Therapy User Manual

Version 1.0

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Contents

1. The DIGISTAT® "Therapy" system

For general and detailed information about the DIGISTAT® environment and the instruction for use of the Control Bar software see the document "USR ENG Digistat Product". Reading the "USR ENG Digistat Product" is a mandatory prerequisite for a correct and safe use of the Therapy software.

1.1. Introduction

The DIGISTAT® "Therapy" system can be of help for the clinical staff for the documentation of the treatments prescription and administration tasks.

1.2. Patient selection

To select a patient, if you are using a DIGISTAT® software,

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

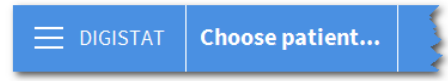


Fig 1 - Patient selection button

The DIGISTAT® "Patient Explorer" module will open (if the module is available, otherwise the patient search and selection functions are accomplished by DIGISTAT® "Control Bar").
See either the "Patient Explorer" module or the "Control Bar" technical documentation to know the specific search and selection procedures.

If the software in use is not a DIGISTAT® software see the related documentation.

If your healthcare structure does not use a DIGISTAT® software for the patient search and selection procedures, please refer to the specific related documentation.

When a patient is selected the patient name is displayed on the **Patient** button.

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

The patient can be selected on the "Central Station" module as well, clicking the box corresponding to his/her bed. See paragraph 7.2.

1.3. Basic concepts

This paragraph explains some fundamental notions whose preliminar understanding is essential to the appropriate use of the DIGISTAT® Therapy system.

1.3.1. Prescription status

The "Therapy Prescription" module (described in paragraph 2) makes it possible to document a treatment plan and keep it active in time after scheduled validations. Possible variations are easily and quickly recorded 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.

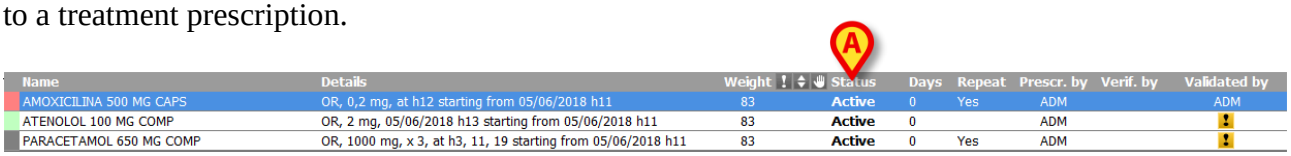


Fig 2 - Prescription table

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

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

Completed prescriptions appear in strike-through characters on the prescriptions table (Fig 3).

Fig 3 - Completed prescription

The completed prescriptions are still in "Active" status because it is this way possible to prescribe them again quickly, without having to specify the prescription details again (Fig 3 **A**). It is in fact possible to restore a completed prescription by double-clicking the corresponding row. The prescription specification window will appear, displaying the values of the original prescription. See paragraph 4 for the description of the prescription specification window and the related procedures.

The prescription status is displayed, on the table, in the column indicated in Fig 2 **A**.

There are four possible prescription statuses:

1. "Active" - when a prescription is in "Active" status the prescription values can be displayed and edited. Double-click the corresponding row to open the related "prescription specification" window.

2. "Active and completed" - a prescription is completed when all the orders that it generated are executed and no other order will be generated by it in the future. Completed prescriptions are still active, that means that the prescription values can be diplayed and edited. Double-click the row corresponding to the prescription to display the related "prescription details" window. Completed prescriptions appear in strike-through characters on the prescriptions table.

The **Remove Completed** button on the command bar cancels all the completed prescriptions from the prescriptions table and turns them to "Terminated" status.

3. "Suspended" - the prescription suspension, performed using the **Suspend** button on the command bar, deletes all the existing orders generated by the prescription. Moreover, when a prescription is in "Suspended" status, it does not generate further administration orders. A suspended prescription can be resumed using the **Resume** button on the command bar. See paragraphs 5.4 (precription suspension) and 5.4.1 (how to resume a suspended prescription) for the related procedures.

4. "Terminated" - the prescription is "Terminated" either using the **Remove** or the **Remove Completed** button on the command bar. When a prescription is terminated all the orders generated by it are deleted. Moreover, the "Terminated" prescription does not generate further administration orders. It is **NOT** possible to resume a "Terminated" prescription. See paragraphs 5.3 (prescriptions removal) and 5.8 (completed prescriptions removal) for the related procedures.

The prescriptions table is described in paragraph 2.3.

1.3.2. Repeatable vs. Non 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.
The orders are generated for seven days in the future starting from the date indicated as treatment start date. The next orders are generated when the next treatment validations are performed (see paragraph 5.1 for the treatment plan validation procedure).

Non-repeatable prescriptions

Non-repeatable prescriptions generate only the administration orders explicitely specified in the prescription. When all the orders are executed the prescription is "Completed" and appears in strike-through characters on the prescriptions table. Then the prescription turns to "Active and completed" status.
The repeatability of a prescription is set by a specific checkbox on the prescription specification window (see Fig 4 **B** for an example).
The repeatability of a prescription is indicated in the last column on the right on the prescriptions table ("Repeat" column, see Fig 10, paragraph *2.3*).

1.3.3. Punctual vs. Durative administrations

Punctual administrations start and end in one moment (a tablet, for instance).

Durative administrations last a certain amount of time (a drip, for instance).

These two types of administrations are characterized by different graphic features and different management procedures on the Therapy Execution module. See paragraph 6.3 for a detailed description of the possible administration types on Therapy Execution.

1.3.4. The Therapy Cycle - treatment plan re-confirmation procedure

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" duration is configurable by the system administrators. See the information box at the end of this paragraph for more information on the "Therapy Cycle" duration.

The "Therapy Cycle" re-confirmation procedure, described in paragraph 5.1, has the following outcomes:

a) it generates the possible not-still-generated orders within the next "Therapy cycle" (see paragraph 1.3.5 for a description of the way orders are generated from prescription);

b) it validates the orders that are within the next "Therapy cycle" (see paragraph 5.1 for the validation procedures).

The "Therapy Cycle" re-confirmation is a safety procedure that forces to check and verify the treatment plan at specified intervals.

When the treatment plan validity is expired the system does not generate any other order from the existing prescriptions.

The treatment plan expiration time is signalled on screen by specific indicators. These indicators are described in paragraph 2.5.

The treatment plan re-confirmation procedure is described in paragraph 5.1.

The "Therapy Cycle" duration is set by configuration.

The "Therapy Cycle" update procedure can have, depending on the configuration in use, the following outcomes:

- *the validity period is updated for the next N hours;*
- *the validity period is updated until NN:NN o'clock of the following day;*
- *the validity period is updated until the midnight of tomorrow;*
- *the validity period is updated until the midnight of day after tomorrow.*

System configuration is reserved to the system administrator. Refer to the system administrator for more information.

1.3.5. 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 **Prescribe** button on the "prescription specification" window is clicked (Fig 29 **A**, see paragraph 3.3), the system generates the orders corresponding to the prescription specifications.
When the treatment prescribed is non-repeatable (see paragraph 1.3.2 for an explanation of "treatment repeatability"), the system generates all the corresponding orders.
When the treatment prescribed is repeatable the system generates the orders for a maximum period of seven days in the future starting from the day indicated in the field "starting from" on the prescription detail window (see for example Fig 4 **A**).

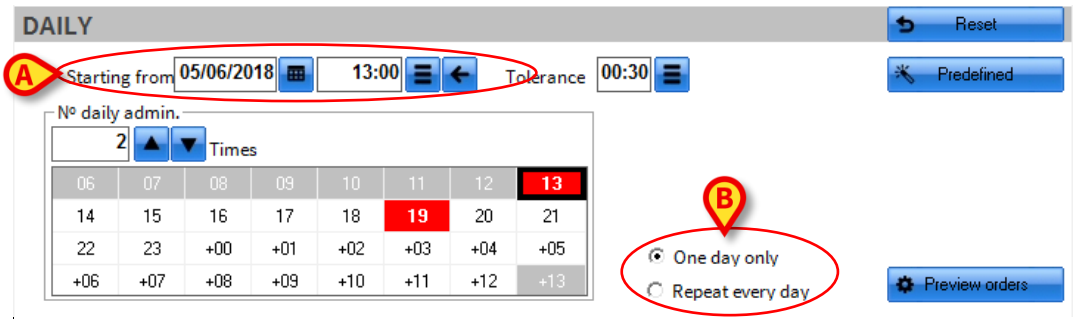


Fig 4 - Daily treatment prescription

Conditional prescriptions (paragraph 4.2.2) do not generate orders. These prescriptions are executed only when certain specific conditions occur.

1.3.6. 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 5.1).

Non-validated orders are signalled by a specific icon on the Therapy Execution module (Fig 5). They can be executed only after a special procedure, described in paragraph 6.5.2.

Fig 5 - Non-validated order on Therapy Execution

See paragraph 1.3.4 for the explanation of the “Therapy Cycle” (or “treatment plan validity period”).
See paragraph 5.1 for the treatment plan update procedure.
See paragraph 5.1.1 for a description of the “Orders confirmation window”.

Some critical/high risk drugs can be configured to require a double signature to be validated. I.e. it is required that a second user, different from the one who prescribed the treatment, confirm the order. Only after this second confirmation the order is displayed as valid on the therapy execution module. See paragraph 4.4 for the procedure.

1.3.7. 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 cannot be validated again.

Expired orders can be deleted from the treatment plan through the “Therapy cycle” update procedure. See paragraph 5.1.

Expired orders can be executed only using a specific procedure. The procedure is described in paragraph 6.5.2.

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 4.2.2 for the explanation of "Conditional prescriptions".

1.3.8. Pharmacy validation

Pharmacy validation can be required for each prescription, depending on the configuration in use. If this is the case an additional module is implemented ("Validation module").
If pharmacy validation is required, each prescription shall be validated through a specific procedure on the "Validation" module.

The orders generated by non-validated prescriptions are signaled by a specific icon on the Therapy Execution module (Fig 6).

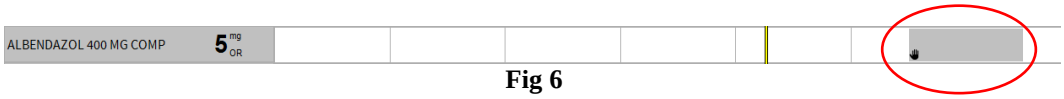


Fig 6

The following figure shows an order that was not validated both because it is outside the "Therapy Cycle" and because the prescription has not been validated by the pharmacy.

Fig 7

2. The “Therapy Prescription” module

2.1. Module selection

To select the “Therapy Prescription” module

- click the  icon on the lateral bar

When a module is selected the corresponding icon is highlighted.

The “Therapy Prescription” module’s main screen opens. Fig 8 shows the main screen when no patient is selected.

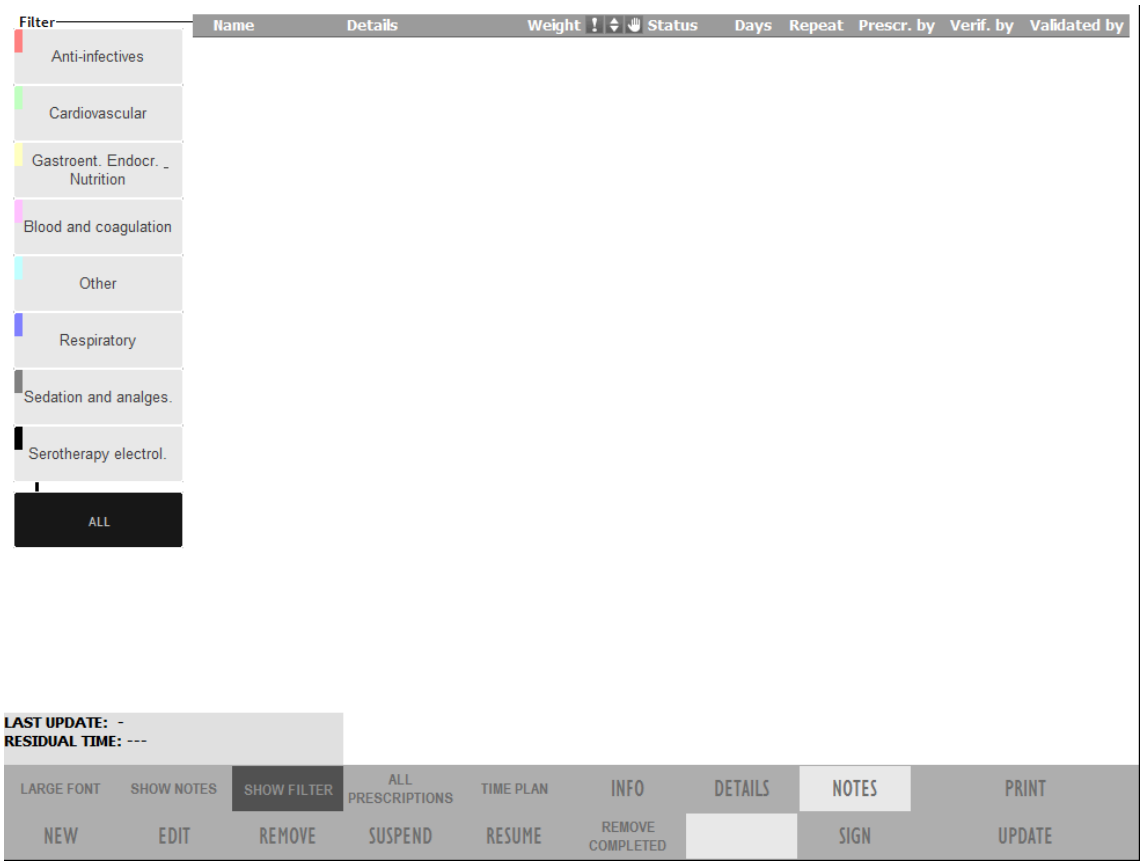


Fig 8 - Therapy prescription: no patient selected

2.2. “Therapy prescription” module’s main screen

After patient selection the “Therapy prescription” module’s main screen displays the treatment plan of the selected patient. Fig 9 shows an example.

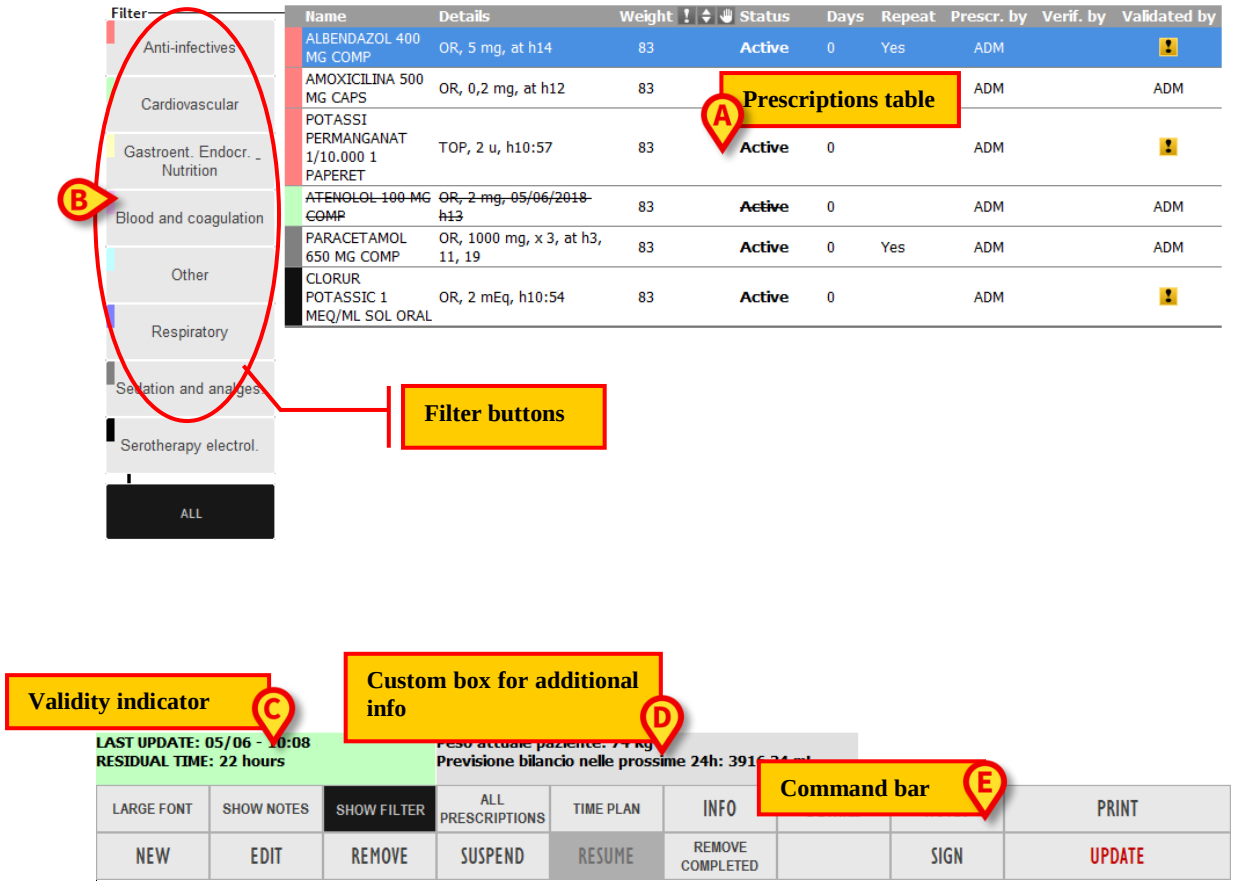


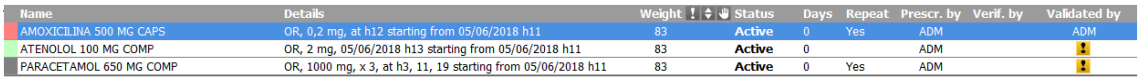
Fig 9 - Treatment plan

The figure highlights the main items on screen:

- the prescriptions table (Fig 9 **A** - described in paragraph 2.3);
- the filter buttons (Fig 9 **B** - paragraph 2.4);
- the validity indicator (Fig 9 **C** - paragraph 2.5);
- additional information area - customizable (Fig 9 **D**);
- the command bar (Fig 9 **D** - paragraph 2.6).

2.3. Prescriptions table description

The various prescriptions of the treatment plan are displayed in a table (Fig 9 **A**, Fig 10).



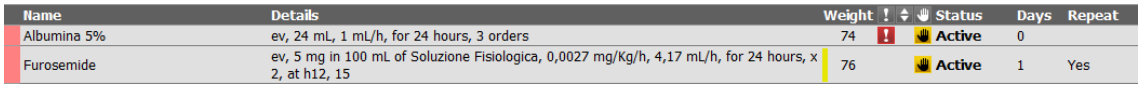
Name	Details	Weight	Status	Days	Repeat	Prescr. by	Verif. by	Validated by
AMOXICILINA 500 MG CAPS	OR, 0,2 mg, at h12 starting from 05/06/2018 h11	83	Active	0	Yes	ADM		ADM
ATENOLOL 100 MG COMP	OR, 2 mg, 05/06/2018 h13 starting from 05/06/2018 h11	83	Active	0		ADM		
PARACETAMOL 650 MG COMP	OR, 1000 mg, x 3, at h3, 11, 19 starting from 05/06/2018 h11	83	Active	0	Yes	ADM		

Fig 10 - Prescriptions table

Each row in the table corresponds to a prescription. The prescriptions are grouped into classes. Each class is characterized by a specific colour (see paragraph 2.4 for a description of the different classes). The items belonging to the same class are in alphabetical order.

The columns in the table contain the following information (from left to right):

- First column - Indicates the class of the prescription. Each class is associated to a color. See paragraph 2.4.
- "**Name**" column - Indicates the name of the prescribed treatment.
- "**Details**" column - Indicates the deatils of the prescription as, for example, the date and time of the different orders, the doses etc…
- "**Weight**" column - Indicates the patient weight at prescription time. If the weight changes, the cell is highlighted, indicating that, at prescription time, the weight of the patient was different from the current one (Fig 11 **A**).



Name	Details	Weight	Status	Days	Repeat
Albumina 5%	ev, 24 mL, 1 mL/h, for 24 hours, 3 orders	74	Active	0	
Furosemide	ev, 5 mg in 100 mL of Soluzione Fisiologica, 0,0027 mg/Kg/h, 4,17 mL/h, for 24 hours, x 2, at h12, 15	76	Active	1	Yes

Fig 11

-  column - If the  icon appears in this column it means that either the actions indicated on this row were executed differently from the way they were prescribed or they were executed without prescription. It is the case, for example, of a treatment executed with doses that are different from those prescribed.
-  column - The  icon appears in this column when the values of a durative prescription (a drip, for example) are changed on the "Therapy Execution" module while the administration is in progress. If this is the case the values specified on the "prescription detail" window differ from those recorded on the "Execution" module. The icon disappears when the values on the prescription window are realigned to those specified on "Execution". See paragraph 5.2 for the prescription values change procedures.
-  column - The  icon appears when there is at least a non-validated order approaching administration time. This "proximity to administration time" is a time period set by configuration; in the configuration here described it is a three-hours period.
- "**Status**" column - Indicates the prescription status. See paragraph 1.3.1 for a list of the possible statuses of a prescription.

- "**Days**" column - Indicates the number of days from the first prescription of the treatment. When referred to a prescription in "Terminated" status (see paragraph 1.3.1 for an explanation of this concept) the "Days" column displays the termination date.

- "**Repeat**" column - Indicates whether the treatment is repeatable or not. See paragraph 1.3.2 for an explanation of "repeatable prescriptions".

- **Prescribed by** - Indicates the acronym of the user who prescribed the treatment.

- **Verified by** - Indicates the acronym of the user who double-checked the prescription in case of prescriptions requiring double signature (see paragraph 4.4).

- **Validated by** - Indicates the acronym of the user who validated the prescription on the Validation module.

The prescription is written in strike-through characters when all the corresponding orders are already executed and no other order will be generated by it (completed prescription).

The prescriptions written in purple characters are conditional prescriptions. Conditional prescriptions correspond to the treatments that must be administered only if certain conditions occur (no administration time is specified for these prescriptions). See paragraph 4.2.2 for an explanation of "conditional prescription".

2.4. Prescription filter buttons

Each treatment is associated to a class. The treatment-class association is defined by configuration. The names of the different classes are defined by configuration. The treatments can be grouped in 8 different classes.

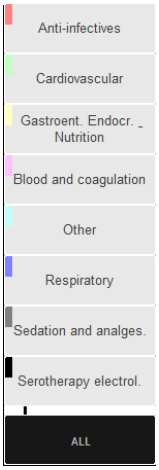


Fig 12 - Prescriptions filters

Each class is characterized by a color. A specific button corresponds to the class (Fig 12 **A**). The class of a treatment is indicated by the color displayed in the first column (Fig 13).

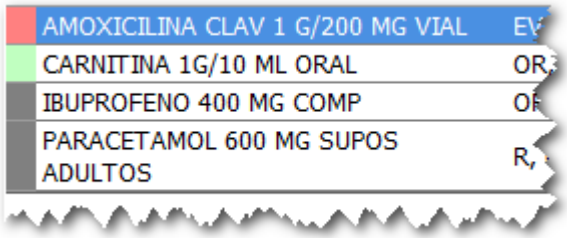


Fig 13 - The class is indicated by the color

The buttons shown in Fig 12 make it possible to filter the items in the table. When one of the buttons is clicked, only the items belonging to the corresponding class are displayed.
A **Show filter** button on the command bar allows to either hide or show the filter buttons on the prescription screen.

When two buttons are selected at the same time the system displays the items belonging to the two corresponding classes.

The filter-buttons are on/off switches. Click the button again to remove the filter.

The **All** button makes it possible to display the prescriptions full list.

2.4.1. How to use the filter-buttons

2.4.1.1. How to apply a filter to the prescriptions list

To apply a filter to the prescription list,

- click one of the filter-buttons.

The button is this way selected.

The prescription table displays the list of the items belonging to the class corresponding to the selected button.

2.4.1.2. How to remove a filter

To remove a filter,

- click the selected button again.

The button is this way deselected, the filter is removed.

2.4.1.3. How to display the full prescriptions list again

To display the full prescriptions list,

- click the **All** button.

All the buttons possibly selected are this way deselected.

2.5. Validity indicator

The validity of the treatment plan created on DIGISTAT® Therapy is limited in time. A periodical validation is required. See paragraph 1.3.4 for an explanation of the treatment plan validity.

The box shown in Fig 9 **C** and (in detail) in Fig 14 indicates the treatment plan validity.
The validity indicator is a tool making it possible to constantly monitor the time remaining to the end of the treatment plan validity.

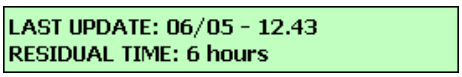


Fig 14 – Validity indicator

The first row of the box specifies the date and time of the last update (Fig 14).

The second row indicates the time remaining to the end of the treatment plan validity.

When the treatment plan expires the box turns to red and specifies that the treatment plan is expired (Fig 15).

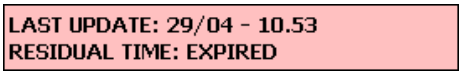


Fig 15 – Expired validity

Also, the treatment plan validity is indicated by a specific indicator on the **Patient** button on Control Bar. This indicator, which remains always visible, enables the clinical staff to keep the treatment plan validity under control when the "Prescription" module is not selected.

Updating the treatment plan is extremely important.

The person in charge should check and update the treatment plan validity before it expires.

Treatment plan update procedures are described in paragraph 5.1

2.5.1. Additional information - Customizable area

The box indicated in Fig 9 **D**, and enlarged in Fig 16 is a customizable area making it possible to display additional information regarding the patient and/or the therapy. In the example here shown the patient's foreseen fluid balance for the next 24 hours and the current patient weight are displayed. The kind of data here displayed, as well as the presence of the box, depends on configuration choices.

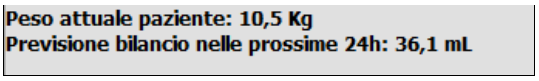


Fig 16

2.5.2. The “Notes” area

The area placed on the right of the “Validity indicator” displays the possible patient notes. See paragraph 5.11 for the notes specification procedure.

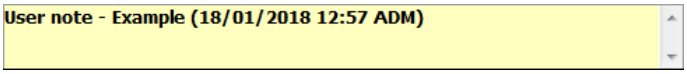


Fig 17 - Notes Area

If relevant, the “notes” area can display the note specification date and time and the acronym of the user who added the note.

2.6. The command bar

The command bar of the “Prescription” module (Fig 9 **D**, Fig 18) contains various buttons that can be used to perform different actions.

Fig 18 - Command bar

This paragraph summarizes the functions of each button. The detailed procedures are explained in the paragraphs indicated.

Large Font - This button enlarges the characters displayed on screen to make them easier to be read. See paragraph 5.5.

New - This button makes it possible to add a new prescription to the treatment plan. See paragraph 3.1.

Show notes - This button displays the notes possibly related to every prescribed action. See paragraph 5.6.

Edit - This button makes it possible to display and edit the details of a selected prescription. See paragraph 5.2.

Show Filter - This button either show or hides the prescription filters alongside the prescriptions table. See paragraph 2.4.

All prescriptions - This button displays the patient prescriptions full list, including those suspended and removed. See paragraph 5.7.

Remove - This button makes it possible to remove a selected treatment from the treatment plan. See paragraph 5.3.

Suspend - This button makes it possible to suspend a selected treatment on the treatment plan. See paragraph 5.4.

Time Plan - This button displays a summary of all the active prescriptions. See paragraph 5.10.

Resume - This button makes it possible to resume one of the treaments previously suspended. See paragraph 5.4.1.

Info - This button displays a document containing information about a selected treatment. See paragraph 5.13.

Remove Completed - This button removes the completed prescriptions from the prescription table. See paragraph 5.8.

Details - This button displays the details of a selected prescription. See paragraph 5.9.

Notes - This button makes it possible to display and edit the patient's general notes. See paragraph 5.11.

Sign - This button makes it possible to confirm the treatments requiring double signature. See paragraph 4.4.

Print - This button makes it possible to create a print report containing the details of the treatment plan. See paragraph 5.12.

