


FRAMEWORK DOCUMENT

DIANE ANAESTHESIA

DOCUMENT HISTORY

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Date: 08/06/2020	Date:	Date:

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1. Introduction

This document is designed to provide a guide for how to use DIANE software. It is not exhaustive, particularly given the numerous configuration possibilities the application offers.

Nevertheless, its aim is to allow users to handle the software properly, in particular for prescribing and implementing care plans.

The ANAESTHESIA training session is designed for future DIANE users. It takes place over **3 hours**.

Please contact us if you have any other questions:



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2. Logging in to DIANE and presentation of the DIANE portal

2.1 Logging in to DIANE



There are two ways to connect to DIANE. Click one of the two icons found on your desktop or in your task bar:

- Double-click the DIANE icon on your desktop to open the DIANE login window



- Double click the Visual icon



The DIANE login window below opens so that you can enter your ID.



Enter your password then click the connection button or press ENTER on your keyboard.

The following window appears the first time you connect.

You must change your password to stop the window popping up.

2.2 Presentation of the DIANE login window buttons

Hovering over the buttons displays their functions as a comment:



Shows information on the version in use

Change password

Change current user

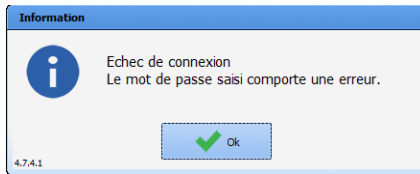
Lock DIANE workstation

Quit DIANE

Force offline mode

Connection button (also accessed by tapping ENTER on your keyboard)

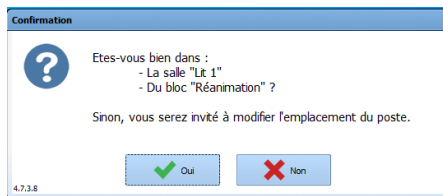
2.3 Failed connection



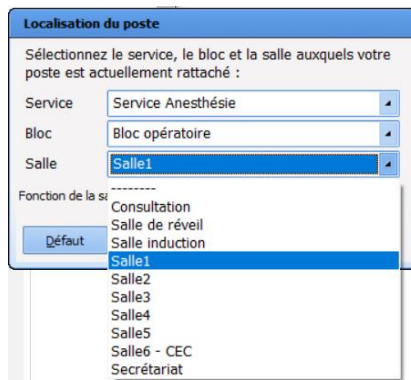
If the password is incorrect, the failed connection window will open.

Check your password with your key user/IT department/trainer. Remember that your password is case-sensitive and may not contain accents.

2.4 Computer location

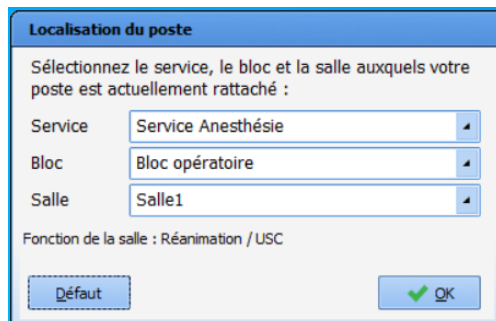


After entering your password, a computer location confirmation window will open. You must confirm or define the desired location. (according to the facility's settings).



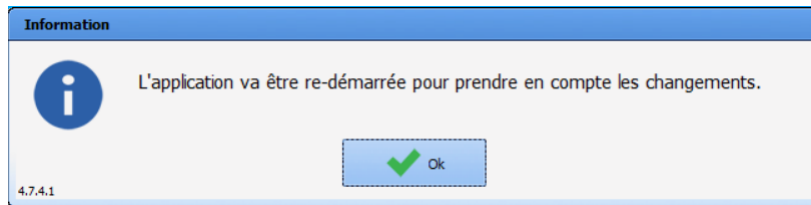
If NO is selected, the computer location selection window will open.

Select the unit,
Then the OT,
Then the Room required (Room 1 in our example), or the bed(s).



