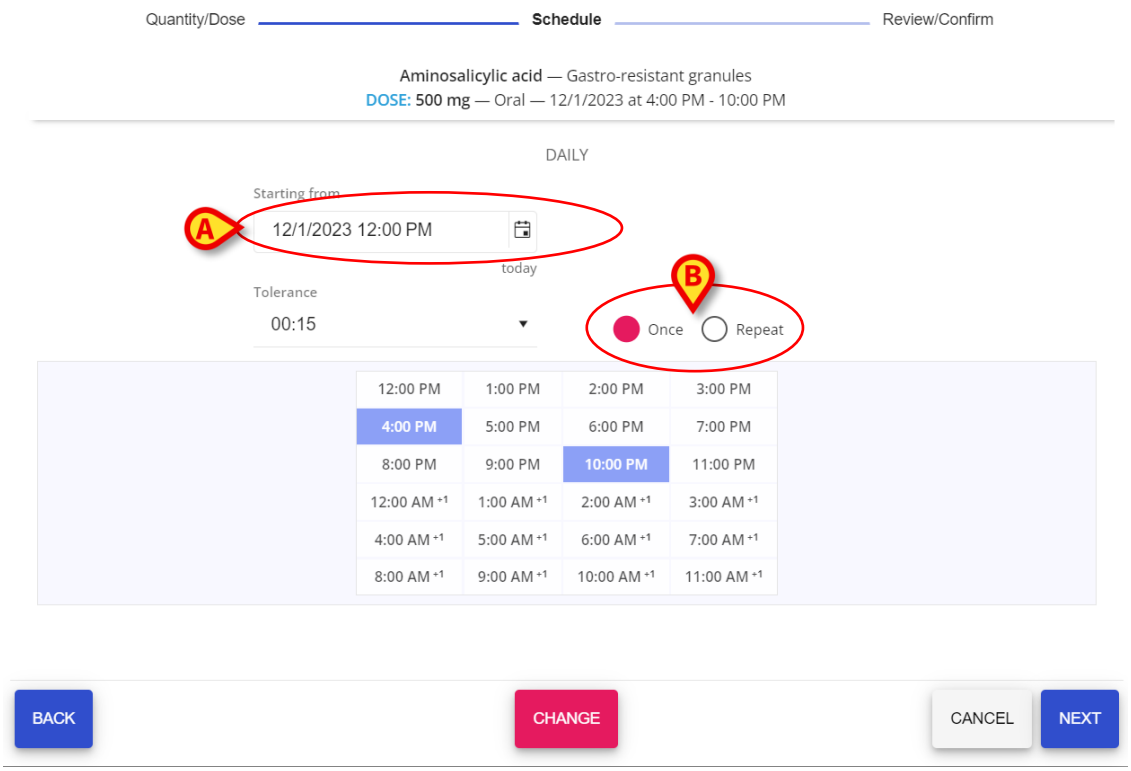


Fig 5 - Daily treatment prescription

Conditional prescriptions (paragraph 4.13.2.2) do not generate orders. These prescriptions are executed only when certain specific conditions occur.

3.3.3. Orders validity

The order execution standard procedure requires the order validation before the execution. The orders that, when generated, are within the "Therapy Cycle" are automatically validated.
The other orders are validated every time the "Therapy Cycle" is updated when they are within this period (paragraph 4.16).

Non-validated orders are signaled by a specific icon -  - on the Therapy Execution module (Fig 6). They can be executed only after a specific procedure, described in paragraph 5.5.5.

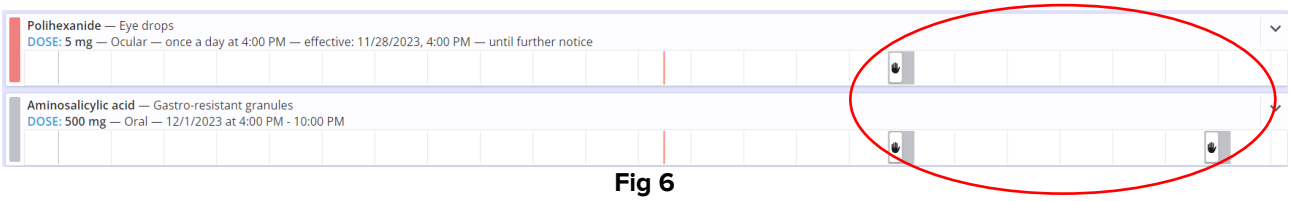


Fig 6

See paragraph 3.3.1 for the explanation of the "Therapy Cycle" (or "treatment plan validity period").
See paragraph 4.16 for the treatment plan update procedure.

3.3.4. Order validity expiration

The validity of an order expires after a certain amount of time after the scheduled administration time has passed. That is: if a validated order is not administered at the scheduled time, it remains validated for a certain period. After this period the order goes back to non-validated state (it is named "expired" to differentiate it from future not-yet-validated orders). Expired orders can be deleted from the treatment plan through the "Therapy Cycle" update procedure. See paragraph 4.16. Expired orders can be executed only using a specific procedure. The procedure is described in paragraph 5.5.5.

The orders validity duration is defined by a specific configuration parameter. Refer to the system administrator for more information.

The validity of a conditional prescription expires when the "Therapy Cycle" expires. Thus, conditional prescriptions are automatically validated every time the "Therapy Cycle" is updated. See paragraph 4.13.2.2 for the explanation of "Conditional prescriptions".

4. The “Therapy Prescription” module

4.1. Module selection

To select the “Therapy Prescription” module:

- click on the  icon on the lateral bar provided on the left:

When a module is selected the corresponding icon is highlighted.
When a patient is selected, it is possible to access to his or her prescription page and the “Therapy Prescription” module’s main screen opens.

4.2. Prescription main page

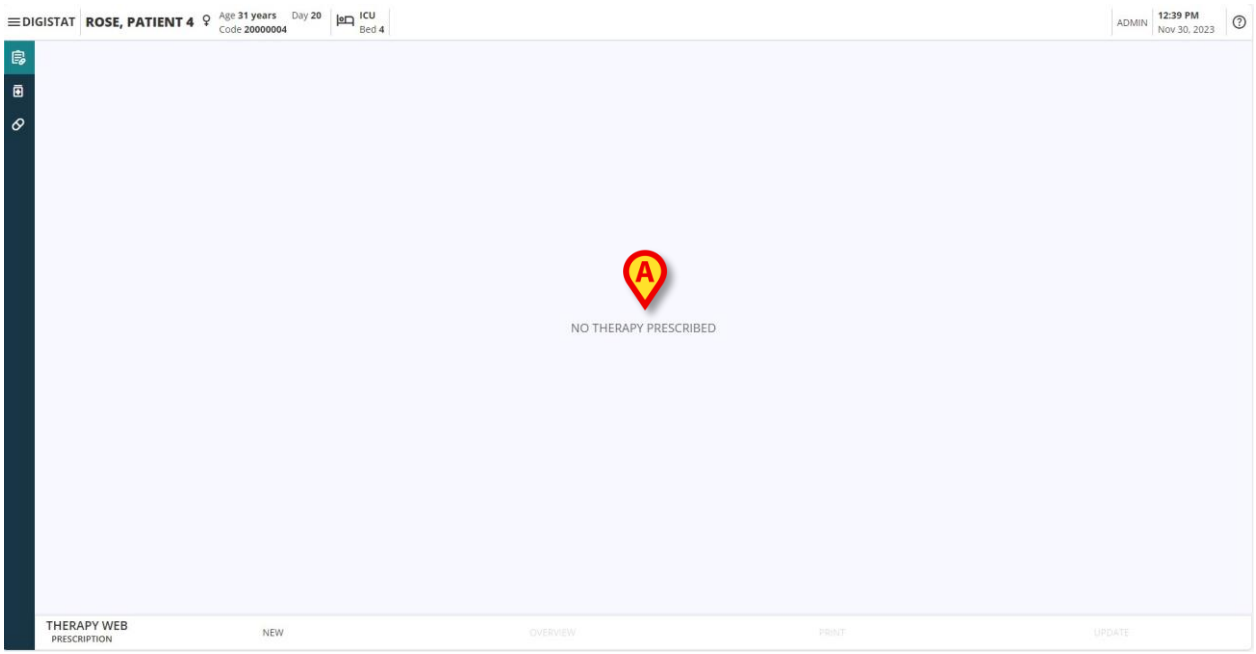


Fig 7

When a patient does not have any prescribed therapy, the page is empty and the message “**No Therapy Prescribed**” (Fig 7 **A**) is displayed in the central part of the page.

If some therapies have been prescribed, the patient’s therapeutic plan is shown and the treatments listed in the central part of the page (Fig 8 **A**), together with information on their modes of administration, dosages, schedule, and status.

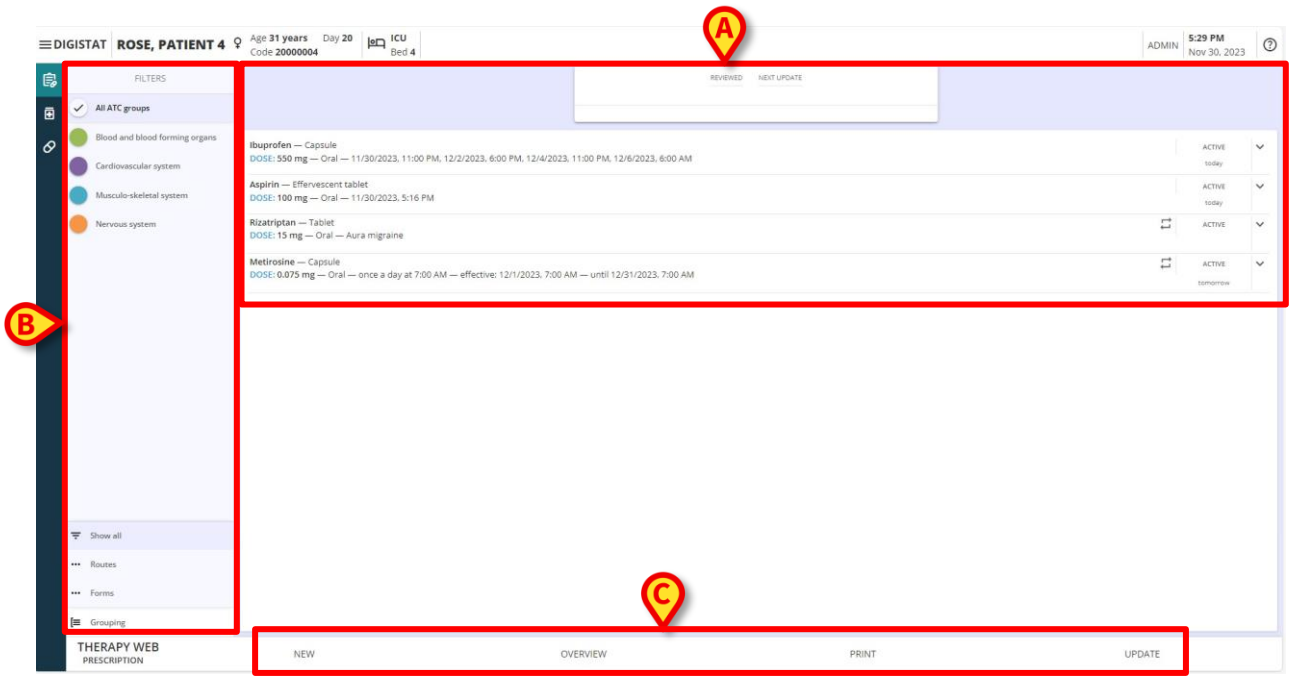


Fig 8

Each row in the list corresponds to a treatment prescription and the prescriptions are managed and displayed according to the user preferences.

The **name** of the administered drug/product name, together with information on its **mode of administration**, **dosages** (first element displayed on the second row of the prescription string) with **solution speed/amount/volume information**, **routes of administration/infusion** (if present) and **scheduling** (date and time) of prescribed order/s are displayed on each prescription row.

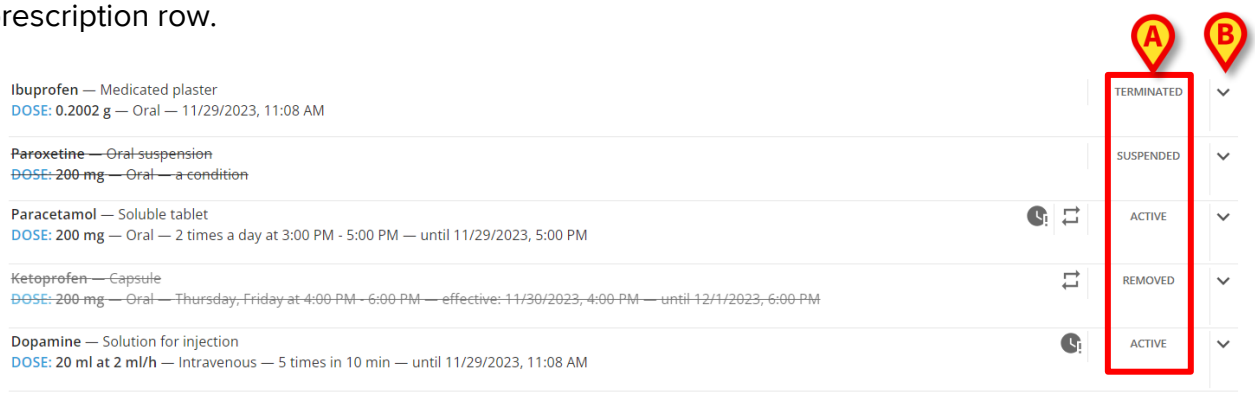


Fig 9

The **status** of each prescription is displayed on the right part of the prescription row (Fig 9 **A**).

The following statuses can be retrieved and shown:

- **Active** (enabled by default);
- **Suspended;**
- **Removed;**
- **Terminated.**

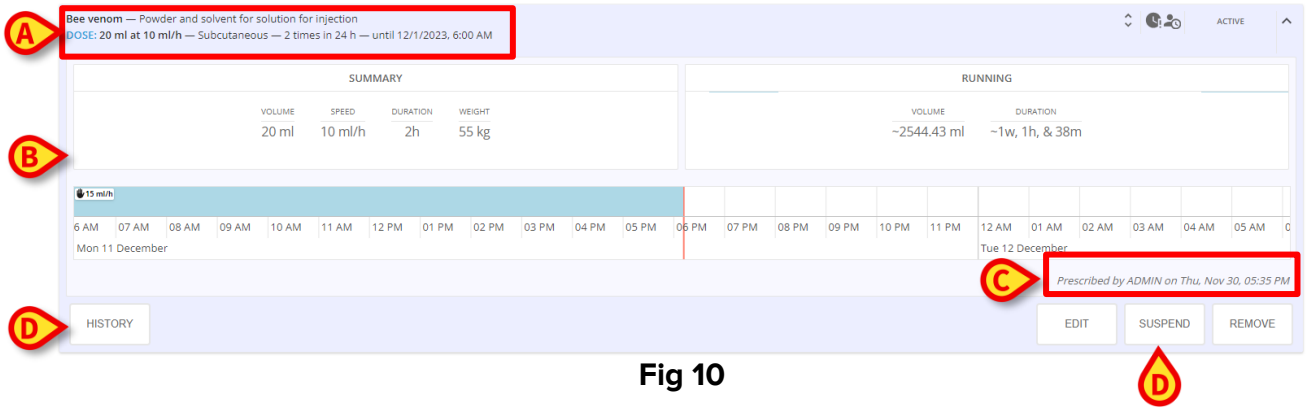


Fig 10

A down-arrow button (Fig 9 **B**) is available to expand a **detailed section** where a summary (Fig 10 **A**) of the treatment and its prescription values (amount, volume, speed, duration, patient weight), as well as information on the ongoing therapy and prescribed scheduling are shown (Fig 10 **B**). Information on the **user** who created and saved the prescription together with the **date-time** the prescription was last modified is also provided (Fig 10 **C**). Finally, several buttons are available depending on the current status of the prescriptions (Fig 10 **D**).

By default, on an active prescription, the following buttons are provided:

- **History**: to access the prescription history information;
- **Edit**: to edit the prescription;
- **Suspend**: to temporarily stop the prescription;
- **Remove**: to permanently remove the prescription (it cannot be resumed).

4.3. History

Fig 11

Clicking the **History** button, a modal window opens (Fig 11) and the prescription module in the background is dimmed.

The **name of the treatment/drug** is placed on the window header (Fig 11 **A**), then the prescription string (or prescription strings if the prescription has been modified) is shown (Fig 11 **B**).

Date and time of the prescription creation is retrieved together with the username of the user who created the prescription (Fig 11 **C**).

The button **Close** (Fig 11 **D**) is present in the right-bottom part of the window to close the History view.

Sections for each change applied to the selected prescription are displayed and the actions performed on the prescription are registered, listed, and grouped by the date on which they were performed (Fig 11 **E**).

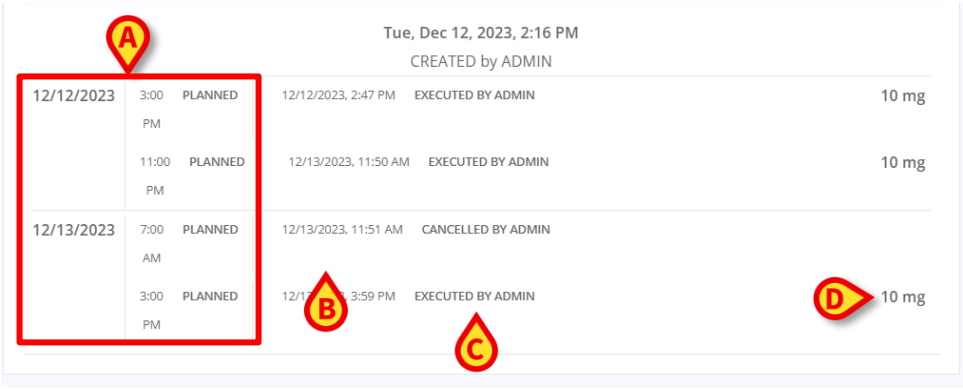


Fig 12

Each section contains:

- Date and time of originally planned administrations (Fig 12 **A**);
- Date and time of the performed actions on the prescription orders (Fig 12 **B**);
- The action performed and the name of the user who performed it (Fig 12 **C**);
- The dosage of the administrated prescription order (Fig 12 **D**).

4.4. Edit a prescribed treatment

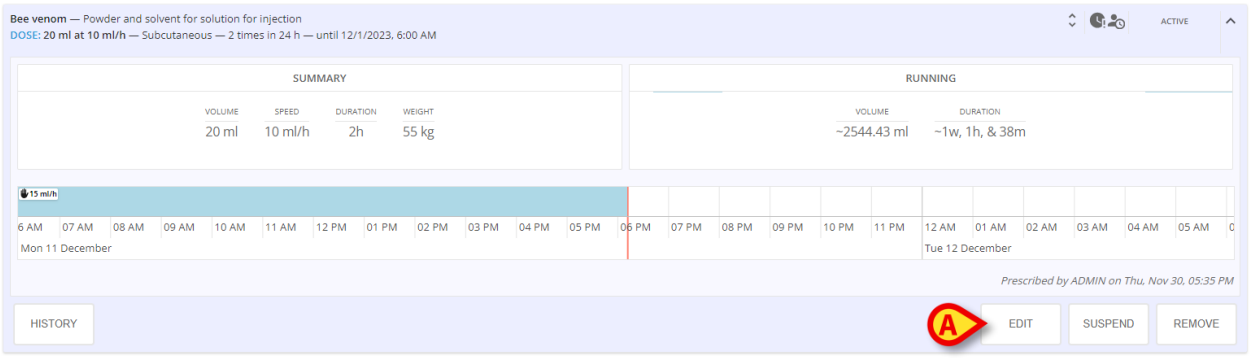


Fig 13

Clicking on the **Edit** button (Fig 13 **A**), the **Edit window** of the selected prescription is displayed.

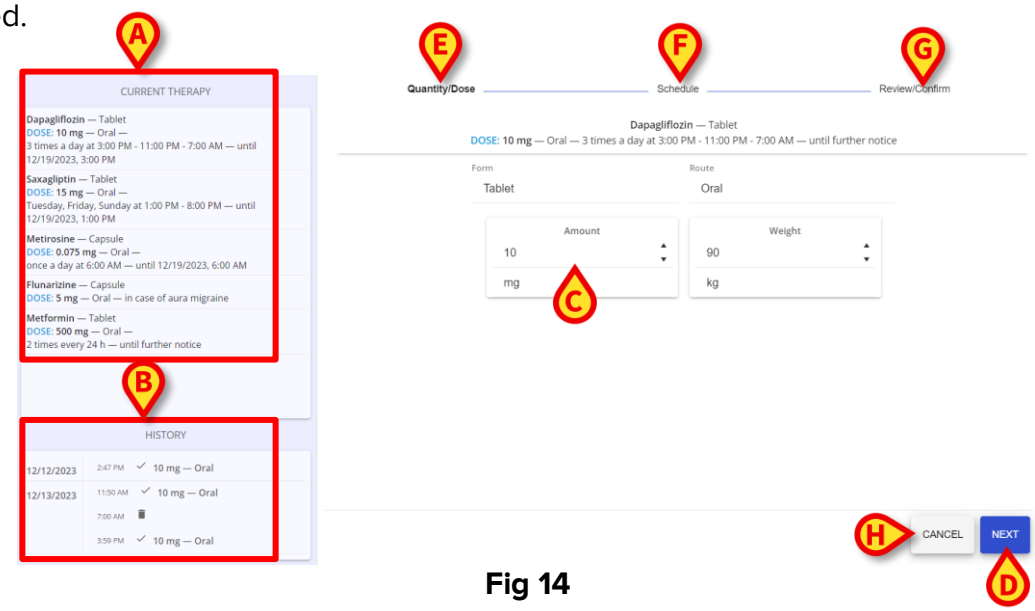


Fig 14

On the left, two sections are provided:

- The **Current Therapy** section (Fig 14 **A**) containing all the prescriptions created and associated to the selected patient (including the selected to be edited one) and
- the **History** section (Fig 14 **B**), containing a history summary of the actions performed on the selected prescription.

Both cannot be modified.

The Edit window opens on the **Quantity/Dose** step (Fig 14 **E**) that will be described later on in paragraph 4.13.1.

The originally **prescribed values**, **form** and **route of administration** are retrieved and shown. It is not possible to change the form and the route of administration, but only the prescribed values (Fig 14 **C**). It is not possible to change the units of measure originally set. To edit the values:

- Replace the values to be changed by overwriting the new value or by using the up and down arrows to increase or decrease the original value by one unit at a time.
- Click the **NEXT** button (Fig 14 **D**) to move to the **Schedule** step (Fig 14 **F**). Some modifications on the schedule settings can be performed but it is not possible to opt for a totally different schedule and change it. More information on prescription scheduling will be provided in paragraph 4.13.2.
- Click the **NEXT** button to move to the **Review/Confirm** final step (Fig 14 **G**). The summary is provided, and it shows the edited values. A note field is given to enter a note to the Editing procedure. More information on prescription Review step will be provided in paragraph 4.13.3.
- Click the **Update** button to save the edited prescription and update it accordingly or on **Cancel** button to abort the editing procedure.