Update - This button makes it possible to update the treatment plan. See paragraph 5.1.

3. How to prescribe a treatment

The following paragraphs describe the procedures that must be performed to specify a prescription and insert it into the patient's treatment plan.

3.1. How to search for a specific treatment

The **New** button on the command bar (Fig 19) displays a window that can be used to search for the treatment (or "standard action") that must be added to the patient's treatment plan (Fig 20). The header of this window is "Select a standard action".

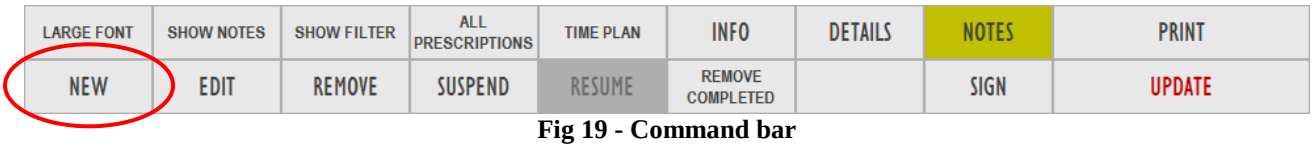


Fig 19 - Command bar

The full treatment selection procedure is summarized in paragraph 3.3. This paragraph describes the window shown in Fig 20.

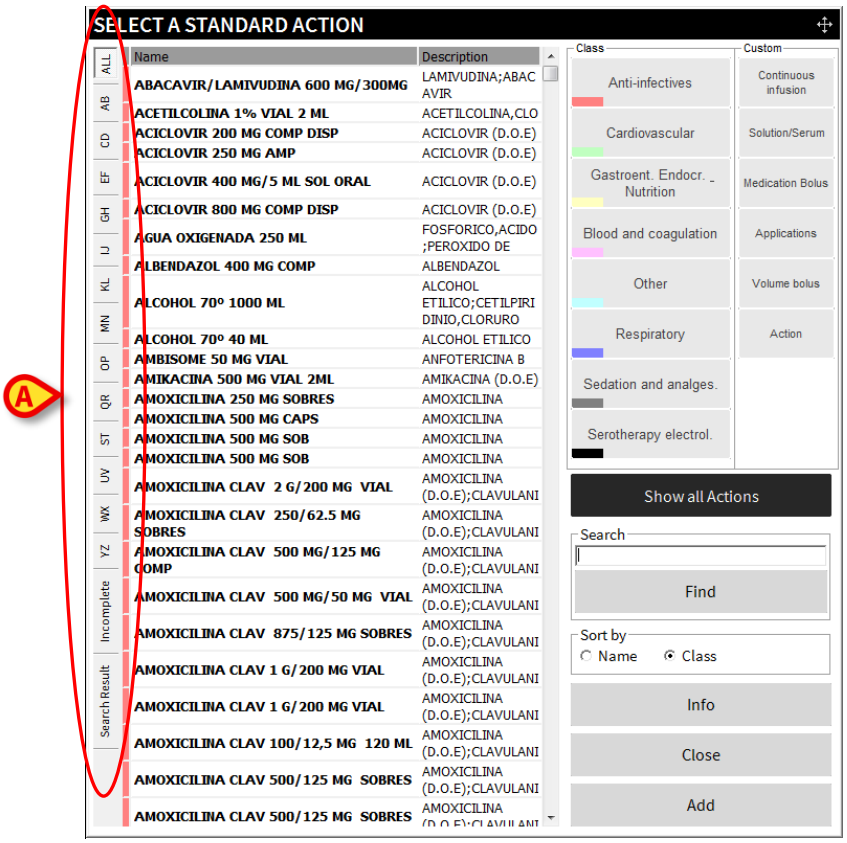


Fig 20 - Select a standard action

This window makes it possible to search and select a treatment (or "standard action") that will be added to the treatment plan.

Various tools, described below, are available for this purpose.

3.1.1. Alphabetic labels

The labels on the left (Fig 20 **A**) make it possible to display the treatments whose names begin with a specific letter. Click the **AB** button, for instance, to display the treatments whose names begin with “A” and “B” (an example is shown in Fig 21).

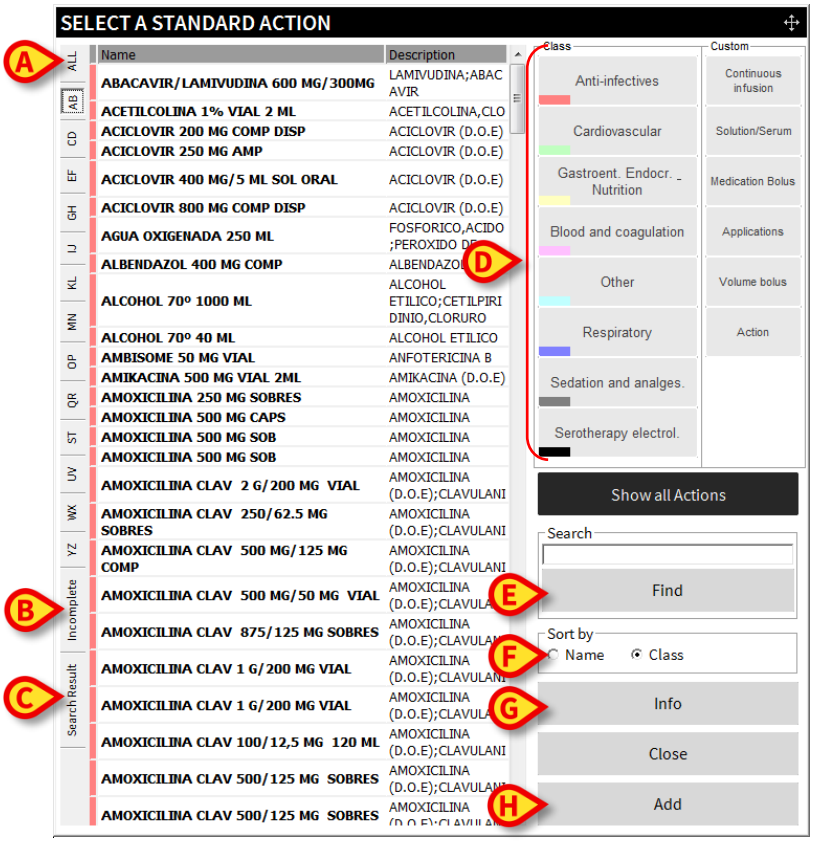


Fig 21

The **All** label (Fig 21 **A**) displays the treatments full list again.

The **Incomplete** label displays the treatments automatically acquired from an external system for which some required data is missing. I.e. their configuration must be completed by the user.

The **Search Result** label (Fig 21 **C**) displays the results list of the last search performed.

3.1.2. Filter buttons

The filter buttons shown in Fig 22 and Fig 21 **D** make it possible to display a specific subset of treatments.

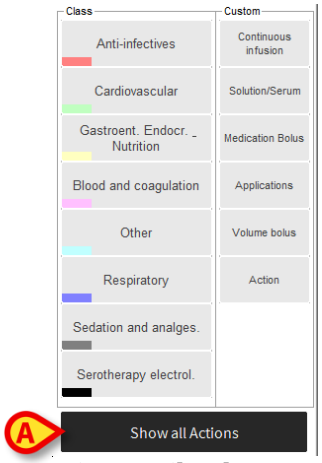


Fig 22 - Filter buttons

There are two different types of filters, in this configuration (a third type - "organs" - can be enabled):

1. The "Class" filters reflect the treatment classes explained in paragraph 2.4;

2. The "Custom" filters can be defined by the system administrators according to the needs of the clinical staff.

Multiple filter selection is possible.

The **Show All Actions** button (Fig 22 **A**) displays the treatments full list again.

3.1.3. Search strings

A specific search tool (Fig 21 **E** and Fig 23) makes it possible to find the wanted treatment typing a string of characters that are part of the treatment's name or description.

Fig 23 - Treatment search

To perform a search

- type the treatment name in the search field.
- Click the **Find** button.

The system will display the list of all the treatments whose name (or description) contains the specified string.

3.1.4. Sort results

The "radiobuttons" placed below the search field (Fig 21 **F**, Fig 24) make it possible to change the treatments display mode.

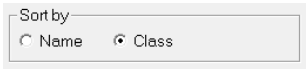


Fig 24 - Sort results by

When the list is sorted "by name" the treatments are displayed in alphabetical order. When the list is sorted "by class" the treatments belonging to the same class are grouped together. The items within the same class are displayed in alphabetical order.

3.1.5. Treatment Information

The **Info** button (Fig 21 **G**) opens - if available - a page containing information on the selected treatment. The contents of the page must be configured by the system administrator.

3.1.6. Close window

The **Close** button closes the treatment selection window.

3.1.7. Add treatment to the patient plan

The **Add** button (Fig 21 **H**) makes it possible, once a treatment on the window is selected, to add the treatment to the patient treatment plan. See paragraph 3.3 for a summary of the complete procedure.

3.2. Custom Standard Actions

Custom standard actions can be enabled by configuration. For this kind of prescriptions the name and description of the treatment are free-text fields. This features makes it possible for the physician to insert drugs and treatments that are not yet configured as "Standard Actions".

3.3. How to add a treatment to the patient plan

To add a new treatment to the patient treatment plan:

- Click the **New** button on the command bar (Fig 25).

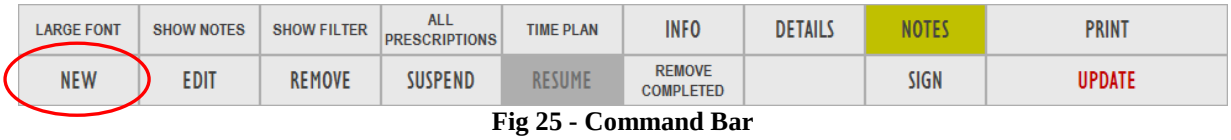


Fig 25 - Command Bar

The window shown in Fig 26 will open.

- Search the wanted treatment using the tools described in the previous paragraphs (3.1).
- Click the treatment to be prescribed.

The corresponding row will be highlighted (Fig 26 **A**).

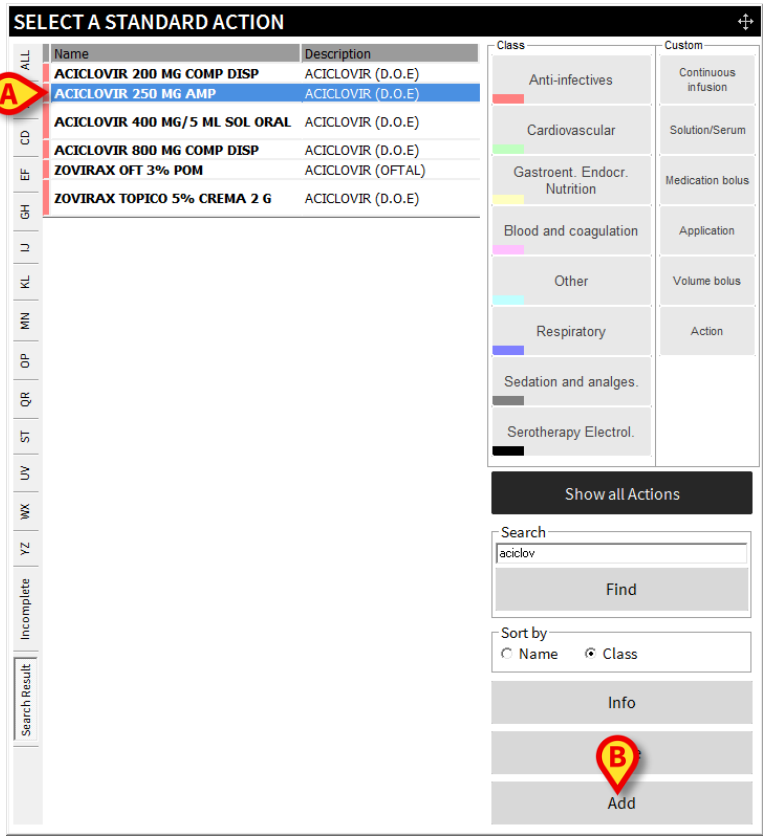


Fig 26

- Click the **Add** button (Fig 26 **B**).

A window making it possible to specify the wanted kind of prescription will open (Fig 27).

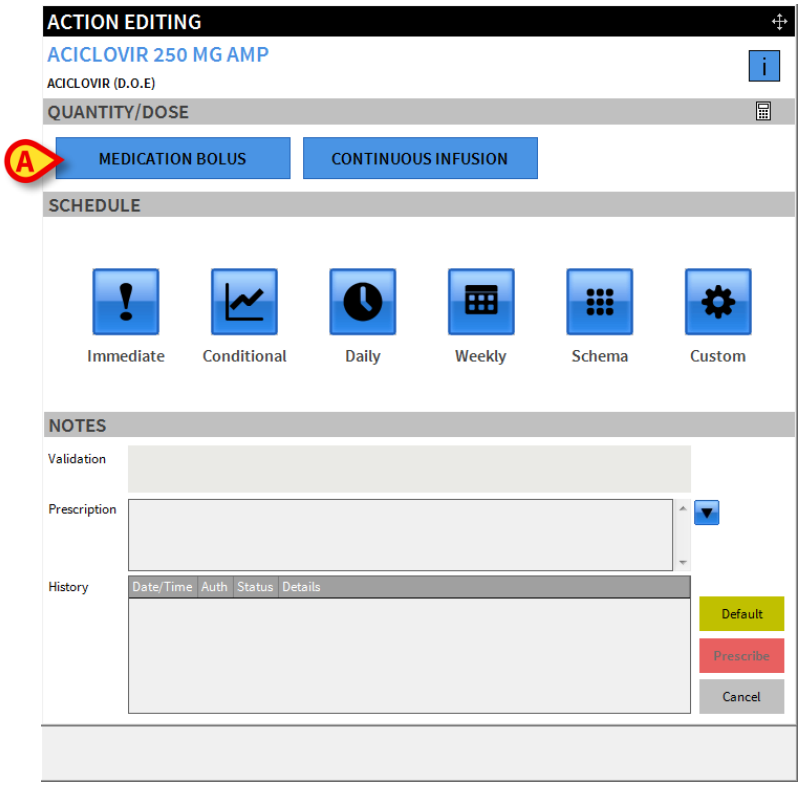


Fig 27

If relevant for the specific prescription, the choice between "Medication bolus" and "Continuous infusion" is provided (Fig 27 **A**). This choice changes the available values in the Quantity/Dose area (Fig 28 **A**).

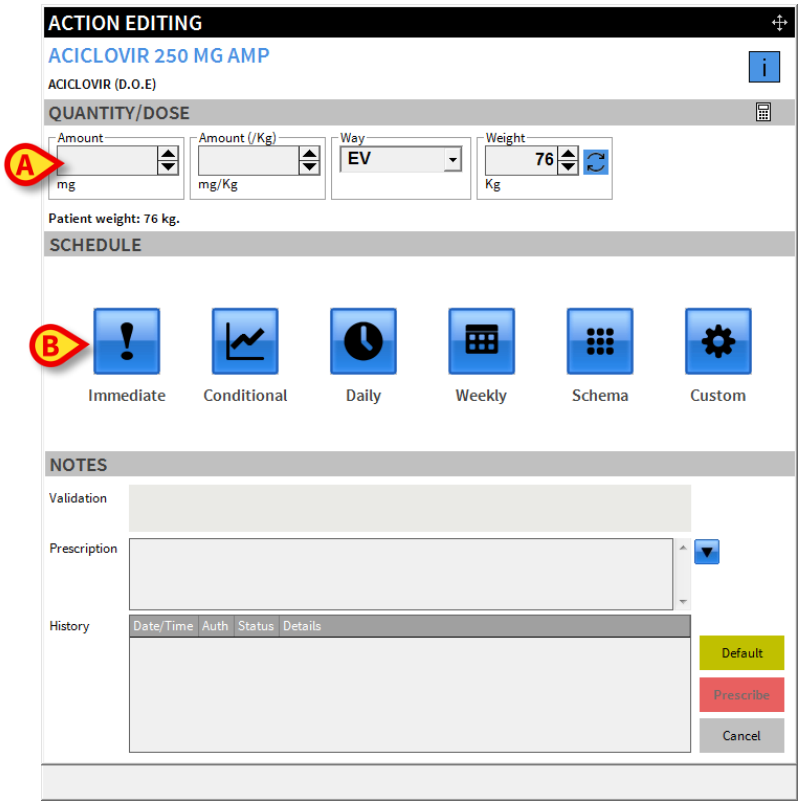


Fig 28

- Select the kind of prescription using the buttons indicated in Fig 27 **B**.

A window allowing to specify all the prescription details will open (Fig 29 shows an example of "Daily" prescription).

The treatment can be configured to enable only one possible kind of prescription. If this is the case the selection buttons shown in Fig 27 ***A*** *are not displayed and the specification window (see Fig 29 for an example) is instead directly displayed.*

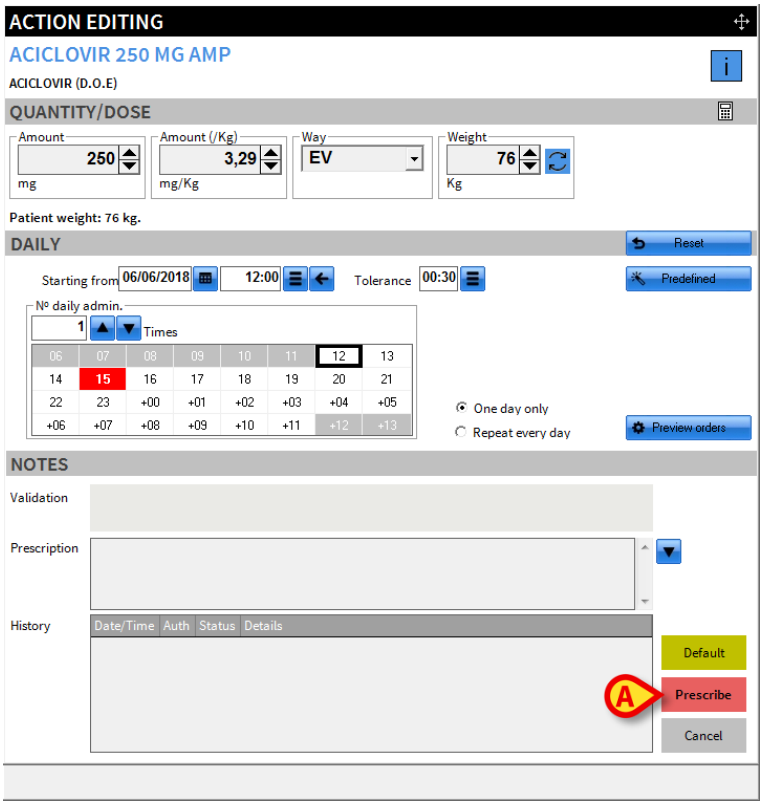


Fig 29 - Daily prescription

- Specify the prescription details.
- Click the **Prescribe** button (Fig 29 **A**).

The treatment is this way added to the patient treatment plan. A row corresponding to the new prescribed treatment is displayed on the prescription table.

4. The treatment specification window

This paragraph describes the treatment specification window shown in Fig 27 and Fig 30.

After treatment selection (**Add** button - Fig 26 **B**), a window making it possible to specify the details of the selected treatment is displayed (Fig 30).

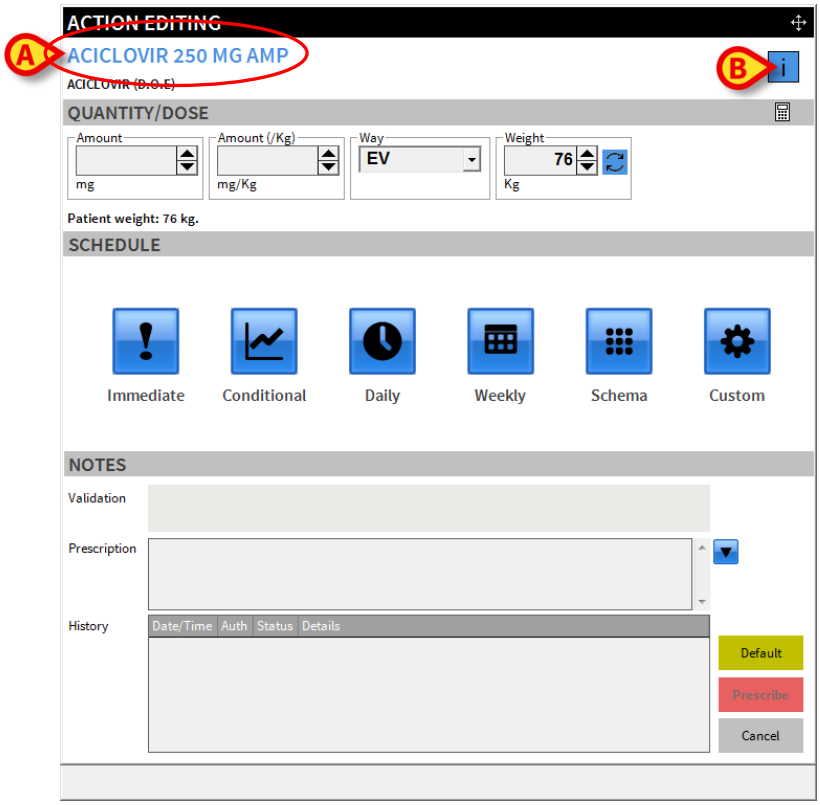


Fig 30 - Prescription

The treatment name is displayed on the upper-left corner of the window (Fig 30 **A**). Under the treatment name additional information can be displayed (specific name, possible dosages etc.).

The i button on the right (Fig 30 **B**) opens a page containing detailed information on the treatment (if available).

The window is divided in several areas, each one dedicated to a specific sub-set of features of the prescription.

Please remember that every treatment is configured to enable the specification of its relevant values and is characterized by specific default values. Thus the specification window changes according to the kind of treatment selected.
It is also possible to set by configuration the automatic selection of the treatment's administration plan (conditional, weekly, daily, schema etc…). In those case the relevant window is automatically displayed (i.e. there is no need to select the kind of administration using the buttons described in paragraph 4.2.

Any relevant action can be configured as prescribable treatment. Every configured action is characterized by its relevant parameters and default values.
Therefore the outlook and features of the treatment specification window depend on the treatment prescribed.

4.1. The “Quantity/Dose” area

Use the “Quantity/Dose” area (Fig 31) to specify the dosages and the administration way. The number and nature of the parameters displayed in this area depend on the specific treatment selected. The kind of treatment is defined by configuration.

Fig 31 shows an example related to a continuous infusion.

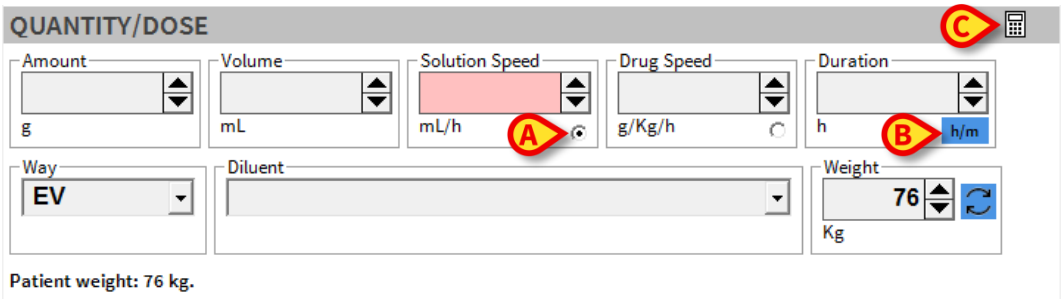


Fig 31

Other treatment types are defined. For each one of them the user can specify the values that are necessary to define the prescription details. Some examples are listed below:

- **Standard bolus** - Amount specification. Amount pro kilo is calculated on patient weight.
- **Infusion with blocked concentration** - Pro-kilo quantity and volume cannot be changed.
- **Solution** - For example “Saline solution”. Here volume, solution speed, duration, administration way and diluent are specified.
- **Simple action** - For example “Weigh patient”. Here no quantity/dose information is required.
- **Action with quantity** - Number of repetitions can be specified.
- **Infusion with concentration** - In this kind of prescription the user, using the button indicated in Fig 31 **A**, can decide which is the value that stays fixed and which values change. The other values change according to what specified by the user as fixed value.

The values in the different fields can be inserted using the keyboard or gradually changed using the arrow buttons placed alongside the field -  -.

For each treatment standard values can be pre-configured. It is anyway possible for the user to change them according to the prescription needs.

The values in the different fields can also be correlated through an algorythm that calculates the missing values starting from those specified by the user.

The unit of measure placed under the duration field is clickable (Fig 31 **B**). The click switches the unit of measure from hours to minutes and back, making this way possible to insert fractions of

hour (100 minutes, for example. **Note**: when switching 100 minutes to hours, it results as 1 hour; 130 minutes results to 2 hours etc.).

The  button placed alongside the "Weight" field updates the patient weight to the most recent value, as specified on the "Edit patient" window of the patient management module (that is Digistat "Patient Explorer" if a Digistat software is used for this purpose. In this case see the Digistat "Patient Explorer" user manual - DIG PXL IU 0007 ENG V01 - for more information).

4.2. The "Schedule" area

Use the "Schedule" area (Fig 32) to specify "when" and "how many times" a treatment must be administered.

Six "schedule" types are available. A type can be selected by the buttons indicated in Fig 32 **A**.

Once the type is selected it is possible to specify the treatment schedule details.

It is possible to set by configuration the automatic plan type selection (conditional, weekly, daily, schema etc…). In those cases the relevant window is automatically displayed (i.e. there is no need to select the kind of administration using the buttons described in this paragraph).

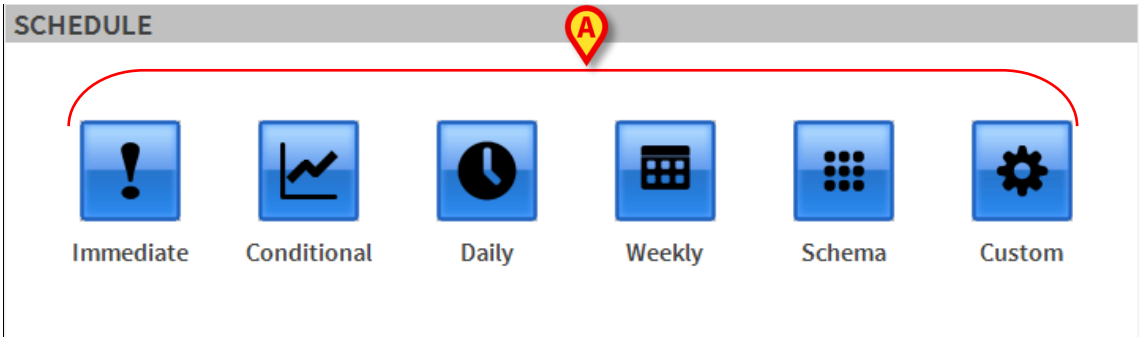


Fig 32 - "Schedule" area

These are the possible plan types:

	IMMEDIATE	The treatment prescribed must be administered immediately. See paragraph 4.2.1.
	CONDITIONAL	The treatment prescribed must be administered only under certain conditions. See paragraph 4.2.2.

	DAILY	The treatment prescribed refers to one day. See paragraph 4.2.3.
	WEEKLY	The treatment prescribed refers to one week. See paragraph 4.2.4.
	SCHEMA	Use this kind of prescription to define a schema like (for example) “administer this treatment 4 times in 3 days”. See paragraph 4.2.5.
	CUSTOM	The treatment plan is completely customized. The orders that must be generated are all explicitely stated. See paragraph 4.2.6.

4.2.1. Immediate administration prescription

“Immediate administration” means that the treatment prescribed must be administered immediately.

To prescribe an immediate administration

- Click the  icon on the prescription window.

The “Schedule” area on the window will change in the way shown in Fig 33.