Défaut Allows you to define the selected location as the default location (automatically selected on the DIANE workstation).

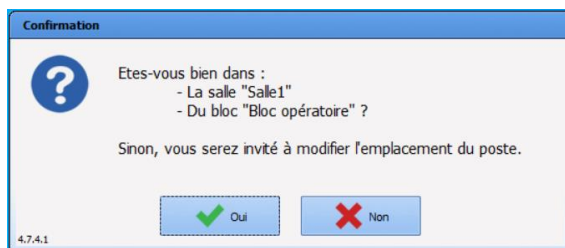
After validation, the software will indicate that it must be restarted in order to apply the changes. After the log in window, you will see the **portal** where you can view the patients in the unit and admit a new patient in the room you have selected.



The login window opens again.

Enter your password again.
(For more information, see previous section).

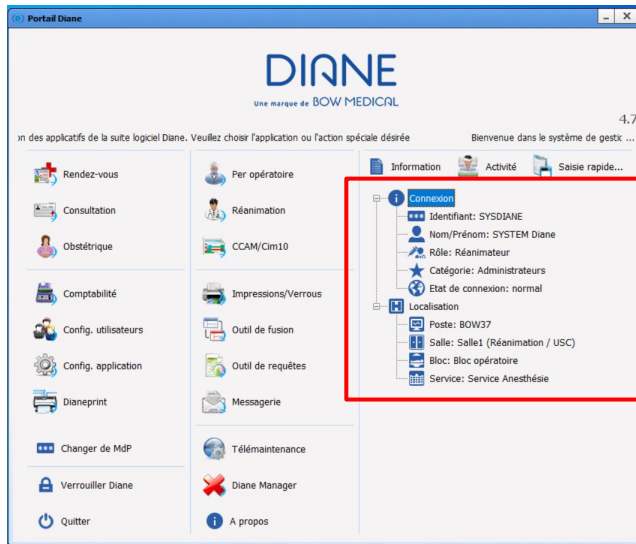
The computer location window will ask you to confirm the computer location again.



Select YES if the location is correct. If you select NO, you can modify the location (see previous procedure).

The portal opens and provides access to the various modules and features of DIANE.

Version 4.7.5 (4.7.4)



If a module is greyed out, this means that the feature has not been activated in the hospital.

(e.g. a hospital that only has the Intraoperative module, and not the ICU module).

The right side of the screen (box) allows you to rapidly confirm your location:

Unit Room 1

Computer BOW 37

User SYSDIANE

The scrolling text at the top of the application can be configured.