It is also possible to click on **Back** button to go back to **Schedule** and **Quantity/Dose** step.

4.5. Suspend a prescribed treatment

To suspend an administered treatment:

- Click the **Suspend** button.

A popup appears asking the user to confirm the action.

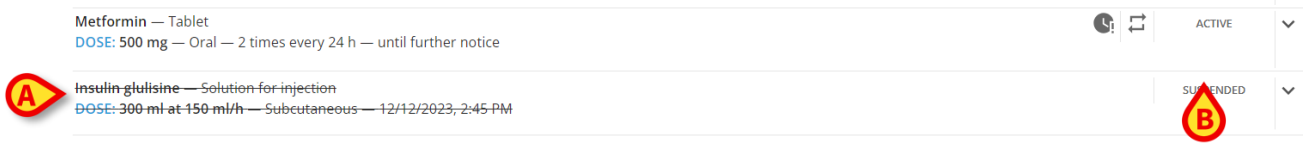


Fig 15

Once the prescription of the selected treatment is stopped, it disappears from the list displayed on the main page or, in case the suspended prescription are not filtered out (see paragraph 4.10.4), the entire prescription string appears in strikethrough font (Fig 15 **A**) and the **Status** is set to "**Suspended**" (Fig 15 **B**).

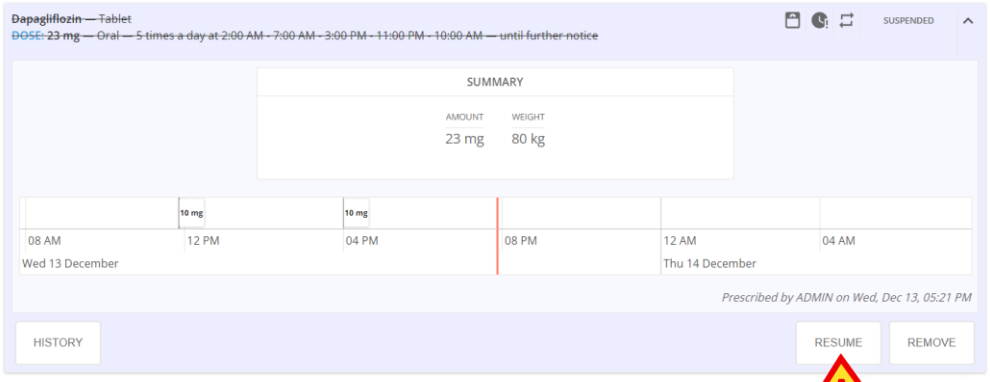


Fig 16

Exploding the suspended prescription row again, the **Resume** button (Fig 16 **A**) is present instead of the **Edit** and **Suspend** ones. To resume the administration of the prescribed treatment:

- Click on the **Resume** button provided.

4.6. Remove a prescribed treatment

To remove an administered treatment:

- Click the **Remove** button.

A popup appears asking the user to confirm the action.

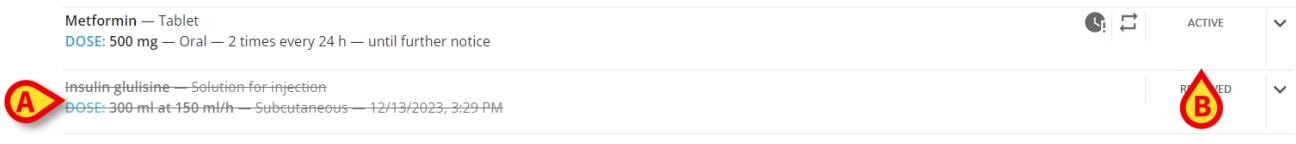


Fig 17

Once the prescription of the selected treatment is removed, it disappears from the list displayed on the main page or, in case the removed prescription are not filtered out (see paragraph 4.10.4), the entire prescription string appears crossed out and written in light grey characters (Fig 17 **A**), and the **Status** is set to "**Removed**" (Fig 17 **B**).

4.7. Skip or Execute an expired prescribed order

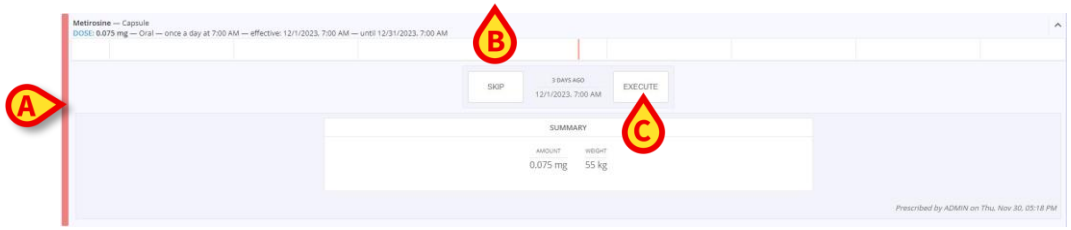


Fig 18

When a prescription contains an expired order, which has not been administered according to the established treatment plan, the prescription is highlighted with a red colored bar (Fig 18 **A**). Exploding the prescription row, two buttons are provided:

- **Skip** button (Fig 18 **B**) to skip the administration of the expired treatment or
- **Execute** button (Fig 18 **C**) to execute the administration immediately.

For the administration to be successful, it is essential to enter a note justifying the delay in execution.

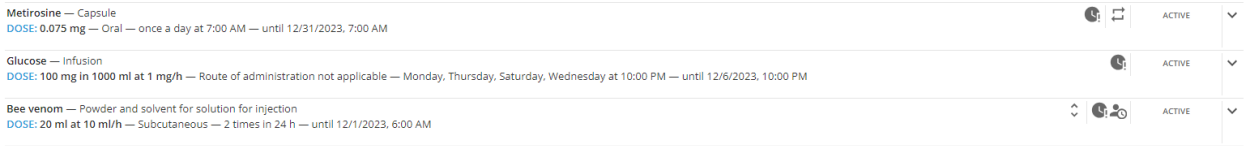


Fig 19

4.8. Indicators on prescriptions

Finally, different icons/indicators can be displayed next to the status label, which can indicate:

- the current prescription **status** related to the prescription itself (like the **repeated** schedule), the orders, the active infusion (if any);
- changes in the **patient weight** : if the patient weight set in the prescription does not match with the one retrieved from the system the **scale icon** is displayed;
- differences between:
  - the prescription of a drug and its administration in time (**execution clinical time changed** or **administration time outside of the prescribed range**) or
  - the **dose values administered** or the **infusion values administered** and the values originally prescribed.

4.9. Therapy Cycle

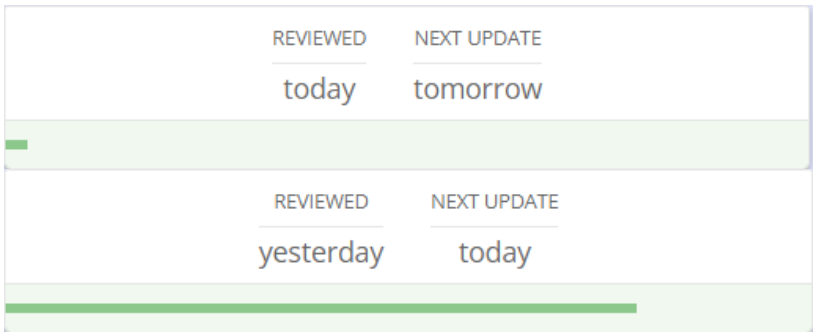


Fig 20

On the central part of the page, on top of the prescription list, the **therapy cycle status box** is provided, with updated information on the date of the last therapy review and on the next update due. A green horizontal bar is available indicating the progress of the current therapy. The size of the bar grows proportionally to the elapsed therapy time.

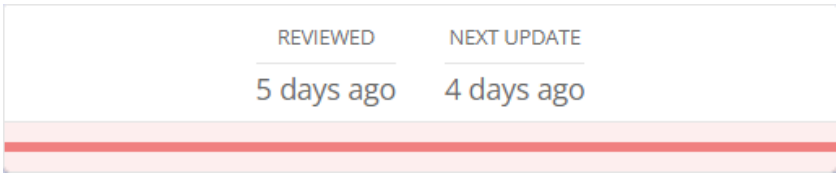


Fig 21

Once the therapy has expired, the completion tracking bar turns red.

4.10. Filters

The created prescriptions can be filtered using different provided filters and combinations of those available filters. On the left part of the page, the filters section is provided (Fig 8 **A**).

Fig 22

The “**All ATC groups**” (Fig 22 **A**) and “**Show All**” (Fig 22 **B**) buttons are selected by default, and they can be also used to remove all the filters applied. This way, all prescriptions are displayed in the central part of the prescription view. When corresponding filters are selected, the "Show All" and "All ATC Groups" buttons are automatically deselected.

4.10.1. Filters - Categories

Each treatment can be associated to a single class (the therapies can be grouped under a customizable number of classes/categories) and to one or multiple routes of administration and forms by configuration. So, it is possible to filter the treatments by their **Category**, **Routes** and **Forms**.

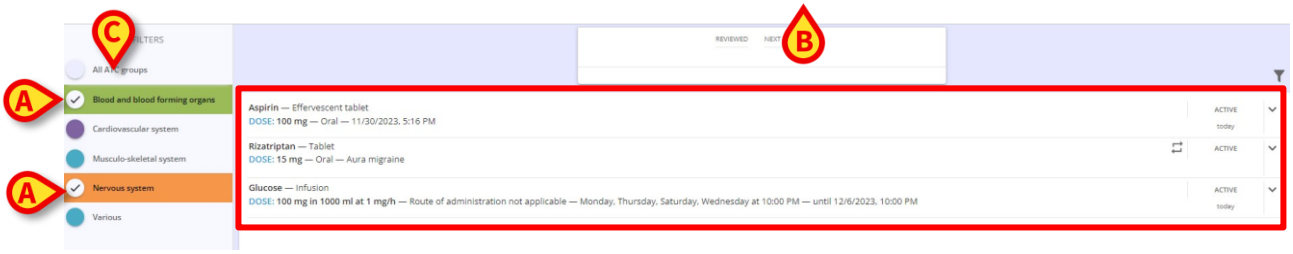


Fig 23

A button is provided for each category/class. To filter the treatments according to their Category/Class:

- Click on a colored button corresponding to a category (Fig 23 **A**) to display on the central screen only those treatments corresponding to that category (Fig 23 **B**).

It is possible to select one or more categories: the treatments associated to those categories/classes will be all displayed. Once selected, the buttons are highlighted, and a check mark symbol appears in the radio button provided for each category.

- Click a second time to deselect the selected category.
- Click on the "All ATC groups" button (Fig 23 **C**) to display all prescribed treatments belonging to all available categories.

Only the categories to which the actual prescribed treatments belong are displayed in the filter section and not all available and configured ones.

4.10.2. Filters - Routes

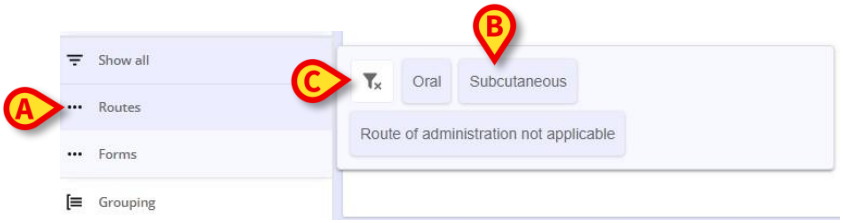


Fig 24

It is also possible to filter the prescribed treatments according to their **Routes** of administration:

- Click on **Routes** filter button (Fig 24 **A**) to open the menu where available routes (only those configured for the prescribed therapies) are collected and can be selected (Fig 24 **B**).
- Select one or more routes.

Prescribed treatments are filtered on the page according to the selected routes.

- Click on the **funnel** button provided (Fig 24 **C**) to remove the applied filter/s.

The list of routes configured and present in all prescriptions associated with the selected patient and only those routes (not all possible routes) is displayed.

4.10.3. Filters - Forms

Fig 25

It is possible to filter the prescribed treatments according to their **Forms**:

- Click on **Forms** filter button (Fig 25 **A**) to open the menu where available forms (only those configured and selected for the prescribed therapies) are collected and can be selected (Fig 25 **B**).
- Select one or more forms. Prescribed treatments are filtered on the page according to the selected forms.
- Click on the **funnel** button provided (Fig 25 **C**) to remove all the applied filters.

The list of forms configured and present in all prescriptions associated with the selected patient and only those forms (not all possible forms) is displayed.

4.10.4. Filters - Status

Finally, it is possible to filter the prescribed treatments according to their changing **Status**:

- Click on **Status** filter to open the menu where available actual statuses can be selected. The following prescription statuses can be displayed:
  - **Active**, that is selected by default;
  - **Suspended** (only if there are suspended prescriptions in the treatment list/plan);
  - **Removed** (only if there are removed prescriptions in the treatment list/plan);

- Select one or more statuses.

Prescribed treatments are filtered on the page according to the selected statuses.

- Click on the **funnel** button provided to remove all the applied filters.

4.11. Grouping

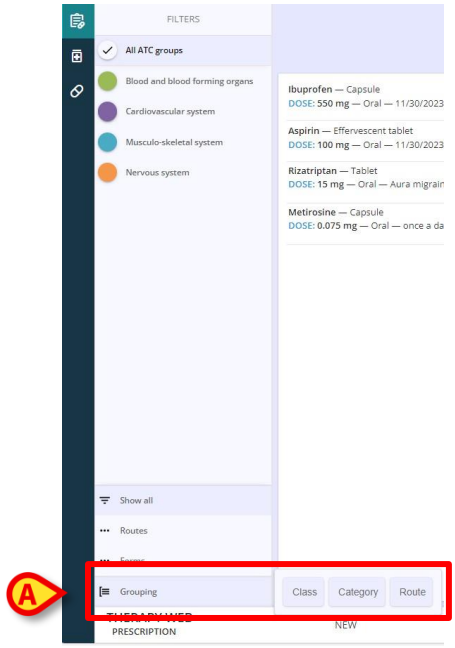


Fig 26

It is possible not only to filter but also to group the treatments on the main screen.

- Click on the **Grouping** button (Fig 26 **A**) and then choose between the three available options:
  - **Class**: to group treatments according to their classes;
  - **Category**: to group treatments according to their categories;
  - **Route**: to group treatments according to their routes.

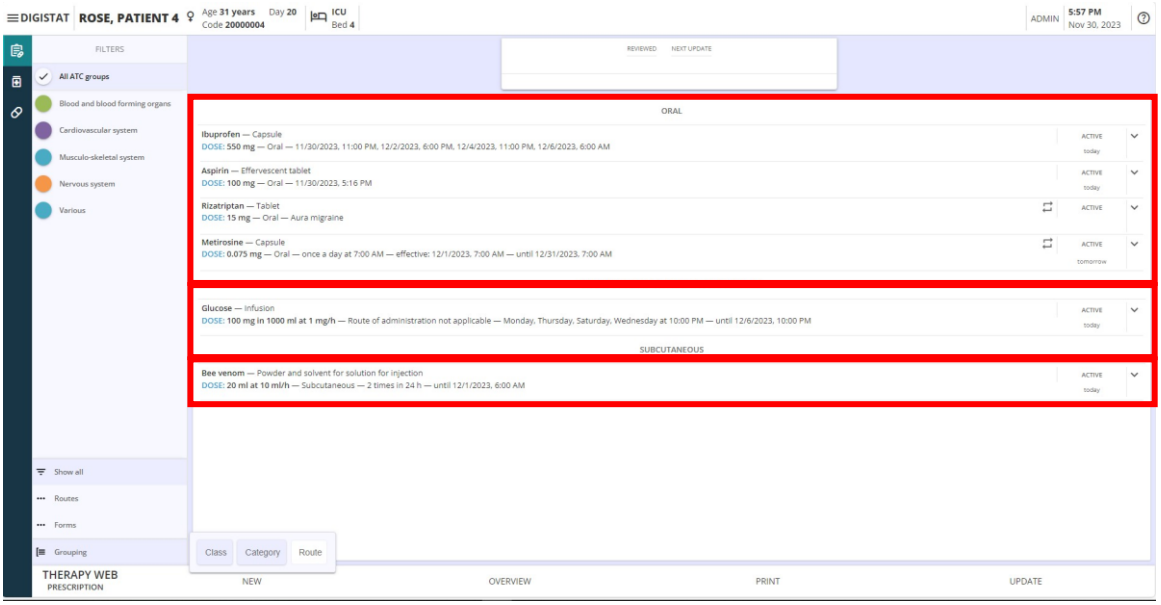


Fig 27

In the example provided in Fig 27 the Grouping option "**Route**" is chosen. As a result, the prescribed treatments are grouped according to their route of administration into three different lists, indicated by the name of the route configured for each of them (also missing or unspecified route options are available).

4.12. Command Bar – Action buttons

Fig 28

Finally, a command bar is available at the bottom part of the page (Fig 8 **C**), and it contains four buttons:

- **NEW** (Fig 28 **A**): to start the creation of a new prescription for the selected patient;
- **OVERVIEW** (Fig 28 **B**): to open a calendar time plan or a summary view;
- **PRINT** (Fig 28 **C**): to create a print report containing all the details of the treatment plan;
- **UPDATE** (Fig 28 **D**): to open a therapy review window and update the treatment plan.

4.13. Create a New Prescription

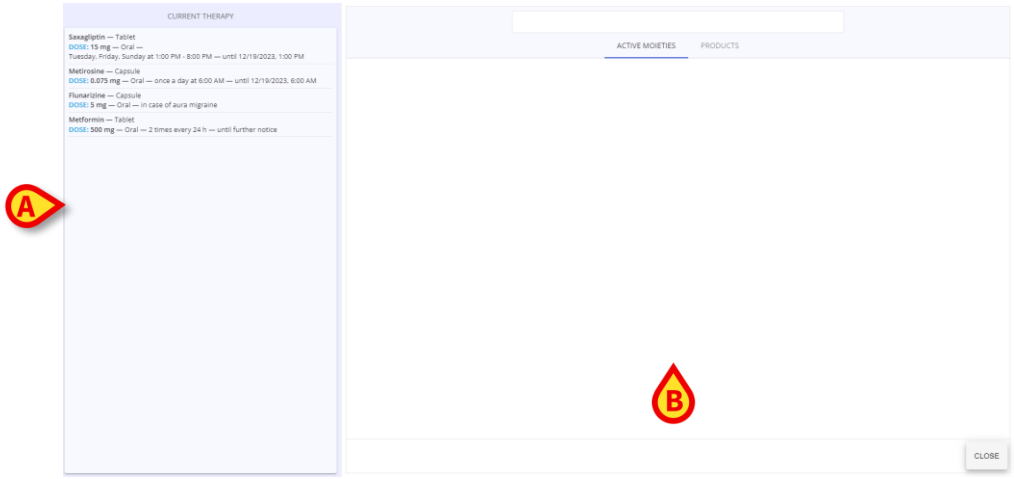


Fig 29

To create a new prescription for the selected patient:

- ➢ Click on **NEW** button (Fig 28 **A**).

A modal window is opened (Fig 29), and it contains two sections:

- On the left (Fig 29 **A**), the current therapy for the patient is shown with the list of prescribed treatments and all the information on their forms and routes of infusions, dosages, and schedule.

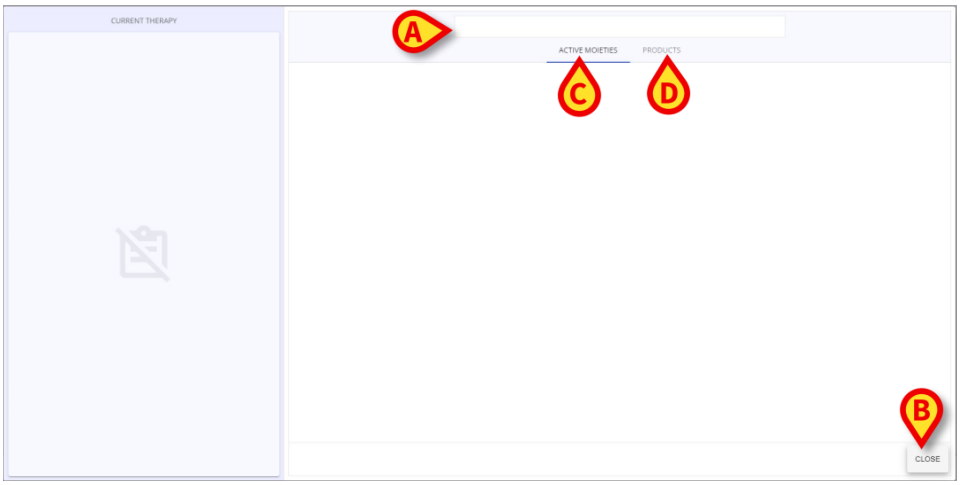


Fig 30

If no therapy has been prescribed yet (Fig 30), the section will be blank.

- On the right side of the window (Fig 29 **B**), a search bar (Fig 30 **A**) on top of the page to search for the treatments to be prescribed, a **Close** button (Fig 30 **B**) to close the window and two tabs are provided:
  - **Active Moieties** (Fig 30 **C**) tab (selected by default);
  - **Products** tab (Fig 30 **D**).

4.13.1. New Prescription – Active Moieties Quantity/Dose step

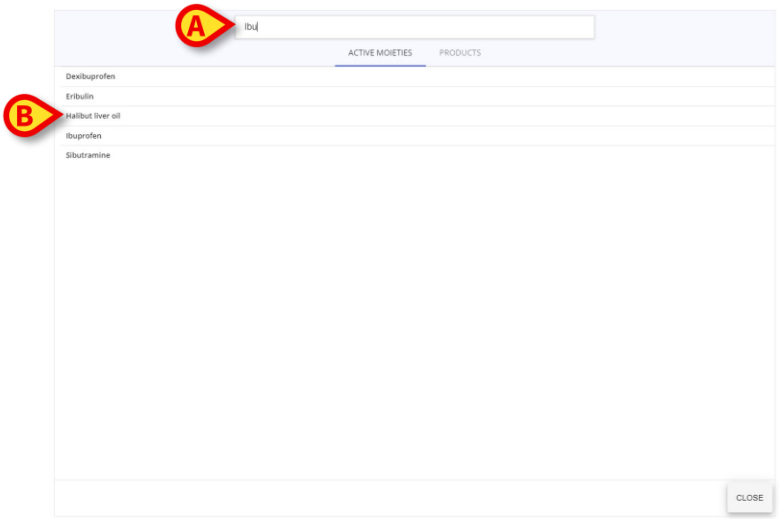


Fig 31

To create a new prescription with a single **Active Moiety**:

- Search for an Active Moiety by entering its name (partially or in full) in the search bar (Fig 31 **A**). The resulting active moiety/ies are displayed in the central results section (Fig 31 **B**).
- Double-click on a treatment to be prescribed.