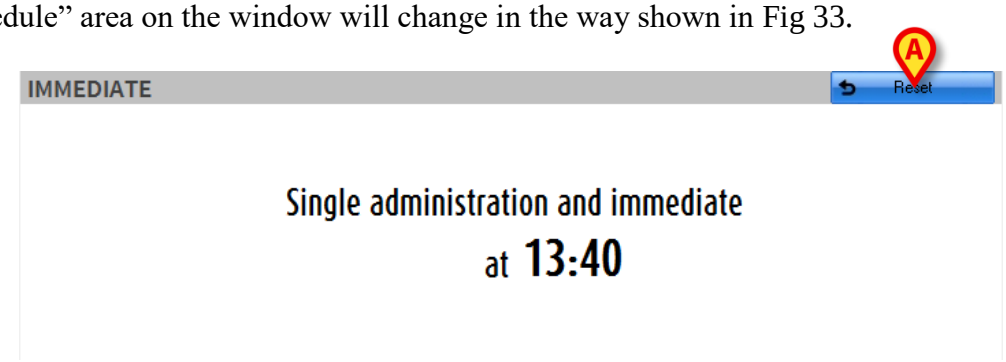


Fig 33

The window states that a single immediate administration is being ordered. The administration time (that is present time) is specified as well.

The **Reset** button on the top-right corner (Fig 33 **A**) makes it possible to go back to the selection window shown in Fig 32.

4.2.2. Conditional administration prescription

"Conditional administration" means that the treatment prescribed must be administered only under certain conditions. To add a conditional prescription

- click the  icon on the prescription window.

The window will change in the following way

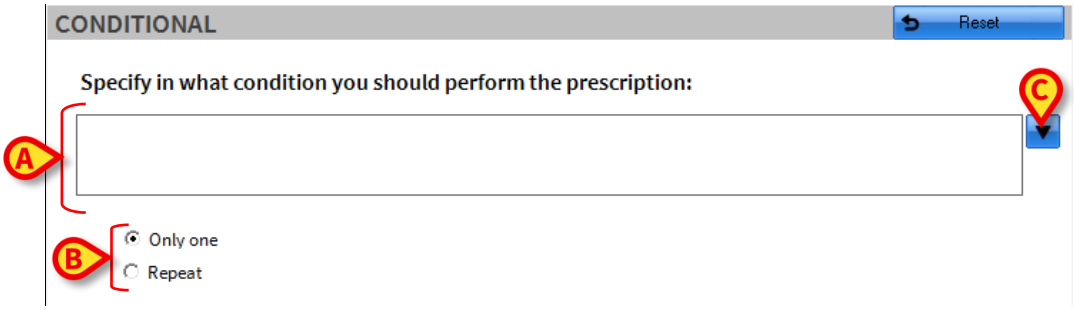


Fig 34 - Conditional prescription

- Specify in the area indicated in Fig 34 **A**, the administration condition, i.e. the condition that "triggers" the treatment administration.

Use the "radiobuttons" indicated in Fig 34 **B** to specify whether the treatment will be administered only once or it will be kept in the treatment plan to be repeated in the future.

Conditional prescriptions are characterized by "purple" color on the prescriptions table (Fig 35, paragraph 2.3).

Fig 35

Conditional prescriptions are characterized by "purple" color in the corresponding boxes on the "Therapy Execution" module (Fig 36, paragraph 6.3).

Fig 36

In case you want to go back to the selection window shown in Fig 32, use the **Reset** button on the top-right corner.

4.2.2.1. Standard phrases for the condition specification

It is possible to use pre-defined “Standard phrases” to quickly indicate the administration conditions.

To insert a “Standard phrase”

- click the  button indicated in Fig 34 **C**.

The following window opens

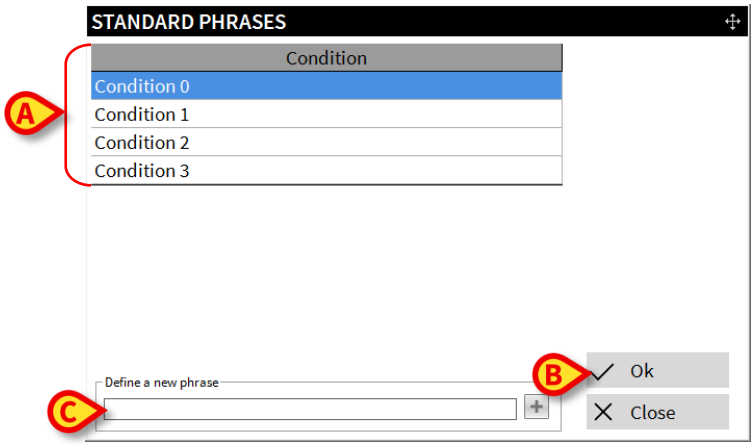


Fig 37 - Standard phrase selection

- Click the relevant phrase. The phrase is this way highlighted (Fig 37 **A**).
- Click the **Ok** button (Fig 37 **B**). The selected phrase is inserted as condition in the prescription window.

4.2.2.2. New standard phrase

To define a new standard phrase

- click the field indicated in Fig 37 **C**.

A cursor appears in the field.

- Type the new standard phrase (Fig 38).

Fig 38 - New standard phrase

- Click the  button placed alongside the field (Fig 38 **A**).

The new phrase is this way added to those already existing (Fig 39 **A**).

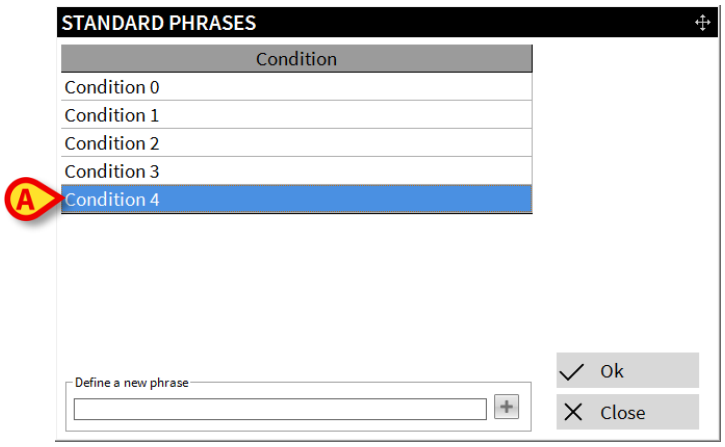


Fig 39

4.2.3. Daily treatment prescription

The prescription of a daily treatment makes it possible to generate the administration orders for one day.

To prescribe a daily treatment

- click the  icon on the prescription window.

The window changes in the following way.

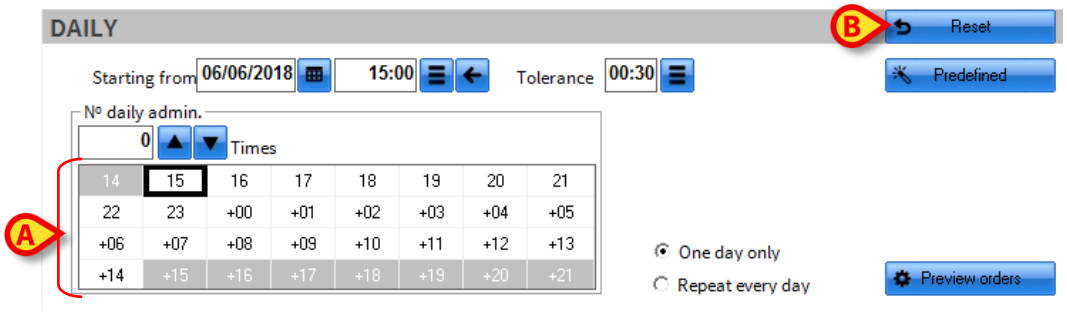


Fig 40 - Daily treatment prescription

The window shown in Fig 40 contains several tools making it possible to specify the prescription details. The next paragraphs describe these tools.
In case you need to go back to the selection window shown in Fig 32, click the **Reset** button on the top-right corner (Fig 40 **B**).

4.2.3.1. Administration time specification

Use the "plan" area (indicated in Fig 40 **A**) to specify the treatment administration times.

The table shown in Fig 41 displays the full hours of the day. Each cell corresponds to a specific hour. The first selectable cell corresponds by default to the closest full hour preceding the current time (for example, if it is 12:30 the first selectable cell is 12:00). 24 cells are selectable (corresponding to 24 hours).

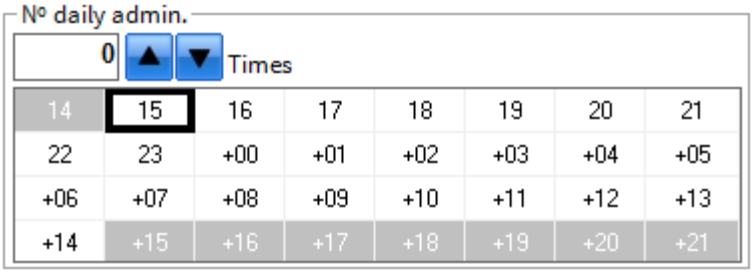


Fig 41

To select a time

- click the corresponding cell.

The selected cell is highlighted red (Fig 42).

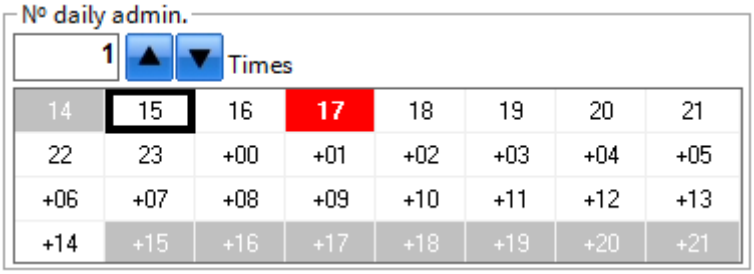


Fig 42 - One administration at 15:00

To deselect a time, click again the corresponding cell. The red cell goes back to white.

It is also possible to specify the number of daily administrations of the treatment.

To do that

- type the number of administrations in the field indicated in Fig 43 **A**.

The system automatically places the administrations at proper times.

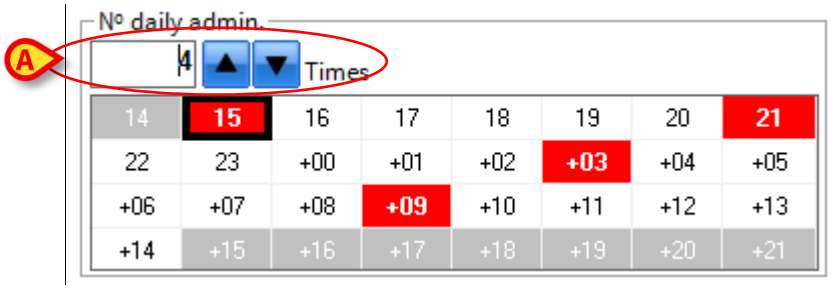


Fig 43

In Fig 43, for example, the user specified that the treatment must be administered 4 times in 24 hours. The system automatically placed the administration orders at 6 hours intervals, with the first administration set at the next selectable time (15:00 o'clock). This scheme can be edited by the user either selecting or deselecting the relevant times (click the corresponding cell to operate).

*If the user sets a time manually and, after that, makes use of the above-described functionality (i.e. he/she indicates the number of administration orders as in Fig 43 **A**), the system places the administration orders at regular intervals starting from the time specified by the user.*

*If the user sets two or more times manually and, after that, makes use of the above-described functionality (i.e. he/she indicates the number of administration orders as in Fig 43 **A**), the system places the administration orders at regular intervals starting from the first time specified by the user and ignoring the other times indicated.*

4.2.3.2. Treatment start time specification

Current day is, by default, the relevant day for the treatment specification. Current time is, by default, the treatment start time (i.e. if it is 12:30 the time indicated by default is "12:00").
It is possible to indicate a different date/time as treatment start time. Namely, it is possible to specify a treatment beginning in a future day and/or at a future time. The values indicated in Fig 44 **A** specify the treatment start time.
Dedicated tools are available to set these values.

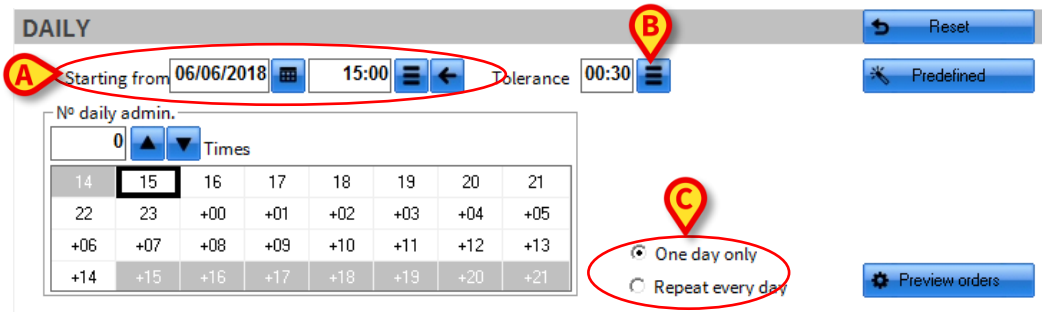


Fig 44 - Daily treatment prescription

To change the start date

- click the button placed alongside the date.

A calendar-window opens.

- Select the start date
- Click the **Ok** button on the calendar.

The new start date is displayed, highlighted yellow, on the prescription window.

To change the start time

- click the button placed alongside the time currently selected.

A menu containing several options is displayed (Fig 45).

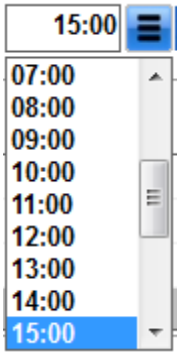


Fig 45

- Click the option corresponding to the wanted start time.

The selected start time is displayed, highlighted yellow, on the prescription window. The table described in paragraph 4.2.3.1 changes accordingly.

The  button can be clicked to set the current time/date back.

4.2.3.3. Tolerance time specification

The "Tolerance" box highlighted in Fig 44 **B** makes it possible to set the tolerance period for the administration.

"Tolerance" is the time interval preceding and following the specified administration time within which the administration is considered "on time".

If a tolerance of 15 minutes is indicated for an administratioon prescribed for 11:00 o'clock, the administration is on time if performed from 10:45 to 11:15.

4.2.3.4. Treatment plan repeatability

The "Radiobuttons" indicated in Fig 44 **C** specify whether the administration must be administered once ("One day only" button) or it must be kept on the treatment plan for further administrations ("Repeat every day" option). See paragraph 1.3.2 for the explanation of "Prescription repeatability".

4.2.3.5. Predefined plan

The **Predefined** button indicated in Fig 46 **A**, opens a window making it possible to select a treatment plan from a list of pre-defined options.

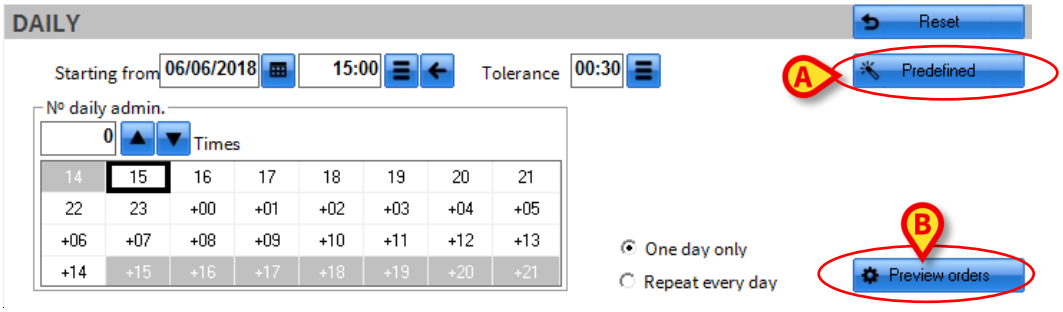


Fig 46 - Daily treatment prescription

To select a pre-defined plan

- click the **Predefined** button. A dedicated window opens
- Click, on the window, the option corresponding to the wanted plan.

The option will be highlighted.

- Click **Ok**. The values on the prescription window will change accordingly.

The pre-defined treatment plans are defined by configuration.

4.2.3.6. Orders preview

The **Preview Orders** button indicated in Fig 46 **B** opens a window that summarizes in a list all the orders that will be generated by the treatment plan currently specified (Fig 47).

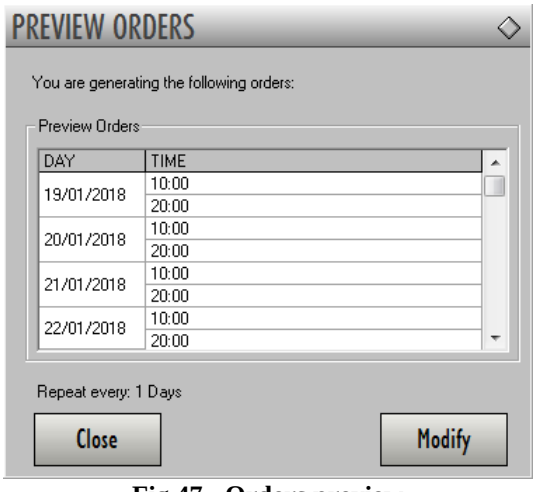


Fig 47 - Orders preview

The “Orders preview” window displays in a table all the orders that will be generated. The scheduled administration date and time are specified for each order.

In case of repeatable prescriptions the “Orders preview” window displays the orders that will be generated in the first seven days. See paragraph 1.3.2 for an explanation of the “prescription repeatability”.

Use the **Close** button to close the “Orders preview” window.

Use the **Modify** button to modify the treatment plan, i.e. to add or remove orders and to change their times.

To do that

- click the **Modify** button.

A message box will be displayed, indicating that it will not be possible, after the changes, to go back to the original values.

- Click **Yes** to proceed.

The custom prescription functionalities are this way enabled (Fig 48). These functionalities are described in paragraph 4.2.6.

Fig 48 - Custom prescription functionalities

4.2.4. Weekly treatment prescription

Use the “weekly treatment prescription” option to specify the treatment’s administration orders for one week.

To prescribe a weekly treatment

- click the  icon on the prescription window.

The window changes in the following way (Fig 49).

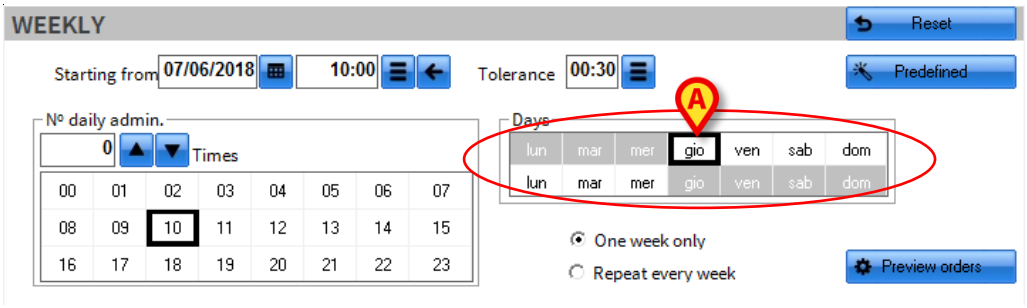


Fig 49 - Weekly plan prescription

This window contains all the options and functionalities already described for the daily prescription plan. These functionalities are explained in the following paragraphs:

- 4.2.3.1 - Prescription times specification;
- 4.2.3.2 - Treatment start time/date specification;
- 4.2.3.3 - Tolerance specification;
- 4.2.3.4 - Treatment plan repeatability (repeatability is reffered in this case to the weekly plan);
- 4.2.3.5 - Pre-defined plan selection;
- 4.2.3.6 - Orders preview.

The above-described functionalities are integrated by a window making it possible to select the administration weekdays (Fig 49 **A**).

To select a day

- click the corresponding cell.

The cell turns red (Fig 50). Click the cell again to deselect it.

Fig 50 - Days selection

When prescribing a weekly treatment plan it is necessary to specify both the administration times and the administration days.

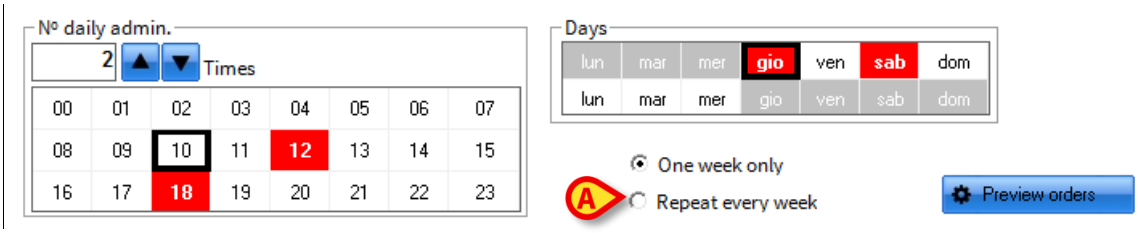


Fig 51

In Fig 51, for example, the treatment must be administered at 12:00 and at 18:00 on Thursday and Saturday. Thus 4 administration orders will be generated.

If the treatment is repeatable (by selecting the “radiobutton” indicated in Fig 51 **A** - “Repeat every week”) the system generates every week 4 administration orders at 14:00 and 18:00 on Wednesdays and Fridays.

4.2.5. Treatment prescription schema

Use the “Treatment prescription schema” option to specify a prescription like the following: “Administer this treatment N times in N days (4 times in 3 days, for instance)”. The system calculates the appropriate time intervals and places the administration orders starting from the time indicated in the “Starting from” field.

To use this option

- click the  icon on the prescription window.

The window changes in the following way (Fig 52).

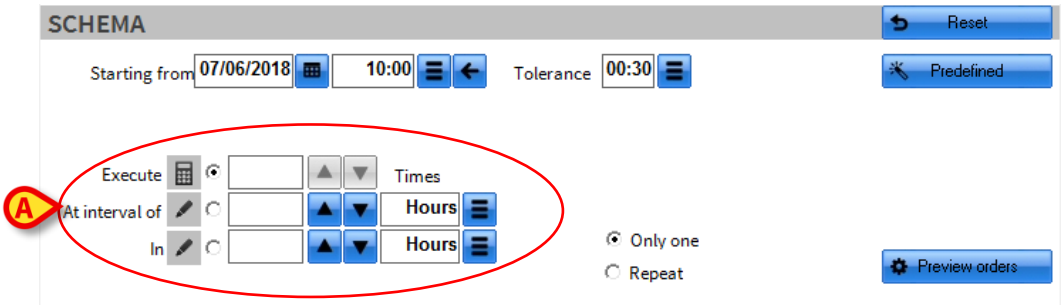


Fig 52 - Dictionary

Some of the functionalities described regarding the daily and weekly treatment plan prescriptions are here maintained. See the paragraphs indicated below for these functionalities:

- 4.2.3.2 - Treatment start time/date specification;
- 4.2.3.3 - Tolerance specification;
- 4.2.3.4 - Treatment plan repeatability (repeatability is referred in this case to the specified schema);
- 4.2.3.5 - Pre-defined plan selection;
- 4.2.3.6 - Orders preview.

Use the tools highlighted in Fig 52 **A** and Fig 53 to define the schema.

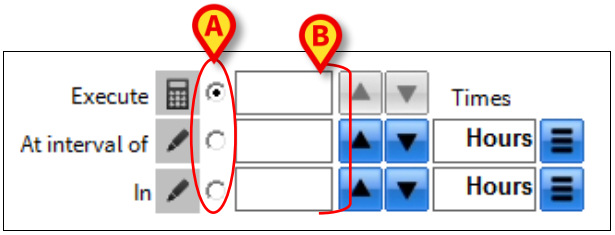


Fig 53

To define a schema,

- use the “radiobuttons” indicated in Fig 53 **A** to select the appropriate option for the wanted schema.

The “Execute” option makes it possible to specify the treatment’s period (every how much time) and duration (in how much time). The system automatically calculates the number of administrations. For example: if the user indicates that a treatment must be administered every 3 hours in 8 hours the system calculates 3 administrations (one now, one after 3 hours, one after 6 hours).

The “At interval of” option makes it possible to specify the number of administrations and the treatment’s duration (in how much time). The system automatically calculates the treatment’s period (every how much time the orders must be administered). For example: if the user indicates that a treatment must be administered 3 times in 8 hours the system calculates a 2,7 hours period.

The “In” option makes it possible to specify the number of administrations and the treatment’s period (every how much time). The system automatically calculates the treatment’s duration (in how much time the orders must be administered). For example: if the user indicates that a treatment must be administered 3 times every 2 hours the system calculates a 6 hours duration.

- Specify the relevant values in the fields indicated in Fig 53 **B**.

Use the  button indicated in Fig 54 **A** to specify the schema’s unit of measure (hours, days, minutes). The system automatically turns the specified value into the appropriate unit of measure (more than 119 minutes is turned to hours, more than 47 hours is turned to days).

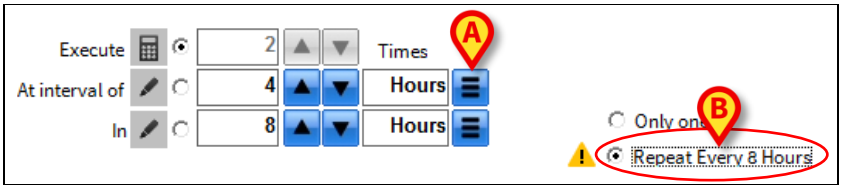


Fig 54

Select the option indicated in Fig 54 **B** to specify a repeatable schema. The repeatability period is the schema duration. In the example shown in the figure the schema is repeated every 8 hours. See paragraph 1.3.2 for a description of repeatable treatments.

4.2.6. Custom treatment plan prescription

It is possible to prescribe a treatment plan that is completely customized by the user. In these cases the orders are all explicitely specified, one by one.

To prescribe a custom treatment plan

- click the  icon on the prescription window.

The window changes in the following way (Fig 55).

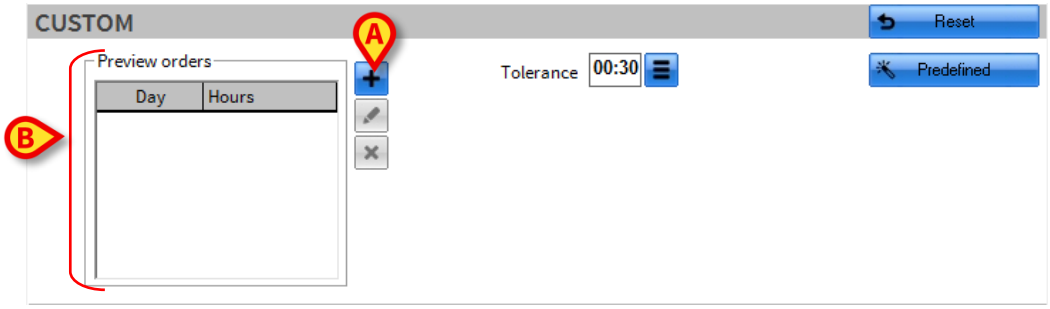


Fig 55 - Custom treatment plan specification

- Click the  button indicated Fig 55 **A**.

A calendar-window making it possible to specify the treatment date and time opens (Fig 56). Current date and time are set by default.

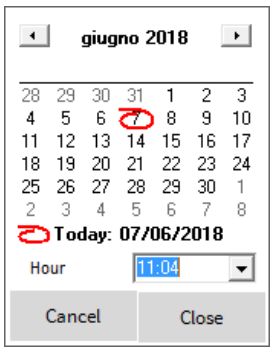


Fig 56

- Specify the order's date and time.
- Click the **Close** button.

A row will be added to the "Orders preview" table (Fig 57, Fig 55 **B**). The row indicates the treatment's date and time.

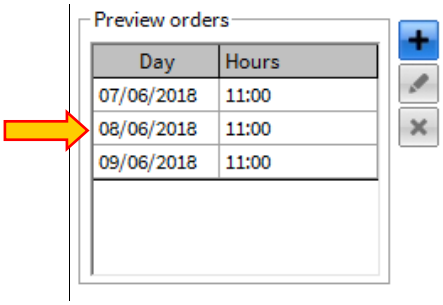


Fig 57

4.2.6.1. Editing the order values

To edit the values of an order

- click the row corresponding to the order that must be edited (click it on the cell displaying the time).

The row is highlighted (Fig 58 **A**). The buttons indicated in Fig 58 **B** are active.

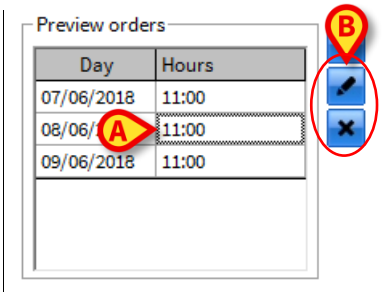


Fig 58

- Click the  button.