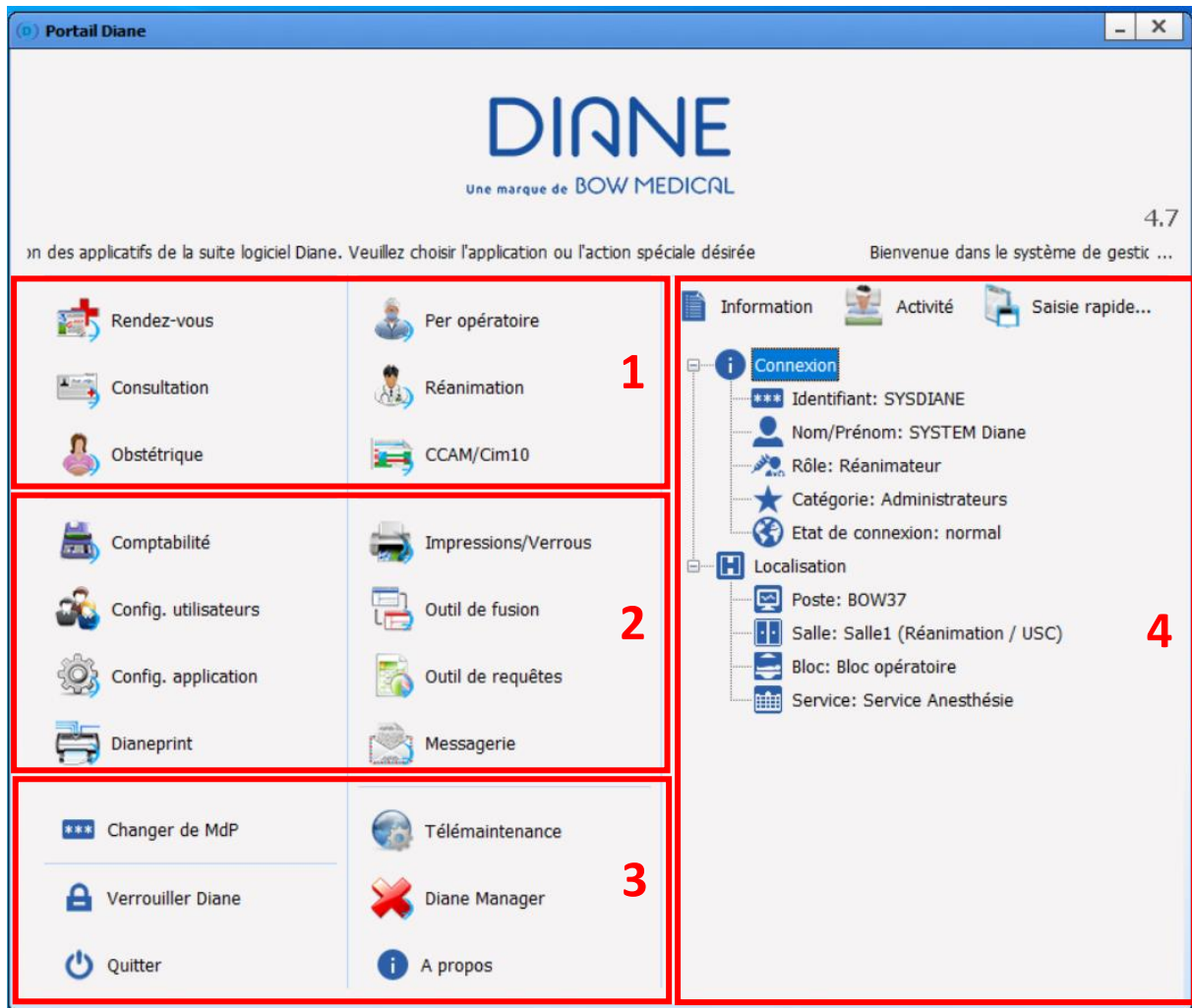
The welcome portal can be accessed from the task bar via this icon:

Note: The DIANE Intraoperative and postoperative module is called VISUAL








3. Presentation of the DIANE portal

The portal is divided into four zones to simplify the presentation of the buttons in this document.









If a module is greyed out, this means that the hospital does not have a licence for this module, or the feature has been deactivated by the settings in use.









3.1 Zone 1: DIANE modules

Zone	Buttons	Functions
1	 Rendez-vous	Access the appointment management module.
	 Consultation	Access the preoperative assessment consultation module.
	 Per opératoire	Access Intra/Post-Op.
	 Post opératoire	
	 Obstétrique	Access OB/GYN.
	 Réanimation	Access ICU.
	 CCAM/Cim10	Access ICD-10 and Procedure code entry form.




3.2 Zone 2: DIANE features

Zones	Buttons	Functions
2	 Comptabilité	Access the accounting form.
	 Messagerie	Access the DIANE inter-computer email service.
	 Config. utilisateurs	Access User settings, access rights and site settings. This tool is only for key users.
	 Config. application	Access List settings. This tool is only for key users.
	 Dianeprint	Provides access to DianePrint. This tool is only for key users.
	 Impressions/Verrous	Access the Print and lock manager. This tool is only for key users.
	 Outil de fusion	Provides access to file merging tool. This tool is only for key users.
	 Outil de requêtes	Search the DIANE database. This tool is only for key users.