Fig 32

The **Quantity/Dose** step of the prescription workflow is shown (Fig 32), and the name of the selected active moiety is shown on top of the page (Fig 32 **A**). The **DOSE** is 0 by default, the unit of measure is displayed next to the label, and the default route is also displayed (Fig 32 **B**).
Two dropdown menus are provided to choose, respectively:

- The active moiety **Form** (Fig 32 **C**);
- The active moiety **Route** of administration (Fig 32 **D**).

Variable number of cards is available in the central part of the screen (Fig 32 **E**) according to the configuration properties and parameters set for each treatment/drug mode. Different properties are associated with the different prescription modes, that represent specific clinical flows and configurations related to a set of catalog items.

Fig 33

There can be moieties and products with a single mode of prescription (and then their properties and configuration sets are displayed directly on the treatment specification window) or with **multiple modes of prescription**. In the latter case, before configuring the properties, it is necessary to choose from the prescription modes, provided as clickable buttons (Fig 33 **A**).

Any active moiety or product can be configured as a prescribable treatment and has its own default parameters and values. Therefore, the appearance and features of the treatment specification window depend on the prescribed treatment.

The treatment can be configured to enable only one possible prescription mode. If this is the case the selection buttons shown in Fig 33 are not displayed and the specification window (Fig 32) is instead directly displayed.

The button **Cancel** (Fig 32 **F**) is provided and enabled while the **Next** button (Fig 32 **G**) is disabled and will be enabled once the Quantity/Dose section is filled and completed.

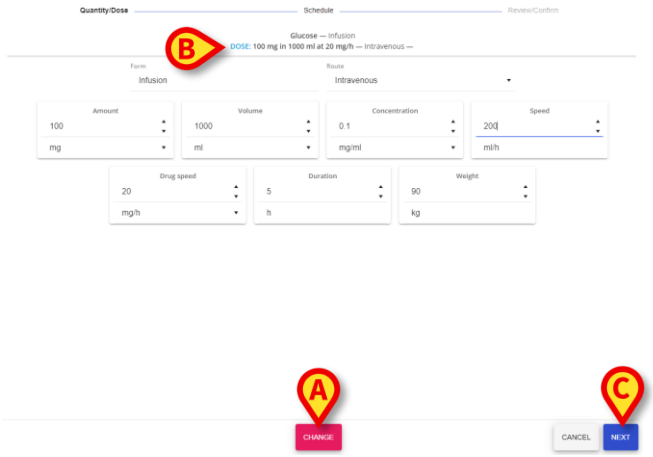


Fig 34

- Enter the desired values in the fields provided, either manually or by using the up and down arrows to increase or decrease the amount of value added by a unit.

When forms or routes are selected or the first values are entered into the available fields within the different cards, a red **Change** button (Fig 34 **A**) appears. The **prescription script** (Fig 34 **B**) is filled in progressively with each choice and entry made.

Some configured fields are dependent on each other (e.g. Concentration, Amount and Volume or Volume, Speed and Duration). As a result, once a value is entered in two related fields, the corresponding value in the dependent field is automatically calculated.

By clicking **Change** button, the partial prescription string is reset, and the list of modes associated with the selected active moiety is displayed.

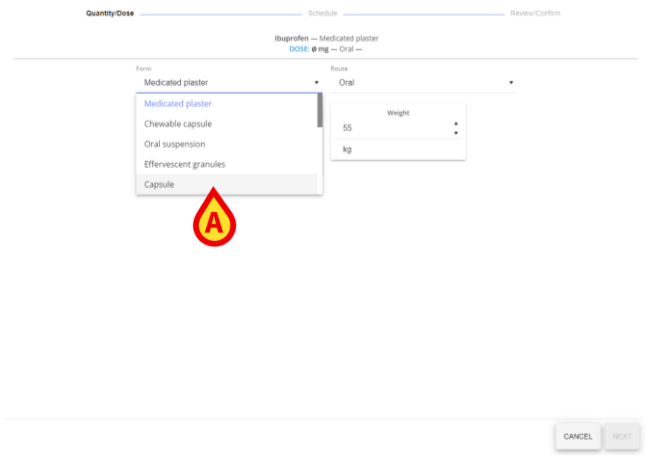


Fig 35

- Choose a **mode** or, if only one mode is available, select a **form** from the provided dropdown menu (Fig 35 **A**);

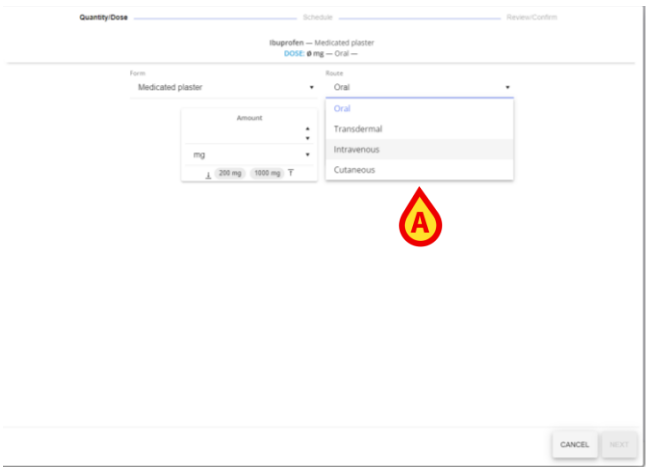


Fig 36

- Select a route of administration from the provided dropdown menu (Fig 36 **A**);
- Fill in the fields of all the available Quantity/Dose prescription properties cards;

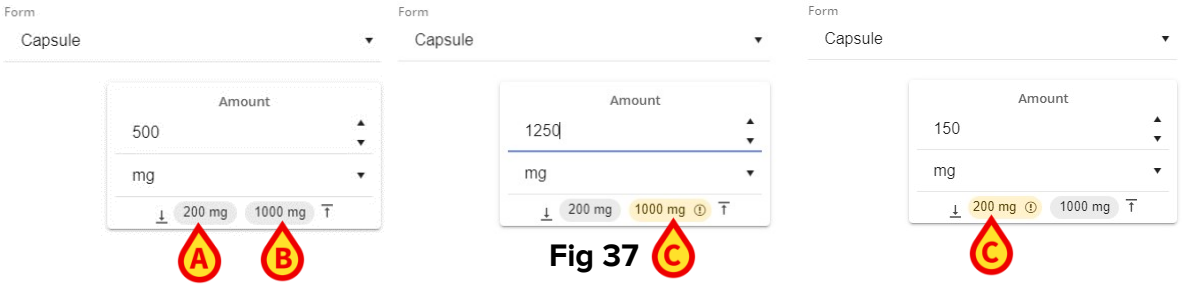


Fig 37

For some parameters, such as **Amount** in the examples shown above, **lower** (Fig 37 **A**) and **upper** (Fig 37 **B**) **limits** are given, indicated with the exact dosages and specific symbols. When the value entered in the provided field is greater or less than the configured limits, the value of the exceeded limit is highlighted in yellow (Fig 37 **C**). When the value entered is correctly within the given limits, no highlighting occurs. Entering a dose outside the suggested limits does not stop the prescription creation process, but a note must be entered at the **Review/Confirmation** stage to justify prescribing values outside the configured range.

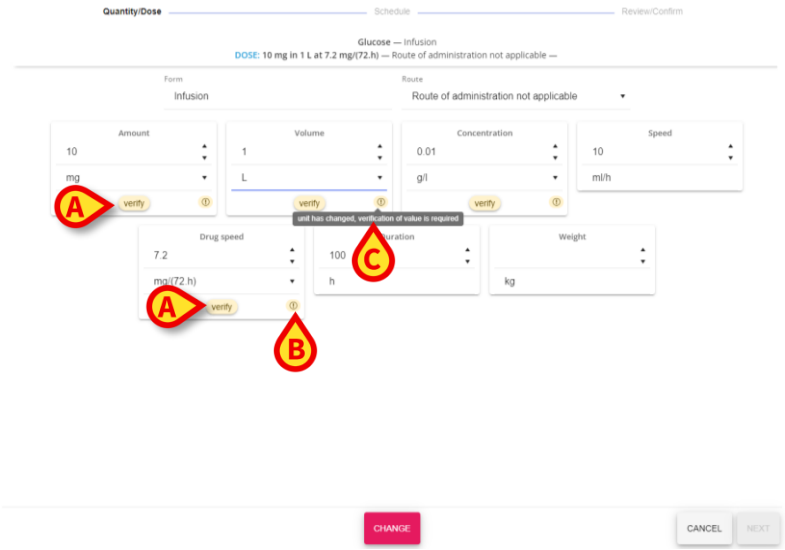


Fig 38

If an unexpected value is entered in some field, or the unit of measure is changed from the originally selected one (or from the default one), a **Verify** button (Fig 38 **A**) appears to confirm the inserted value. In addition, a yellow warning (Fig 38 **B**) is displayed at the bottom right of the card containing the value to be verified. Moving the cursor over the icon, a tooltip (Fig 38 **C**) appears warning the user about the "unexpected input, verification of the value is required".

To verify or validate the inserted value:

- Just click on the **Verify** button. The warning icon disappears.

In particular, if a value has been entered with a specific unit of measure, if that unit of measure is changed, the value originally entered is recalculated and modified according to the new unit of measure (e.g., if the value entered is 1 and the unit of measure is changed from g to mg, the new value will be 1000).

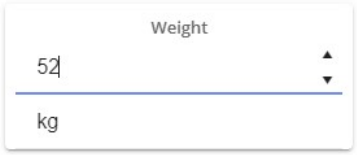


Fig 39

It is also possible to enter the weight of the patient (Fig 39).

- Click on **Next** button (Fig 34 **C**) to proceed to the **Schedule** step.

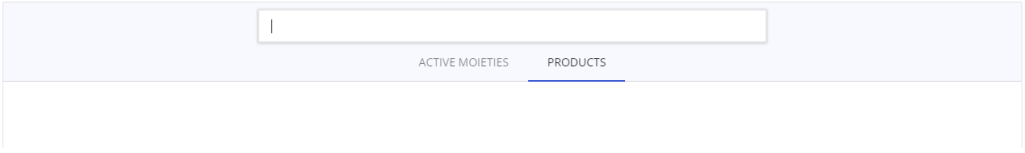


Fig 40

The procedure just described for creating a prescription from an active moiety can also be replicated for **Products**.

- Click on the "Products" Tab and search for the product by entering the name (partially or in full) in the search bar provided;
- Double click on the desired product;
- Proceed to configure and customize the treatment as previously described;
- Click on **Next** button to proceed to the **Schedule** step.

4.13.2. New Prescription – Active Moieties Scheduling step

Fig 41

The page lands on the **Schedule** page and the blue **Back** button (Fig 41 **A**) is provided to go back to the previous step.

The list of six scheduling options presented as individual buttons is displayed (Fig 41 **B**). The following options are provided:

- **Immediate**: to immediately administer the prescribed treatment;
- **Conditional**: to administer the prescribed treatment only if certain conditions occur;
- **Daily**: to administer the prescribed treatment in one day, one or more times, at given times;
- **Weekly**: to administer the prescribed treatment on different days during a week, at given times;
- **Schema**: to administer treatment according to a fixed, generic pattern;
- **Custom**: to administer treatment according to a fully customizable schedule.

It is possible to set the automatic plan type selection (conditional, weekly, daily, schema etc...) by configuration. Once a treatment is selected, the corresponding window will automatically be displayed.

4.13.2.1. Schedule - Immediate

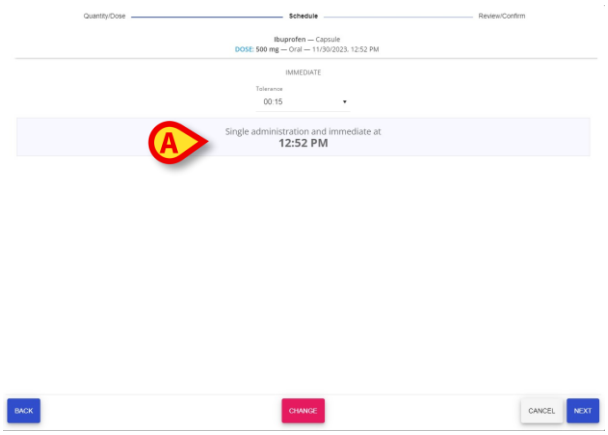


Fig 42

If the **Immediate** schedule is chosen, the treatment is immediately administered. The message "Single administration and immediate at" followed by the administration time (the current time when the **Immediate** scheduling option was selected) is displayed (Fig 42 **A**). No further configuration is required.

Fig 43

It is possible to only set the **tolerance time** i.e., the time interval before and after the specified administration time - in the case of prescriptions with immediate schedules – within which the administration is considered "on time", by choosing one of the options available in the dropdown menu provided (Fig 43 **A**). If a tolerance of 15 minutes is specified for an administration prescribed for 11:00 a.m., the administration is on time if it is performed between 10:45 a.m. and 11:15 a.m.
The following options are given:

- 00:05
- 00:10
- 00:15 (the default tolerance value is set to 00:15 minutes)
- 00:20
- 00:30
- 00:45
- 01:00
- 01:30

- 02:00

➢ Set the tolerance time.

The red button **Change** (Fig 43 **B**) is enabled, and it is possible to change the selected scheduling, going back to the selection window shown on Fig 41, to opt for another schedule.
The blue **Next** button (Fig 43 **C**) is enabled, and it is possible to proceed to the **Review/Confirmation** stage.

4.13.2.2. Schedule - Conditional

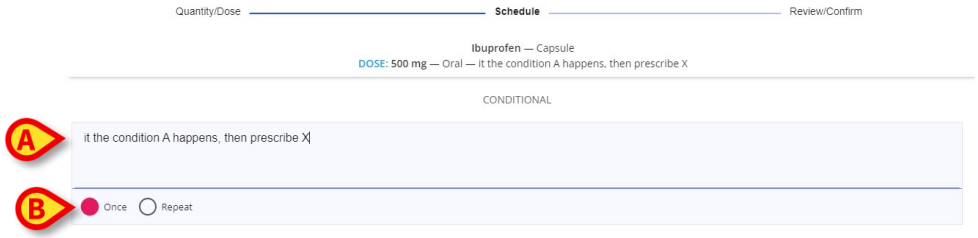


Fig 44

If the conditional administration is chosen, the prescribed treatment will be administered only if certain conditions, that must be specified in the textbox provided, are met.

- ➢ Set the condition or conditions to be met in the textbox available (Fig 44 **A**);
- ➢ Choose between the **Once** or **Repeat** options (Fig 44 **B**), selecting the corresponding radio button to indicate whether the treatment is to be administered only once or whether, after being administered the first time, it is to be retained in the treatment plan in order to be repeated in the future.

The red button **Change** (Fig 43 **B**) is enabled, and it is possible to change the selected scheduling, going back to the selection window shown on Fig 41, to opt for another schedule.
The blue **Next** button (Fig 43 **C**) is enabled, and it is possible to proceed to the **Review/Confirmation** stage.

4.13.2.3. Schedule – Daily

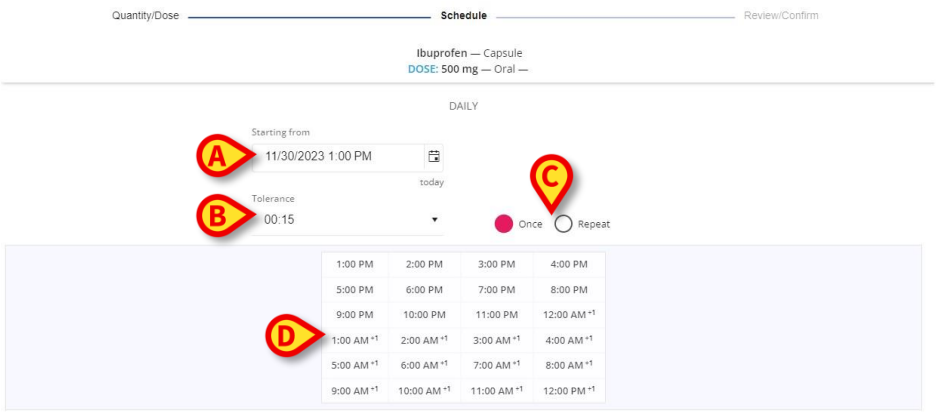


Fig 45

If daily administration is chosen, the prescribed treatment can be administered once or several times a day at set times. To schedule the treatment administration times, multiple fields are provided:

- The **Starting from** field (Fig 45 **A**) to set the date and time of the first administration of the prescribed treatment;
- The **tolerance** field (Fig 45 **B**), to set the tolerance time (the default value is 00:15 minutes);
- **Once** and **Repeat** radio buttons (Fig 45 **C**);
- A card grid with **24 full-hour-buttons** to be selected (Fig 45 **D**). The 24 buttons correspond to the 24 hours of a day. The first hour is the one set in **Starting from** field or, if the set hour is not a full hour, the first hour will be the nearest full hour. The indication "+1" means that those hours are relative to the next day.

To prescribe a daily schedule:

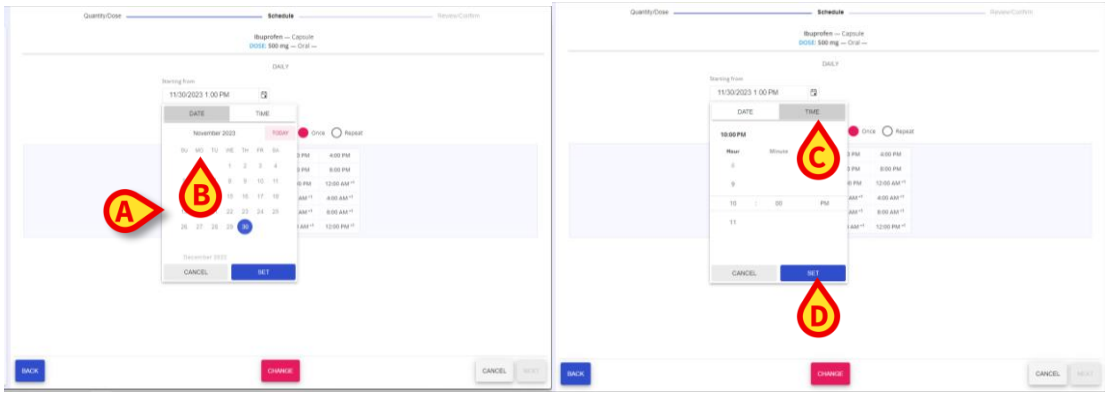


Fig 46

- Click on the field itself or on the calendar button (Fig 46 **A**) provided in the **Starting from** field to open a dropdown calendar view;
- Select the date in the **Date** tab (Fig 46 **B**) and the time in the **Time** tab (Fig 46 **C**), then click on **Next** button (Fig 46 **D**). It is possible to specify the start of treatment on a future day and/or at a future time, but not in the past;

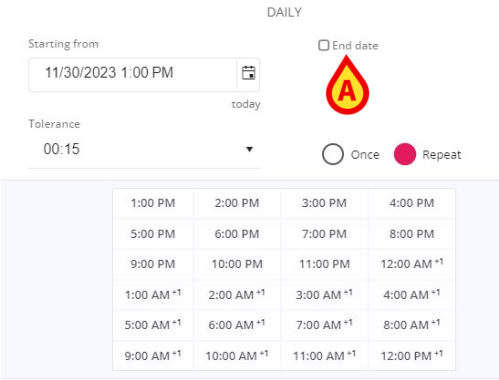


Fig 47

- Set the **tolerance** time and select the desired options from the available radio buttons. If **repeated** prescription is selected, then the **End date** checkbox (Fig 47 **A**) appears.

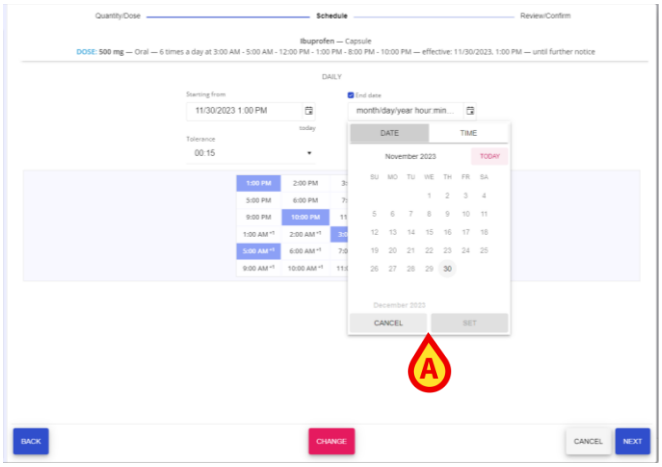


Fig 48

- Checking this box, it is possible to set the end date for the daily treatment (which can then be administered on multiple days according to the fixed times set) on a calendar view (Fig 48 **A**);

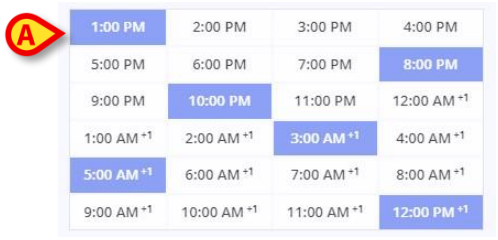


Fig 49

- Select the hours on the hour-cards grid by simply clicking on them (double-click the selected hours to deselect them). The selected hours are colored in blue (Fig 49 A).

The red button **Change** (Fig 43 **B**) is enabled, and it is possible to change the selected scheduling, going back to the selection window shown on Fig 41, to opt for another schedule. The blue **Next** button (Fig 43 **C**) is enabled, and it is possible to proceed to the **Review/Confirmation** stage.

4.13.2.4. Schedule – Weekly

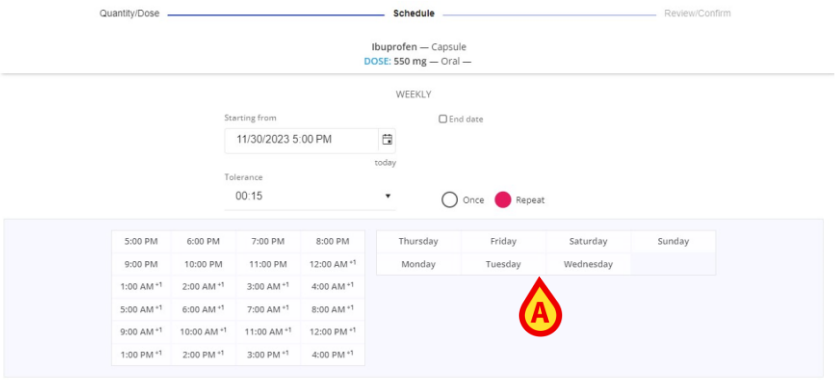


Fig 50

If **weekly** administration is chosen, the prescribed treatment can be administered once or several times a day at set times for one week. To schedule the treatment administration times, multiple fields are provided and most of them have already been described for the **daily** prescription plan. The previously described functionalities are integrated with a **button/card grid with the 7 weekdays** (Fig 50 **A**) to be selected. The 7 buttons correspond to the 7 days of a week. The first day is the weekday of the one set in **Starting from** field.
To prescribe a weekly schedule:

- Click on the field itself or on the calendar button provided in the **Starting from** field to open a dropdown calendar view;
- Select the date in the **Date** tab and the time in the **Time** tab, then click on **Next** button;
- Set the **tolerance** time and select the desired options from the available radio buttons. If repeated prescription is selected, then the **End date** checkbox appears;
- Checking this box, it is possible to set the end date for the weekly treatment (which can then be administered on multiple weeks according to the fixed days and times set) on a calendar view;
- Select the hours on the hour-cards grid by simply clicking on them;

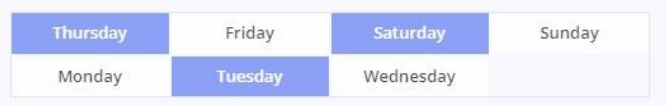


Fig 51

- Select the days on the day-cards grid (Fig 51) clicking on them (double-click the selected days to deselect them). The selected days are colored in blue.