A calendar window appears, displaying the values of the selected order (date and time).

- Edit date/time. When editing time either use the available drop-down menu or type the time (full hours in the hh:mm format).

- Click the **Close** button.

The order's values are this way changed.

4.2.6.2. How to delete an order

To delete one of the specified orders,

- click the row corresponding to the order that must be deleted (click the cell displaying the time).

The row is highlighted (Fig 58 **A**). The buttons indicated in Fig 58 **B** are active.

- Click the  button. The order is this way deleted.

4.2.6.3. Other options on the custom prescription window

Some of the functionalities that have been described before relating the daily and weekly treatment plan prescriptions are here maintained. See the paragraphs indicated below for these functionalities:

- 4.2.3.3 - Tolerance specification;
- 4.2.3.5 - Pre-defined plan selection;

4.3. The "Notes" area

The "Notes" area on the prescription specification window (Fig 59) makes it possible to:

1) add a note to the prescription;
2) read the existing validation notes. Validation notes are added when prescribing or editing the treatment on the Validation module (see paragraph 8);
3) read about the executions of the treatment (past and future).

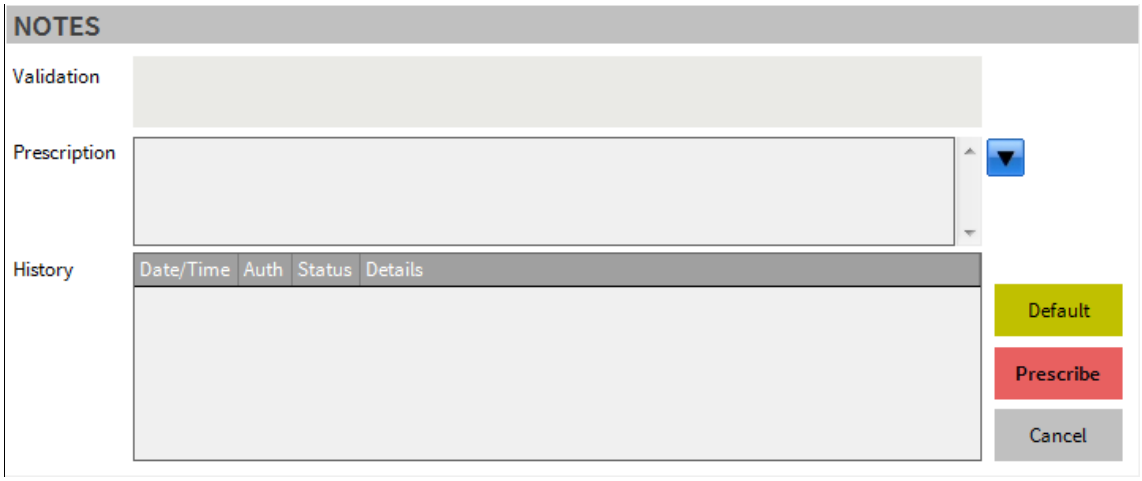


Fig 59 - Notes area

4.3.1. How to add a prescription note

To add a prescription note

- click the "Prescription" field (Fig 60 **A**).

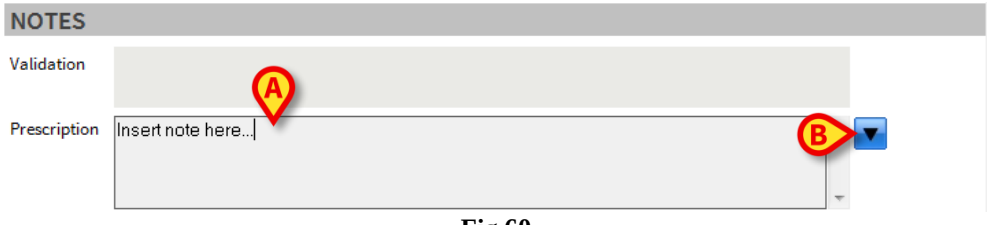


Fig 60

- Specify the note.

The notes are visible on the prescribed treatments table when the **Show Notes** button is selected on the command bar (see paragraph 5.6).

The notes added using these functionalities are referred to the treatment prescription, not to the patient. The patient notes are specified through the procedure described in paragraph 5.11.

4.3.1.1. Standard phrases for notes specification

Pre-defined “Standard phrases” can be used to speed-up the notes specification.

To add a standard phrase

- click the arrow button on the right (Fig 60 **B**).

The following window opens (Fig 61).

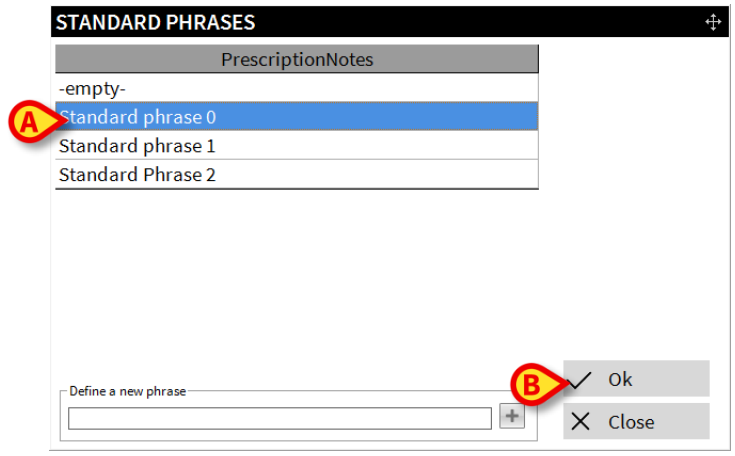


Fig 61 - Standard Phrases

The window shown in the figure contains the list of all the pre-defined phrases.

- Click the wanted phrase.

The phrase is highlighted (Fig 61 **A**).

- Click the **Ok** button (Fig 61 **B**).

The phrase is displayed in the “Notes” field.

It is possible for an authorized user to add a new standard phrase to the existing list.

To define a new phrase

- click the **Notes** button (Fig 60 **B**).

The “Standard phrases” window opens (Fig 62).

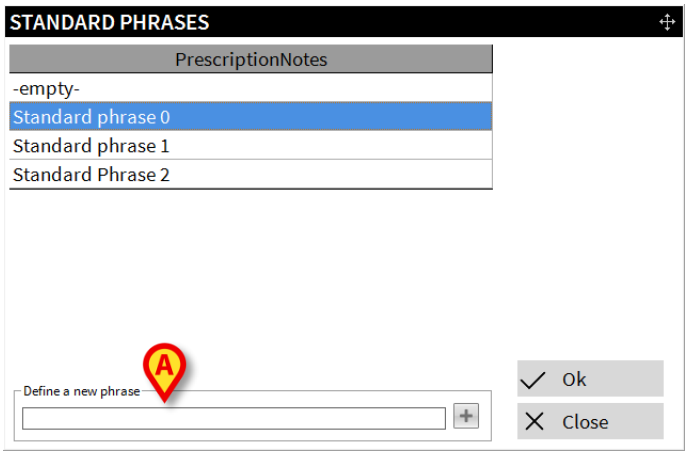


Fig 62 - Standard Phrases

- Click the "Define a new phrase" field (Fig 62 **A**).
- Type the new standard phrase (Fig 63 **A**).

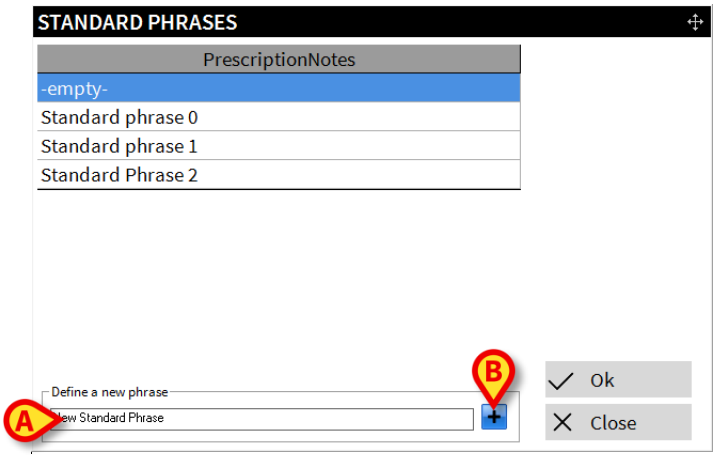


Fig 63 - New standard phrase

- Click the  button placed alongside the field (Fig 63 **B**).

The new phrase is this way added to the standard phrases list (Fig 64) and will be available in the future.

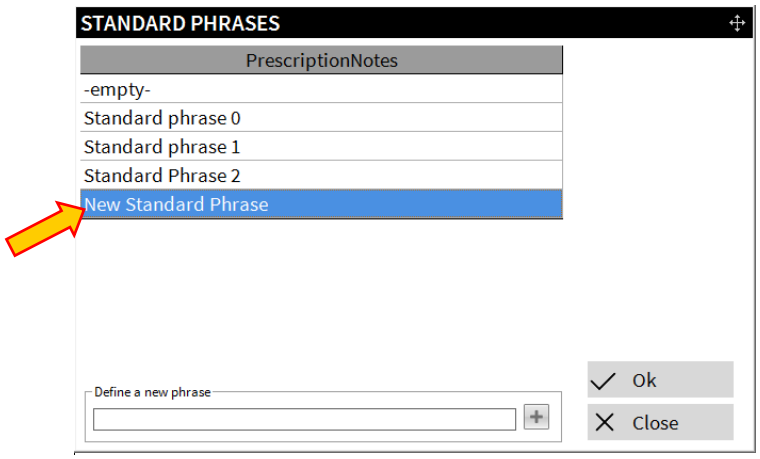


Fig 64

The phrase can be inserted in the “Prescription” field (Fig 65) using the procedure described in paragraph 4.3.1.

Fig 65

4.3.2. Treatment history

The history area (Fig 66 **A**) displays a table containing the main information on the previous orders that were generated for that treatment.

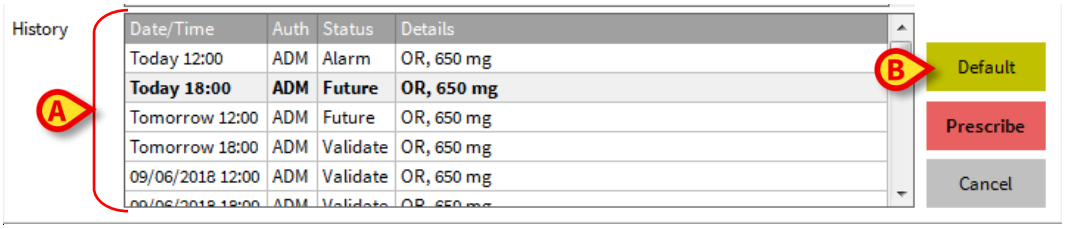


Fig 66 - Treatment history

In the table each row corresponds to an action referred to a certain order.

For each action the following information is provided:

- action date and time;
- acronym of the user who prformed the action;
- Order status
- action details.

4.3.2.1. How to restore the prescription default values

If, after editing the prescription values, it is necessary to restore the prescription default values,

- click the **Default** button on the “Notes” area, indicated in Fig 66 **B**.

All the changes will be lost; the prescription default values will be restored.

4.3.3. Prescription window configurability

Virtually any kind of action can be added to the actions list, with its specific features (values, parameters, default values etc…).

The treatment specification window changes accordingly. Thus changes the way the treatment specification window looks like.

The look and functionalities of the prescription specification window depend on the kind of treatment specified.

Refer to the system administrators for the treatments configuration.

4.4. Prescription with double signature

A treatment can be configured to require a double signature at prescription time. I.e. it is necessary that a second user, different from the one that prescribed the treatment, validates the prescription and validate this way the orders that are generated. See the example shown in Fig 67.

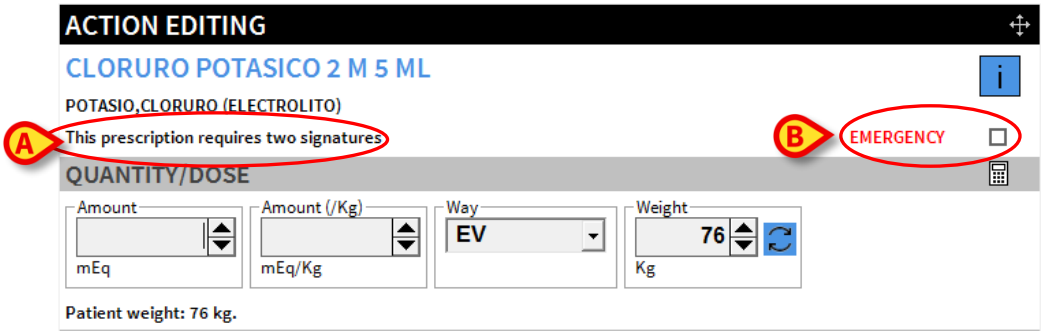


Fig 67

The double signature requirement is indicated in Fig 67 **A**.

Once the treatment is prescribed, the administration orders have to be validated by another user. These orders are characterized by the icon both on the prescription module (Fig 68) and on the execution module (Fig 69).

Fig 68

Fig 69

See paragraph 1.3.6 for an explanation of the "orders validation" procedure.

In this particular case the order can be validated only by the second signature on the prescription module. To double sign the prescription, use the following procedure:

- Click the **Sign** button on the command bar (Fig 70 **A**).

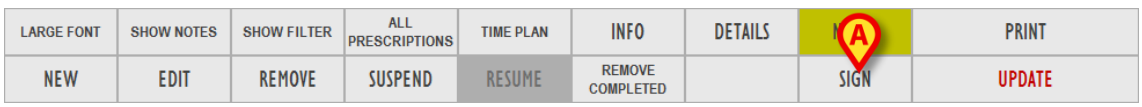


Fig 70

The following window opens (Fig 71)

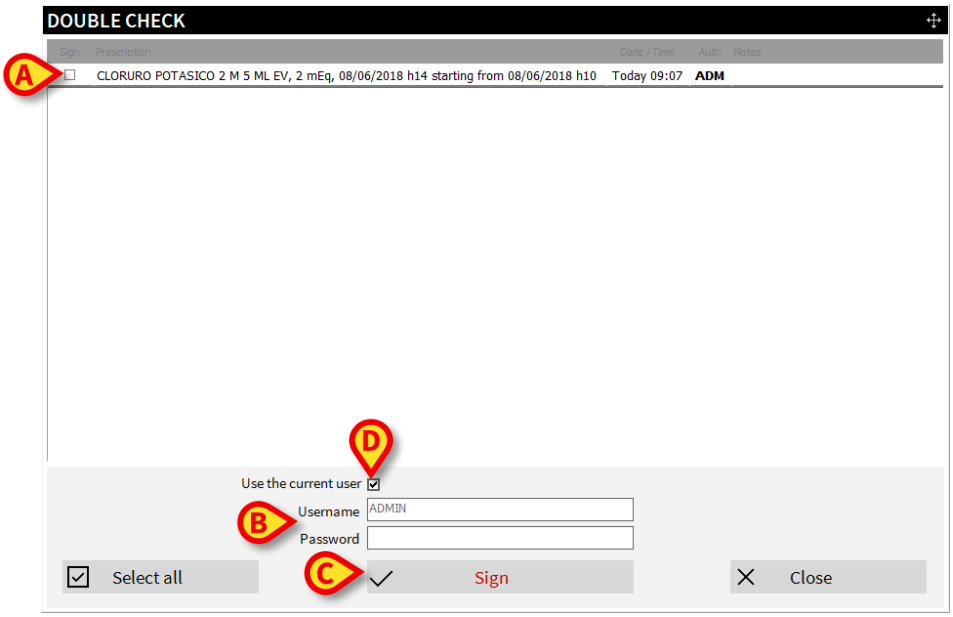


Fig 71

The window lists all the prescriptions waiting the second signature for validation (Fig 71 **A**).

- Select the checkbox corresponding to the prescriptions to be signed (first column on the left).
- Insert your username and password (Fig 71 **B**)
- Click the **Sign** button (Fig 71 **C**).

The prescription is this way validated.

The "Current user" (Fig 71 **D**) automatically fills the username field with the name of the user currently logged. Deselect the checkbox to insert a different username.

The double signature procedure can be set separately for the prescription and the administration of the treatment. I.e. a treatment can require the second signature at prescription time and not require it at administration time and vice versa.

*The second signature is not required if, at prescription time, the prescription is indicated as emergency (check the flag indicated in Fig 67 **B**). In case of emergency prescription, it is possible to prescribe only one administration. Time of administration can be from current time to four hours before current time.*

5. The command bar

The command bar of the "Therapy Prescription" module (Fig 9 **D**, Fig 72) is formed by several function-buttons.

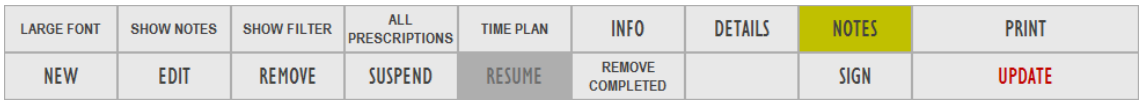


Fig 72 - Command bar

Each button gives access to a specific functionality. This paragraph describes the functionalities activated by each button.

5.1. Treatment plan update

To understand this paragraph - 5.1 - and the following one - 5.1.1 - it is necessary a good understanding of the basic concepts explained in paragraph 1.3.

The treatment plan update procedure makes it possible to

a) validate the orders that are within the “Therapy cycle” that have not yet been validated (the “Therapy cycle” is explained in paragraph 1.3.4);
b) generate the not-yet-generated orders within 7 days after validation;
c) delete the orders that must be deleted.

To update the treatment plan

- click the **Update** button on the command bar (Fig 73).

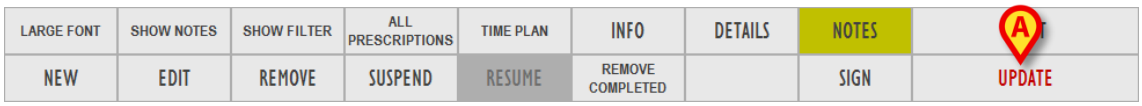


Fig 73 - Command bar

The following window opens (Fig 74).

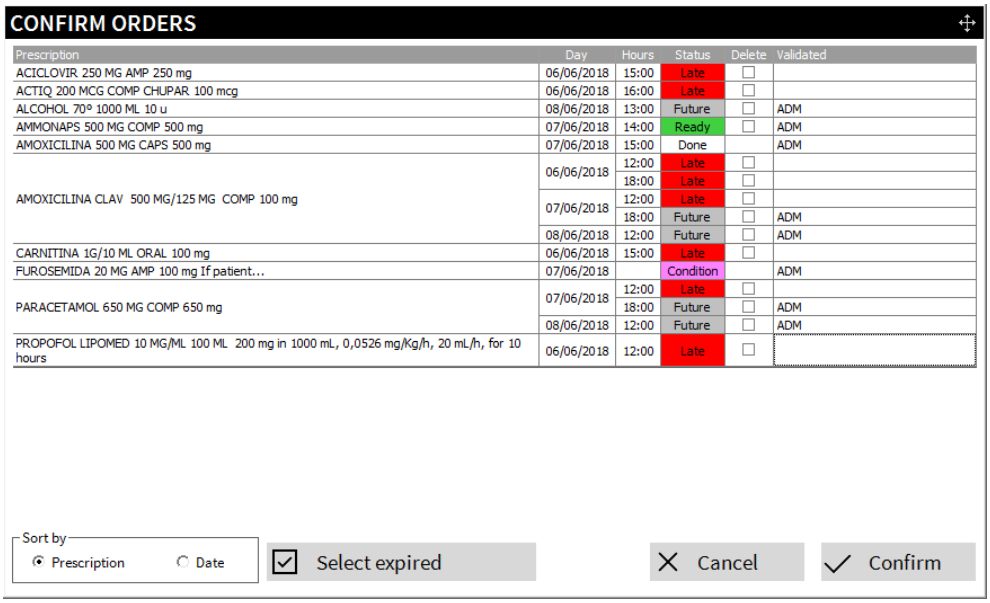


Fig 74 - Orders confirmation

The “Orders confirmation” window displays in a table all the orders that are within the “Therapy cycle” and the past orders that have not been administered yet. This window is described in paragraph 5.1.1.

- Click the **Confirm** button.

The window closes. A print report is created, containing the list of the orders to be administered. The printed list contains all the not-yet-administered orders that are within the Therapy Cycle. The print preview is displayed.

The treatment plan is this way updated. The time counter is reset to zero on the treatment plan validity indicators.

5.1.1. Orders confirmation window description

The “Orders confirmation” window (Fig 75) is displayed when the **Update** button on the command bar is clicked.
The window displays in a table all the orders that are within the “Therapy cycle” and the past orders that have not been administered yet.

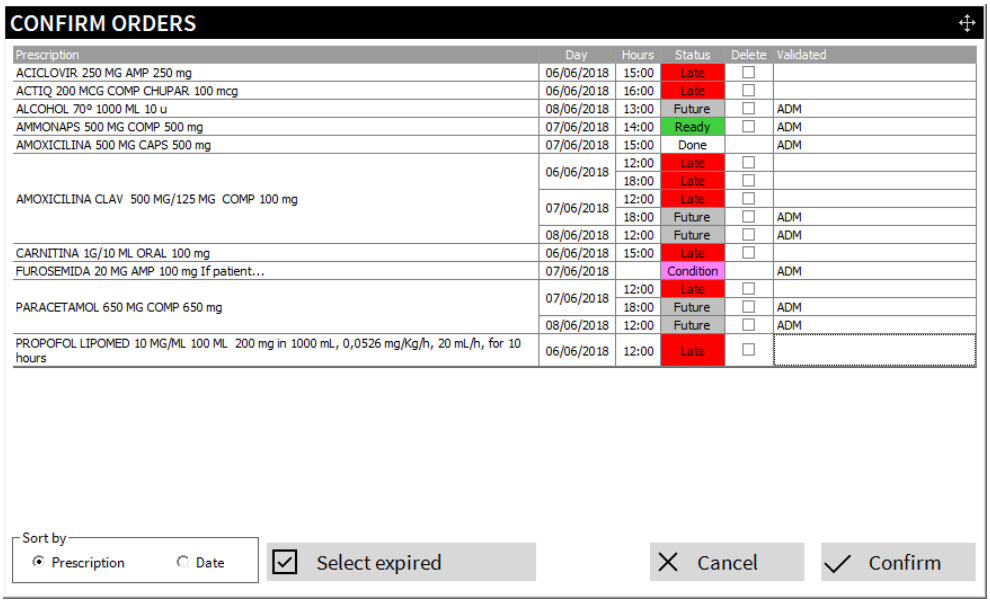


Fig 75 - Orders confirmation

Each row on the table corresponds to an order. For each order the following information is provided:

- prescribed treatment data (Fig 76 **A**);
- prescribed administration date (Fig 76 **B**);
- prescribed administration time (Fig 76 **C**);
- order status (Fig 76 **D**);
- order deletion checkbox (Fig 76 **E**);
- validation indication (Fig 76 **F**).

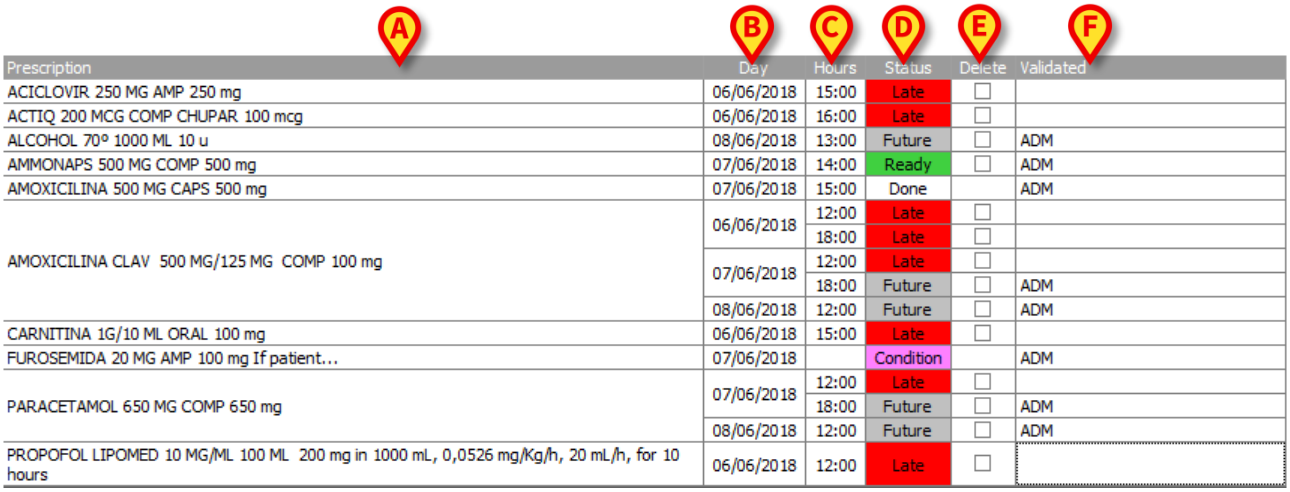


Fig 76

Treatment name (Fig 76 B)

The name indicated in this area can refer to several adjacent rows on the table. Each row corresponds to a single administration order.

Date (Fig 76 C)

The planned administration date of the correponding order is specified on each row.

Times (Fig 76 D)
The planned administration time of the correponding order is specified on each row.

Checkbox (Fig 76 E)
On the second last column there is a deletion checkbox. If the box is selected (Fig 77) it means that the corresponding order will be deleted.

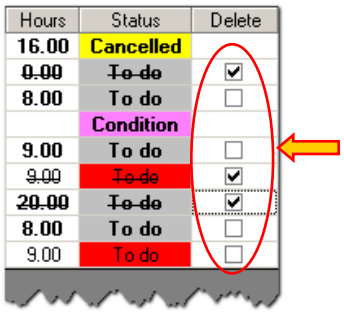


Fig 77 - Deletion checkboxes

The order selected for deletion is written in strike-through characters on the “Hours” and “Status” columns.

Status (Fig 76 F)
The order status is specified on each row. The status of an order can be:

- To do
- Done
- Cancelled
- Condition

The “status” cell is highlighted in specific colours. The colour provides additional information on the order.

- Grey - future orders
- Green - ready for the administration
- Red - the administration is late (alarm)
- Blue - durative administration is in progress
- Purple - conditional order
- Yellow - deleted

Further information is provided by the characters used:

- strike-through characters mean that the corresponding order is selected for deletion;
- bold character means that the order is within the “Therapy cycle”;
- plain character means that the order is outside the “Therapy cycle” in the past.

Validation indications (Fig 76 F)

The last column on the right (“Validated” column) displays information relating to the order validation.

When the cell contains the user acronym it means that the order has been validated. If the user acronym is in bold characters it means that the currently logged user is validating the order with the current validation procedure. If the user acronym is not in bold characters it means that the order was validated in the past by the user whose acronym is specified in the cell.

If the cell does not display the user acronym it means that the order is not valid anymore (validation expired) and it cannot be validated again.

Orders list display mode

The orders can be listed either by date or by prescription.

To change the display mode

- click the wanted option on the bottom-left corner of the window (Fig 78).

Fig 78

The “Prescription” option groups the orders of the same prescription all together. The various prescriptions are displayed in alphabetical order.

The “Date” option groups together, in chronological order, all the orders that must be executed on the same day.

Quick selection of the expired orders

The **Select expired** button on the window selects for deletion all the expired orders. It is this way possible to quickly delete these orders. The orders are deleted, after “delete” checkbox selection, when the **Confirm** button is clicked.

5.2. Editing the values of an existing prescription

To edit the values of an existing prescription

- click, on the prescriptions table, the name of the prescription whose values must be edited.

The corresponding row is highlighted (Fig 79 **A**).