3.3 Zone 3: Session tools

Zones	Buttons	Functions
3	 Diane Manager	Access DIANE Manager to close or restart all DIANE applications.
	 Changer de Mdp	Change current user's password.
	 Verrouiller Diane	Lock the DIANE workstation.
	 A propos	View installed version of DIANE.
	 Télémaintenance	Access the remote maintenance website so that BOW Medical can take remote control of your computer via the internet. A session code will be sent each time your computer is controlled remotely.
	 Quitter	Close the DIANE.exe application.

3.4 Zone 4: Information and rapid entry module

Zones	Buttons	Functions
4	 Activité	Shows completed or ongoing operations from the last 24 hours (ongoing operations, patients discharged from operating theatre and currently in transit, patients in recovery, operations completed in the last 24 hours, patients being transferred to recovery bed).
	 Information	Shows the identity of the person connected and location of the computer on which you are working.
	 Saisie rapide	Allows you to search for patient groups according to criteria contained in patient records.

3.5 DIANE Manager features

It is logical to look at DIANE Manager at the same time as the portal given what it does. If a malfunction stops the application from working, it is possible to close all DIANE applications using DIANE Manager.

Please note that using DIANE Manager can cause data from the current patient record to be lost. Ask your key users for more information on how to use DIANE Manager.



This avoids using Windows Task Manager, which is not always accessible to all users.

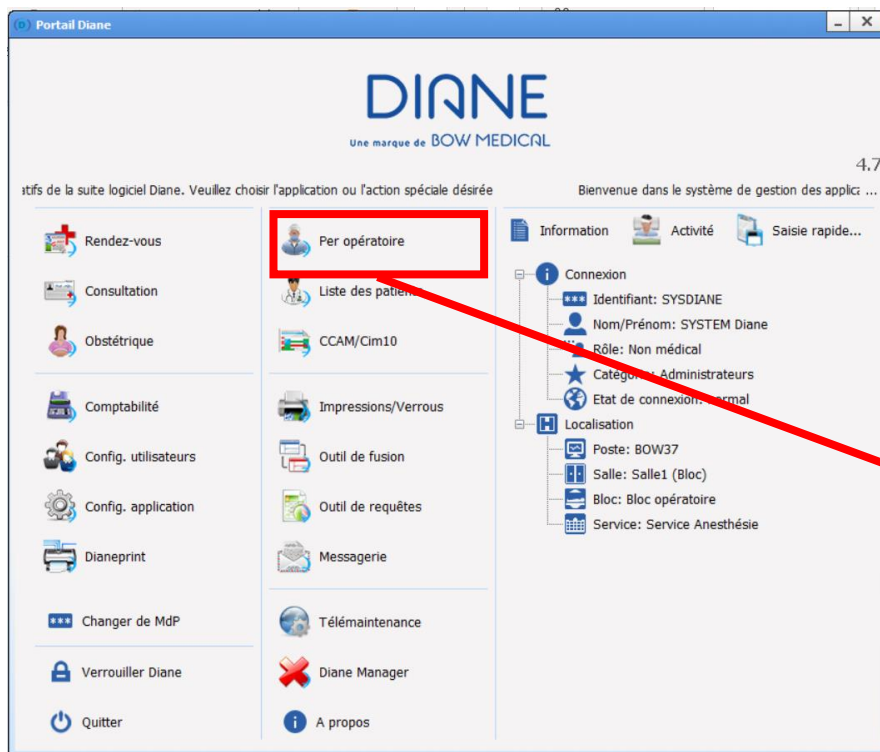


The following window opens and allows you to stop DIANE, restart DIANE or do nothing (which allows you to close the window and return to the portal).

If you stop DIANE, the application will stop automatically and all associated windows will be closed.