When prescribing a weekly treatment plan, it is necessary to specify both the times of administration and the days of administration. The red button **Change** (Fig 43 **B**) is enabled, and it is possible to change the selected scheduling, going back to the selection window shown on Fig 41, to opt for another schedule.
The blue **Next** button (Fig 43 **C**) is enabled, and it is possible to proceed to the **Review/Confirmation** stage.

4.13.2.5. Schedule – Schema

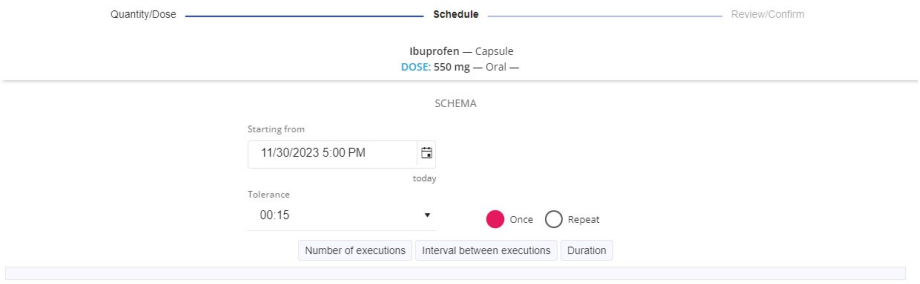


Fig 52

If schema administration is chosen, the prescribed treatment can be administered according to a fixed, generic pattern, like “Execute this treatment N times in X days”. The system calculates the appropriate time intervals and enters administration orders from the time indicated in the **Starting From** field. To schedule the treatment administration times, multiple fields are provided and most of them have already been described for the **daily** prescription plan.

To prescribe a schema schedule:

- Click on the field itself or on the calendar button provided in the **Starting from** field to open a dropdown calendar view;
- Select the date in the **Date** tab and the time in the **Time** tab, then click on **Next** button;
- Set the **tolerance** time and select the desired options from the available radio buttons. If repeated prescription is selected, then the **End date** checkbox appears;
- Checking this box, it is possible to set the end date for the schema treatment on a calendar view;

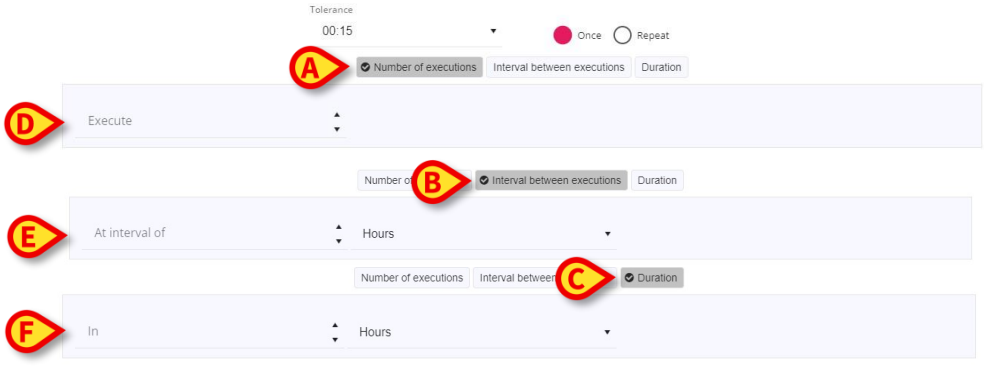


Fig 53

To define a schema,

- Use the buttons shown in Fig 53 (**A**, **B** or **C**) to select the appropriate option for the desired schema to be composed. Three buttons are available:

- **Number of executions**, to specify the number of administrations. If selected, the **Execute** field (Fig 53 **D**) is provided to enter the desired number of administrations;
- **Interval between executions**, to specify the time interval between one administration and the next. If selected, the **At interval of** field (Fig 53 **E**) is provided to enter the desired time interval. The unit of measurement (Minutes, Hours or Days) can be chosen from a dropdown menu provided;
- **Duration**, to specify the period of time (how long) within which to perform therapy administrations. If selected, the **In** field (Fig 53 **F**) is provided to enter the desired period of time. The unit of measurement (Minutes, Hours or Days) can be chosen from the dropdown menu provided (Fig 54 **A**);

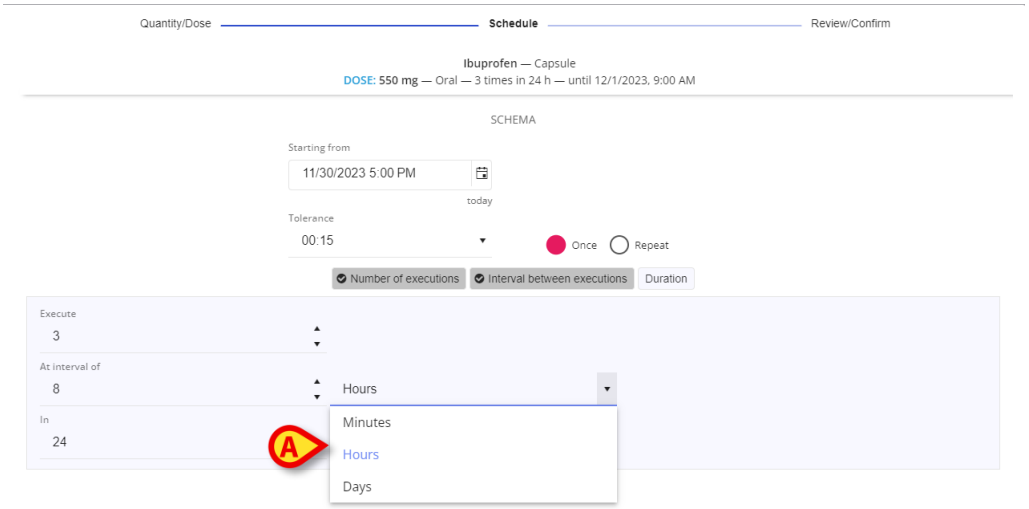


Fig 54

Two buttons must be selected at a time in order to establish a pattern. If **Number of executions** and **Interval between executions** are selected, like in the example shown in Fig 54, values can be entered in the **Execute** and **At interval of** fields. The **In** field is populated accordingly, since the system automatically calculates the total time period by multiplying the set number of administrations by the chosen time interval.

Fig 55

Similarly, if the selected fields are **Number of executions** and **Duration**, the user can enter the desired values in the **Execution** and **In** fields, and the value in the **At the interval of** field is automatically calculated.

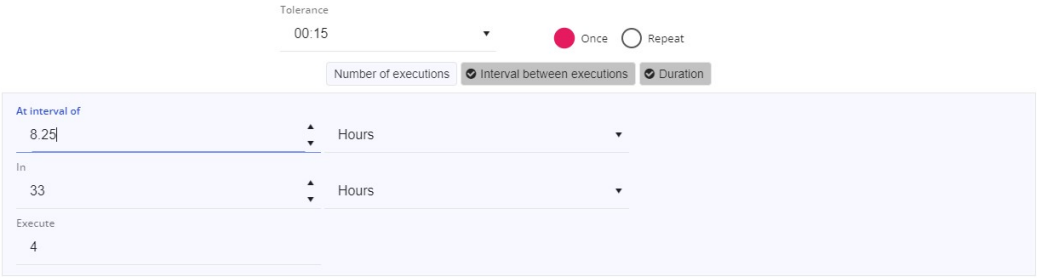


Fig 56

Finally, if the selected fields are **Interval between executions** and **Duration**, the user can enter the desired values in the **At interval of** and **In** fields, and the value and the set interval.

- Choose the schema, selecting the desired fields to be filled in;
- Enter the desired values in the fields provided, either manually or by using the up and down arrows to increase or decrease the amount of value in the **Execute** field is automatically calculated from the division between the total period added by a unit.

The red button **Change** (Fig 43 **B**) is enabled, and it is possible to change the selected scheduling, going back to the selection window shown on Fig 41, to opt for another schedule.
The blue **Next** button (Fig 43 **C**) is enabled, and it is possible to proceed to the **Review/Confirmation** stage.

4.13.2.6. Schedule – Custom

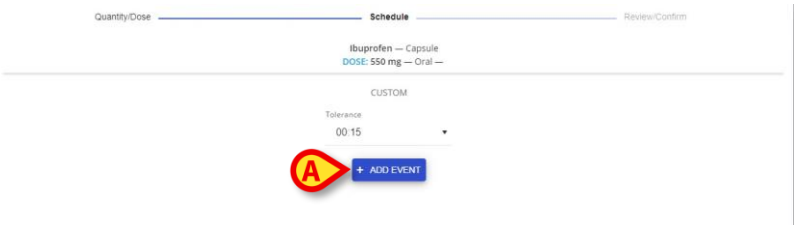


Fig 57

If schema administration is chosen, the prescribed treatment can be administered according to a fully customizable schedule. In this case, the orders that will be generated are all explicitly specified, one by one.

To prescribe a custom treatment:

- Set the **tolerance** choosing one option from those provided in the provided dropdown menu;

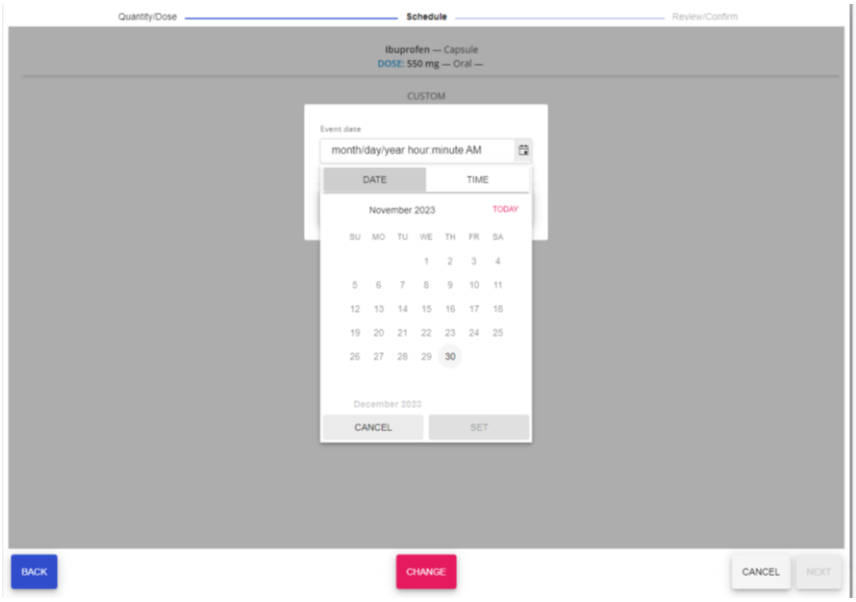


Fig 58

- Click on + **Add Event** blue button (Fig 57 **A**) to set the schedule of the first "event" from the provided calendar;
- Set the date in the **Date** tab and the time in the **Time** tab, then click on **Next** button;

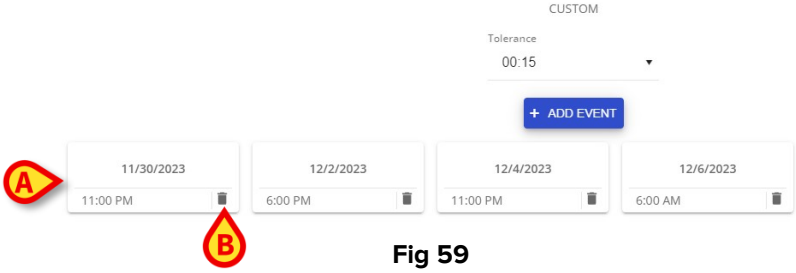


Fig 59

- Enter all desired event orders by clicking the button and completing the customization of the schedule for each administration;

For each order, a card with the date and time of administration of the customized treatment is displayed (Fig 59 **A**). The events are displayed and listed in chronological order (even if they've been created in non-chronological order). To cancel an incorrect or no longer needed order, a **bin** button is available (Fig 59 **B**).

To cancel the order,

- Just click on the **bin** button and confirm the deletion.

The red button **Change** (Fig 43 **B**) is enabled, and it is possible to change the selected scheduling, going back to the selection window shown on Fig 41, to opt for another schedule.
The blue **Next** button (Fig 43 **C**) is enabled, and it is possible to proceed to the **Review/Confirmation** stage.

4.13.3. New Prescription – Active Moieties Review/Confirm step

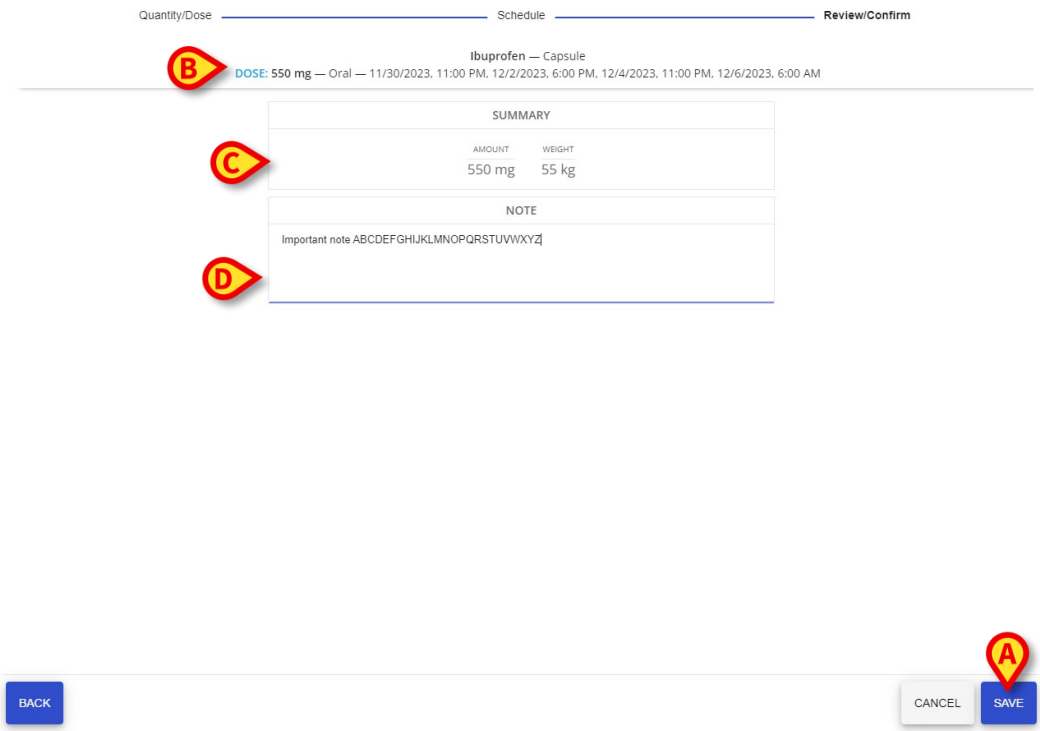


Fig 60

After clicking the **Next** button, the user can review and complete the prescription in the last available window, under the **Review/Confirmation** tab, where the summary of the prescription can be read.

Three sections are provided:

- The full prescription string (Fig 60 **B**) is displayed on top of the page, with the set dosages, unit of measures, form and route of administration and the full scheduling plan for the prescription. The prescription field is not editable;

- A summary section (Fig 60 **C**) shows the prescribed values with their unit of measure. The summary is also not editable;
- An additional field (Fig 60 **D**) is also available to enter a **note** to the prescription. It is not necessary to fill in this field, but to do so:
    - ➢ Manually enter the note inside the textbox provided.

To save the prescription:

- ➢ Click the blue **Save** button (Fig 60 **A**).

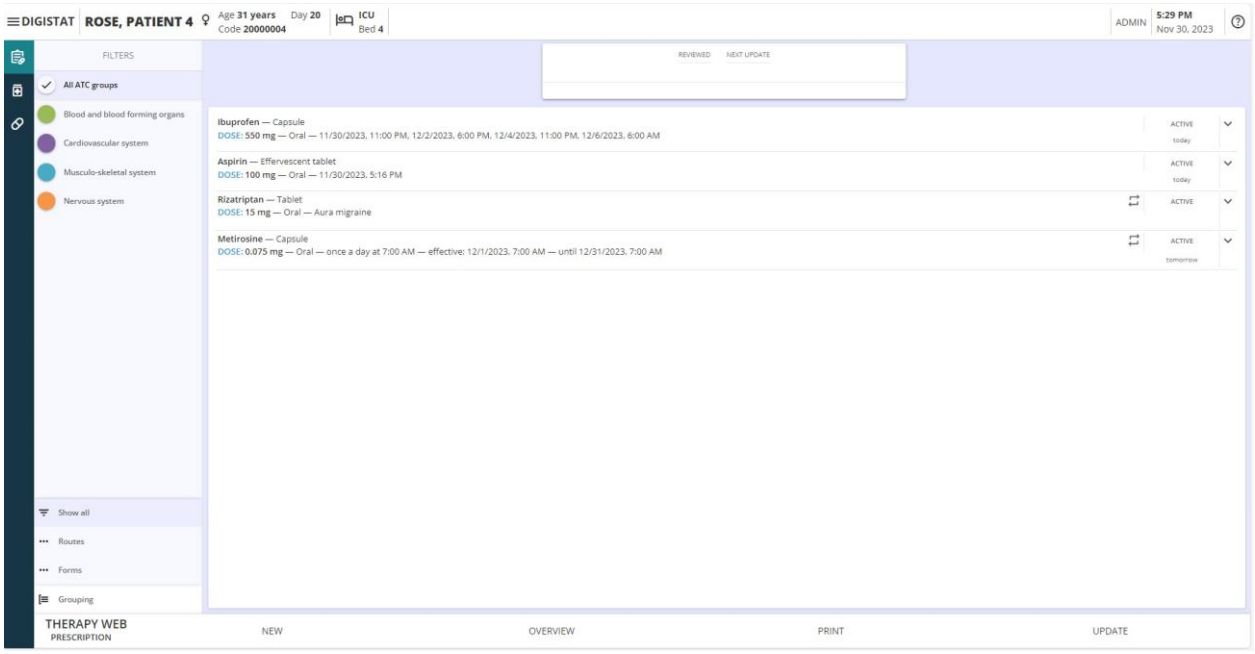


Fig 61

The prescription is added to the current therapy of the selected patient on the Prescription main page (Fig 61).

4.14. Overview the created Prescriptions

Fig 62

The second button provided on the command bar is the **Overview** one (Fig 62 **A**). Clicking on it, a window opens containing a **summary** of all the active prescribed treatments and the **statuses** of the corresponding orders on a calendar view.

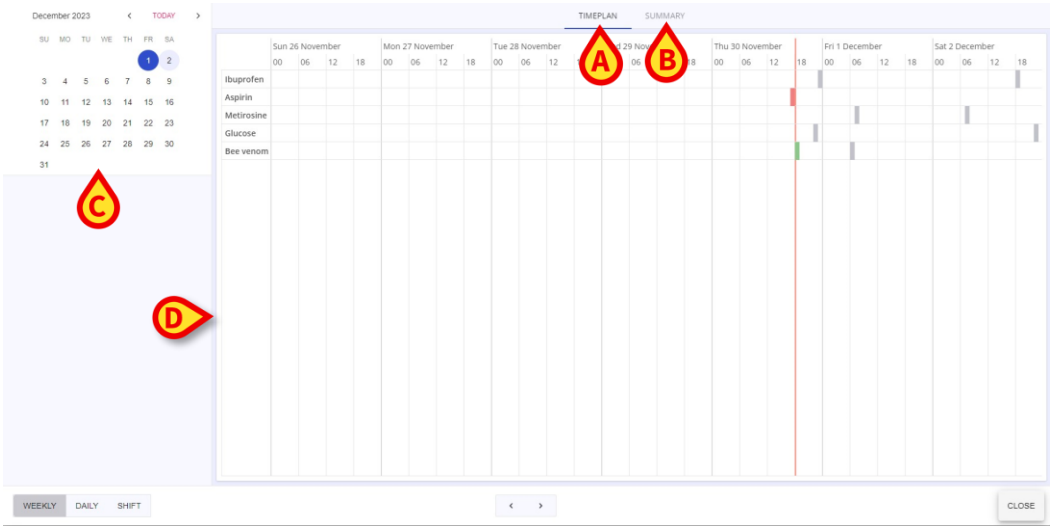


Fig 63

Two tabs are available:

- **TimePlan,** (Fig 63 **A**) the tab selected by default;
- **Summary** (Fig 63 **B**).

In both views, a calendar (Fig 63 **C**) is provided on the left part of the page. The current date is highlighted, but it is possible to scroll through the calendar to select days in the past and future directly by clicking on them. As a day is selected, the corresponding time plan (Fig 63 **D**) for that day is displayed in the central part of the screen.

4.14.1. Overview – Timeplan view

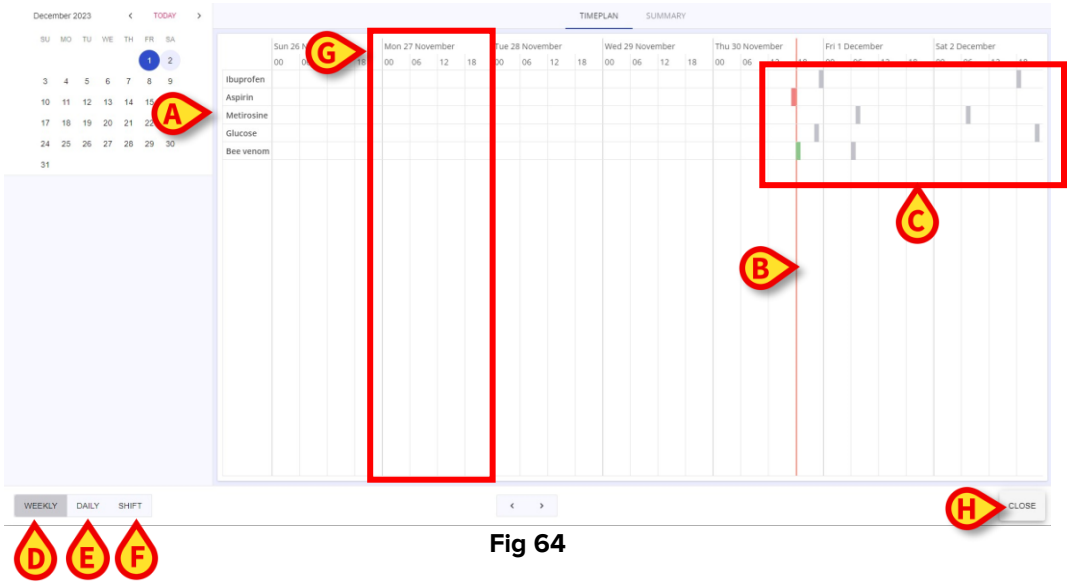


Fig 64

In the **timeplan** view, the schedule of administered orders or to be administered orders for each prescribed treatment is shown in a grid. Treatments are listed as individual rows in the grid (Fig 64 **A**). A **red vertical bar** (Fig 64 **B**) marks the "now" moment, and the orders scheduled for each treatment are represented as **cells** (Fig 64 **C**) that can display different colors:

- **Gray**, if it is an order to be administered in the future;
- **Green**, if it is a "ready" order, an order to be executed at the present time, i.e., within the time frame configured as the "tolerance interval".
- **Red**, in case of an unexecuted and overdue order;
- **Black**, in case of a correctly executed order.