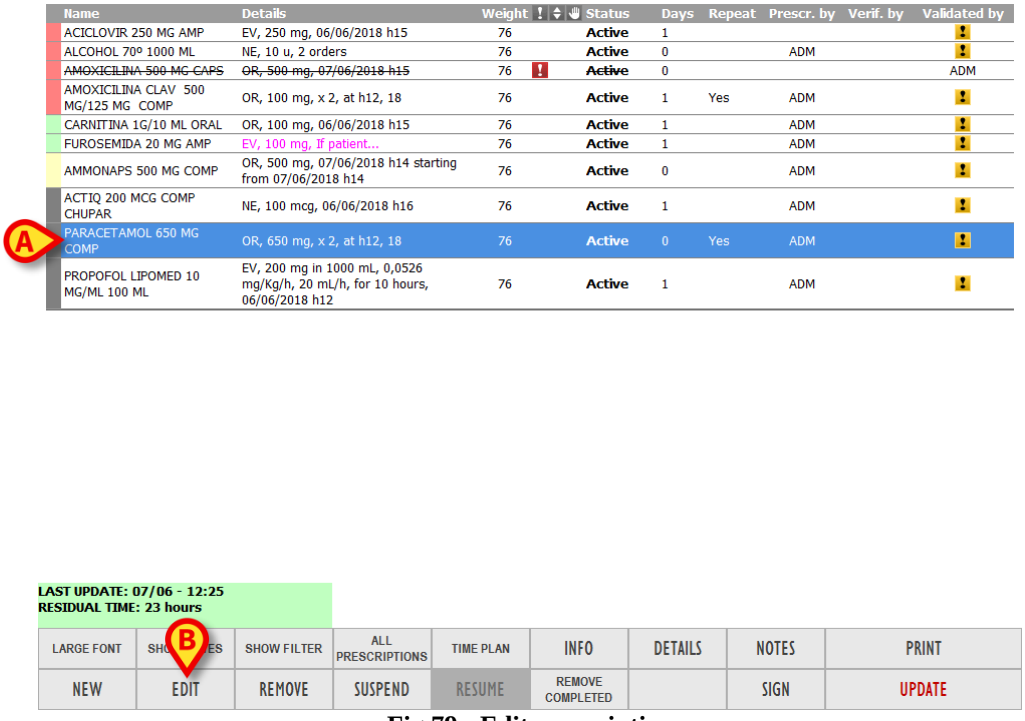


Fig 79 - Edit prescription

- Click the **Edit** button on the command bar (Fig 79 **B**).

The "Treatment specification" window, described in paragraph 4, opens. The window refers to the selected prescription.

Double-click the prescription row is also possible.

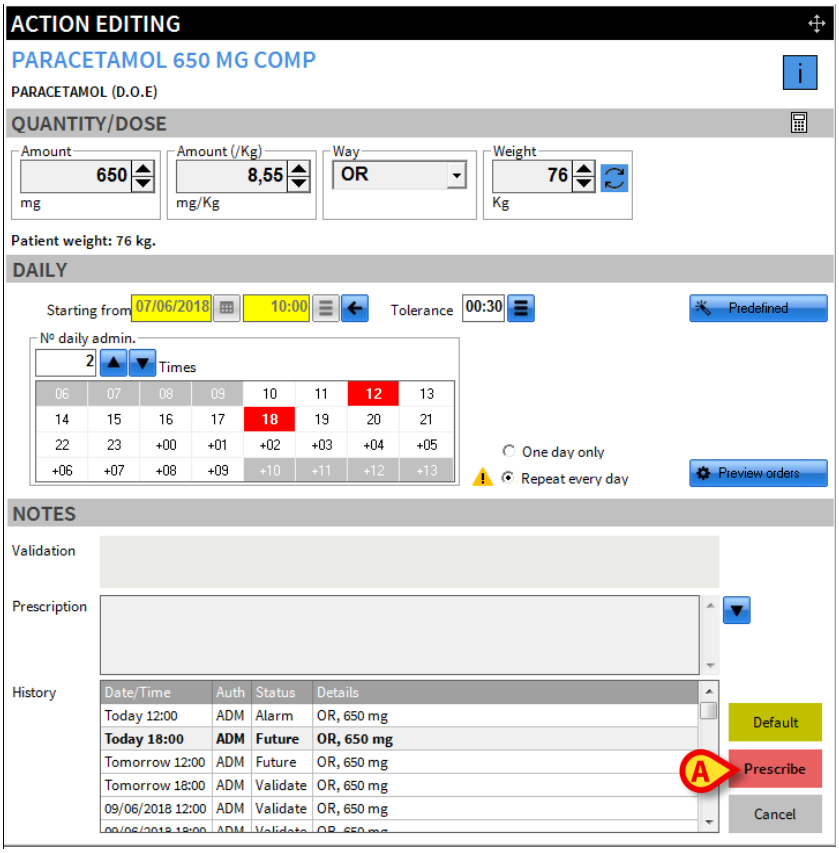


Fig 80 - Action editing

- Edit the prescription values.
- Click the **Prescribe** button (Fig 80 **A**).

A specific pop-up message asks the user to double-check that the possible active orders have not been already administered.

The prescription editing implies the deletion of all the orders possibly generated before the editing and the generation of a set of new orders according the new values.

Double check that the "former" orders have not been already administered.

5.3. Remove prescription

To remove a prescription from the patient treatment plan

- click, on the prescription table, the row corresponding to the precription that must be removed.

The row is highlighted (Fig 81 **A**).

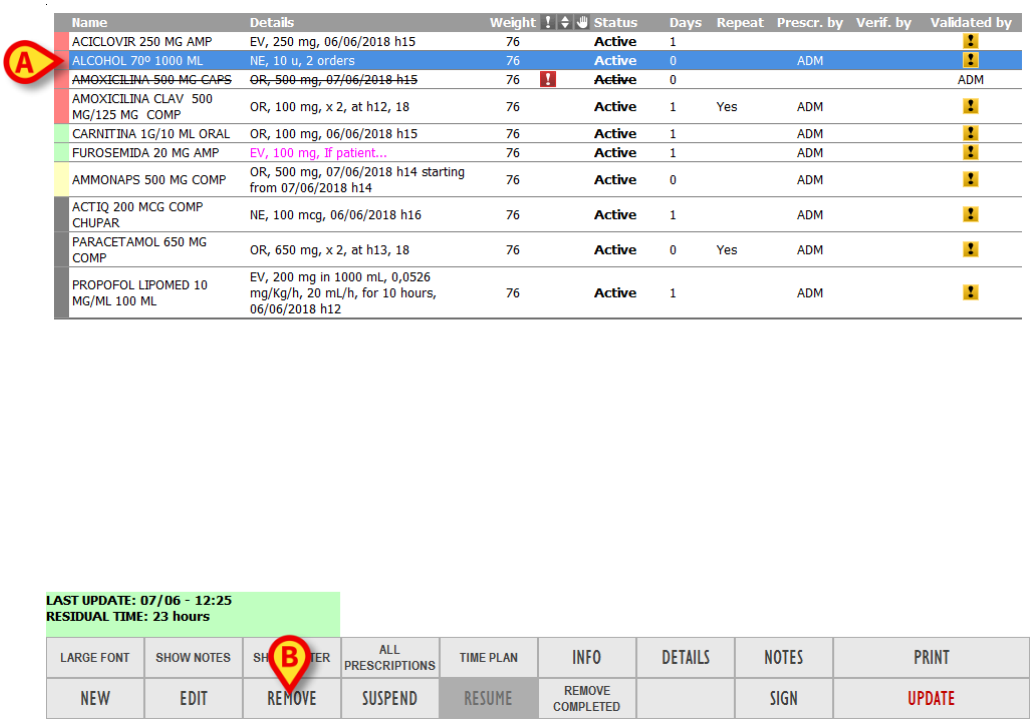


Fig 81 - Remove Prescription

- Click the **Remove** button on the command bar (Fig 81 **B**).

User confirmation is required.

- Click **Yes** to confirm. The selected row disappears from the prescriptions table.

A specific pop up message asks the user to double-check that the possible active ordershave not been already administered.

The removal of a prescription causes the removal of all the orders generated by the prescription itself.

Double check that these orders have not been already administered.

The removed prescriptions turn to "Terminated" status. They are still visibile in "All prescriptions" mode (see paragraph 5.7). When the prescription table is displayed in "All prescriptions" mode the removed prescriptions are labelled by a red flag appearing in the "Status" cell.

A removed prescription cannot be resumed.

The deletion of a prescription corresponding to a durative action which is currently running does not automatically stop the corresponding action. It instead generates a new order whose corresponding action must be manually performed on the "Execution" module.

For example: if a prescription corresponding to an infusion currently running is stopped, the corresponding box on the "Execution" module turns back to green colour. This happens to let the nursing staff know that there is a new order to be executed (the action "Removal", in this case). See chapter 6 for a description of the procedures related to the "Therapy Execution" module.

5.4. Suspend prescription

To suspend a prescription

- Click, on the prescriptions table, the row corresponding to the prescription to be suspended.

The clicked row is highlighted (Fig 82 **A**).

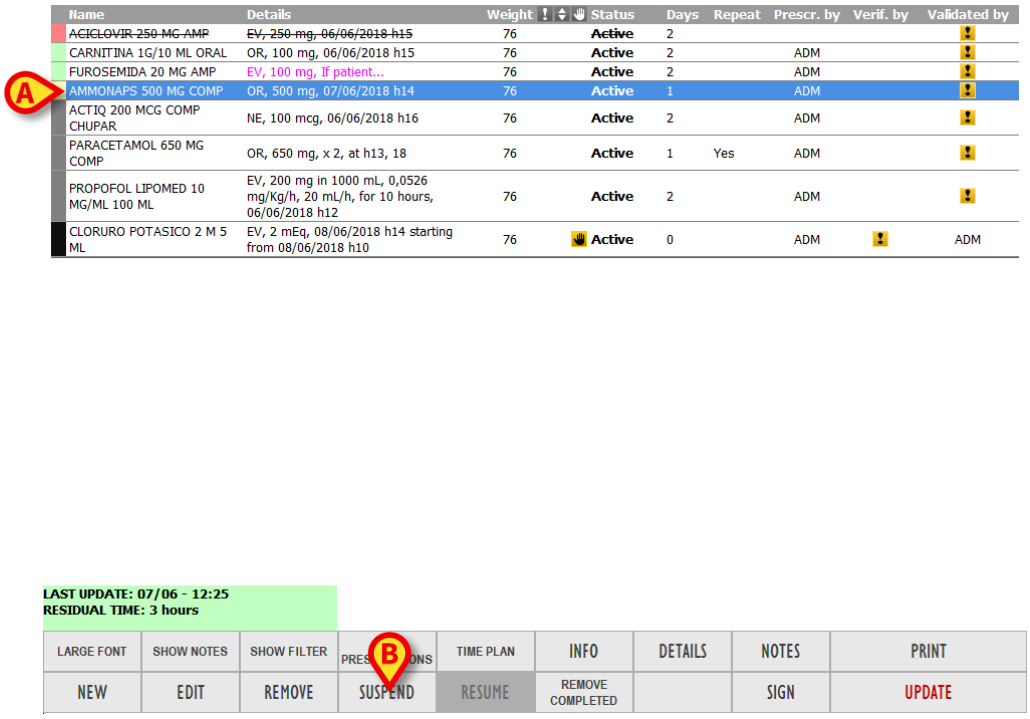


Fig 82 - Suspend prescription

- Click the **Suspend** button on the command bar (Fig 82 **B**).

User confirmation is required

- Click **Yes** to confirm. The selected row disappears from the prescriptions table.

A specific pop up messageasks the user to double-check that the possible active orders have not been already administered.

The suspension of a prescription causes the removal of all the orders generated by the prescription itself.

Double check that these orders have not been already administered.

The suspended prescriptions turn to “Suspended” status are still visibile in “All prescriptions” mode (see paragraph 5.7). When the prescription table is displayed in “All prescriptions” mode the suspended prescriptions are labelled by a yellow flag displayed in the “Status” cell.

The suspension of a prescription corresponding to a durative action which is currently running does not automatically stop the corresponding action. The system can be

> ***configured to generate a new order whose corresponding action must be manually performed on the "Execution" module.***
>
> ***For example: if a prescription corresponding to an infusion currently running is suspended, the corresponding box on the "Execution" module turns back to green colour. This happens to let the nursing staff know that there is a new order to be executed (the action "Removal", in this case). See chapter 6 for a description of the procedures related to the "Therapy Execution" module.***

5.4.1. How to resume a suspended prescription

The suspended prescriptions are visibile when the prescription table is displayed in "All prescriptions" mode (see paragraph 5.7). To display the prescriptions table in "All prescriptions" mode

- Click the **All Prescriptions** button on the command bar (Fig 83 **A**). The button is this way selected.

The prescriptions table displays all the prescriptions: the active, the suspended and the removed ones.

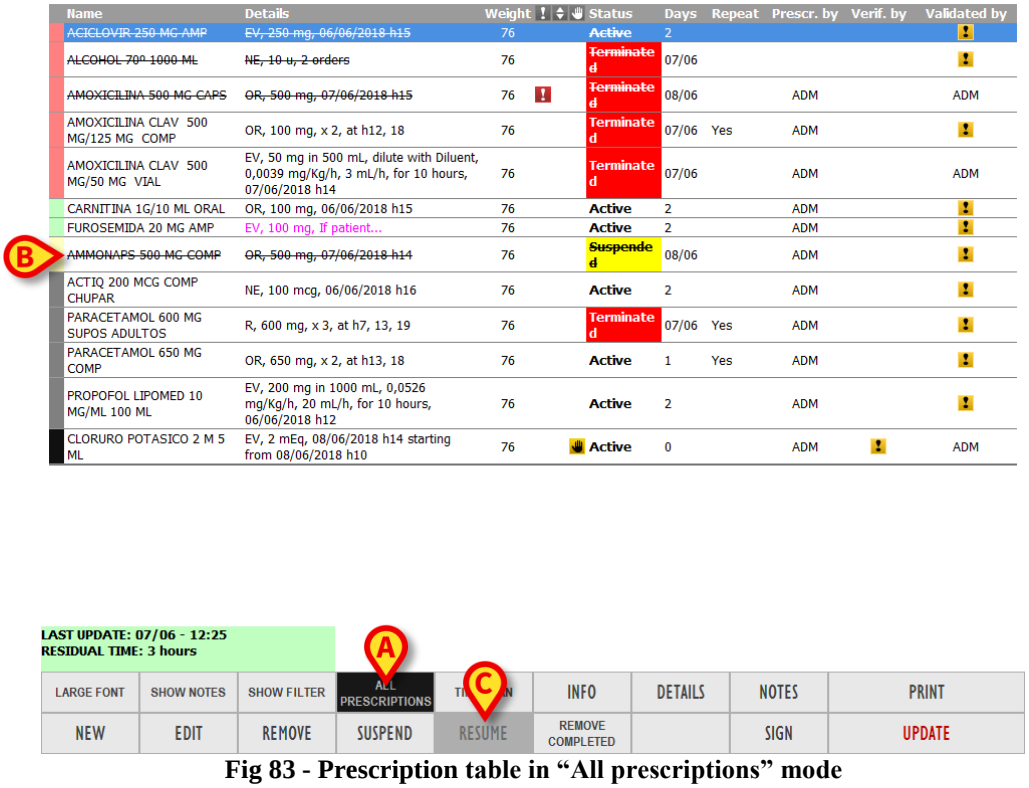


Fig 83 - Prescription table in "All prescriptions" mode

- Click the row corresponding to the suspended prescription that must be resumed.

The clicked row is highlighted (Fig 83 **B**).

Only the prescriptions in "Suspended" status can be resumed.

The **Resume** button is active on the command bar (Fig 83 **C**).

- Click the **Resume** button. A user confirmation is required.
- Click **Yes** to confirm.

The selected prescription becomes active again. The yellow label disappears; the prescription is again part of the patient treatment plan.

5.5. Large font display

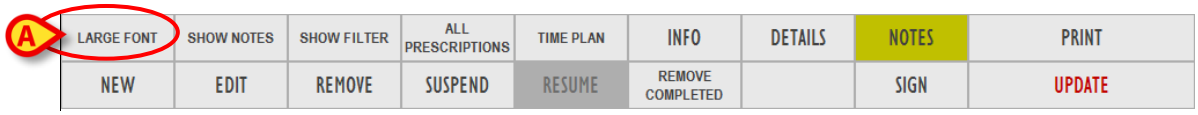


Fig 84 - Command bar

The **Large Font** button (Fig 84 **A**) makes it possible to display the information on screen in larger fonts that are easier to read.

5.6. Show notes

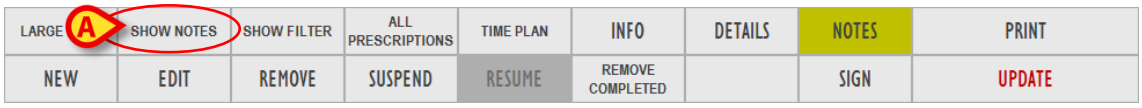


Fig 85 - Command Bar

The **Show Notes** button (Fig 85 **A**) displays in the prescriptions table all the notes associated to the various prescriptions.

The notes displayed by the **Show Notes** *button are inserted on the "Prescription specification" window (see paragraph 4.3 for the procedure).*

5.7. Display all prescriptions

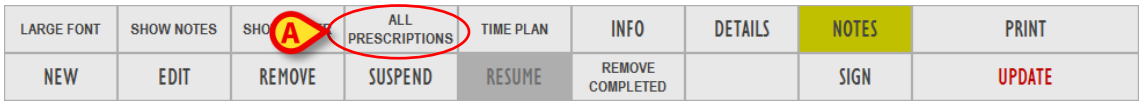


Fig 86 - Command Bar

The **All Prescriptions** button (Fig 86 **A**) makes it possible to display, on the prescriptions table:

- the active prescriptions,
- the suspended prescriptions,
- the terminated prescriptions.

5.8. Remove completed prescriptions

A prescription is completed when all the orders that it generated have been executed and no other order will be generated by it in the future. These prescriptions are still in "Active" status.
The rows corresponding to these prescriptions are still visible on the prescription table. Completed prescriptions are displayed in strikethrough characters (Fig 87).

Fig 87 - Completed prescription

These rows can be removed from the table using the **Remove Completed** button on the command bar (Fig 88 **A**).

Fig 88 - Command bar

A user confirmation is required.

- Click **Yes** to remove from the prescriptions table the rows corresponding to the completed prescriptions.

The removed prescriptions turn to "Terminated" status. Thay can be displayed again when the prescriptions table is in "All prescriptions" mode (see paragraph 5.7).

The "Terminated" prescription cannot be resumed.

5.9. Show the prescription details

The **Details** button (Fig 89) opens a window containing all the details of a single prescription. This window displays all the available information on the prescriptions of a treatment and the orders generated by it.

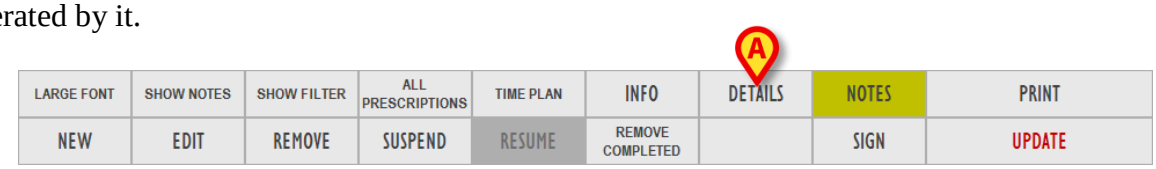


Fig 89

To display the prescription details window,

- click, on the prescriptions table, the row corresponding to the relevant prescription.

The row is highlighted.

- Click the **Details** buttons.

The window shown in Fig 90 opens.

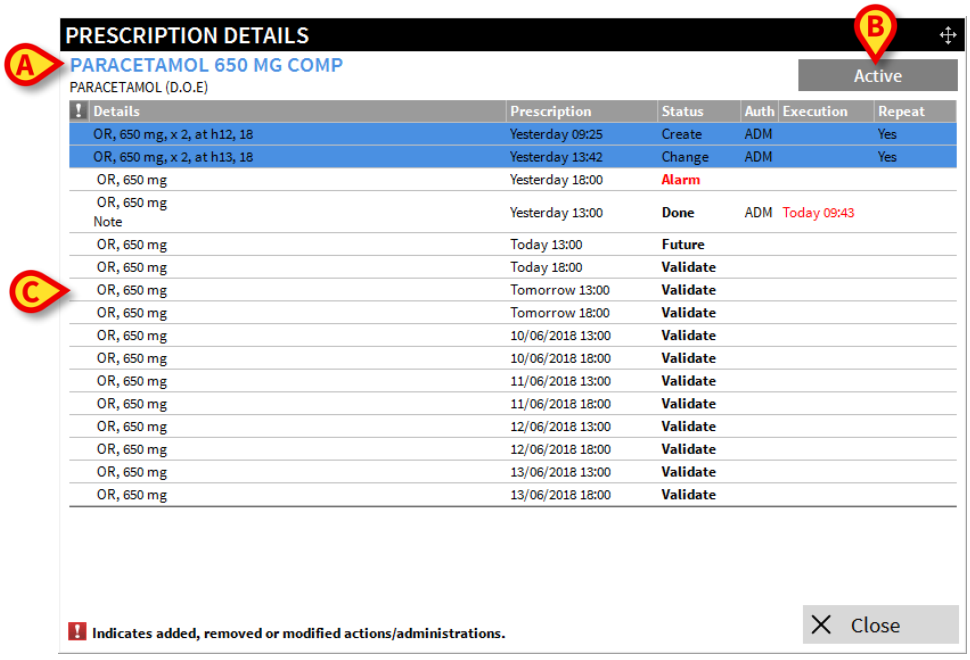


Fig 90 - Prescription details

The name of the treatment is indicated on the top-left corner of the window (Fig 90 **A**).

The prescription status is indicated on the top-right corner of the window (Fig 90 **B**).

All the events and all the actions performed that are related to the prescription are listed in a table (Fig 90 **C**).

The blue rows refer to the prescription. The white rows refer to the orders.

The information provided on the table is:

- the prescription/administration details;
- date and time in which the event/action displayed was recorded;
- prescription/order status;
- acronym of the user who performed the specific action;
- date and time of administration (if the line corresponds to an administration). When date and time are red it means that they are quite different from those prescribed;
- prescription repeatability.

The  symbol is displayed at the beginning of a row to indicate that the corresponding action was performed without an explicit prescription or with values different from those prescribed.

The "Status" cell indicates an action performed by the user or an event occurred. The information in this cell refers to an order if it is on a white row; it refers to a prescription if it is on a blue row.

The possible indications displayed on the "Status" cell are:

if referred to a prescription (blue lines)

- **Create** - indicates the prescription creation;
- **Change** - indicates any change to the prescription values;
- **Suspend** - indicates the prescription suspension;
- **Resume** - indicates the retrieval of the suspended prescription;
- **Terminate** - indicates the prescription removal.

If referred to an order (white lines)

- **Done** - indicates the execution of an order;
- **Alarm** - indicates an alarm on one of the orders (administration is late);
- **Future** - indicates that the order must be executed in the future;
- **Validate** - indicates that the order must be validated;
- **Cancelled** - indicates the deletion of the order;
- **Start** - indicates when a durative administration was started;
- **Stop** - indicates when a durative administration was stopped.

5.10. Prescriptions time plan

The **Time Plan** button (Fig 91 **A**) opens a window containing a summary of all the active prescriptions and the statuses of the corresponding orders.

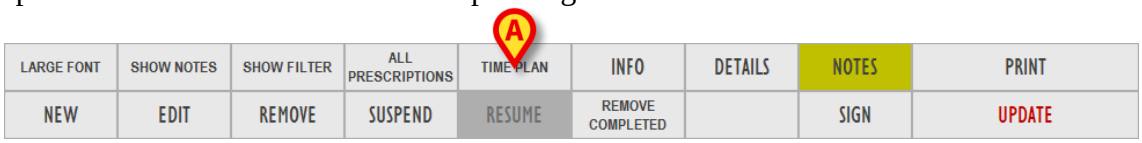


Fig 91 - Command bar

To display the time plan

- click the **Time Plan** button on the command bar.

The following window opens.

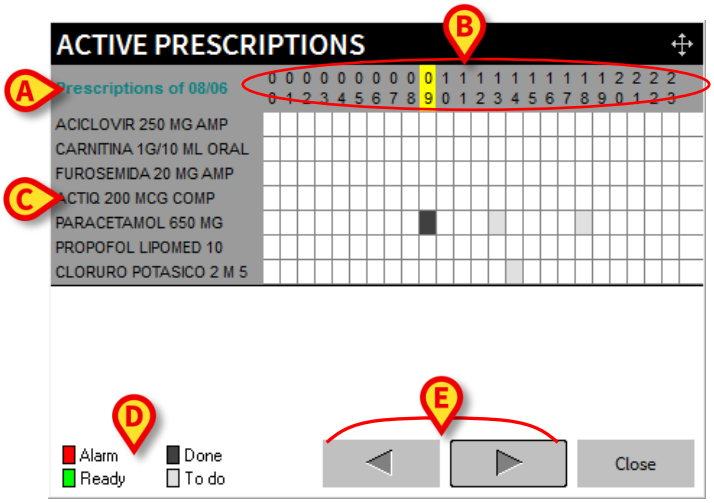


Fig 92 - Scheda oraria

The current day is indicated on the top left corner of the window (Fig 92 **A**).

The line highlighted in Fig 92 **B** indicates the time. The current time is highlighted yellow (it is 09.00 o'clock in the figure).

All the active prescription are listed on the left (Fig 92 **C**). For each prescription there are 24 cells available, one for each full hour. If a cell is highlighted it means that there is an administration scheduled at the corresponding time.

The cell colour provides information on the order status.

- To do - it means that the administration must be performed in the future.

- Done - it means that the order was executed.

- Ready - it means that the order should be executed now, i.e. we are within the time span configured as "range of tolerance" - see paragraph 4.2.3.3 for more details).

- Alarm - it means that the treatment administration is late.

On the bottom-left corner of the window there are indications on how to read the information provided by the window itself (Fig 92 **D**).

Use the arrow-buttons indicated in Fig 92 **E** to display the days either preceding -  - or following -  - the current day.

5.11. Add\Display notes

Use the **Notes** button on the command bar (Fig 93 **A**) to add a note that will be displayed on the "Therapy Execution" module main screen.

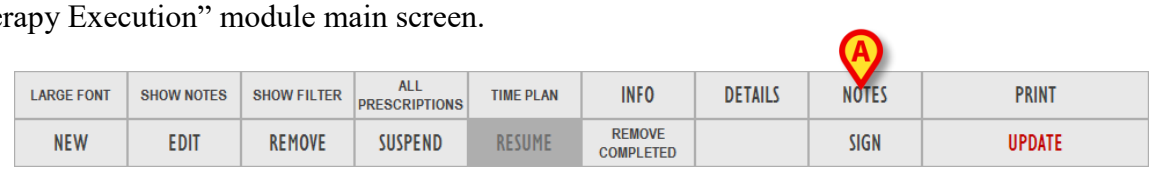


Fig 93 - Command bar

The notes inserted using the procedure described here are general notes referring either to the patient or to the whole therapy. They are not referred to the single treatment prescription. They are not to be confused with the notes specified using the procedure described in paragraph 4.3.1, referring to the treatment prescription.

To add a note

- click the **Notes** button.

The following window opens.

Fig 94 - "Notes" window

- Click the **Edit** button (Fig 94 **A**).

The window changes in the following way

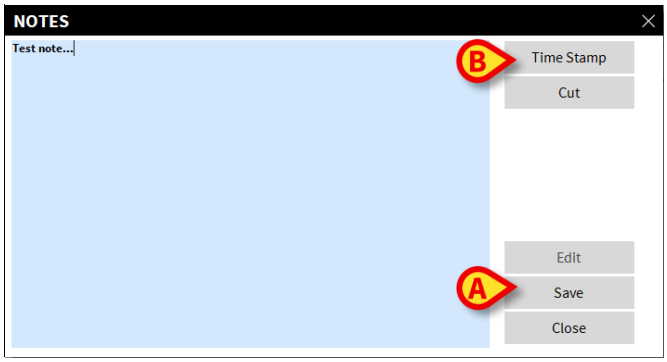


Fig 95 - "Notes" window (edit mode)

- Type the note. The text is displayed inside the window.
- Click the **Save** button to save the note (Fig 95 **A**).

The window closes automatically; the presence of a note is indicated by the color of the button on the command bar (yellow). Click the button again to display the notes-window again.
The note is displayed on the "Electronic Prescription" screen, in a specific box (Fig 96 **A**).