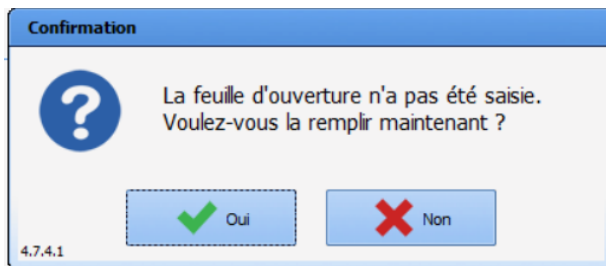
If you restart DIANE, the program will 'reboot' and return to the login window.

4. Presentation of the Intra/Post-Op module



Access to the
Intraoperative
module

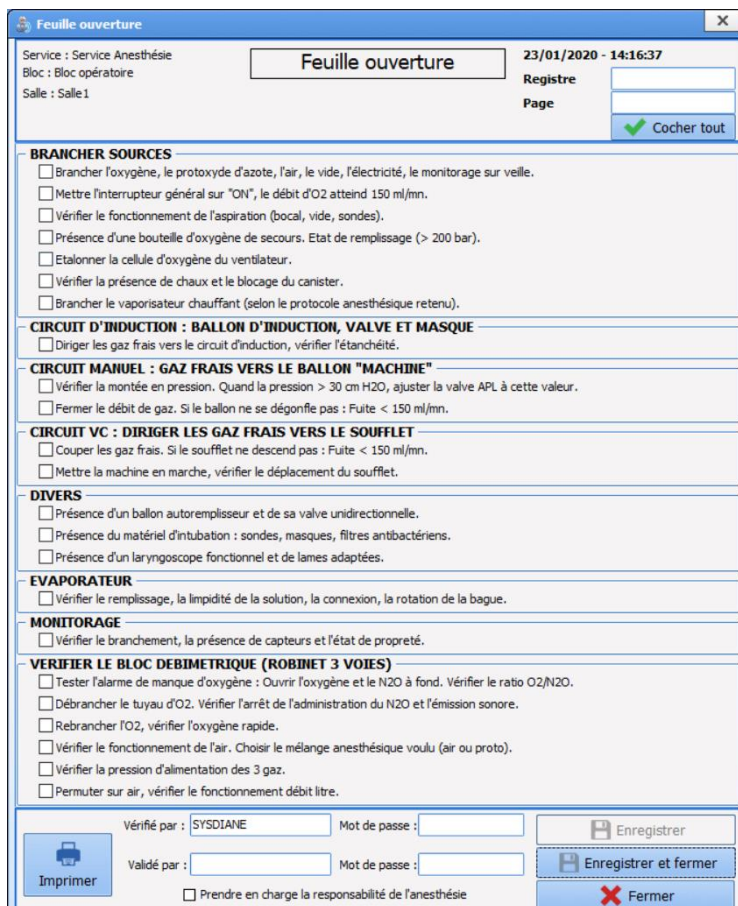
4.1 Safety checklist and inter-patient checklist



On opening the module for the first time each day, DIANE will ask you to confirm the opening of the safety checklist.

If yes, see safety checklist (following section).

If no, go to the next step. The safety checklist must be completed later. (for example for emergencies).



The screenshot shows a 'Feuille ouverture' (Opening sheet) form. At the top, it displays 'Service : Service Anesthésie', 'Bloc : Bloc opératoire', and 'Salle : Salle 1'. There are fields for 'Registre' and 'Page', and a 'Cocher tout' button. The form is divided into several sections with checkboxes:

- BRAANCHER SOURCES**
 - Brancher l'oxygène, le protoxyde d'azote, l'air, le vide, l'électricité, le monitoring sur veille.
 - Mettre l'interrupteur général sur "ON", le débit d'O2 atteint 150 ml/mn.
 - Vérifier le fonctionnement de l'aspiration (bocal, vide, sondes).
 - Présence d'une bouteille d'oxygène de secours. Etat de remplissage (> 200 bar).
 - Etalonner la cellule d'oxygène du ventilateur.
 - Vérifier la présence de chaux et le blocage du carister.
 - Brancher le vaporisateur chauffant (selon le protocole anesthésique retenu).
- CIRCUIT D'INDUCTION : BALLON D'INDUCTION, VALVE ET MASQUE**
 - Diriger les gaz frais vers le circuit d'induction, vérifier l'étanchéité.
- CIRCUIT MANUEL : GAZ FRAIS VERS LE BALLON "MACHINE"**
 - Vérifier la montée en pression. Quand la pression > 30 cm H2O, ajuster la valve APL à cette valeur.
 - Fermer le débit de gaz. Si le ballon ne se dégonfle pas : Fuite < 150 ml/mn.
- CIRCUIT VC : DIRIGER LES GAZ FRAIS VERS LE SOUFFLET**
 - Couper les gaz frais. Si le soufflet ne descend pas : Fuite < 150 ml/mn.
 - Mettre la machine en marche, vérifier le déplacement du soufflet.
- DIVERS**
 - Présence d'un ballon autoremplisseur et de sa valve unidirectionnelle.
 - Présence du matériel d'intubation : sondes, masques, filtres antibactériens.
 - Présence d'un laryngoscope fonctionnel et de lames adaptées.
- EVAPORATEUR**
 - Vérifier le remplissage, la limpidité de la solution, la connexion, la rotation de la bague.
- MONITORAGE**
 - Vérifier le branchement, la présence de capteurs et l'état de propreté.
- VERIFIER LE BLOC DEBITMETRIQUE (ROBINET 3 VOIES)**
 - Tester l'alarme de manque d'oxygène : Ouvrir l'oxygène et le N2O à fond. Vérifier le ratio O2/N2O.
 - Débrancher le tuyau d'O2. Vérifier l'arrêt de l'administration du N2O et l'émission sonore.
 - Rebrancher l'O2, vérifier l'oxygène rapide.
 - Vérifier le fonctionnement de l'air. Choisir le mélange anesthésique voulu (air ou proto).
 - Vérifier la pression d'alimentation des 3 gaz.
 - Permuter sur air, vérifier le fonctionnement débit litre.

At the bottom, there are fields for 'Vérifié par : SYSDIANE', 'Mot de passe', and buttons for 'Imprimer', 'Enregistrer', 'Enregistrer et fermer', and 'Fermer'. A checkbox 'Prendre en charge la responsabilité de l'anesthésie' is also present.

Safety checklists are obligatory. They appear depending on the computer location.

They enable equipment inventories and the list of tasks to be carried out before the first patient of the day arrives to be prepared.

Safety checklists are fully configurable and can be completed by ticking successive boxes or using the "Tick all" button.

To confirm this window, the user must retype their password in the **Verified by** area.