It is possible to change the time plan display using the three buttons available at the bottom left part of the Overview page. Those same buttons are also provided in case the **Summary** view is selected and they are:

- **Weekly** button (Fig 64 **D**), to show the entire week from Sunday to Saturday (days when no orders are prescribed are also shown). Each day is divided into 4 time slots (00-06, 06-12, 12-18, 18-00), represented as separate cells (Fig 64 **G**) within which the orders are represented as colored portions of the cell placed at the corresponding time;

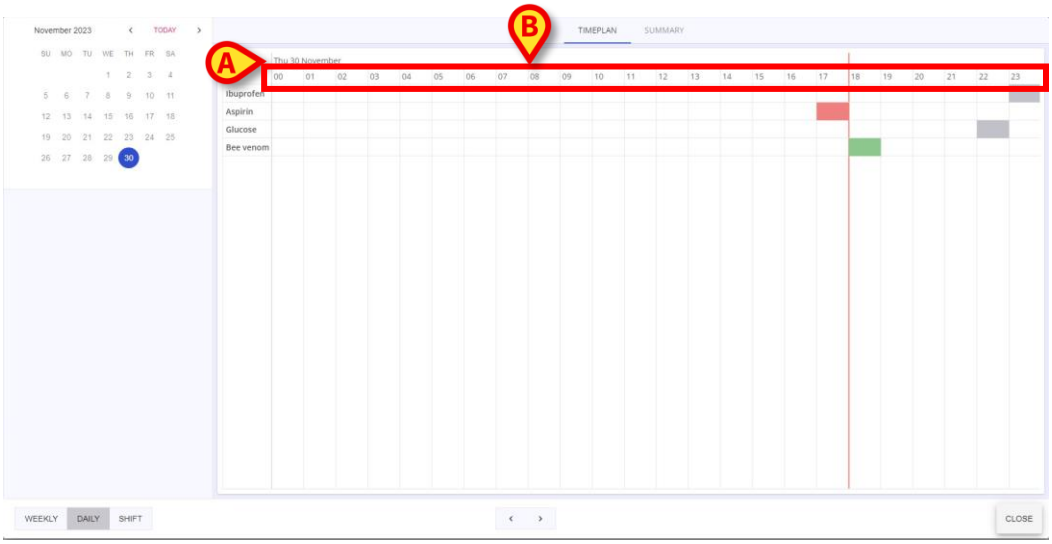


Fig 65

- **Daily** button (Fig 64 **E**), to show the full day in detail: the day is shown at the top left of the grid (Fig 65 **A**), while 24 cells are provided (Fig 65 **B**), one for each full hour;

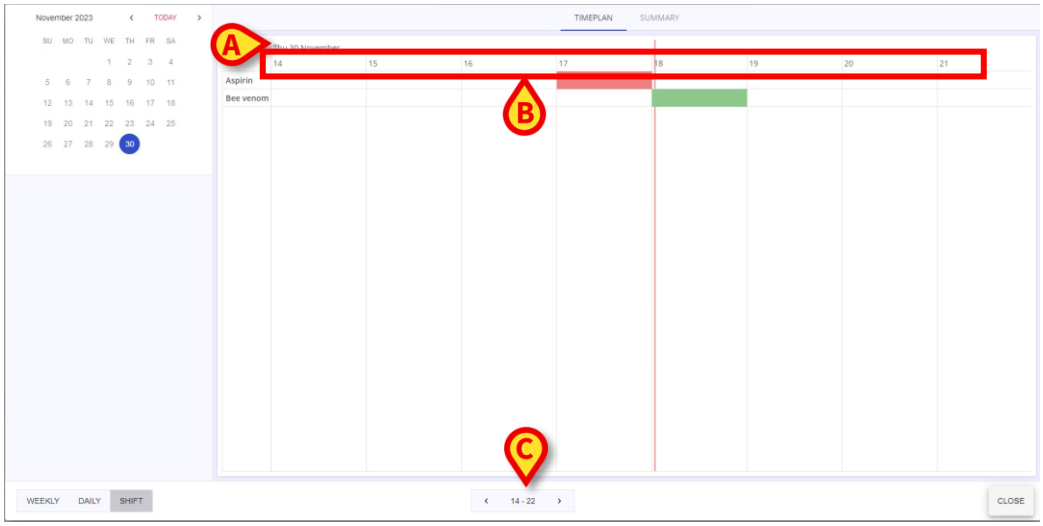


Fig 66

- **Shift** button (Fig 64 **F**), to show administered or to be administered orders within an 8-hour shift. The day is shown at the top left of the grid (Fig 66 **A**), while 8 cells are provided (Fig 66 **B**), one for each full hour of the displayed shift.

Two arrows (left and right arrows) are provided in the command bar, to move between **time slots** and **days** of the week, **hours** of the day, and **shifts** (14-22, 22-06, 06-14), respectively. Finally, a **Close** button (Fig 64 **H**) is provided to exit the Overview page.

4.14.2. Overview – Summary view

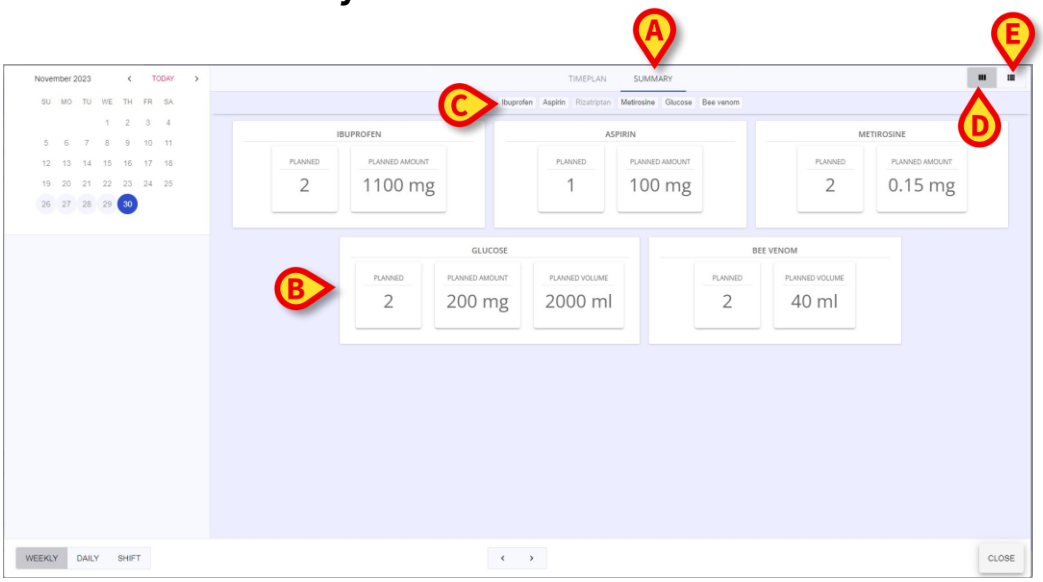


Fig 67

Clicking on the **Summary** tab (Fig 67 **A**), prescribed therapies can be displayed in separate **cards** (Fig 67 **B**). Buttons corresponding to the prescribed treatments (Fig 67 **C**) are provided at the top of the page. It is possible to click on them to filter the cards in the central section of the page and to display only the selected treatments.

Finally, it is possible to arrange the treatments on the **Summary** page in two different configurations:

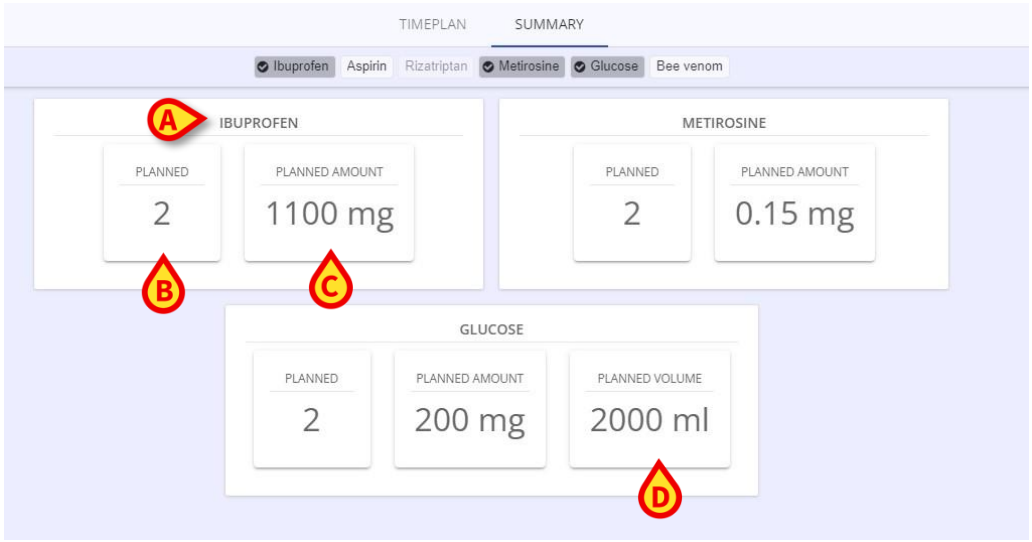


Fig 68

- On separate and juxtaposed cards (Fig 67 **D**). The name of the drug/treatment is shown in the header (Fig 68 **A**) of each tab, while the number of administrations is recorded in the **Planned** cell (Fig 68 **B**) and the dosages of the prescribed therapy in the **Planned amount** (Fig 68 **C**) or **Planned Volume** (Fig 68 **D**) cells;

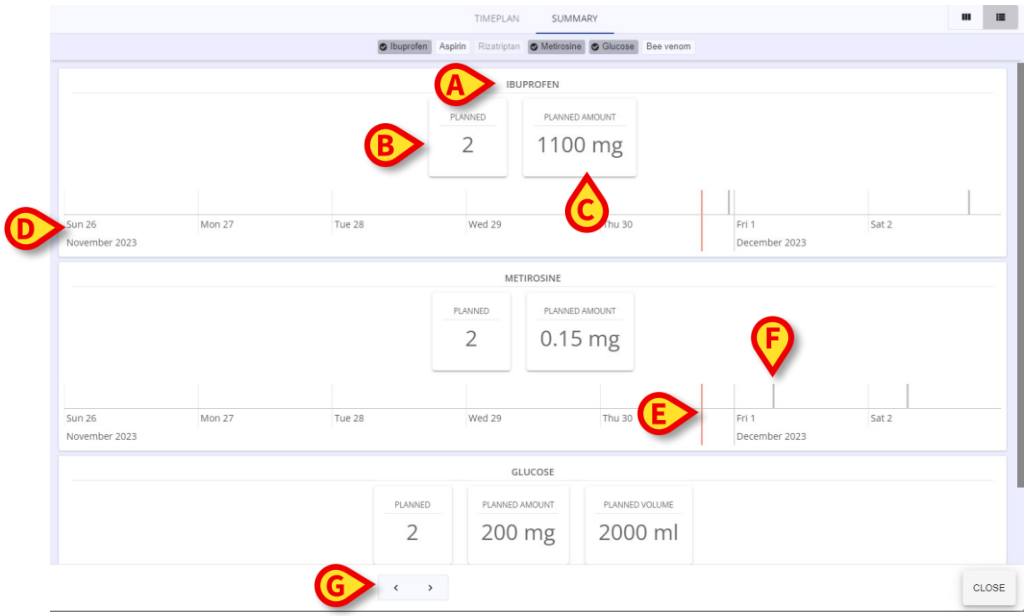


Fig 69

- On a list of separate and overlapping tiles (Fig 67 **E**). The names of the drugs/treatments are given in the header (Fig 69 **A**) of each card, the number of administrations (Fig 69 **B**) for the selected period and the planned dosages (Fig 69 **C**) are visible in two or more separate cells. In addition, a line chart (Fig 69 **D**) with the time schedule of orders for each card is provided. The red bar (Fig 69 **E**) that vertically cuts through the graph corresponds to "now" moment, while the shorter vertical bars of different colours (Fig 69 **F**) represent the administrations.

The summary page can be displayed by weekly cycle by choosing the **Weekly** option (Fig 64 **D**), by daily cycle by choosing **Daily** (Fig 64 **E**), or by shift by choosing **Shift** (Fig 64 **F**).
The timeline can be scrolled horizontally using left and right arrows (Fig 69 **G**) provided to display past and future orders, respectively.

4.15. Print a created Prescriptions list

Fig 70

Click on **Print** button (Fig 70 **A**) to create and possibly download a PDF document containing the treatment plan for the selected patient.

4.16. Update the Therapy Cycle

Fig 71

The treatment plan update procedure allows to update the prescriptions' orders and to delete the expired orders or the orders to be removed.
To update the treatment plan:

- Click the **Update** button on the command bar (Fig 71 **A**).

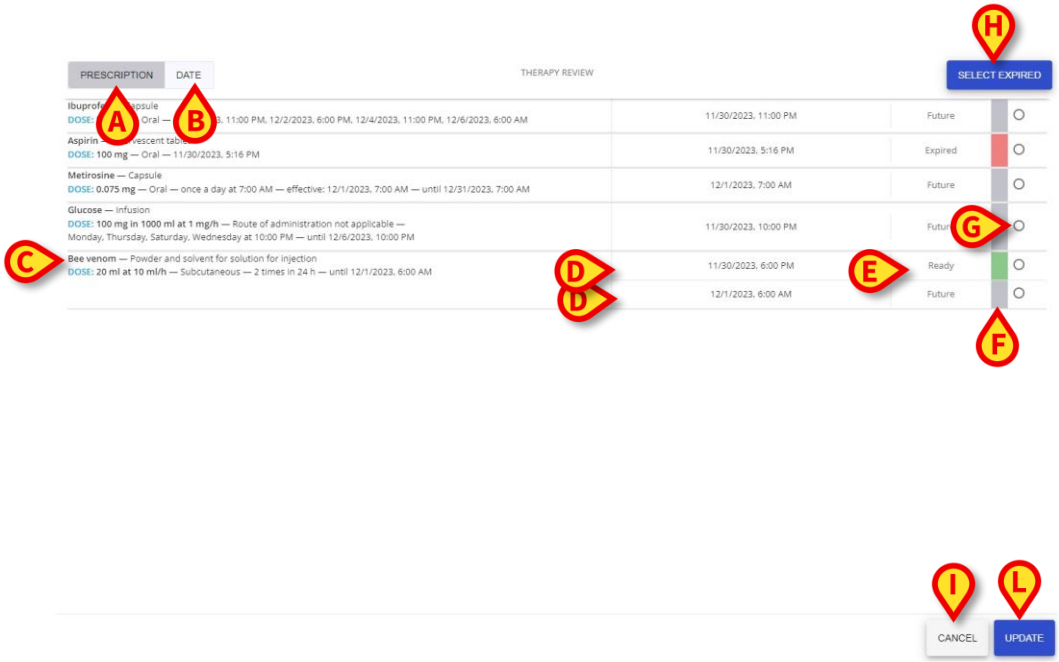


Fig 72

The **Therapy Review** window opens on the **Prescription** tab (Fig 72 **A**) showing all the created prescriptions' orders grouped by prescription names. Clicking on the **Date** tab (Fig 72 **B**), the prescriptions' orders will be displayed by prescription order date and time and their status (**Ready** orders first, then **Future** orders, finally **Expired** ones).

The prescriptions' orders associated to the selected patient contains the following information:

- Full **prescription strings** (Fig 72 **C**);
- **Scheduled date-time** (Fig 72 **D**) for each order;
- **Status** (Future, Expired or Ready) (Fig 72 **E**);
- **Colored cells** (Fig 72 **F**) depending on the status of the order (gray for Future, red for Expired and green for Ready);
- **Buttons** (Fig 72 **G**) to select/deselect the prescriptions' orders.

Fig 73

To delete expired orders:

- Manually select the expired orders one by one or click on **Select Expired** blue button (Fig 72 **H**) provided to select all the expired orders at a time;

All the expired orders are automatically selected and marked with a **bin** icon (Fig 73 **A**).

- Click the **Update** button (Fig 72 **L**). The **Therapy Review** window is automatically closed.

Fig 74

It is also possible to delete not-expired orders (Fig 74 **A**):

- Manually select the orders to be removed;
- Click the **Update** button. The **Therapy Review** window is automatically closed.

The orders selected in the **Therapy Review** window for removal won't be present anymore in the patient's prescriptions list.

A **Cancel** button (Fig 72 **I**) is provided to close the window without performing any update.

5. The “Therapy Execution” module

“Therapy Execution” is an application aimed at assisting the nursing staff in the tasks related to the documentation of the administration of the prescribed treatments.
The administration orders are generated according to the treatment plan specified by the physician on the “Therapy Prescription” module (see section 4). The generated orders are displayed as rectangles and placed on the “Therapy Execution” module’s main screen, on a “treatment schedule” table. The nursing staff can use the available tools to document the administration of the prescribed treatments.

5.1. “Therapy Execution” module selection

To select the “Therapy Execution” module

- Click the corresponding  on the lateral bar.

5.2. Main screen

The module’s main screen is displayed. See Fig 75 for an example.

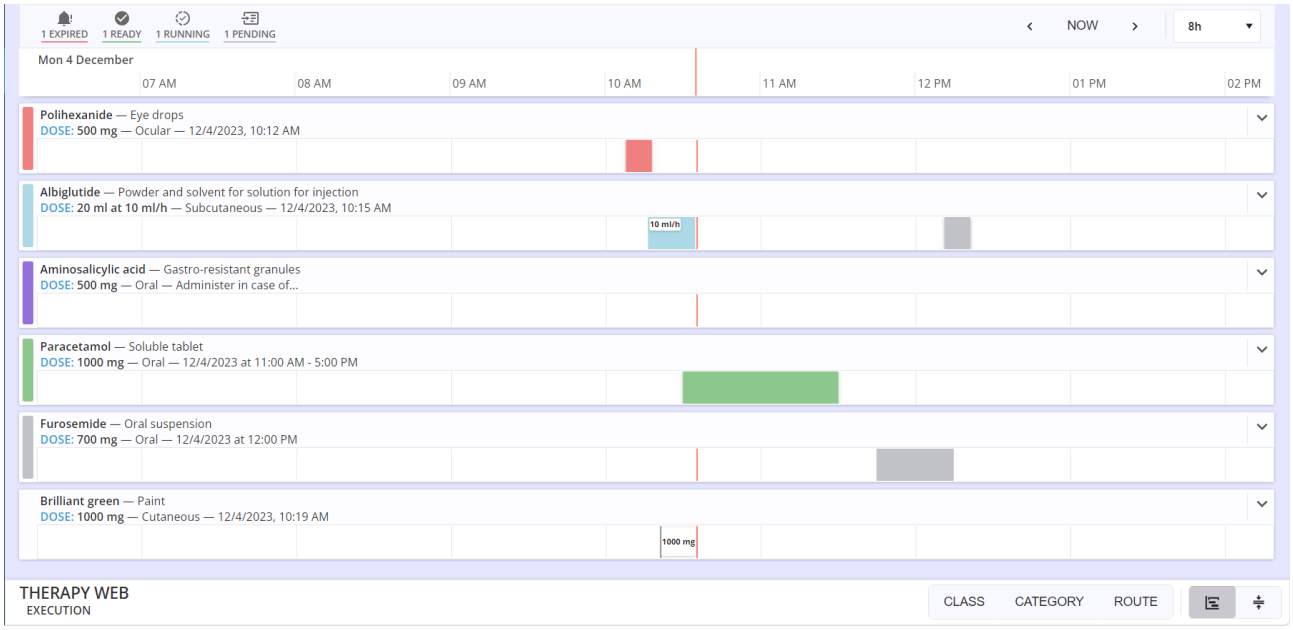


Fig 75

5.3. Prescribed orders representation

The treatments prescribed on the “Prescription” module are displayed as rows.

Fig 76

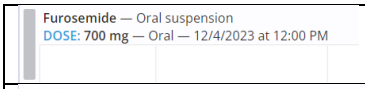
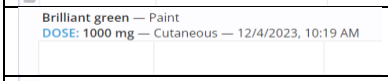
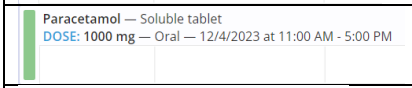
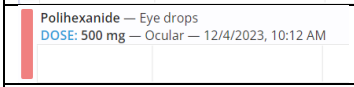
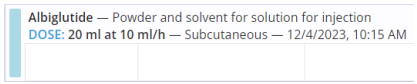
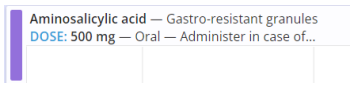
The color on the left of the row provides information on the prescription status and/or type. See section 5.3.1 for the colors legenda.
On the left of the row the available information for the prescription is specified. In Fig 76 **A**, for example, the information available is: treatment name and type, dose, administration route, administration schedule).
The rectangles on the route represent the single administration orders (Fig 76 **B**). See section 5.4 for the description of the administration chart.

The upper half of the row - ⌄ - can be clicked to open the administration details and commands.

5.3.1. Colors legenda

The different colors provide information on the prescription status and/or type.

There are 6 possible colors:

	Grey characterizes active prescriptions whose orders must be administered in the future.
	White characterizes completed prescriptions.
	Green characterizes prescriptions having an order “ready to be administered”.
	Red characterizes prescriptions having at least one “late” order.
	Cyan characterizes durative prescriptions having one order in progress (see paragraph 3.3 for a description of durative prescriptions)
	Purple characterizes conditional prescriptions; these are treatments to be administered only if specific conditions occur.

The boxes are displayed “by urgency” on the “Administration” screen. The “late” orders are on top, then the “ready” ones, then the “durative” orders in progress, then the “conditional” ones, then those to be executed in the future. In the end are the boxes corresponding to completed prescriptions.
Therefore the colors appear in this order, from the top of the screen:

1. *red*
2. *green*
3. *cyan*
4. *purple*
5. *light grey*
6. *white*

The treatments can be sorted otherwise using the buttons on the bottom-right corner, described in paragraph 5.9.

5.4. The orders chart

The administration screen displays on a chart all the orders already generated (the already executed ones, the future ones, the “in progress” ones - Fig 77).