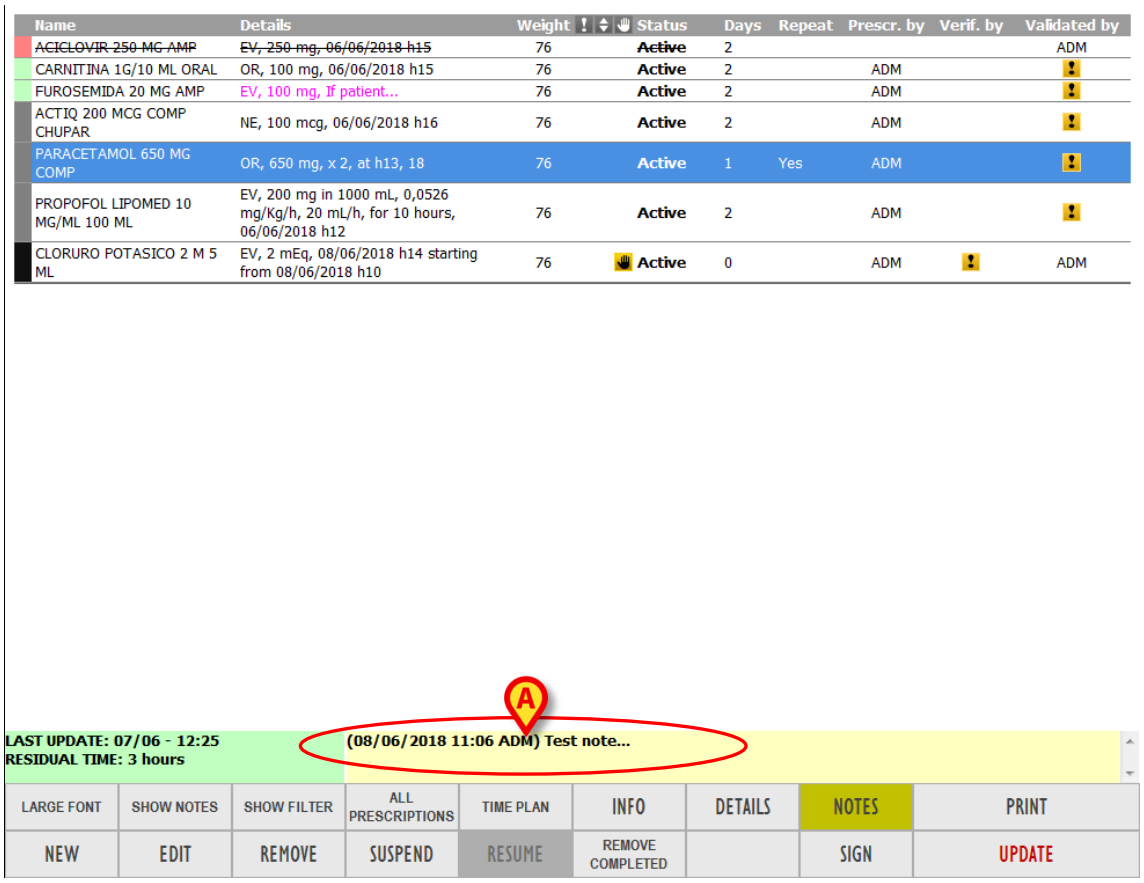


Fig 96 - Nota inserita

Use the **Time Stamp** button (Fig 95 **B**) to display the date, time and the acronym of the user who is adding the note (Fig 97).

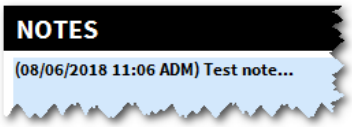


Fig 97 - Date and time

Use the **Cut** button (Fig 98 **A**) to cut a selected text portion.

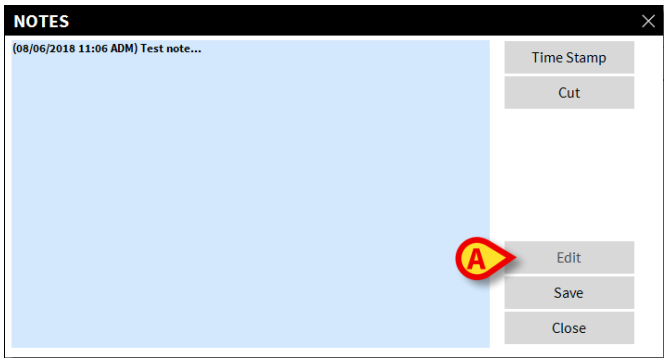


Fig 98

To cut a text portion

- click the **Edit** button (Fig 94 **A**).
- Select the text to be cut using either the mouse device or the workstation keyboard.
- Click the **Cut** button.

The selected text disappears from the "Notes" window.

The notes specified using the **Notes** *button can be displayed by other DIGISTAT® modules as well, if the* **Notes** *button is present on the command bar.*

5.12. Print reports

The **Print** button on the command bar (Fig 99 **A**) creates a print report of the patient treatment plan.

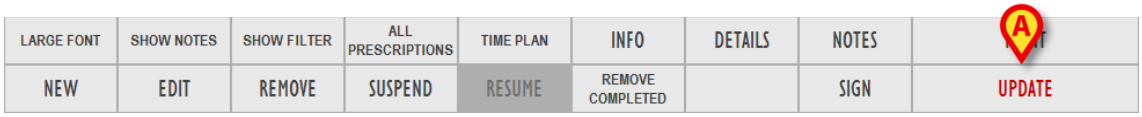


Fig 99 - Command bar

- Click the **Print** button to display a print preview.

5.13. Drug Info

The **Info** button on the command bar (Fig 100 **A**) displays, if configured, a page containing information on a selected treatment.

Fig 100 - Command bar

To display the treatment information, on the prescriptions table,

- click the row corresponding to the relevant treatment.

The row is highlighted.

- Click the **Info** button on the command bar.

The information page opens.

The contents of the information page are configured by the clinical supervisor. Please refer to your system administrators for information regarding the treatment info pages.

5.14. Double signature for the prescription

The **Sign** button on the command bar opens the window making it possible to double sign the prescriptions requiring double signature. See paragraph 4.4 for the double signature procedure at prescription.

6. The "Therapy Execution" module

The DIGISTAT® "Therapy Execution" module can be a help for the nursing staff in performing the tasks related to the documentation of the administration of the prescribed treatments.
The administration orders are automatically generated by the system on the base of the treatment plan specified by the physician on the DIGISTAT® "Therapy Prescription" module (chapter 2). Orders are displayed in graphic form on the "Therapy Execution" module's main screen, on a "treatment schedule" table. The nursing staff can use this table as a help in documenting the administration of the prescribed treatments.

6.1. "Therapy Execution" module selection

To select the "Therapy Execution" module

- click the corresponding  on the lateral bar. When the module is selected the icon is highlighted.

The "Execution" module can be also selected on the "Central Station" module clicking the boxes corresponding to the different patients. See paragraph 7.2 for more details.

6.2. Main screen

The module's main screen appears as in Fig 101.

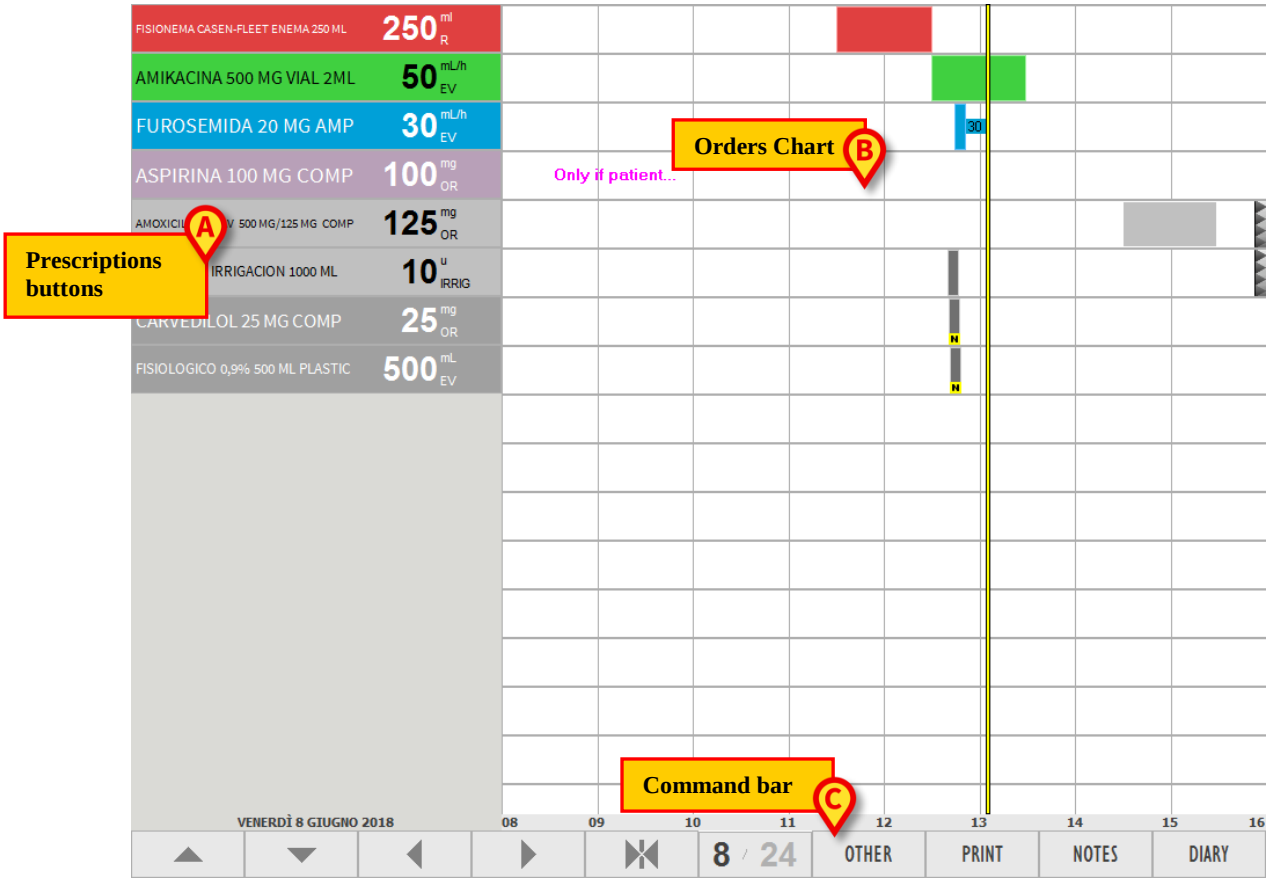


Fig 101 - Administration module (example)

There are three main areas:

1) the column on the left contains the buttons corresponding to the prescribed treatments (Fig 101 **A**);

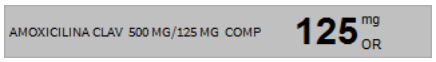
2) the central area shows in a chart the orders generated by the prescriptions (Fig 101 **B**);

3) the command bar contains the function-buttons making it possible to perform different actions (Fig 101 **C**).

6.3. Prescribed orders representation

The treatments prescribed on the "Prescription" module are displayed on the left as colored boxes (Fig 101 **A**).
These boxes are buttons that, when clicked, make it possible to record the administration of a specific order.
The different colors provide information on the status and the kind of the corresponding treatment.

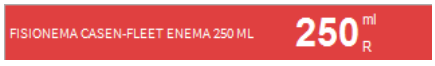
There are 6 possible colors:



Light grey characterizes active prescriptions whose orders must be administered in the future.

Dark grey 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 1.3.3 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.

I.e. the colors appear in this order:

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

6.4. The orders chart

The central area of the administration screen displays on a chart all the orders generated (the already executed ones, the future ones, the "in progress" ones - Fig 102).

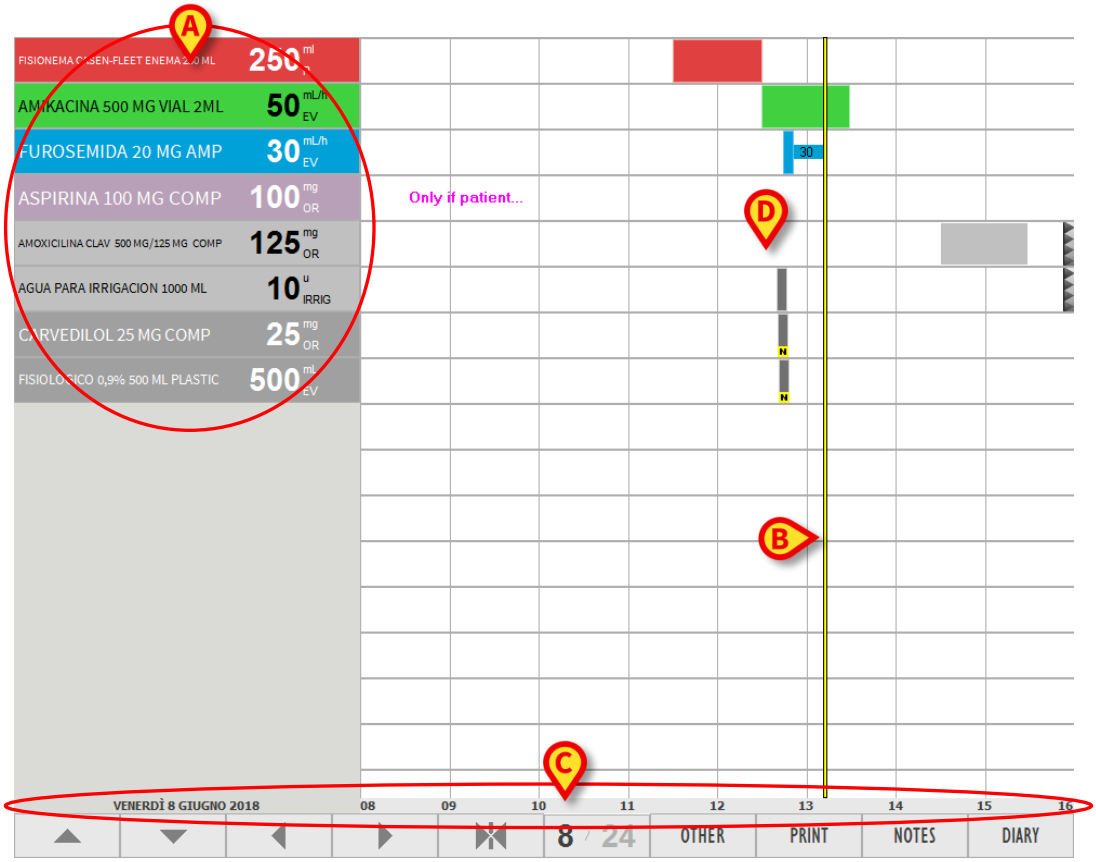


Fig 102 - Orders chart

The chart is a grid, made of rows and columns. The orders corresponding to the same treatment are on the same row (in Fig 102 there are five prescribed treatments on the left - Fig 102 **A**); the columns correspond to the different hours of the day.

The yellow bar shown in Fig 102 **B** indicates the present time. The bar scrolls forward as time goes by. In Fig 102 it is 12:45 a.m. approximately. Time can be read below, on the bar indicated in Fig 102 **C**. The date is displayed on the bar as well.

6.4.1. Graphic representation of the orders

The boxes indicated in Fig 102 **D** correspond to the different orders. The boxes are in the place corresponding to their prescribed administration time (or execution time if already executed).

6.4.1.1. Administration tolerance period

The lenght of the boxes is proportional to the time period that was indicated as “tolerance period for the administration” when the order was prescribed (see paragraph 4.2.3.3).

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 (it is the case highlighted in Fig 103 **A**).
The position of the boxes corresponds to the prescribed administration times. The boxes length is proportional to the tolerance period.

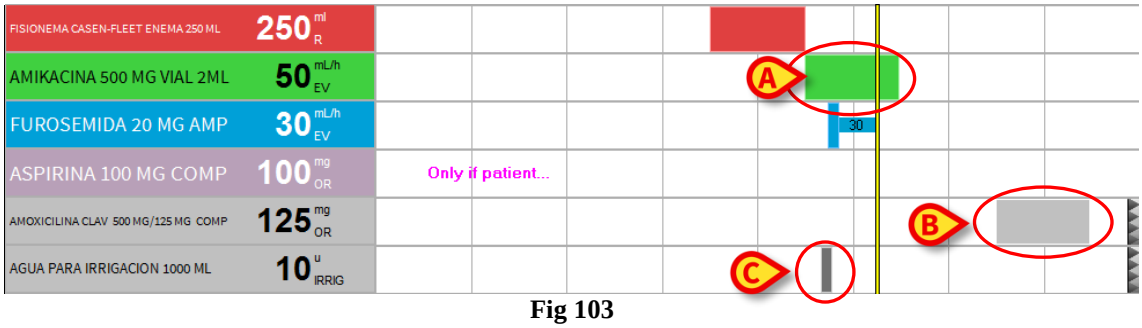


Fig 103

6.4.1.2. Order status

The box color indicates the status of the order.

Green means that the order is to be administered immediately, i.e. it means that it is within the administration tolerance period. When the box is green the vertical time bar intersects the box (Fig 103 **A**).

Light grey means that the order is to be executed in the future. When the box is light grey the vertical time bar is on the left of the box (Fig 103 **B**).

Dark grey means that the order was executed (i.e. the treatment was administered). When the box is dark grey the vertical time bar is on the right of the box (Fig 103 **C**).

The lenght 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 6.5.1 for the durative orders administration procedure.

Red means that the administration of the order is late; i.e. the tolerance period is over (Fig 104 **A**). When the box is red the vertical time bar is on the right of the box.

Cyan characterizes durative prescriptions having one order in progress (Fig 104 **B**). The vertical time bar in these cases coincides with the box’s right border.

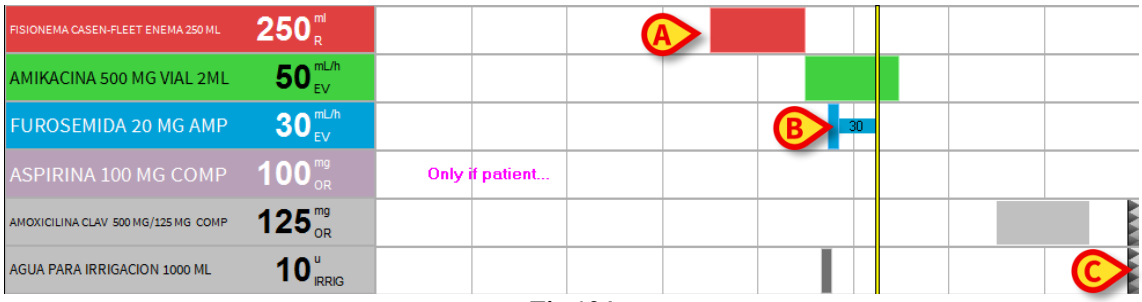


Fig 104

The duration of an administration is displayed in cyan (Fig 105).

Fig 105 - Durative administration

When the administration is stopped the duration becomes grey (Fig 106).

Fig 106 - Durative administration stopped

Two different shades of cyan - and - can be used for the durative prescriptions to increase the chart readibility. The choice depends on a configuration parameter.

On the chart, three small arrows appear at the end of a row (Fig 104 **C***) if there are (on the right) orders for that prescription that are not currently displayed. When the three arrows are on the left it means that the undisplayed items are on the left.*

The icon appearing on the top-left corner on a box means that the order has not been validated yet. See paragraph 1.3.6 for the explanation of the "order validation" concept. The not validated orders can be administered using a specific procedure. This procedure is described in paragraph 6.5.2.

Fig 107

When the administration time for a non validated order approaches, a specific icon -  - appears on the "Therapy prescription" module on the prescriptions table on the row corresponding to the prescription that generated the order.

The value indicating that the administration time is approaching is set by configuration. In the configuration here described the specified period is three hours.
A darker vertical line indicates the limit of this period on the chart (Fig 108).

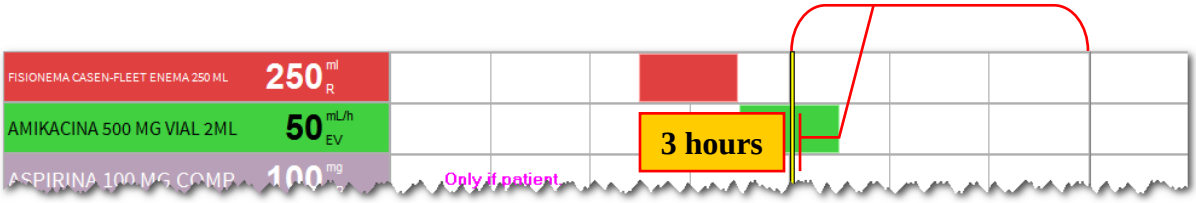


Fig 108

The  icon appears for the conditional prescriptions as well if they are not yet validated. The validity of a prescriptional prescription expires when the "Therapy Cycle" expires. Thus conditional prescriptions are automatically validated every time the "Therapy Cycle" is updated. See paragraph 4.2.2 for the explanation of "conditional treatment". See paragraph 1.3.4 for the explanation of "Therapy Cycle".

6.4.1.3. Additional information on the executed administrations

The executed orders are represented by grey vertical bars. See Fig 109 for an example.

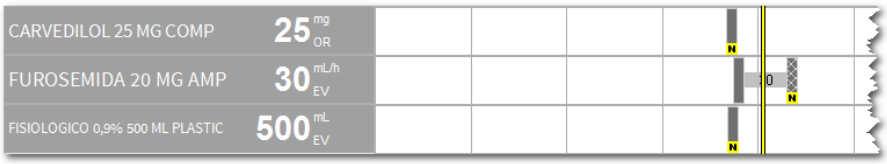


Fig 109 - Executed orders

The graphic design of the vertical bars provides additional information on the kind of administration executed.

These are:

 - it means that the order has been cancelled.

 - it means that the order causes the  icon on the "Therapy Prescription" module. The  icon appears if there is not a prescription originating the executed action.

 - it corresponds either to the administration of an extemporaneous order (i.e. an administration recorded using the procedure described in paragraph 6.6.3) or to the durative prescription stop time.

 - it corresponds to any other case, to indicate an executed order.

6.4.1. Orders summary window

If one of the prescription buttons (the buttons indicated in Fig 101 **A**) is kept pressed, a summary window opens, listing the orders generated by the prescription (both the future ones and the past and not administired ones - Fig 110).

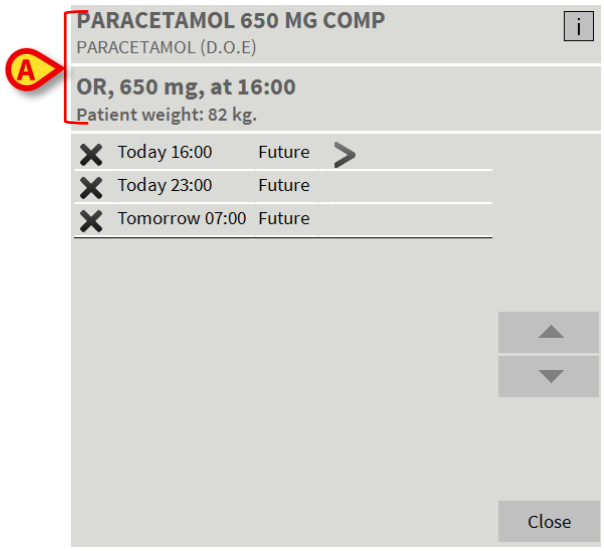


Fig 110

On top are the treatment data (name and administration information - Fig 110 **A**).
In the central area each row corresponds to an administration order (Fig 113).

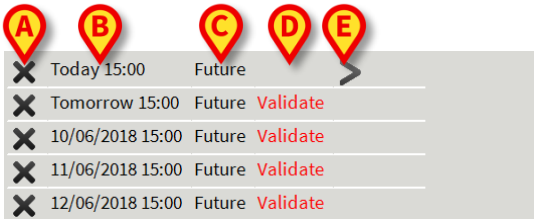


Fig 111

On each row the following information and tools are present:

- the cross placed at the beginning of the row (Fig 113 **A**) makes it possible to delete the corresponding order;
- planned administration date and time (Fig 113 **B**);
- order status (“alarm” if past, “ready” if scheduled for current time, “future” if planned for a future time - Fig 113 **C**);
- the “Validate” indication (Fig 113 **D**), when displayed, signals that the order has not ben validated yet;
- the arrow indicated in Fig 113 **E** makes it possible to document the administration of the corresponding order. Click the arrow to open the administration window shown in Fig 113.

6.5. How to record the treatment administration

To record the administration of a treatment, on the “treatments column” on the left,

- click the button corresponding to the relevant treatment (Fig 112 **A**).

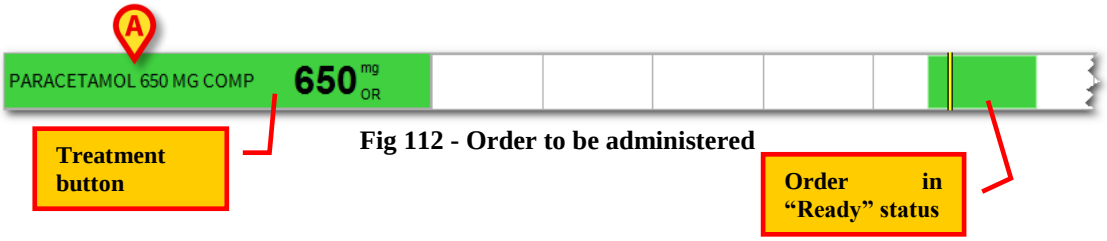


Fig 112 - Order to be administered

An administration window opens (Fig 113).

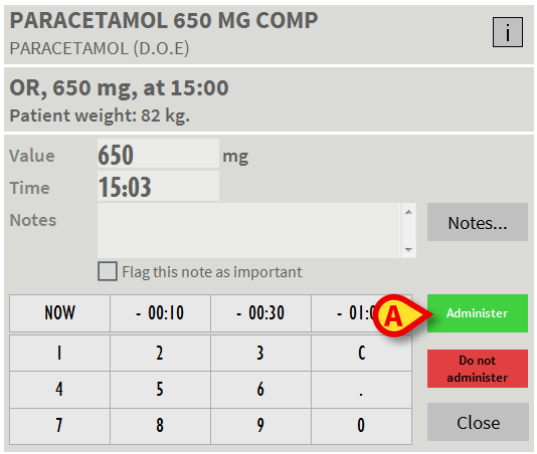


Fig 113 -Order administration window

- Click the **Administer** button (Fig 113 **A**).

The chart changes in the following way

Fig 114 - Administered order

The treatment administration is this way recorded.

The order does not need to be in “Ready” status to be administered. The administration can be recorded before (or after) the scheduled prescription time. In this case a special user permission and user confirmation is required.

6.5.1. Durative treatment administration

The administration recording procedure is slightly different for durative treatments. In these cases it is in fact necessary to record the beginning and the end of the administration.

To record the administration of a durative treatment

- click the treatment button (Fig 115 **A**).

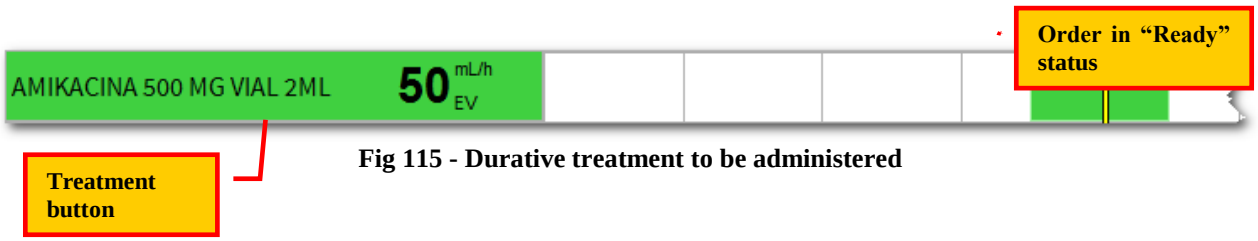


Fig 115 - Durative treatment to be administered

An administration window opens (Fig 116 **A**).