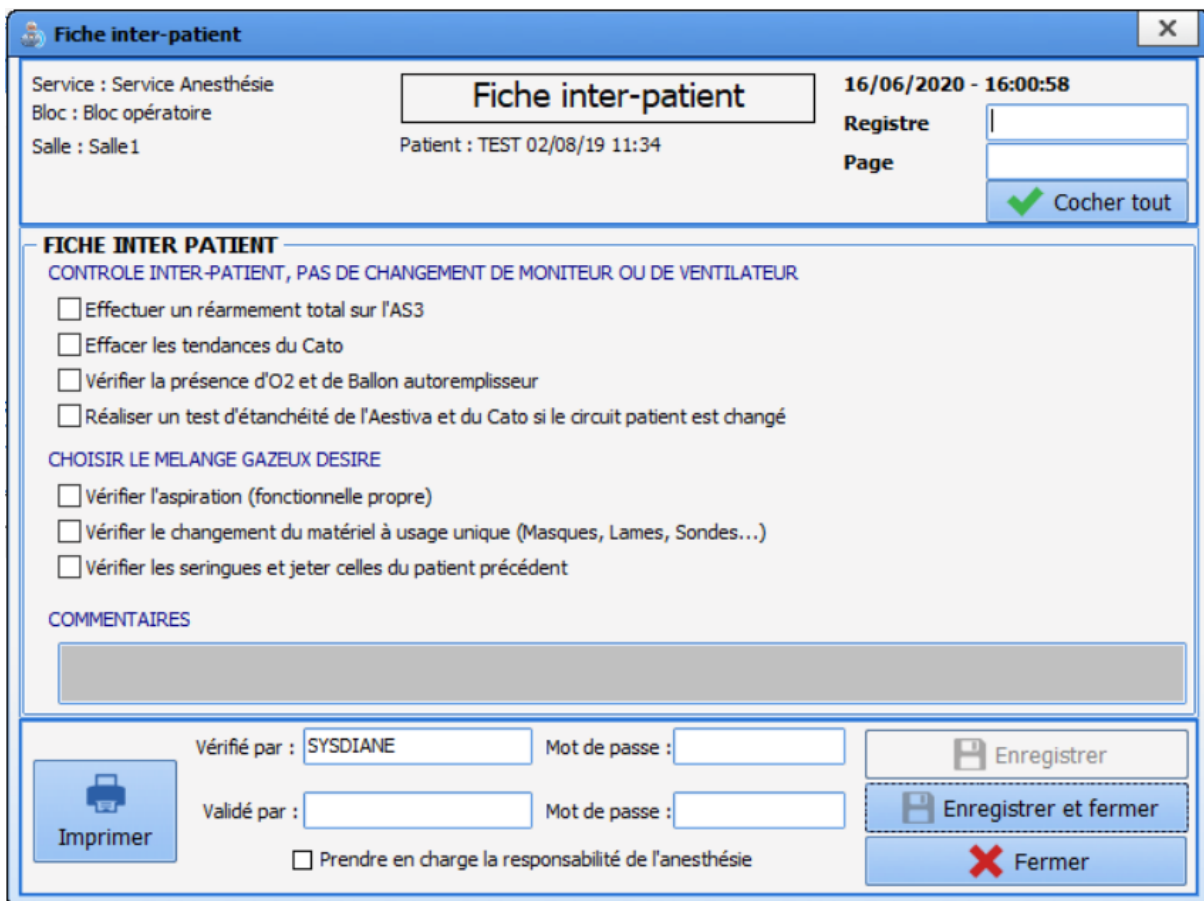
If the user has permission to Validate a verification list, they do not need to retype their name or password in the relevant boxes in the **Validated by** area. Click **Save** to confirm the window.

Verification can be carried out by nurse anaesthetists and nurses. Validation must be signed by an anaesthetist.

It is also possible to print the safety checklist.

If the current user does not have permission to **Validate a verification list**, another user with the necessary permissions must also sign the sheet after entering their identity in the **Validated by** area.

The inter-patient checklist must be completed between two operations to verify the equipment.



Fiche inter-patient

Service : Service Anesthésie
Bloc : Bloc opératoire
Salle : Salle 1

Fiche inter-patient

Patient : TEST 02/08/19 11:34

16/06/2020 - 16:00:58

Registre

Page

Cocher tout

FICHE INTER PATIENT

CONTROLE INTER-PATIENT, PAS DE CHANGEMENT DE MONITEUR OU DE VENTILATEUR

- Effectuer un réarmement total sur l'AS3
- Effacer les tendances du Cato
- Vérifier la présence d'O2 et de Ballon autoremplesseur
- Réaliser un test d'étanchéité de l'Aestiva et du Cato si le circuit patient est changé

CHOISIR LE MELANGE GAZEUX DESIRE

- Vérifier l'aspiration (fonctionnelle propre)
- Vérifier le changement du matériel à usage unique (Masques, Lames, Sondes...)
- Vérifier les seringues et jeter celles du patient précédent

COMMENTAIRES

Vérifié par : SYSDIANE Mot de passe :

Validé par : Mot de passe :