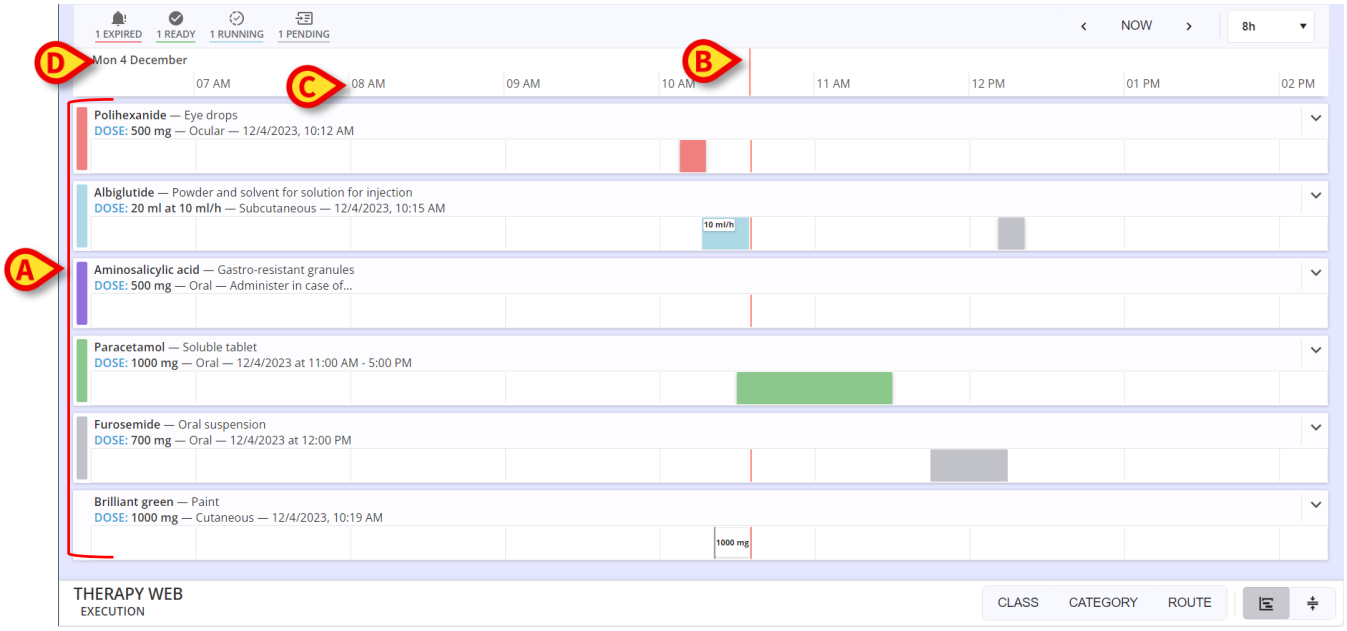


Fig 77

The orders are positioned in a grid, made of rows and columns. The orders corresponding to the same treatment are on the same row (in Fig 77 there are six prescribed treatments on the left - Fig 77 **A**); the columns correspond to the hours of the day.

The red bar (Fig 77 **B**) indicates the present time. The screen scrolls left as time goes by, thus the bar indicates the present moment on each row. In Fig 77 it is 10:40 a.m. approximately. The time can be read on top (Fig 77 **C**). The date is displayed in the top left corner (Fig 77 **D**).

5.4.1. Graphic representation of the orders

The colored rectangles represent the different orders, positioned in the place corresponding to their prescribed administration time (or execution time if already executed).

5.4.1.1. Administration tolerance period

The length of the rectangles is proportional to the time period that was indicated as "tolerance period for the administration" when the order was prescribed (see section 4.13).

For instance: if the treatment is prescribed at 13:00 and the administration tolerance period is set to 30 minutes, the administration time indicated on the chart is a period going from 12:30 to 13:30.
The position of the rectangles corresponds to the prescribed administration times. The rectangles length is proportional to the tolerance period.

5.4.1.2. Order status

The rectangle color indicates the status of the order.

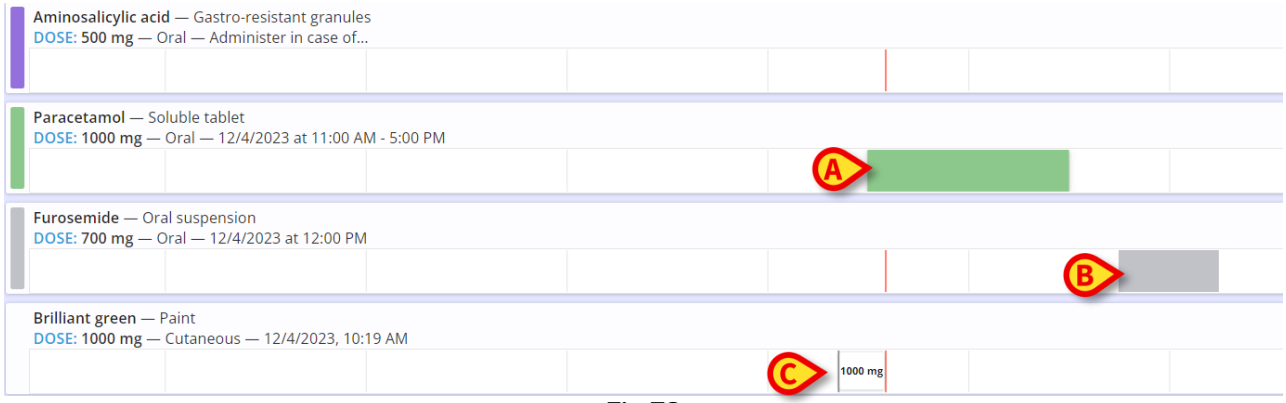


Fig 78

Green means that the order is to be administered immediately, i.e., it means that it is within the administration tolerance period. When the rectangle is green the vertical time bar intersects the rectangle (Fig 78 **A**).
Light grey means that the order is to be executed in the future. When the rectangle is light grey the vertical time bar is on the left of the rectangle (Fig 78 **B**).
When a treatment is administered, a vertical grey bar is positioned on the prescription row, in the place corresponding to the exact administration time. The administered dose is specified nearby. The vertical time bar is on the right (Fig 78 **C**).

The length of the boxes corresponding to an executed order is reduced to indicate the exact administration time. The tolerance period is not displayed anymore. When the prescription is durative (a drip, for instance) the administration duration is fully displayed in grey. See paragraph 5.5.2 for the durative orders administration procedure.

Red means that the administration of the order is late; i.e. the tolerance period is over (Fig 79 **A**). When the rectangle is red the vertical time bar is on the right of the rectangle.

Cyan characterizes durative administrations in progress (Fig 79 **B**). The vertical time bar in these cases coincides with the rectangle right side. The administered dose is specified inside the rectangle, on the left. A "Stop" order is automatically generated for durative

administration, positioned according to the scheduled duration of the administration (Fig 79 **C**).

Fig 79

The duration of an administration is displayed in cyan. When the administration is stopped the duration becomes grey (Fig 80). Possible changes in the administration dose are specified inside the rectangle.

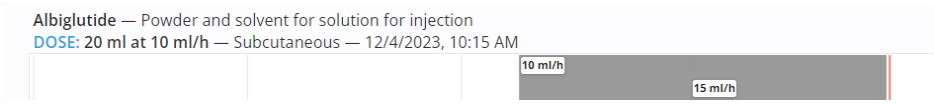


Fig 80

When the  icon is displayed on the left of a rectangle (Fig 81), it means that the order has not been validated yet or is expired. See section 3.3.3 for the explanation of the "order validation" concept. The not validated orders can be administered using a specific procedure. This procedure is described in section 5.5.5.

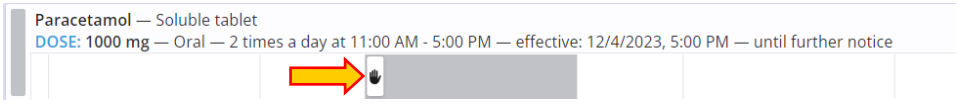


Fig 81

5.5. How to record the treatment administration

5.5.1. Punctual treatment administration

To record the administration of a treatment,

- Click the upper half of the row corresponding to the treatment to be administered (Fig 82 **A**).

Fig 82

The row enlarges to show the prescription summary and the administration commands(Fig 83).

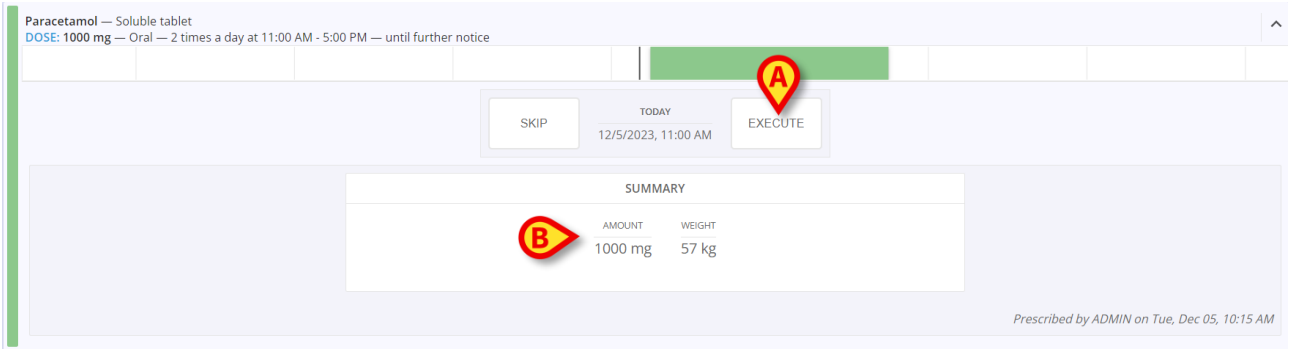


Fig 83

- Click the **Execute** button (Fig 83 **A**).

*The "summary" indicated in Fig 83 **B** refers to the prescription values, not to the values of a specific administration. Therefore, if the values of an administration change, the summary values remain the same.*

The following window is displayed, making it possible to confirm or change the administration values. The window is described in section 5.6.

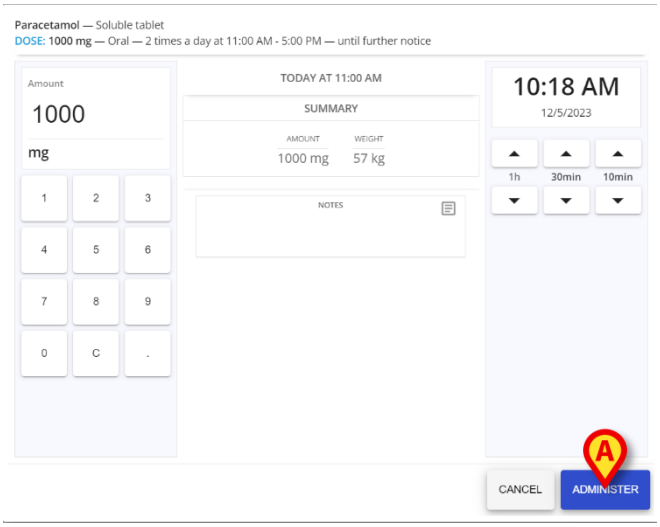


Fig 84

- Click the **Administer** button to record the administration of the treatment (Fig 84 **A**).

The rectangle corresponding to the specific order changes in the following way (Fig 85 **A** – a vertical grey bar remains in the position corresponding to the administration time; a label indicates the administered amount).

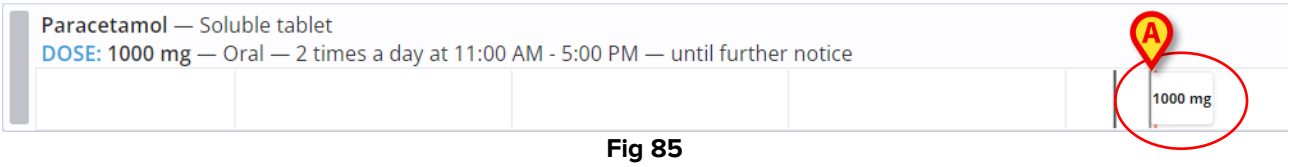


Fig 85

The treatment administration is this way recorded.

The order does not need to be in "Ready" status (green color) to be administered. The administration can be recorded before (or after) the prescribed administration time (light grey or red). Specific user permissions are required to perform these tasks. The reason for anticipating or delaying the administration must be explained in a note (see section 5.5.5).

5.5.2. Durative treatment administration

For durative treatments, it is necessary to record the beginning and the end of the administration.

To record the administration of a durative treatment:

- Click the upper half of the row corresponding to the treatment to be administered (Fig 86 **A**).

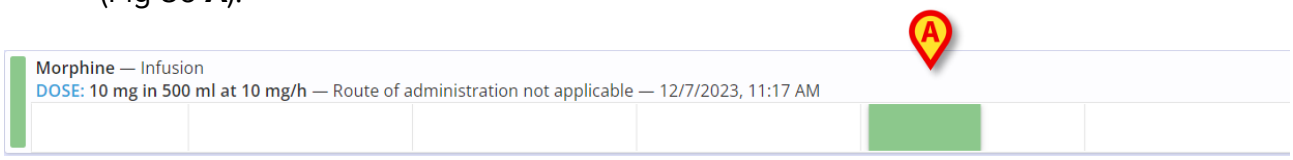


Fig 86

The row enlarges to show the prescription summary and the administration commands (Fig 87).

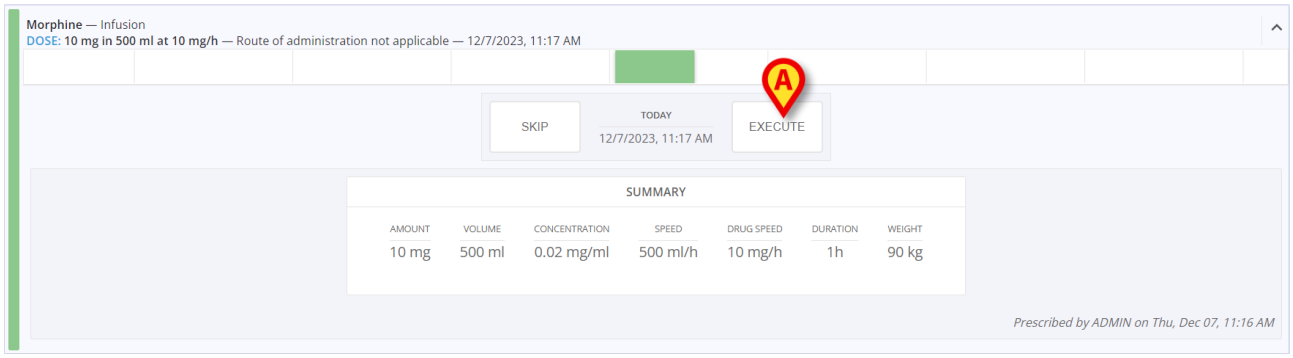


Fig 87

- Click the **Execute** button (Fig 87 **A**).

The following window is displayed, making it possible to confirm or change the administration values. The window is described in paragraph 5.6.

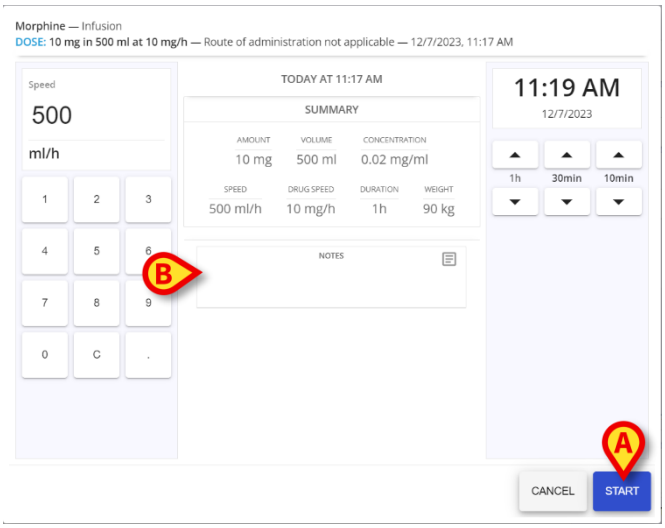


Fig 88

- Click the **Start** button to record the beginning of the administration (Fig 88 **A**).

The rectangle corresponding to the specific order becomes cyan. A cyan bar is drawn on the chart while the administration goes on; a label indicates the infusion rate (Fig 89 **A**). A stop indication is created on the row according to the values indicated at administration time. The "Stop" rectangle is positioned according to the total infusion duration (Fig 89 **B**).

The "Stop" rectangle is present if the duration of the durative administration is defined, depending on the way the treatment is configured. There are durative administrations for which the "Stop" rectangle is not present.

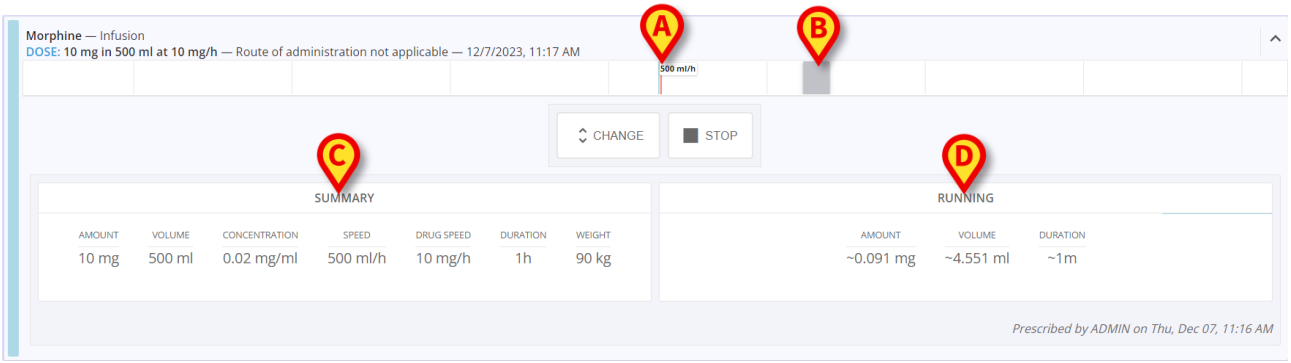


Fig 89

The prescribed administration values are displayed on the left (Fig 89 **C** - Summary). The administered values are displayed on the right (Fig 89 **D** – Amount, Volume, Duration – these values are updated in real time).

*The "summary" indicated in Fig 89 **C** refers to the prescription values, not to the values of a specific administration. Therefore, if the values of an administration change, the summary values remain the same.*

If the “Stop” rectangle is present, when the red “now” bar intersects it, it turns green (Fig 90 **A**). From this moment on, the “Change” button is not available anymore (Fig 90 **B**). The tolerance period for stopping the infusion “in time” is 15 minutes (configurable).

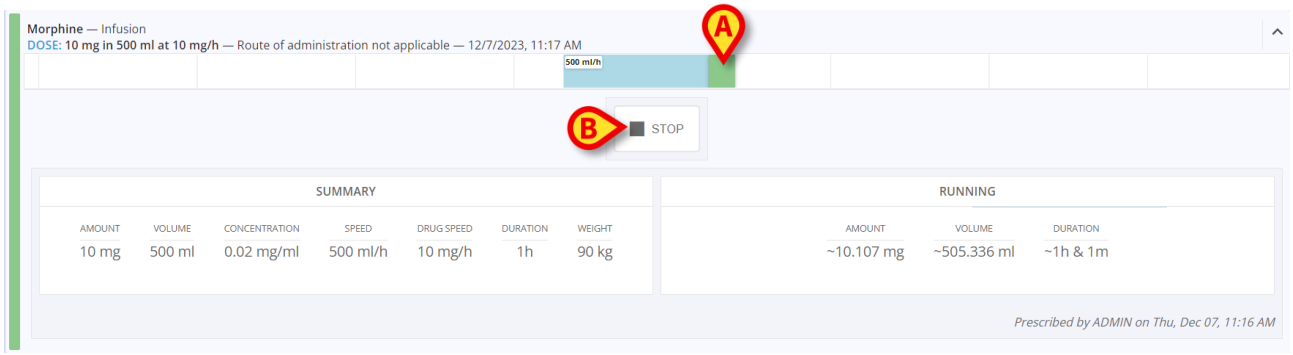


Fig 90

- Click the **STOP** button to stop the durative administration.

An administration window is displayed (Fig 91). If required, it is here possible to insert notes or operate on the recorded administration time (see paragraph 5.6).

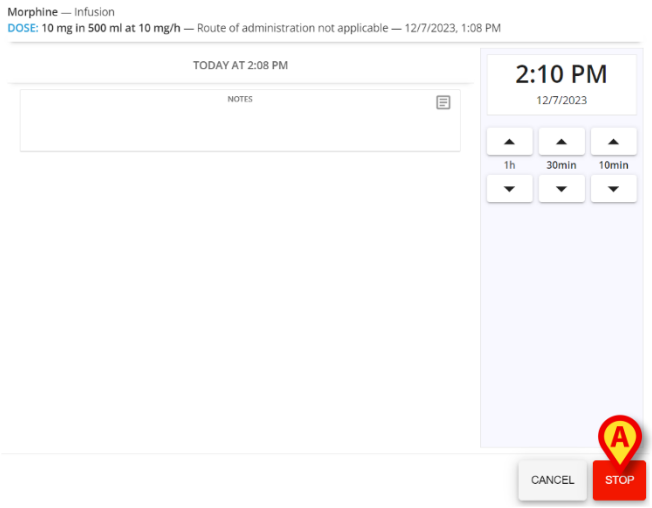


Fig 91

- Click the **Stop** button on the administration window (Fig 91 **A**).

The administered order remains as a dark grey rectangle on the chart, its length corresponding to the actual duration (Fig 92 **A**).

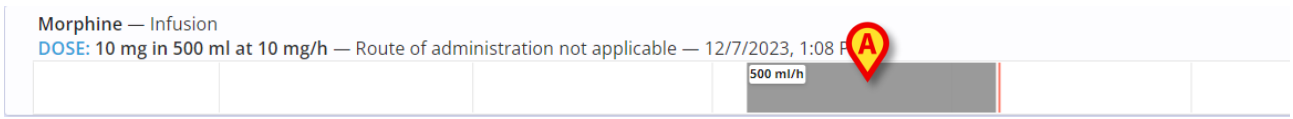


Fig 92

5.5.3. End a durative administration before or after the scheduled time

When the duration of a durative administration is defined and the administration is stopped before the scheduled time (i.e. when the “Stop” rectangle is grey, positioned on the right of the red “now” bar – see for an instance Fig 91 **A** and **B**), then, after clicking on **STOP**, the user is required to specify in a note the reason for anticipating the end of the administration. The note is then displayed in the administration window (Fig 91).
The tolerance period for stopping the durative administration “in time” is 15 minutes (configurable). After 15 minutes, the “Stop order” is late and the “Stop rectangle” turns red (Fig 93 **A**). The administration goes on.