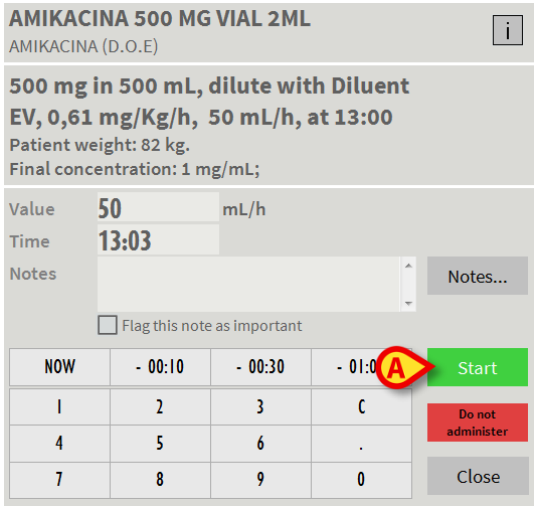


Fig 116 - Durative administration "start"

- Click the **Start** button (Fig 116).

The beginning of the durative treatment administration is this way recorded. The corresponding button becomes cyan (Fig 117 **A**). A cyan bar is traced on the chart while the administration goes on (Fig 117 **B**).

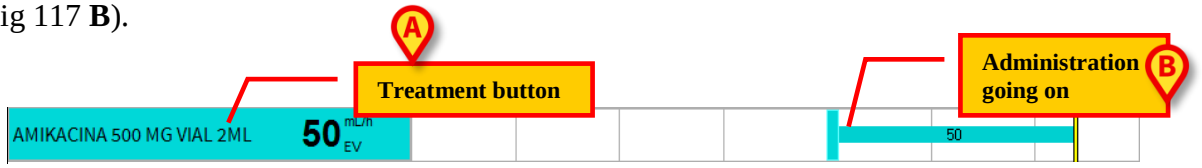


Fig 117 - Durative administration

To record the end of the administration,

- click the treatment button again (Fig 117 **A**).

A specific window appears (Fig 118).

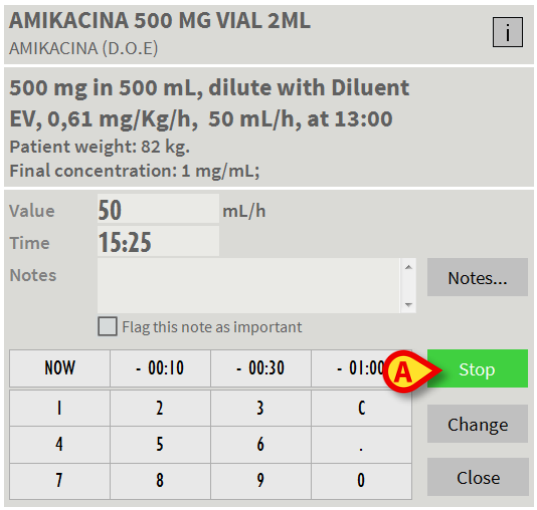


Fig 118 - Durative administration "stop"

- Click the **Stop** button (Fig 118).

The chart changes in the following way.

Fig 119 - Durative administration stopped

The duration of the administration is this way represented on the chart.

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

The order validity expires after a certain time. See paragraph 1.3.7 for the related procedures. These orders are "Expired". An expired order can be administered anyway but, to do that, a specific procedure must be performed.

Here is the procedure.

- Click, on the left, the button corresponding to the treatment that must be administered.

In the example shown in Fig 120 it is "Acetilcisteina".

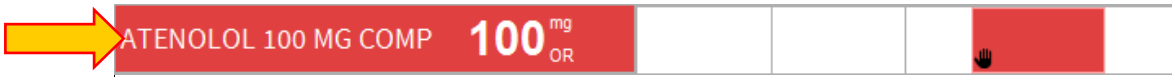


Fig 120

A user confirmation is required.

- Click **Yes** to proceed.

The following window is displayed (Fig 121), highlighting the fact that the order is not valid.

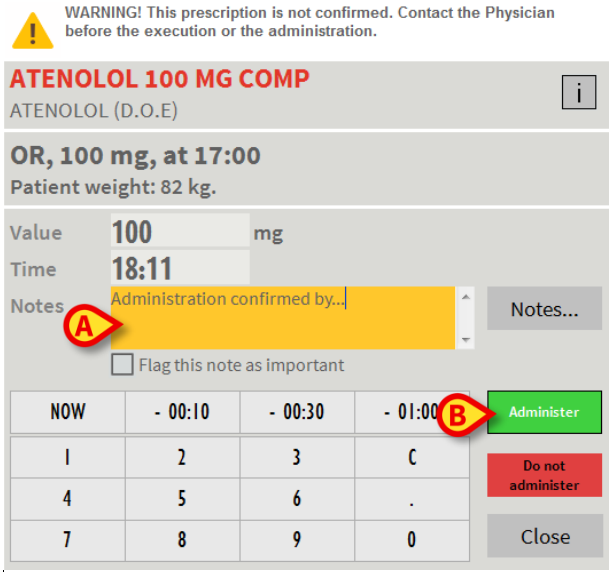


Fig 121

- Insert a note specifying the reasons for the administration variation (Fig 121 **A**).
- Click the **Administer/Start** button to administer the treatment (Fig 121 **B**).

The administration is this way recorded.

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

6.5.3. Administration with double signature

A treatment can be configured to require a double signature/validation at administration time. I.e. it is necessary that a second user, different from the one that is administering the treatment, validates the administration.

If this is the case, at administration time (i.e. when either the "Execute" or "Start" button is clicked, depending on the kind of administration), the following window is displayed, signaling that a second signature is required (Fig 122 **A**).

Fig 122

To administer the treatment it is necessary to

- Insert username and password (Fig 122 **B**)
- Click the **Sign** button (Fig 122 **C**).

The administration of the treatment is this way recorded.

The double signature procedure can be set separately for the prescription and the administration of the treatment. I.e. a treatment can require the second signature at prescription time and not require it at administration time and vice versa.

6.5.4. Changes in the administration values

It is possible to record the changes in the values of the durative administration while it is still in progress.

To do that

- click the prescription button corresponding to the treatment whose values must be changed (Fig 123 **A**).

Fig 123

The following window appears (Fig 124).

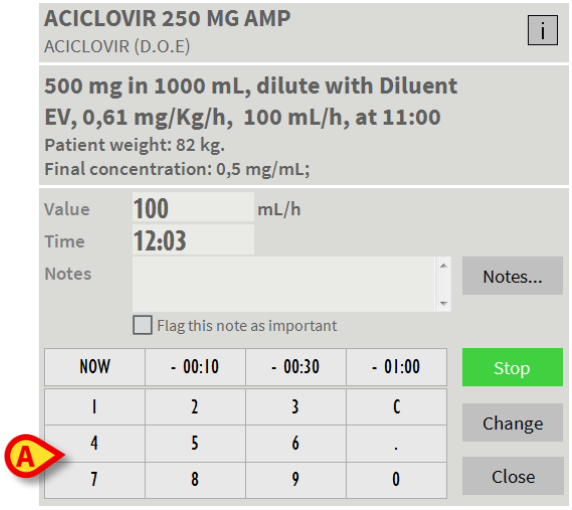


Fig 124

- Use the numeric keyboard (Fig 124 **A**) to set the new administration values (Fig 125 **A**).
- Insert a note specifying the reasons for the administration variation (Fig 125 **B**).
- Click the **Change** button (Fig 125 **C**)

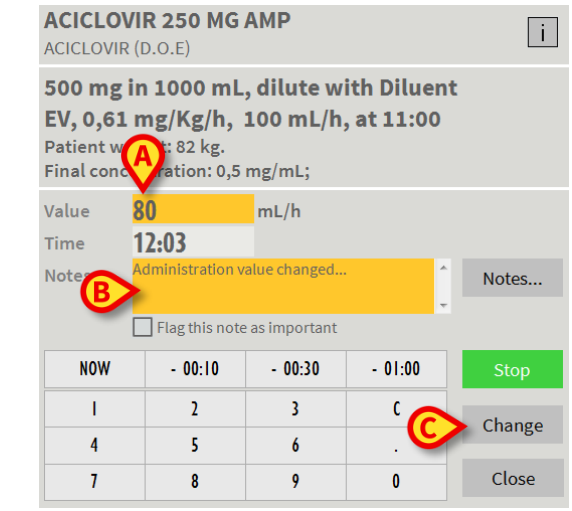


Fig 125

The chart changes in the following way (Fig 126).

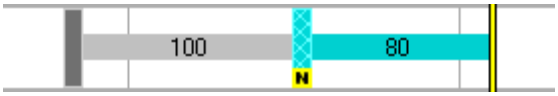


Fig 126

The moment in which the change is recorded is highlighted on the chart by the cyan vertical bar . The old value is specified on the left of the bar the new value is specified on the right

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

*The **Change** button can also be used to document the time in which the syringe, the infusion bag or other is changed (according to the infusion type). To do that, just click the **Change** button without indicating any change in the administration values. A chart analogous to that shown in Fig 126 will be displayred, but the administration values will remain unchanged.*

6.5.5. The administration window

Some of the administration values (quantities and dosages, for instance) can be edited during the treatment administration phase.
The treatment administration window makes it possible to set or edit these values on the "Therapy Execution" module.

To open the administration window,

- click the prescription button (see Fig 127 for an instance).

Fig 127 - Prescription button

The administration window opens (Fig 128).

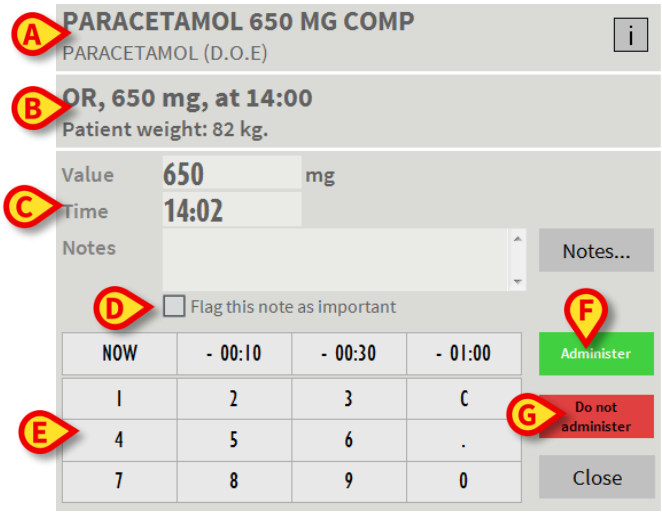


Fig 128 - Administration window

On top the treatment name is displayed together with the possible associated protocols (for instance the actual drug name and the active ingredient - Fig 128 **A**).

The administration information prescribed are displayed in the second row (Fig 128 **B**).

Administration information is displayed in the central area (Fig 128 **C**). These data can be changed using the buttons indicated in Fig 128 **E**. If changes are made to the values originally prescribed, the background colour becomes yellow.

The **-00:10** button changes the administration recording time (10 minutes back per click).
The **-00:30** button changes the administration recording time (30 minutes back per click).
The **-01:00** button changes the administration recording time (1 hour back per click).
The **Now** button sets the current time again.
The numeric keyboard makes it possible to set the administration values.
Free text can be added in the "notes" area.

The buttons indicated in Fig 128 **E** heve the following functions:

The **Administer** button records the treatment administration.
The **Do not administer** button allows to delete the current administration (i.e. do not administer the treatment). It is required to insert a note specifying the deletion reason and the authorizing person.
The orders cancelled this way appear on the chart in the following way -  -.

It is possible to insert a note relating to the administration by typing it in the "Notes" field. The checkbox "Flag this note as important", if checked, makes the same note visible in the future administrations of the same treatment and on the prescription button.

The **Notes** button makes it possible to add a note to the administration selecting it from a list of standard phrases.

To add a note

- click the **Notes** button. A window containing the available phrases is displayed (Fig 129).

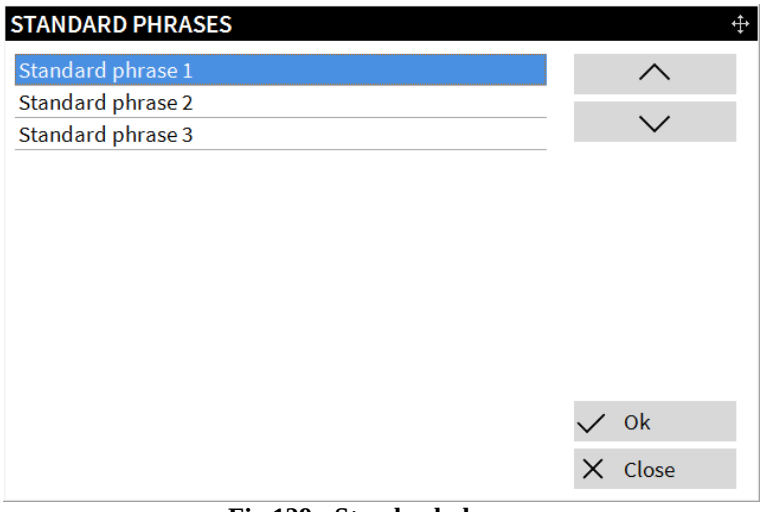


Fig 129 - Standard phrases

The standard phrases can be quickly added to the note. To do that

- click the phrase you want to add. The phrase is highlighted.
- Click the **Ok** button.

The selected phrase is displayed on the administration window. The standard phrase added this way can be completed or edited by the user.

The note inserted this way refers to the action relating the specific order and will be visible on the "Prescription details" window on the Therapy Prescription module on the row corresponding to the action (the "Prescription details" window is described in paragraph 5.9).

The **Info** button (Fig 128 **F**) makes it possible to access a page containing information on the specific treatment (if configured).

The administration window, when referred to durative treatments, is different.

Fig 130 shows an example.

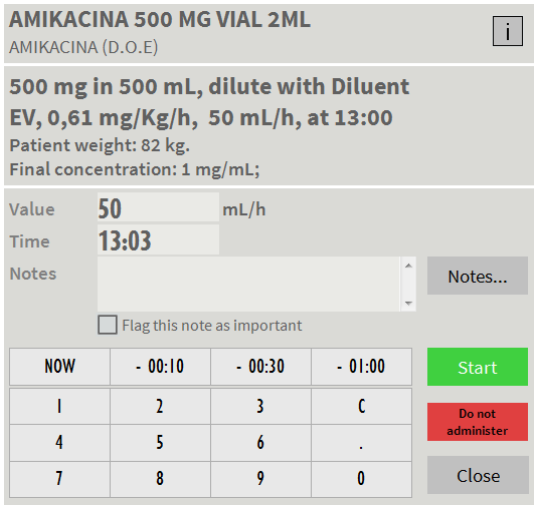


Fig 130

The **Start** button is on the window instead of the **Administer** button before the administration is started.
After the administration is started the **Stop** button takes the place of the **Start** button.
The **Change** button is on the window while the administration is in progress.

The procedures related to the administration of durative prescriptions are descibed in paragraph 6.5.1.

6.6. “Execution” module command bar

The various buttons on the “Administration” module command bar (Fig 101 **C**, Fig 131) make it possible to perform specific actions.

Fig 131 - Command bar

The first 6 buttons from the left (Fig 131 **A**) make it possible to change the way the different items are displayed on the window.

The  and  buttons make it possible to scroll up and down the screen contents.

The  and  buttons make it possible to scroll left and right the screen contents.

The  button brings back to the original display mode. When a time different from present time is displayed the button turns red and starts flashing  .

The  button makes it possible to switch from 8 hours to 24 hours display mode (and vice versa).

6.6.1. 24 hours display mode

The 8 hours display mode is shown in the previous figures. The 24 hours display mode is shown in Fig 132. When the 24 hours display mode is activated the button on the command bar changes in the following way - 

.

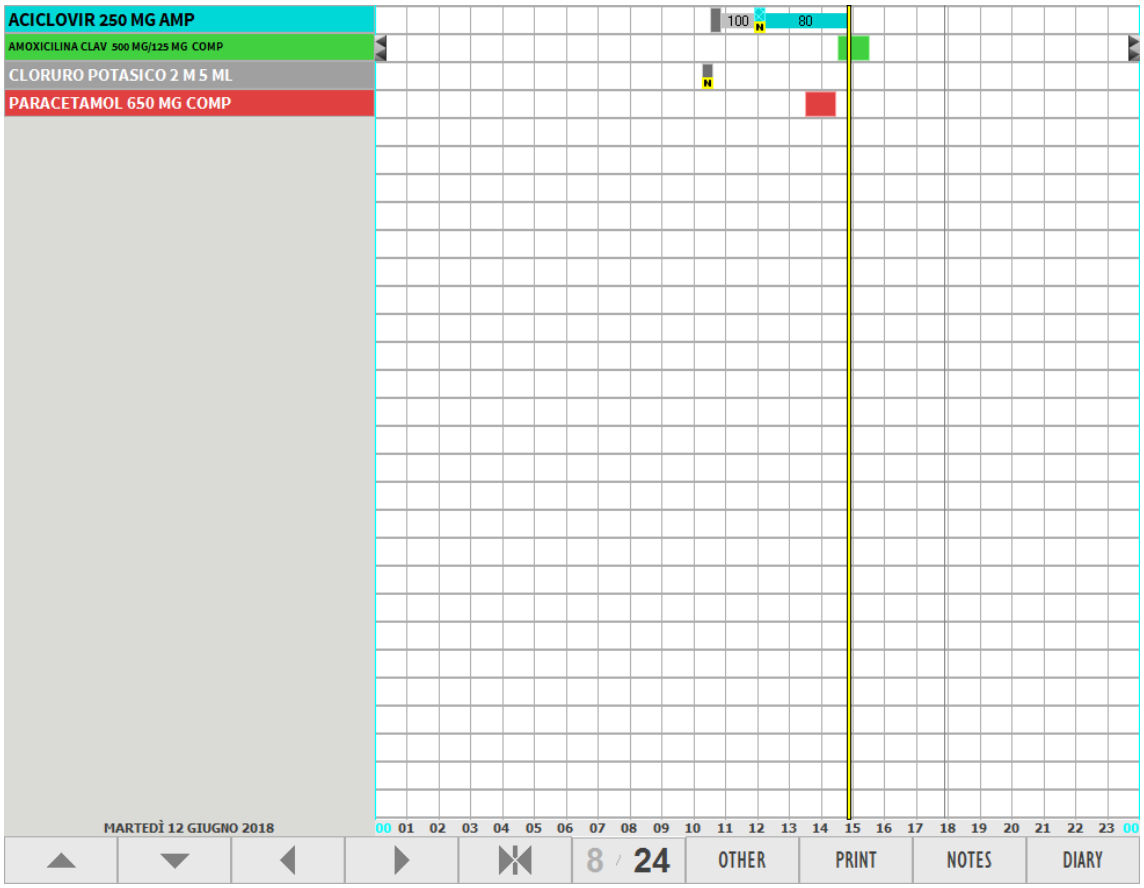


Fig 132 - 24 hours display mode

Fig 133 shows, as example, a detail of a 24 hours display screen.

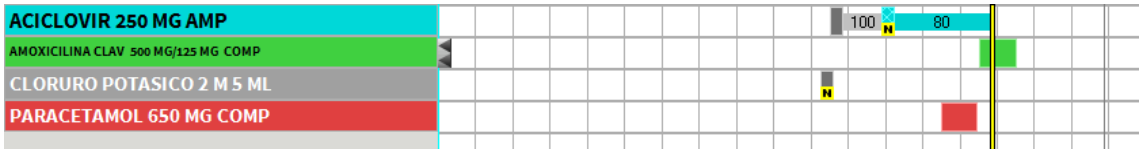


Fig 133 - 24 hours display (detail)

This is a read-only display. I.e. it is not possible to operate on the screen contents when the 24 hours display is activated.
The time span displayed goes from 0:00 to 24:00 of the current day.
Only the prescriptions having at least one order in the time span considered are displayed.
This display mode offers an immediate and complete view of the patient's treatment plan in the 24 hours.

To go back to normal display mode (8 hours) click the 

button again.

6.6.1.1. Orders summary

When in 24 hours mode, clicking one of the treatment buttons (Fig 133 **A**), a window listing all the orders generated by the clicked treatment is displayed. See for example Fig 134.

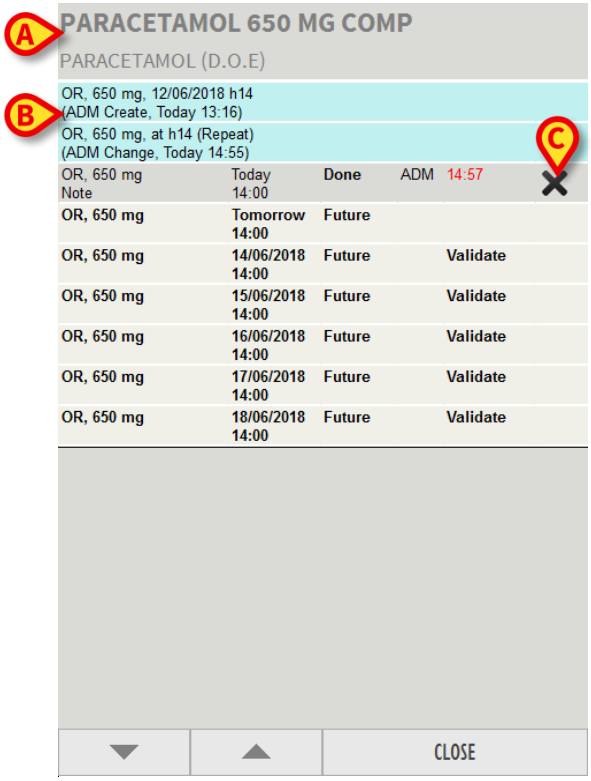


Fig 134

On top is displayed the name of the prescribed treatment (Fig 134 **A**).
The administration information is displayed in the second row (administration values, when and who prescribed the treatment - Fig 134 **B**)

The other rows correspond to the different orders and actions. The last administration executed can be undone by clicking the cross indicated in Fig 134 **C**.

For each order the following information can be provided (see Fig 135).

Fig 135

- Fig 135 **A** - Prescribed Dose/Quantity (if the order is to be administered) or administered Dose/Quantity (if the order has been administered).
- Fig 135 **B** - Prescribed time for the administration.
- Fig 135 **C** - Order status.
- Fig 135 **D** - Administration author, date and time (if the treatment was administered).
- Fig 135 **E** - Order validity (if the order is to be administered, an indication of the validity is displayed here - i.e. to be validated, expired etc…).

6.6.2. The "Other" function: extemporaneous orders

The **Other** button on the command bar (Fig 136 **A**) makes it possible to record the administration of a treatment that was not previously prescribed on the "Therapy Prescription" module.

Fig 136

This function can be used when the clinical staff must administer a treatment that is not on the patient treatment plan.

This is the procedure:

- click the **Other** button.

The following window opens, containing all the treatments configured for this kind of execution:

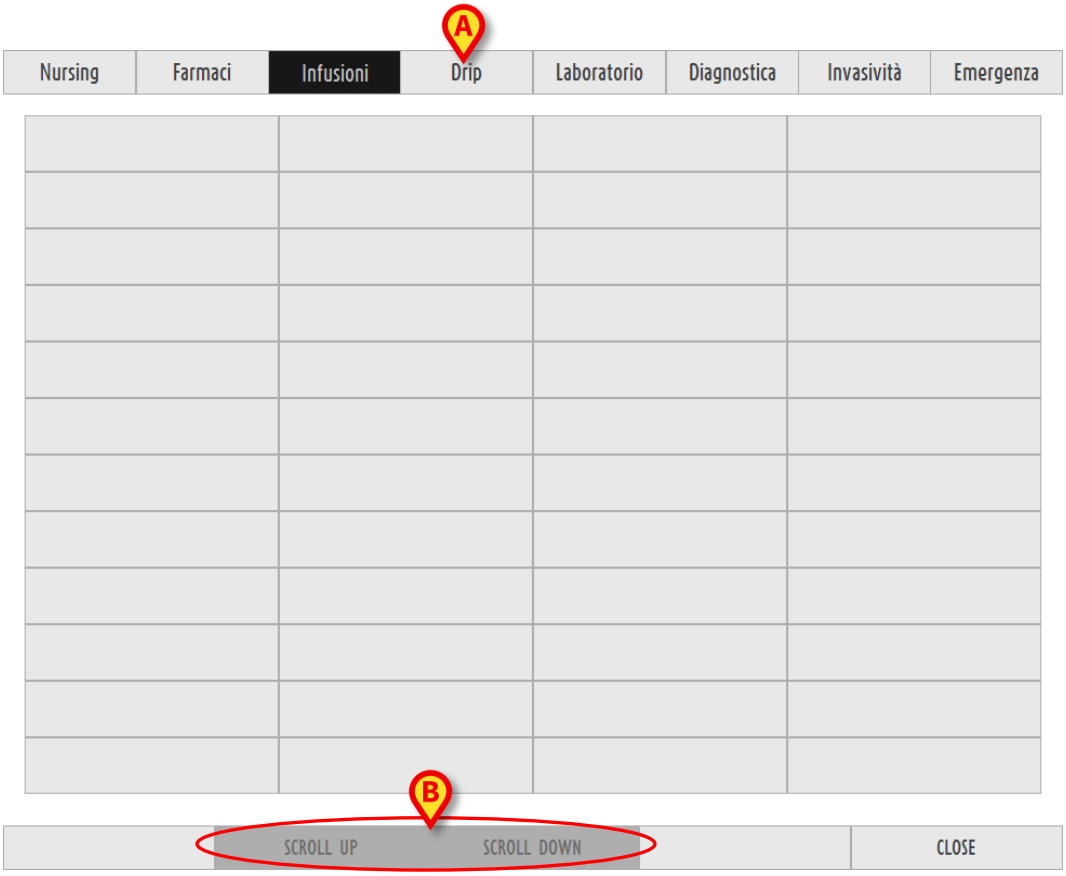


Fig 137 - Other treatment

The boxes on the window are buttons. Each button is associated to a treatment. The treatments are grouped into classes. The labels placed on top of the window display the names of the various classes.

To display the items of a specific class

- click the corresponding label.

Click the **Drip** label, for instance (Fig 137 **A**), to display the treatments belonging to the corresponding class.

When the number of available treatments of a class exceeds the number of available cells the buttons **Scroll Up** and **Scroll Down** (Fig 137 **B**) activate, making it possible to scroll the treatments list.

The various treatments are characterized by a color indicating the class to which they belong. The classes and their related colors are listed in paragraph 2.4.

6.6.3. Extemporaneous orders administration

To record the administration of a treatment that is not part of the patient's treatment plan

- click the **Other** button.

The window shown in Fig 137 opens.

- Click the label corresponding to the class to which the relevant treatment belongs.

Only the treatment-buttons belonging to that specific class are this way displayed on the window.

- Click the button corresponding to the wanted treatment (the name of the treatment is displayed on the button).

Another window appears, making it possible to set the values of the specific administration.

- Use the numeric keyboard to set the administration values.
- Click the **Administer/Start** button to record the treatment administration

The administration is now displayed on the chart as “Executed”.

The administration is also displayed on the treatment plan on the “Prescription” module as “Executed”.

The administration window is described in paragraph 6.5.5.

6.6.4. "Execution" module print functionalities

The **Print** button on the "Administration" module's command bar (Fig 138) makes it possible to create different kinds of documents.

Fig 138 - Command bar

Click the **Print** button to open a window making it possible to define the features of the document to be printed (Fig 139).

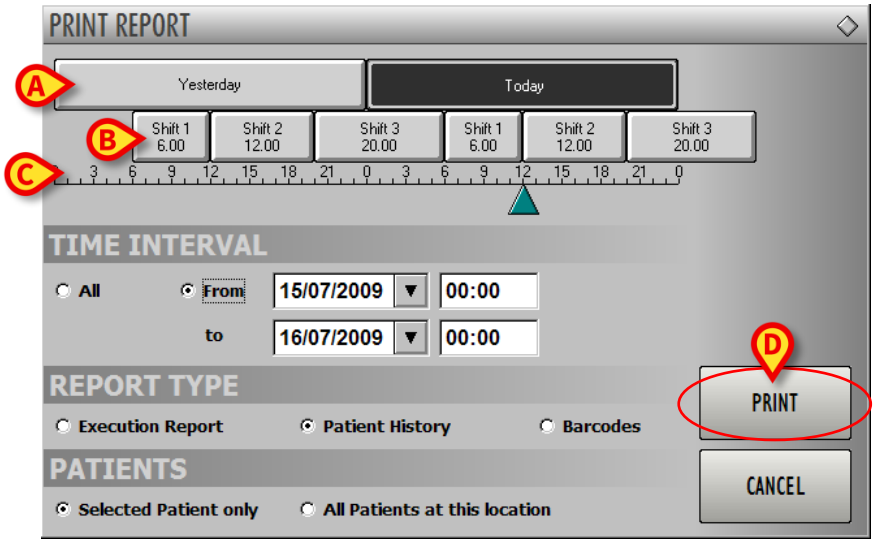


Fig 139 - Print options

The "Print report" window contains several tools making it possible to define the print report features.