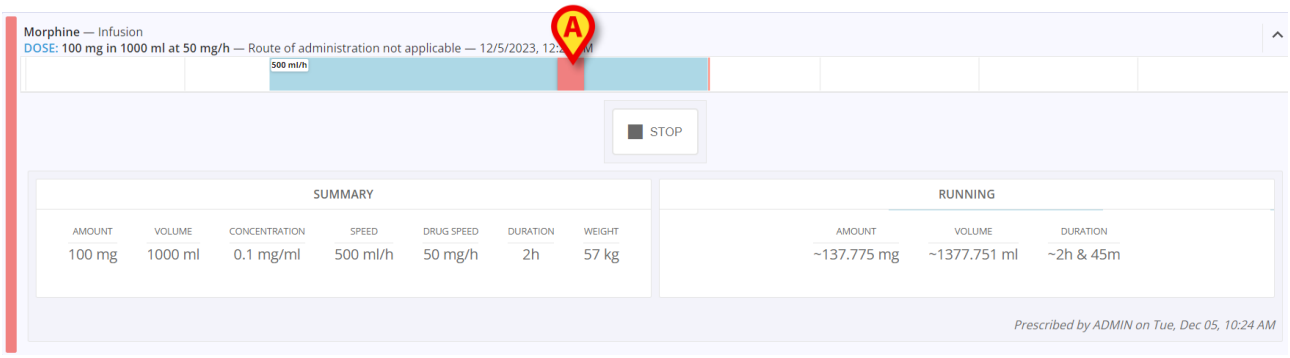


Fig 93

To stop an administration after the scheduled time, also, the user is required to specify in a note the reason for delaying the end of the administration. The note is then displayed in the administration window (Fig 91).
In both cases, the administered orders remain as a dark grey rectangle on the chart, their length corresponding to their actual duration.

5.5.4. Changing the administration values

It is possible to change the administration values of a durative administration while the administration is in progress. To do that:

- Click the upper half of the row (Fig 94 **A**).

The administration details and commands are displayed (Fig 94 **B**).

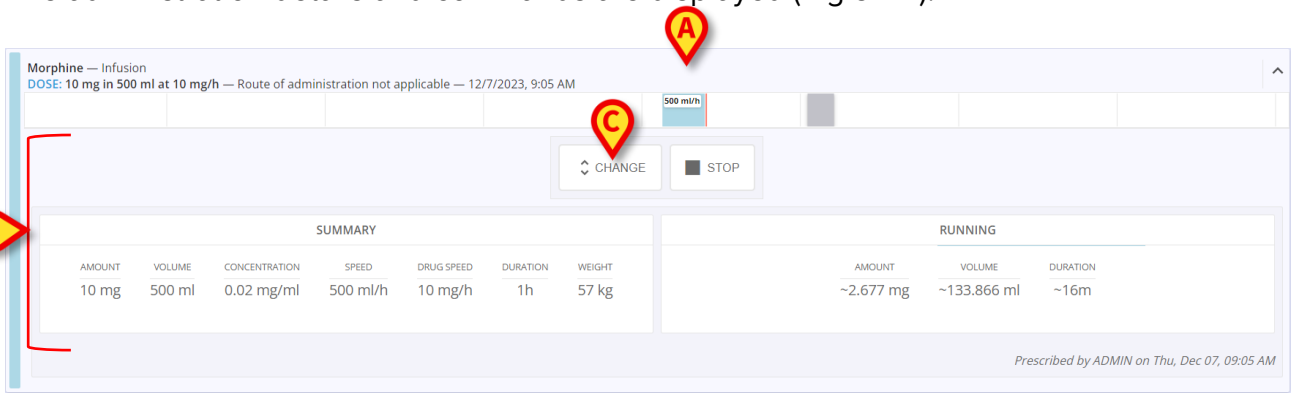


Fig 94

- Click the **CHANGE** button (Fig 94 **C**).

The administration details window is displayed (Fig 95).

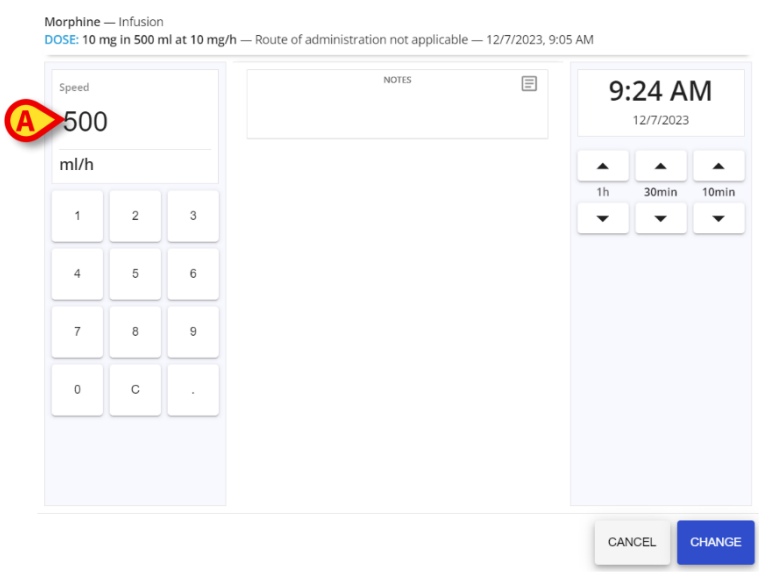


Fig 95

- Use either the virtual keyboard or the workstation keyboard to insert the new value in the field indicated in Fig 95 **A**.

The window changes as shown in Fig 96. The user is required to indicate in a note the reason for changing the administration values (Fig 96 **A**).

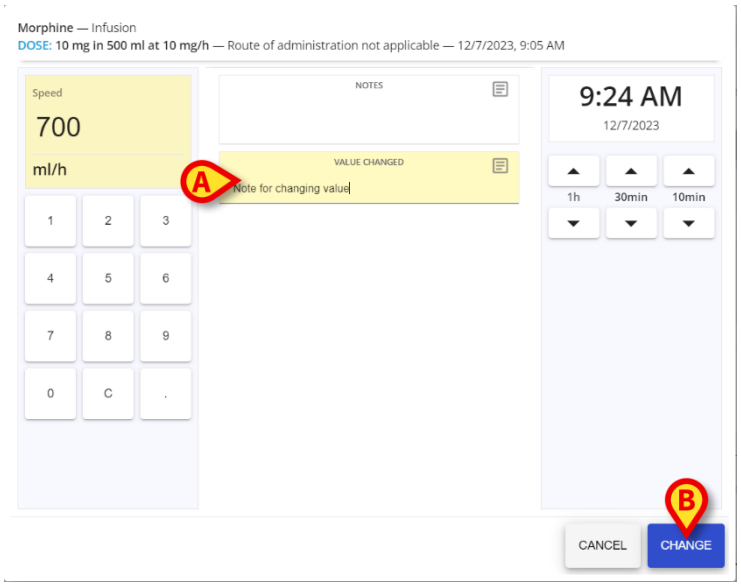


Fig 96

- Click the **CHANGE** button (Fig 96 **B**).

The administration chart changes as follows. The new speed is indicated in a label (Fig 97 **A**).

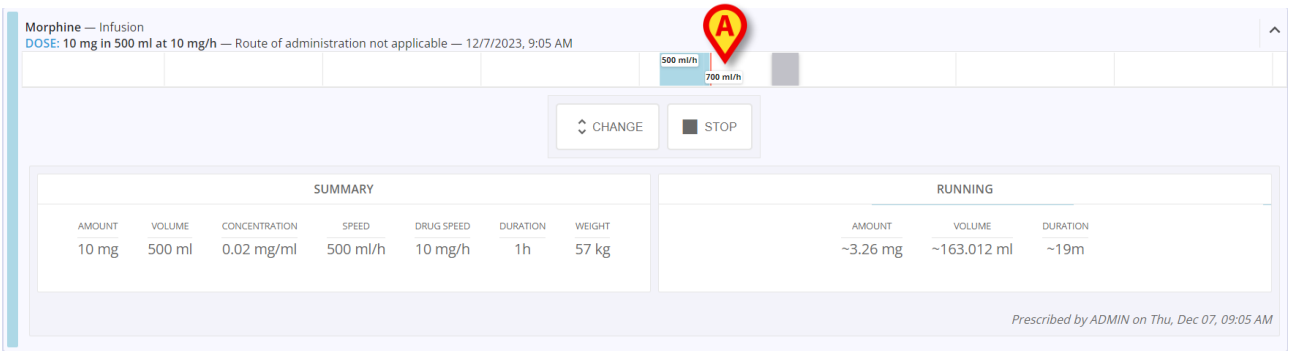


Fig 97

The change is signaled on the "Prescription" module by the icon on the prescription table. The icon means that the values recorded on the "Execution" module are now different from those specified on "Prescription".

5.5.5. Administration of an order either expired or not-yet-validated

The order validity expires after a certain time (see paragraph 3.3.4 for more information). An expired order can be administered anyway but requires specific user permissions and a specific procedure. Expired orders are characterized by the icon (Fig 98).

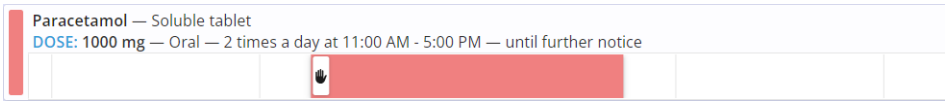


Fig 98

To administer an expired order (or not yet valdated):

- Click the upper half of the row. The administration details and commands are displayed (Fig 99).

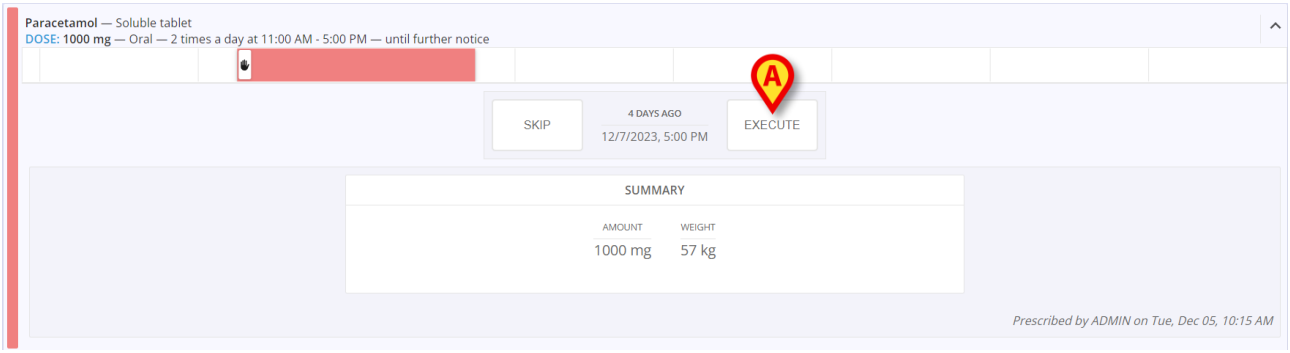


Fig 99

- Click the **Execute** button (Fig 99 **A**).

A window opens, requiring to insert the reason why an expired order is administered.

- Specify, in a note, the reason for administering an expired order.
- Click **Next**.

The administration detail window is then displayed. The note is displayed on the window (Fig 100 **A**).

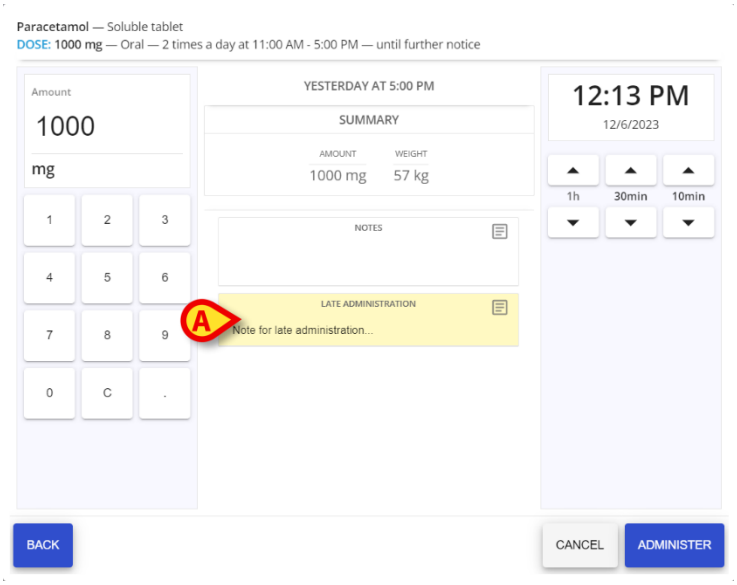


Fig 100

- Click **Administer** to administer the order.

The same procedure can be used to record the administration of a future not-yet-validated order.

5.5.6. Skip administration

To document the fact that a certain treatment was not administered:

- Click the upper half of the row. The administration details and commands are displayed (Fig 101).

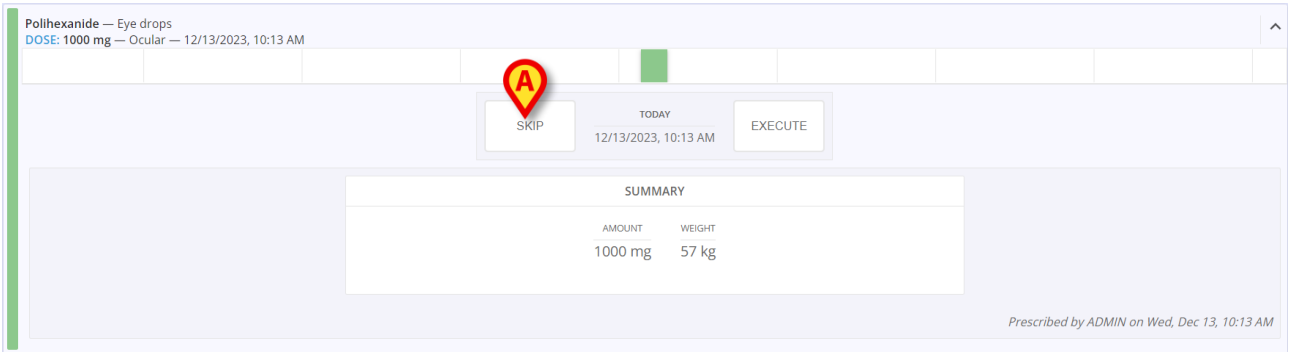


Fig 101

- Click the **Skip** button (Fig 101 **A**).

- Specify, in a note, the reason for not administering the treatment (Fig 102 **A**).

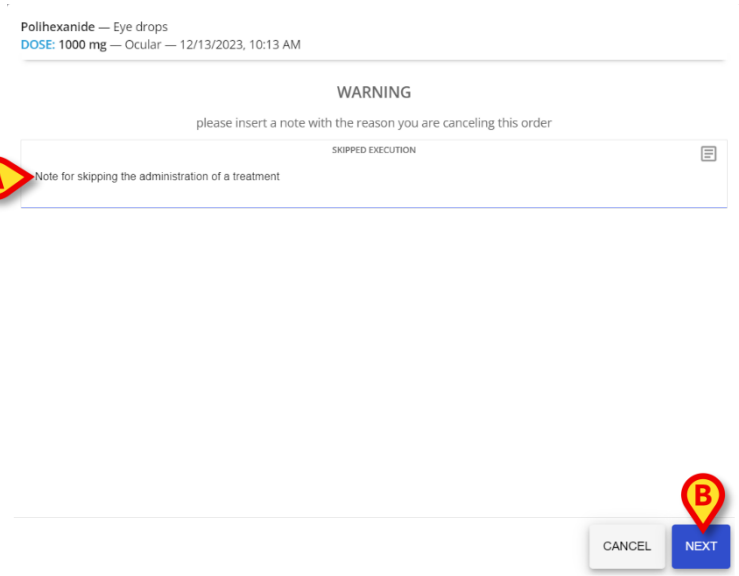


Fig 102

- Click **Next** (Fig 102 **B**).

The administration detail window is displayed. The note is displayed on the window (Fig 103 **A**).

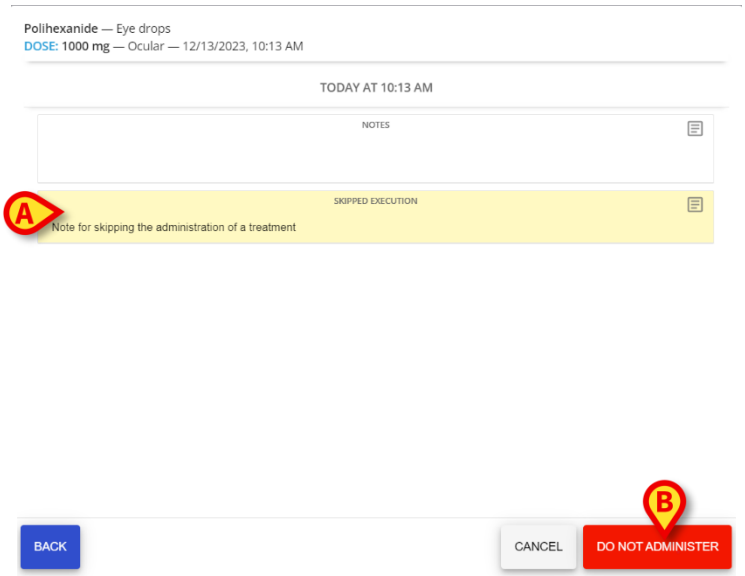


Fig 103

- Click **Do Not Administer** to skip the administration (Fig 103).

5.6. The administration window

The treatment administration window (Fig 104) allows to edit some of the values of the administration on the “Therapy Execution” module.

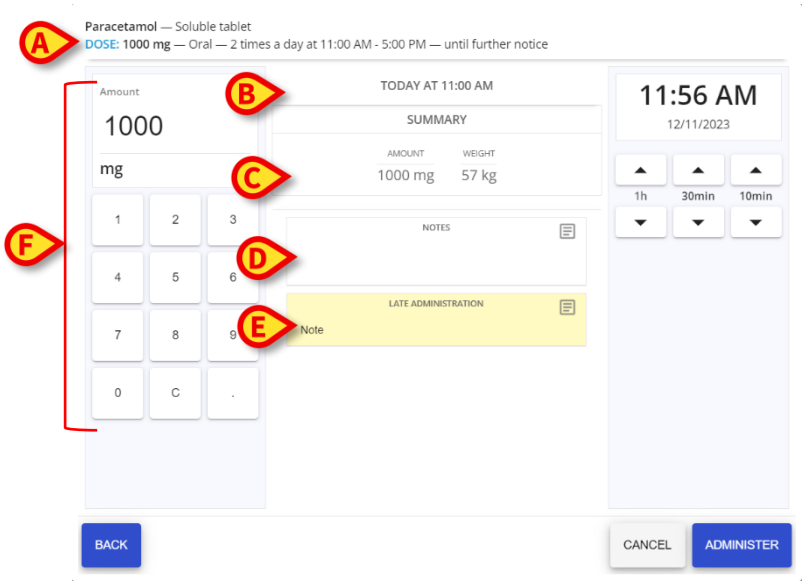


Fig 104

The prescribed values are indicated on top (Fig 104 **A**).

In the central area of the window the following information is displayed:

- Administration scheduled time (Fig 104 **B**).
- Administration summary (Fig 104 **C** – Note: the values specified in this area depend on the treatment type).
- Generic user notes (Fig 104 **D**).
- Notes related to: late/early administrations; changes in the administration values; changes in the administration time (Fig 104 **E**).

On the left, a numeric keyboard allows to change the administered quantities (Fig 104 **F**).

To change the administration amounts:

➢ Use the virtual keyboard to specify the new amount. The window changes as shown in Fig 105.

➢ Type a note (mandatory) explaining the reason for the changes (Fig 105 **B**).

➢ Click the **Administer** button (Fig 105 **C**).

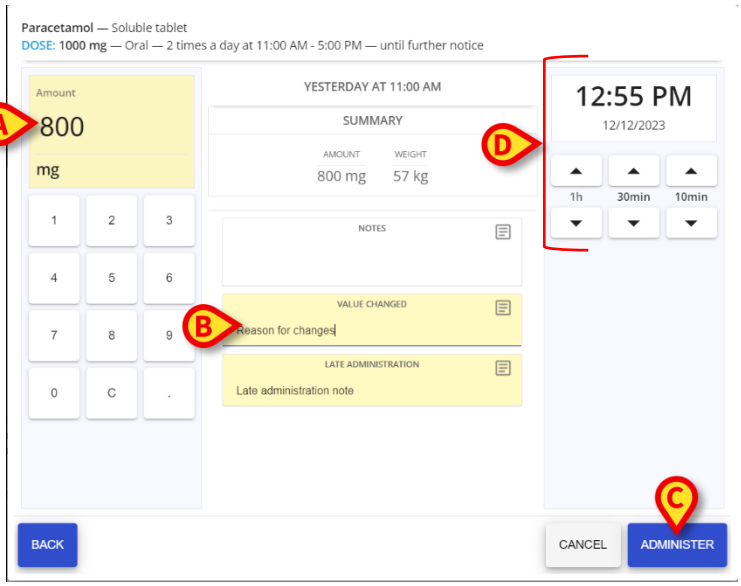


Fig 105

The time display on the right (Fig 105 **D**) should indicate the time at which the treatment is actually administered. The time displayed by default is the time at which the administration window opens. If the recording of the administration of an order is recorded at a time that is different from the time of the actual administration, it is possible to change the displayed time and indicate the correct administration time.

To do that:

- Use the arrow buttons placed below the time display (Fig 105 **D**).

The upward arrows add 1 hour (left arrow), 30 minute (center), 10 minutes (left) to the time displayed.
The downward arrows subtract 1 hour (left arrow), 30 minute (center), 10 minutes (left) to the time displayed.

The window changes in the following way (Fig 106).

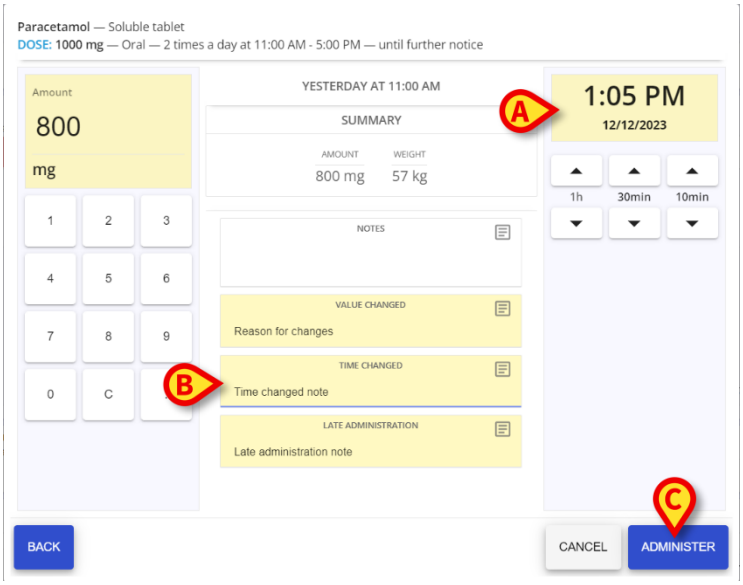


Fig 106

- Type a note (mandatory) explaining the reason for the time changes (Fig 106 **B**).
- Click the **Administer** button (Fig 106 **C**).

The administered order bar or rectangle (in case of durative administration) is placed in the chart according to the time and values specified on the administration window (Fig 107).

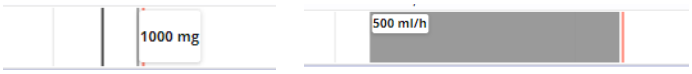


Fig 107

5.7. “Execution” module prompts

On the upper left corner of the “Execution” screen different icons can be displayed as prompts for the user relating to the overall status of the treatment plan (Fig 108 **A**).

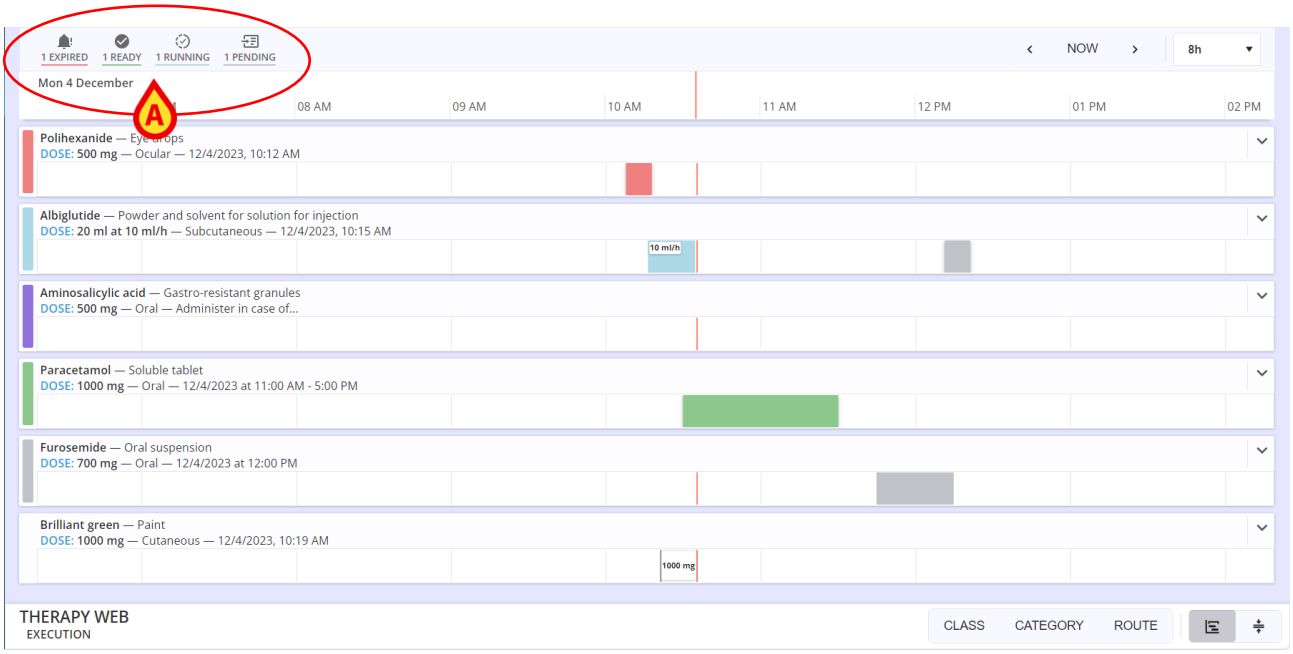


Fig 108

In Fig 108 **A**, for example, the icons indicate that on the treatment plan there are:

- 1 order expired (red)
- 1 order ready (green)
- 1 order running (cyan)
- 1 order pending (grey)

See, in Fig 109, an enlarged view.

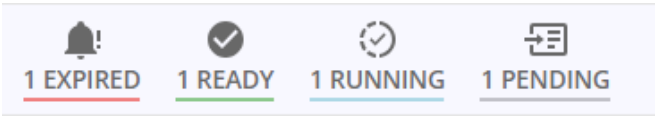


Fig 109

5.8. “Execution” time range display

The commands available in the top-right corner of the “Execution” screen allow to change the time range displayed (Fig 110 **A**).

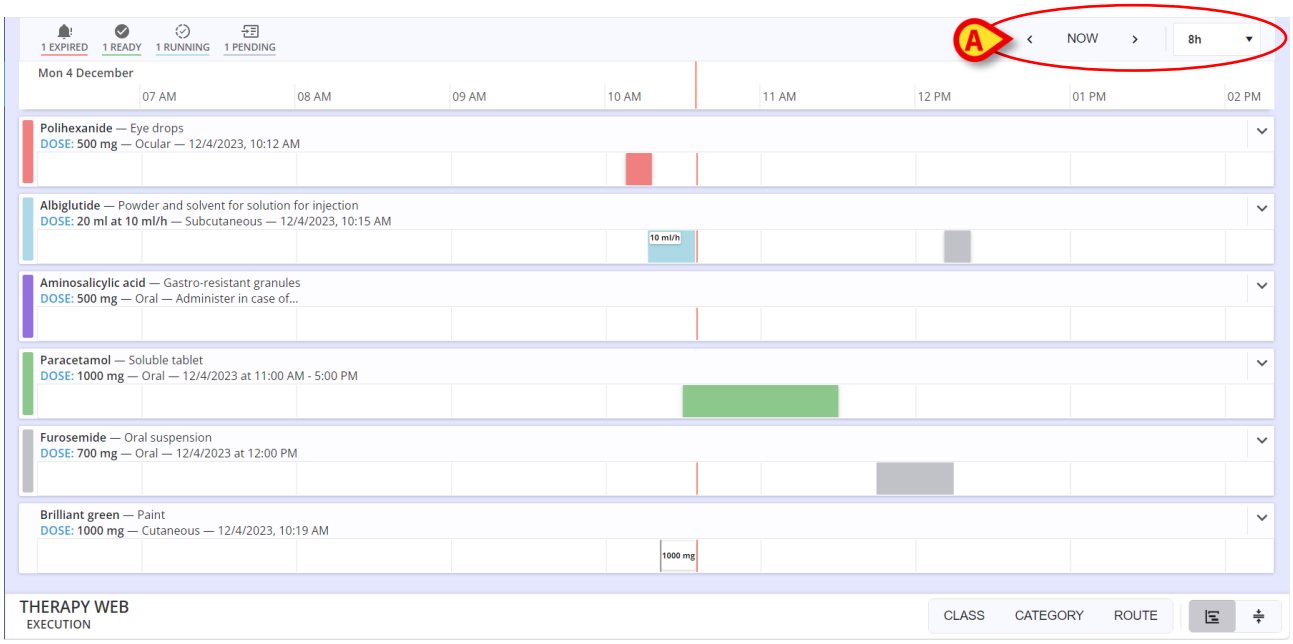


Fig 110

Use the drop-down menu indicated in Fig 111 **A** to change the display mode.

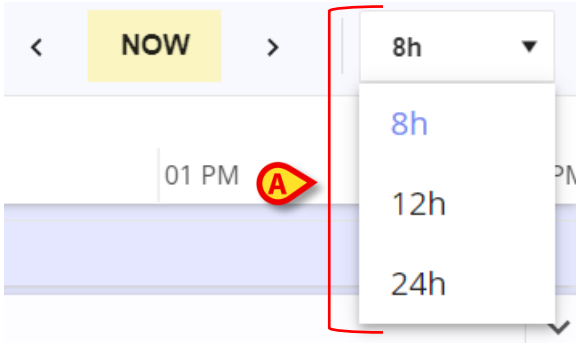


Fig 111

The default display range is 8 hours. Click 12h or 24h to display the corresponding range. Fig 112 shows, as example, a detail of a 24 hours display.

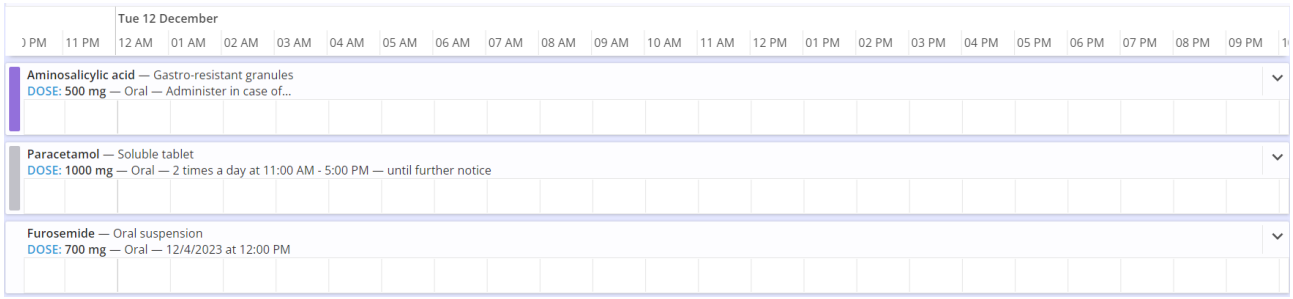


Fig 112 - 24 hours display (detail)

Use the left and right arrows (Fig 113 **A**) to scroll the screen contents back (left) and forward (right).

Fig 113

One click on the arrow button moves the screen for the time range specified in the field (i.e. if 8h is selected - as in the figure -, click the left arrow once to display the previous 8 hours, click the right arrow once to display the following 8 hours; if 12h is selected, the screen moves 12 hours per click).

Use the **NOW** button to display the current time again.

5.9. Treatment sorting buttons

The buttons indicated in Fig 114 **A** allow to sort and group the existing treatments by class, category or administration route.

The class, category and route of a treatment are defined during the configuration of the treatment.

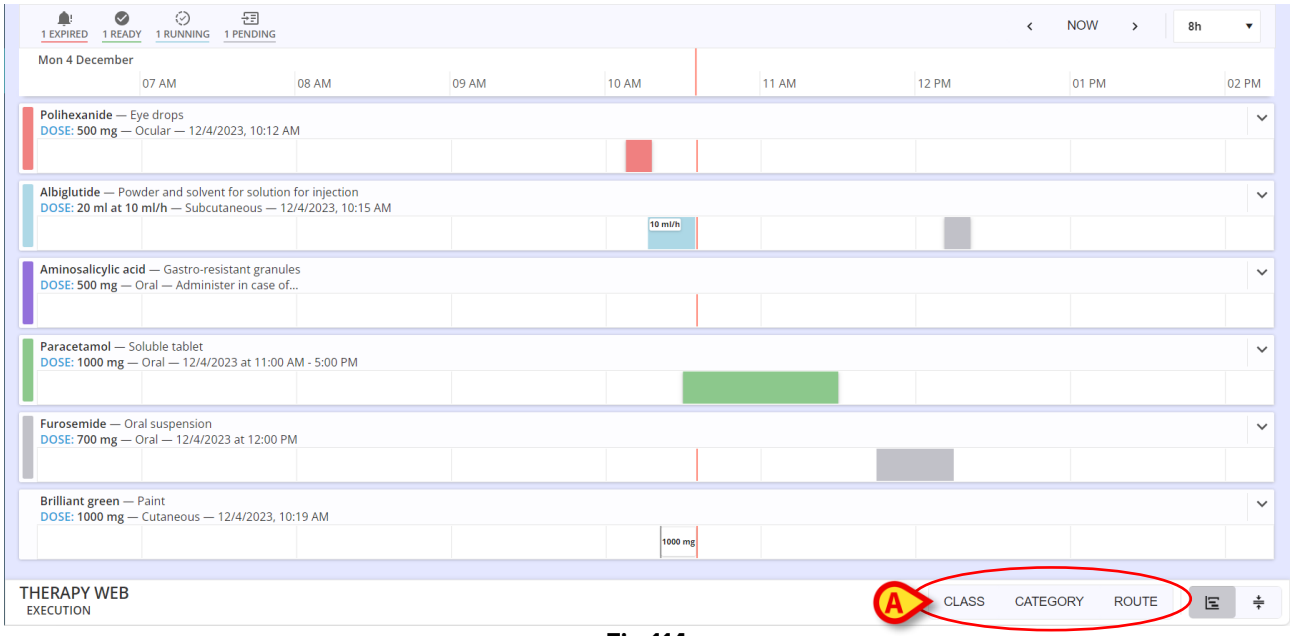


Fig 114

Click a button to sort the treatments according to the related sorting criterion. See, for example, in Fig 115, the treatments sorted by administration route (in the figure: Oral, Ocular, Subcutaneous, Cutaneous).
Click the button again to go back to the original sorting.

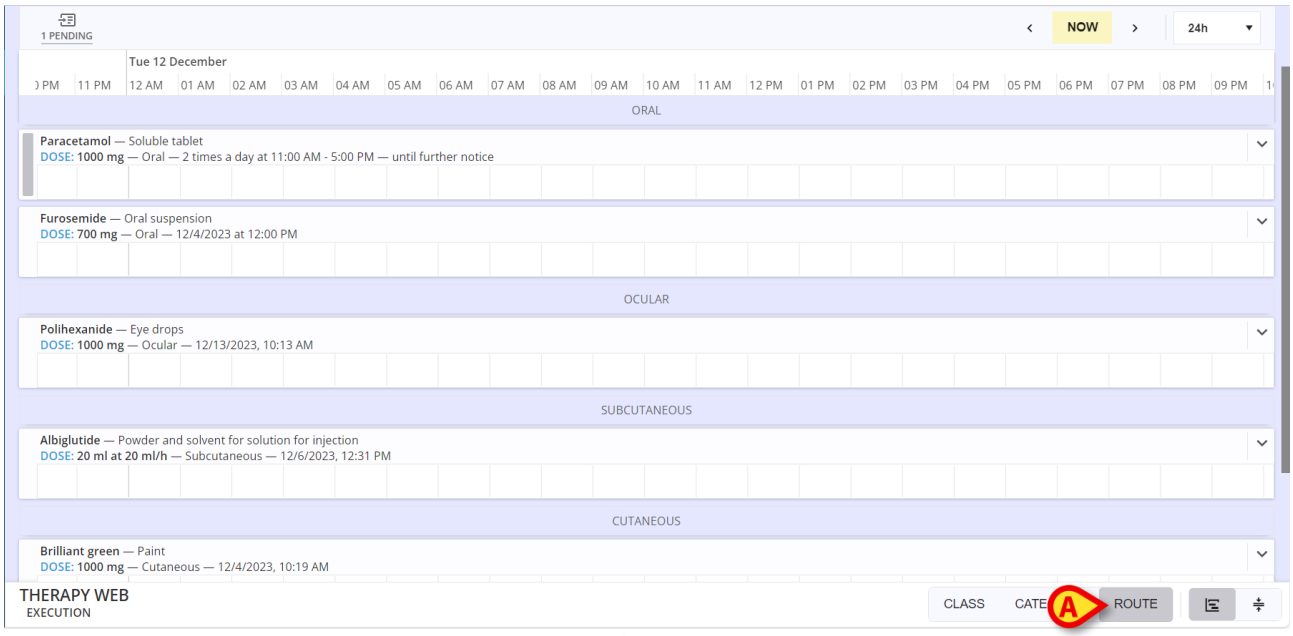


Fig 115

5.10. Compact view

Use the buttons indicated in Fig 116 **A** to switch to a more compact display mode (and back to normal). Fig 116 shows the normal view.

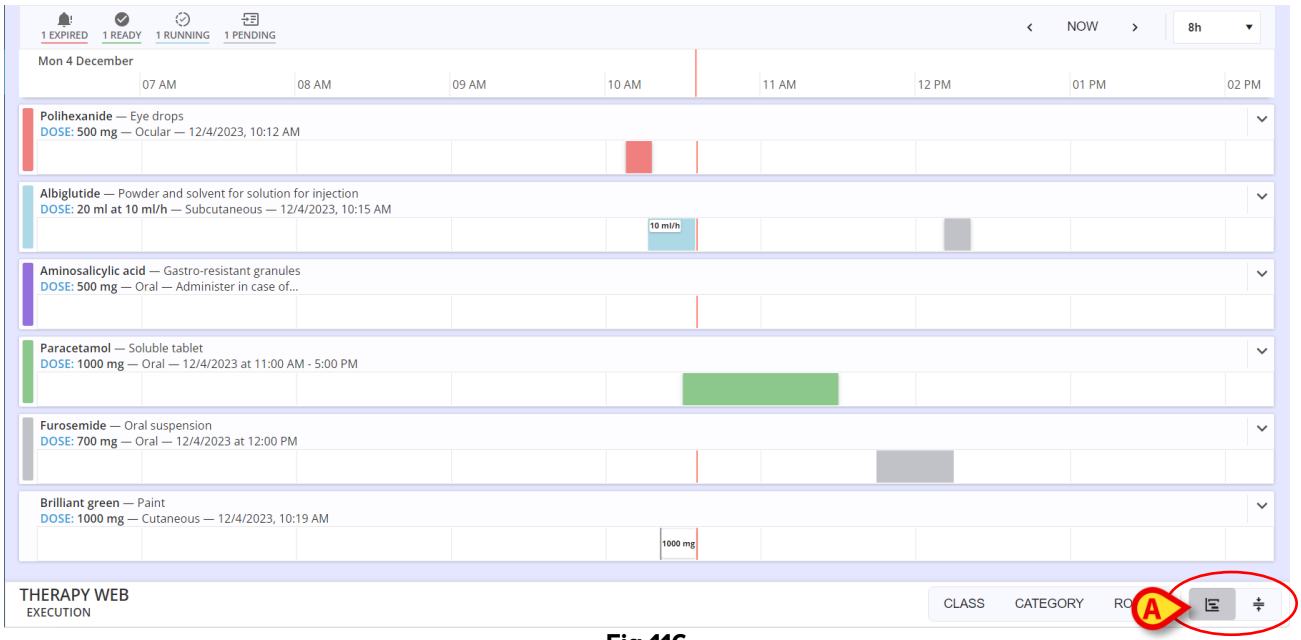


Fig 116

Fig 117 shows the compact view.

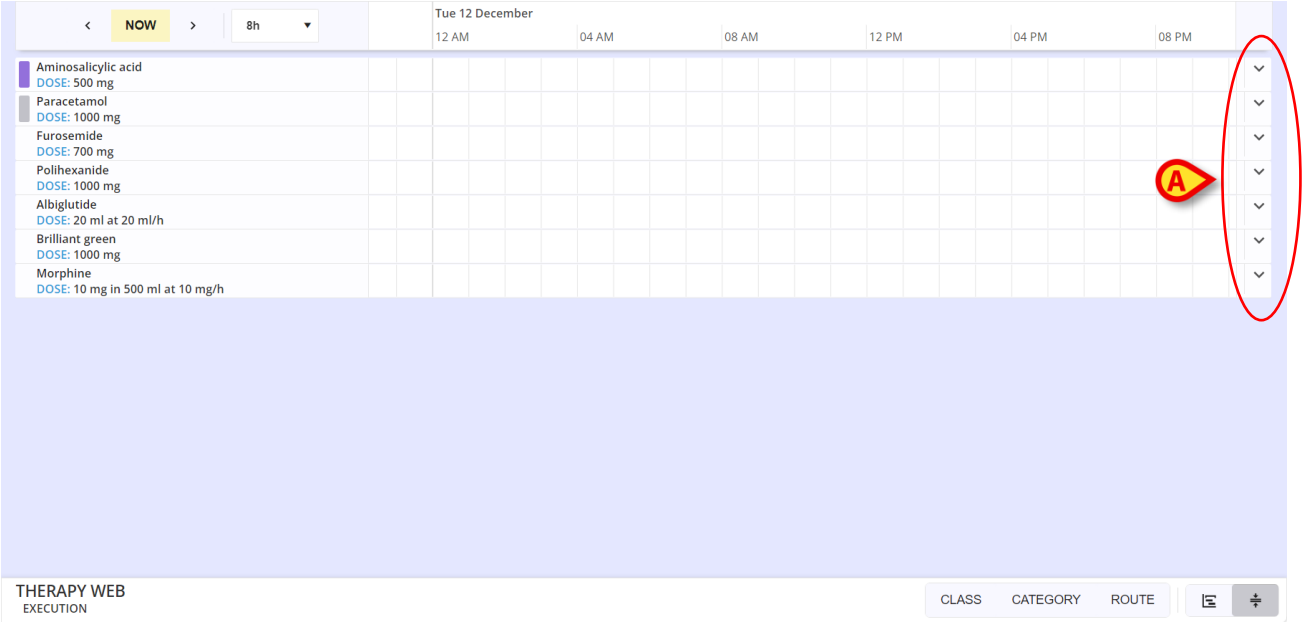


Fig 117

Use the arrows on the right to enlarge the treatment rows and display the administration details and commands (see, for example, Fig 118).

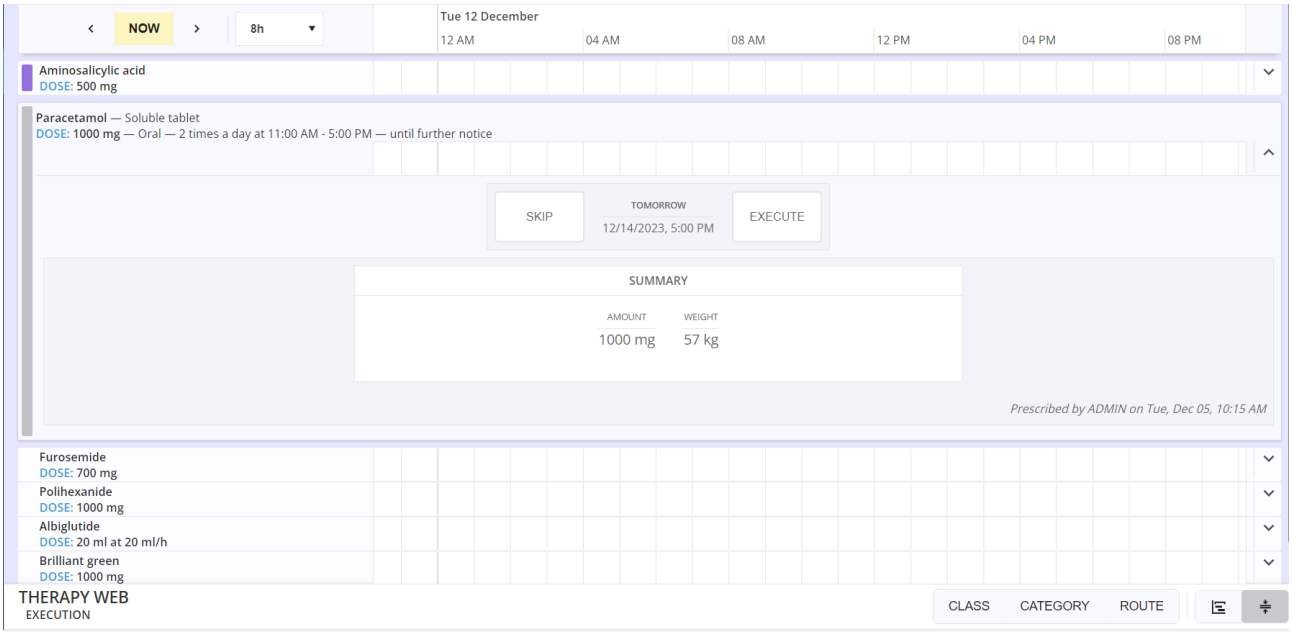


Fig 118