These are the tools available:

The **Yesterday** and **Today** buttons (Fig 139 **A**) make it possible to print either the data referring to the current day or the data referring to the day before. The selected option is highlighted.

The "Shifts" buttons (**Shift 1**, **Shift 2** etc. Fig 139 **B**) limit the printed data to those referring to a specific shift. The selected shift is highlighted.

The time bar (Fig 139 **C**) indicates the current time. Current time is between 11:00 and 12:00 o'clock in the figure.

The "Time Interval" area (Fig 140) makes it possible to specify the beginning and the end of the time interval of the data to be printed. The "All" checkbox selection (Fig 140 **A**) prints all the available data, not depending on the time interval.

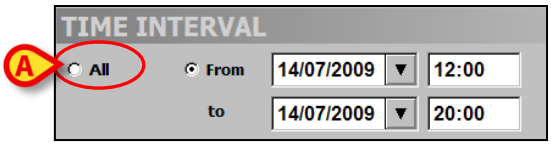


Fig 140 - Print options - Time Interval

The "Report type" area (Fig 141) makes it possible to select the kind of print report. Several options are available. The example here described offers the following options:

- execution report;
- patient history;
- administered treatments barcodes.

Click the corresponding checkbox to select a report type.

Fig 141 - Print options - Report Type

The "Patients" area (Fig 142) makes it possible to print either the single selected patient data or the data of all the patients in the selected location. Click the corresponding checkbox to select an option.

Fig 142 - Print Options - Patients

- When all the report features are set click the **Print** button (Fig 139 **D**) to display a print preview of the report.

6.6.5. Patient notes

The Notes button (Fig 143 **A**) makes it possible to add and display the patient's notes.

Fig 143 - Command bar

The procedures related to this button are described in paragraph 5.11.

6.6.6. Patient clinical diary

The **Diary** button (Fig 143 **B**) makes it possible to access and use the DIGISTAT® "Clinical Diary" module if the module is installed. This module makes it possible to create and manage the patient's clinical diary.

See the specific documentation to know the DIGISTAT® "Clinical Diary" module functions and features.

7. The “Central Station” module

The “Central Station” module displays on the same screen the state and the needs of all the patients in the ward, providing real time information on each patient’s treatment plan and on the related schedule.

7.1. Module selection

To access the module

- click the corresponding icon -  on the lateral bar.

The “Central Station” screen opens (Fig 144).

7.2. “Central Station”

Fig 144 shows the Therapy “Central Station”.

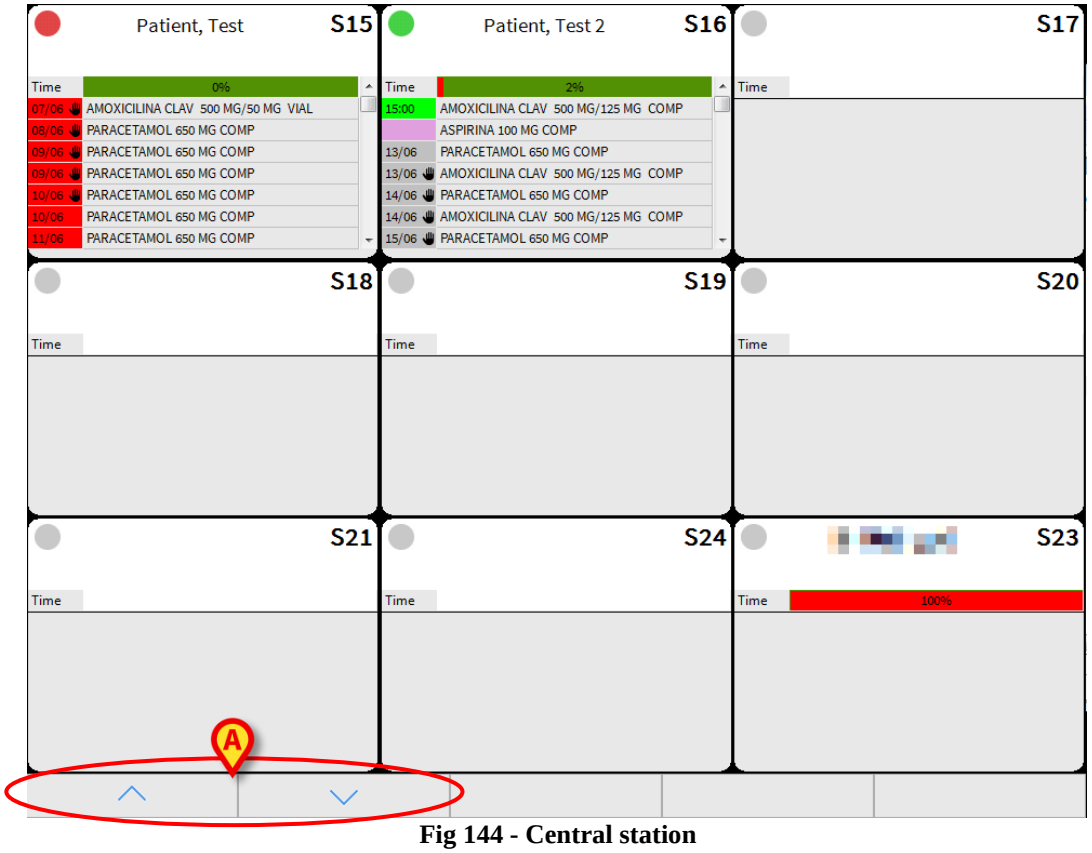


Fig 144 - Central station

The screen contains several boxes; each box corresponds to a bed in the ward (Fig 145).
In case the configured beds are more than those displayed on screen, the scroll buttons indicated in Fig 144 **A** activate; click these button to display the beds that are not currently displayed.

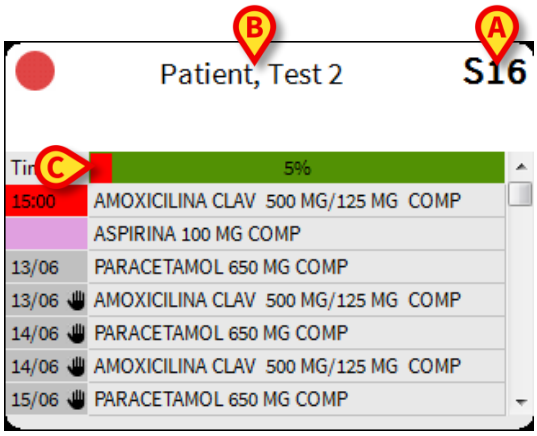


Fig 145 - Bed

The bed number is displayed on the top-right corner of the box (Fig 145 **A**).
When a patient is admitted to the bed the patient name is displayed on top of the box (Fig 145 **B**). Below the patient's name a temporal bar indicates the time that passed from the last therapy plan update.

The time bar has the same function and displays the same values of the tools described in paragraph 2.5.

In Fig 145 **C** the time bar indicates that the 9% of the total duration of the treatment plan validity passed.

The list of the patient's active orders is displayed in the central area of the patient-box (Fig 146). The orders are displayed by urgency: on top the alarmed ones, then the "ready" ones, then the conditional ones, then the orders to be executed in the future.

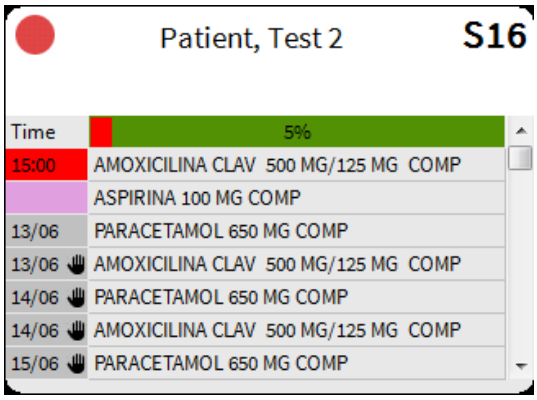


Fig 146 - Orders

The treatment name and the planned administration time are displayed for each order.

The planned administration time can be highlighted in different ways to provide information on the order state.

- Red means that the administration is late.
- Green means that the order should be administered now.
- Grey means that the administration is planned in the future.
- Purple indicates a conditional prescription (see paragraph 4.2.2 for an explanation of the meaning of "conditional prescription").

When the  icon appears beside an order it means that the order is not validated (there are two possibilities: either the order is not yet validated or the order validity expired).

If there is at least one late order the round button on the top left corner of the box turns red (Fig 147)

Fig 147

If there is at least one order to be administered "now" the round button on the top left corner of the box turns green.

For the orders planned for the current day the scheduled administration time is indicated; for the orders planned for a different day the administration date is indicated (Fig 148).

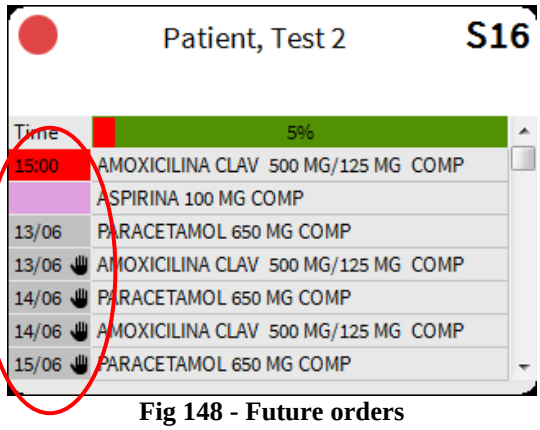


Fig 148 - Future orders

- Click the patient boxes to access the corresponding treatment administration screen ("Therapy Administration" module - Fig 101).

8. The Validation module

The validation module allows to validate the prescriptions inserted in the prescription plan by the Physician. It is usually the Pharmacy that uses this module. The generic flow of the whole therapy system, if the Validation Module is active, is then:

1 - the physician prescribes the treatment plan,
2 - the pharmacy staff validates the prescriptions,
3 - the nursing staff administers the treatments.

To activate the Validation module,

click the 

icon on the lateral bar. The list of all the active prescriptions for the selected patient is displayed (Fig 149).

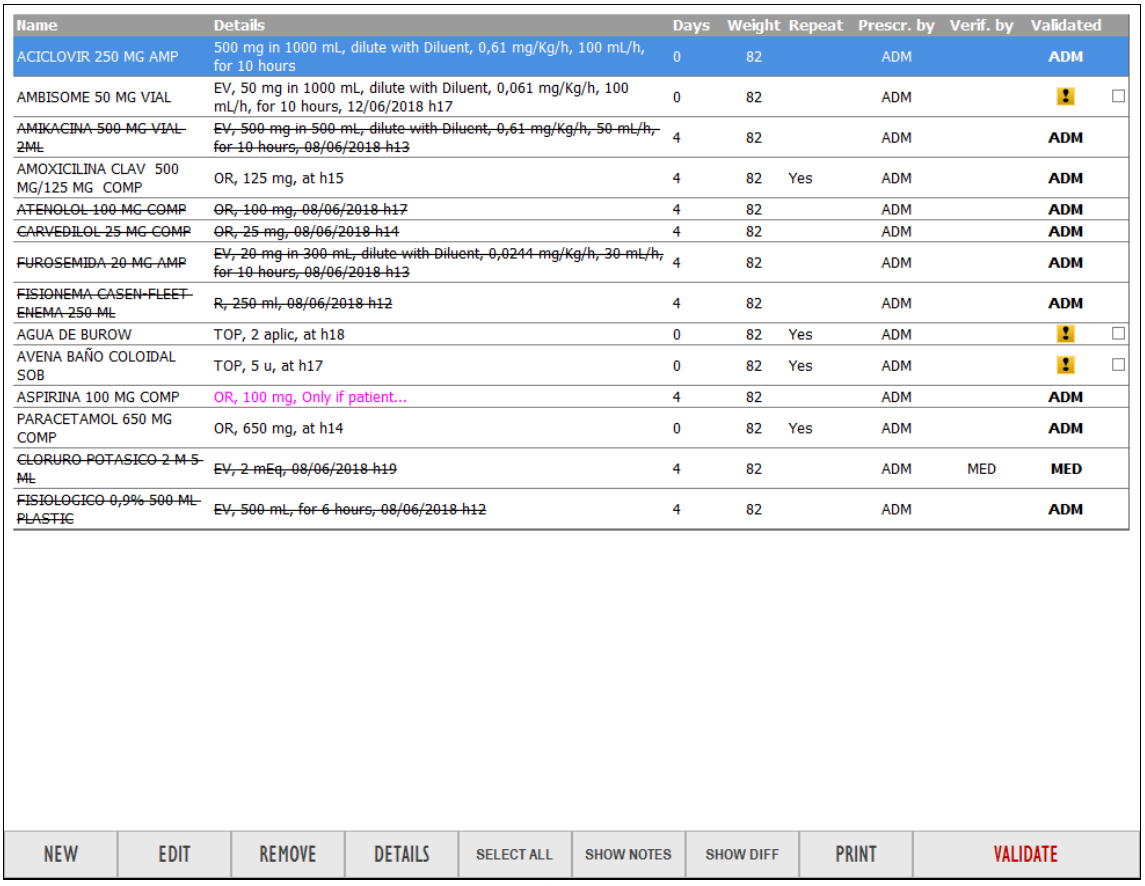


Fig 149

- First column - Indicates the class of the prescription. Each class is associated to a color. See paragraph 2.4.

- "**Name**" column - Indicates the name of the prescribed treatment.

- "**Details**" column - Indicates the deatils of the prescription as, for example, the date and time of the different orders, the doses etc…

- "**Days**" column - Indicates the number of days from the first prescription of the treatment.

- "**Weight**" column - Indicates the patient weight at prescription time. If the weight changes, the cell is highlighted, indicating that, at prescription time, the weight of the patient was different from the current one.

- "**Repeat**" column - Indicates whether the treatment is repeatable or not. See paragraph 1.3.2 for an explanation of "repeatable prescriptions".

- **Prescribed by** - Indicates the acronym of the user who prescribed the treatment.

- **Verified by** - Indicates the acronym of the user who double-checked the prescription in case of prescriptions requiring double signature (see paragraph 4.4).

- **Validated by** - Indicates the acronym of the user who validated the prescription. If the prescription is not yet validated, the  icon is displayed in this place. In this case, a checkbox is present alongside the icon, making it possible to select the prescription for validation.

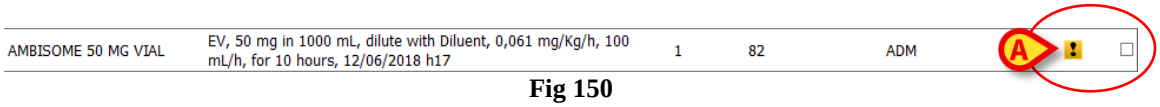


Fig 150

8.1. The command bar of the Validation module

Fig 151 shows the command bar of the validation module.

Fig 151

These are the functionalities triggered by the buttons on the command bar:

New - allows to prescribe a new treatment. Click the **New** button to open the treatment prescription window (Fig 152).

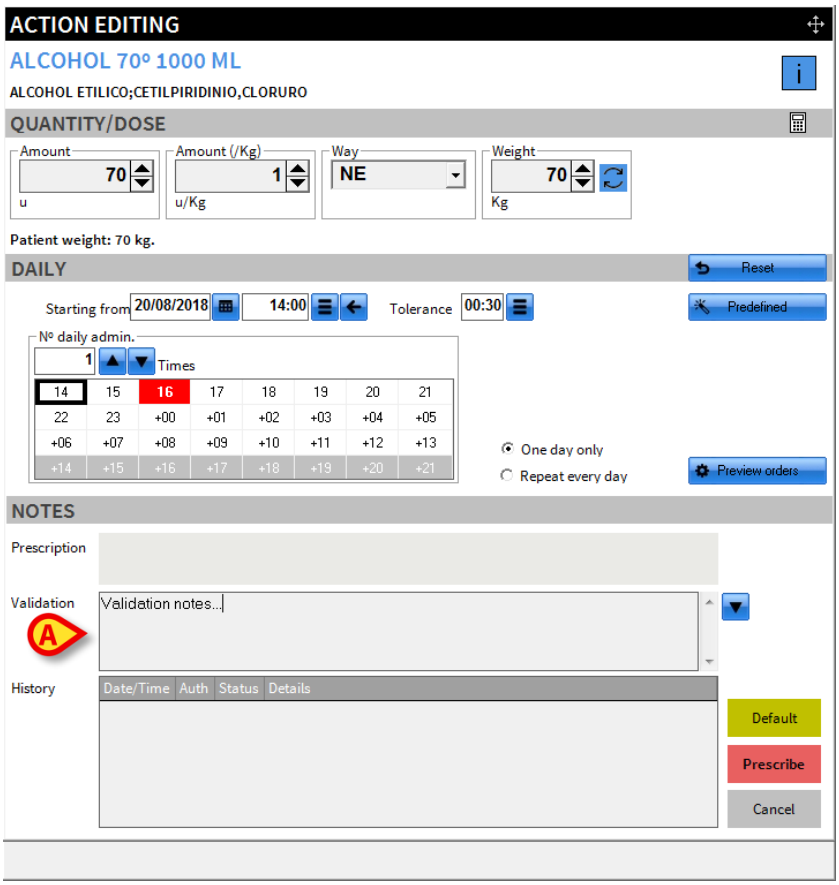


Fig 152

The window shown in Fig 152 differs from that shown in paragraph 3 because here the "Validation notes" field is editable instead of the "Prescription notes" field (Fig 152 **A**). Treatments prescribed on the Validation module are characterized by a yellow mark on the "Prescription" module (Fig 153 **A**).

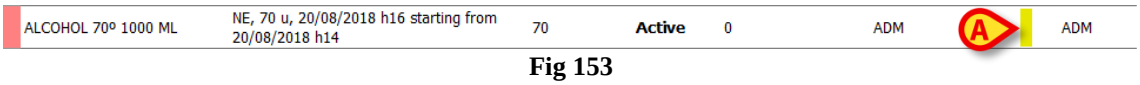


Fig 153

Edit - allows to edit the values of a prescribed prescription. Click the **Edit** button to open the the treatment prescription window relating to the selected treatment (see paragraph 4).

Remove - allows to remove a prescription from the treatment plan (see paragraph 5.3).

Details - displays the details of a selected prescription (see paragraph 5.9).

Select all - selects all the non validated prescriptions.

Show notes - display the notes associated to the prescriptions.

Show diff. - Displays a grid showing all the changes possibly occurred in any prescription.

Print - Makes it possible to print different kind of reports. The number and kind of reports are decided by configuration.

Validate - Allows to validate the selected prescriptions.

8.1.1. The validation procedure

To validate the existing prescriptions

- Access the Validation module (Fig 149).
- Flag the checkbox on the row/s corresponding to the prescriptions to be validated (Fig 154 **A**).

Name	Details	Days	Weight	Repeat	Prescr. by	Verif. by	Validated
ACICLOVIR 250 MG AMP	EV, 500 mg in 1000 mL, dilute with Diluent, 0,61 mg/Kg/h, 100 mL/h, for 10 hours, 12/06/2018 h11	8	82		ADM		ADM
AMBISOME 50 MG VIAL	EV, 50 mg in 1000 mL, dilute with Diluent, 0,061 mg/Kg/h, 100 mL/h, for 10 hours, 12/06/2018 h17	8	82		ADM		! ☐
~~AMIKACINA 500 MG VIAL 2ML~~	~~EV, 500 mg in 500 mL, dilute with Diluent, 0,61 mg/Kg/h, 50 mL/h, for 10 hours, 08/06/2018 h13~~	12	82		ADM		ADM
AMOXICILINA CLAV 500 MG/125 MG COMP	OR, 125 mg, at h15	12	82	Yes	ADM		ADM
~~ATENOLOL 100 MG COMP~~	~~OR, 100 mg, 08/06/2018 h17~~	12	82		ADM		ADM
~~CARVEDILOL 25 MG COMP~~	~~OR, 25 mg, 08/06/2018 h14~~	12	82		ADM		ADM
~~FUROSEMIDA 20 MG AMP~~	~~EV, 20 mg in 300 mL, dilute with Diluent, 0,0244 mg/Kg/h, 30 mL/h, for 10 hours, 08/06/2018 h13~~	12	82		ADM		ADM
~~FISIONEMA CASEN-FLEET-ENEMA 250 ML~~	~~R, 250 ml, 08/06/2018 h12~~	12	82		ADM		ADM
AGUA DE BUROW	TOP, 2 aplic, at h18	8	82	Yes	ADM		! ☑
AVENA BAÑO COLOIDAL SOB	TOP, 5 u, at h17	8	82	Yes	ADM		! ☑
ASPIRINA 100 MG COMP	OR, 100 mg, Only if patient...	12	82		ADM		ADM
PARACETAMOL 650 MG COMP	OR, 650 mg, at h14	8	82	Yes	ADM		ADM
~~CLORURO POTASICO 2 M 5 ML~~	~~EV, 2 mEq, 08/06/2018 h19~~	12	82		ADM	MED	MED

A

Fig 154

- Click the **Validate** button on the command bar. User confirmation is requested by a specific dialog box. Click **Yes** to confirm.

The selected prescriptions are this way validated. The exclamation mark in the "Validated" column is replaced by the acronym identifying the validator user.

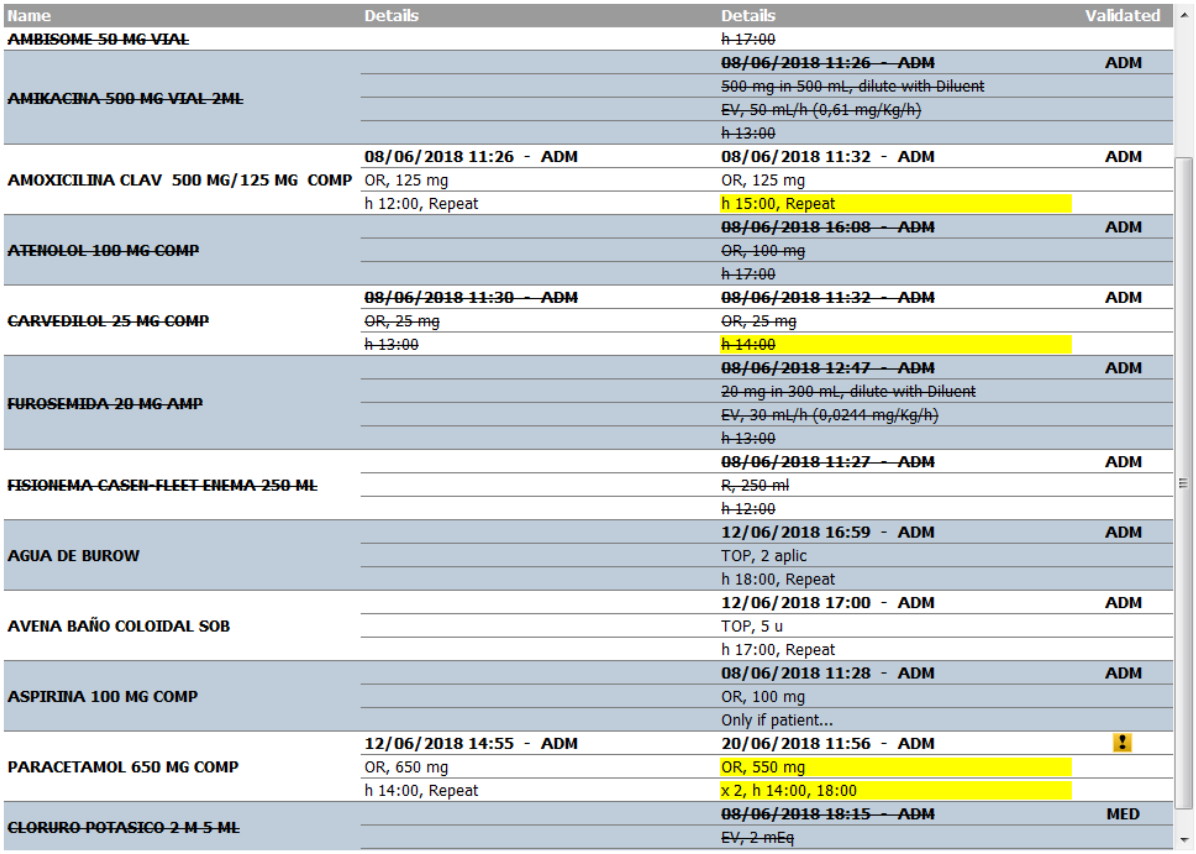
NOTE: use the **Select All** button on the command bar to flag all the non validated prescriptions with one click.

8.1.2. Show differences

The **Show Diff.** button on the command bar opens a window showing all the changes to the prescriptions values possibly occurred since the first prescription.

To show the "Differences" window

- Click the **Show Diff.** button on the command bar. The following screen opens (Fig 155).



Name	Details	Details	Validated
~~AMBISOME 50 MG VIAL~~		~~h 17:00~~	
~~AMIKACINA 500 MG VIAL 2ML~~		~~08/06/2018 11:26 - ADM~~	~~ADM~~
		~~500 mg in 500 mL, dilute with Diluent~~	
		~~EV, 50 mL/h (0,61 mg/Kg/h)~~	
		~~h 13:00~~	
AMOXICILINA CLAV 500 MG/125 MG COMP	08/06/2018 11:26 - ADM	08/06/2018 11:32 - ADM	ADM
	OR, 125 mg	OR, 125 mg	
	h 12:00, Repeat	h 15:00, Repeat	
~~ATENOLOL 100 MG COMP~~		~~08/06/2018 16:08 - ADM~~	~~ADM~~
		~~OR, 100 mg~~	
		~~h 17:00~~	
~~CARVEDILOL 25 MG COMP~~	~~08/06/2018 11:30 - ADM~~	~~08/06/2018 11:32 - ADM~~	~~ADM~~
	~~OR, 25 mg~~	~~OR, 25 mg~~	
	~~h 13:00~~	~~h 14:00~~	
~~FUROSEMIDA 20 MG AMP~~		~~08/06/2018 12:47 - ADM~~	~~ADM~~
		~~20 mg in 300 mL, dilute with Diluent~~	
		~~EV, 30 mL/h (0,0244 mg/Kg/h)~~	
		~~h 13:00~~	
~~FISIONEMA CASEN-FLEET ENEMA 250 ML~~		~~08/06/2018 11:27 - ADM~~	~~ADM~~
		~~R, 250 ml~~	
		~~h 12:00~~	
AGUA DE BUROW		12/06/2018 16:59 - ADM	ADM
		TOP, 2 aplic	
		h 18:00, Repeat	
AVENA BAÑO COLOIDAL SOB		12/06/2018 17:00 - ADM	ADM
		TOP, 5 u	
		h 17:00, Repeat	
ASPIRINA 100 MG COMP		08/06/2018 11:28 - ADM	ADM
		OR, 100 mg	
		Only if patient...	
PARACETAMOL 650 MG COMP	12/06/2018 14:55 - ADM	20/06/2018 11:56 - ADM	!
	OR, 650 mg	OR, 550 mg	
	h 14:00, Repeat	x 2, h 14:00, 18:00	
~~CLORURO POTASICO 2 M 5 ML~~		~~08/06/2018 18:15 - ADM~~	~~MED~~
		~~EV, 2 mEq~~	

Fig 155

From left:

- The first column shows the prescription name.
- The second column shows either the original prescription values or the values relating to the latest change (if the prescription has been changed more than once).
- The third column shows the current values. The changed values are highlighted yellow.
- The fourth column shows either the validator acronym or the exclamation mark (for prescriptions not yet validated).