Prendre en charge la responsabilité de l'anesthésie

Imprimer

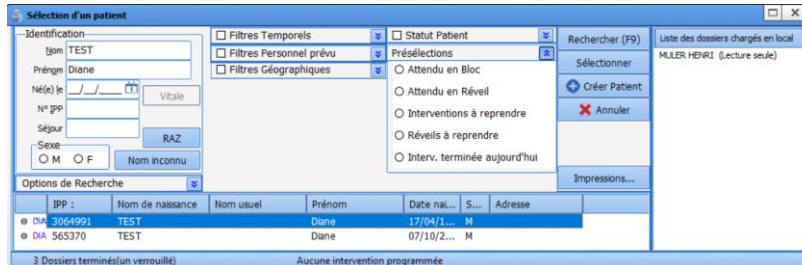
Enregistrer

Enregistrer et fermer

Fermer

4.2 Patient search

Once the initial window is selected, the patient selection window will open automatically.



IPP	Nom de naissance	Nom usuel	Prénom	Date nai...	S...	Adresse
DA 3064991	TEST		Diane	17/04/1...	M	
DA 565370	TEST		Diane	07/10/2...	M	

In the identification section, enter one or more details.

- L.Name
- UPI
- Date of birth

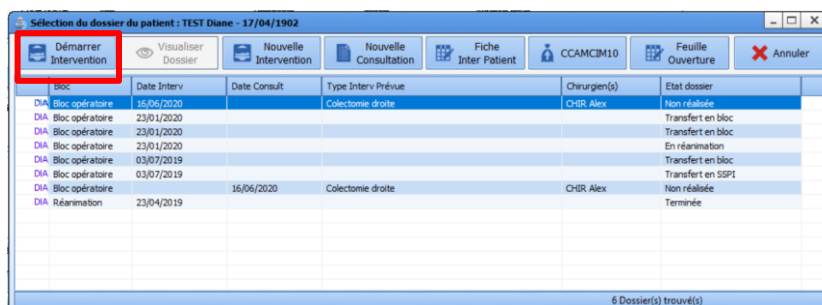
Name searches start as soon as three letters are entered. Depending on the configuration of your application, searches may be restricted to identification using UPI.

Note: Searching for patient records using date of birth and UPI is recommended.

After entering the patient information (here TEST Diane), click the line and the Select button, or double-click the patient's line.

A patient operation selection window opens, showing general information (name, etc.).

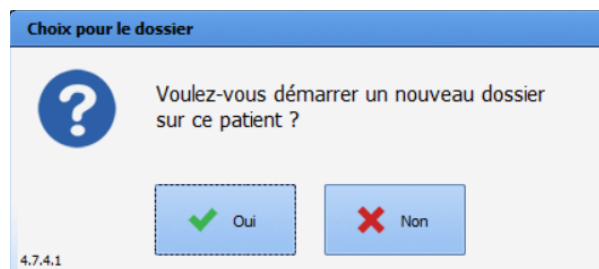
Choose the relevant operation and click start operation. It is also possible to carry out a consultation then start an operation.



Bloc	Date Interv	Date Consult	Type Interv Prévue	Chirurgien(s)	Etat dossier
DA Bloc opératoire	16/06/2020		Colectomie droite	ChIR Alex	Non réalisée
DA Bloc opératoire	23/01/2020				Transfert en bloc
DA Bloc opératoire	23/01/2020				En réanimation
DA Bloc opératoire	03/07/2019				Transfert en bloc
DA Bloc opératoire	03/07/2019				Transfert en SSP1
DA Bloc opératoire		16/06/2020	Colectomie droite	ChIR Alex	Non réalisée
DA Réanimation	23/04/2019				Terminée

To open the patient record, click

- Start operation
- Resume operation
- New operation
- Display record
- New consultation
- Inter-patient checklist
- ICD-10/Procedure codes
- Safety checklist



Choix pour le dossier

? Voulez-vous démarrer un nouveau dossier sur ce patient ?

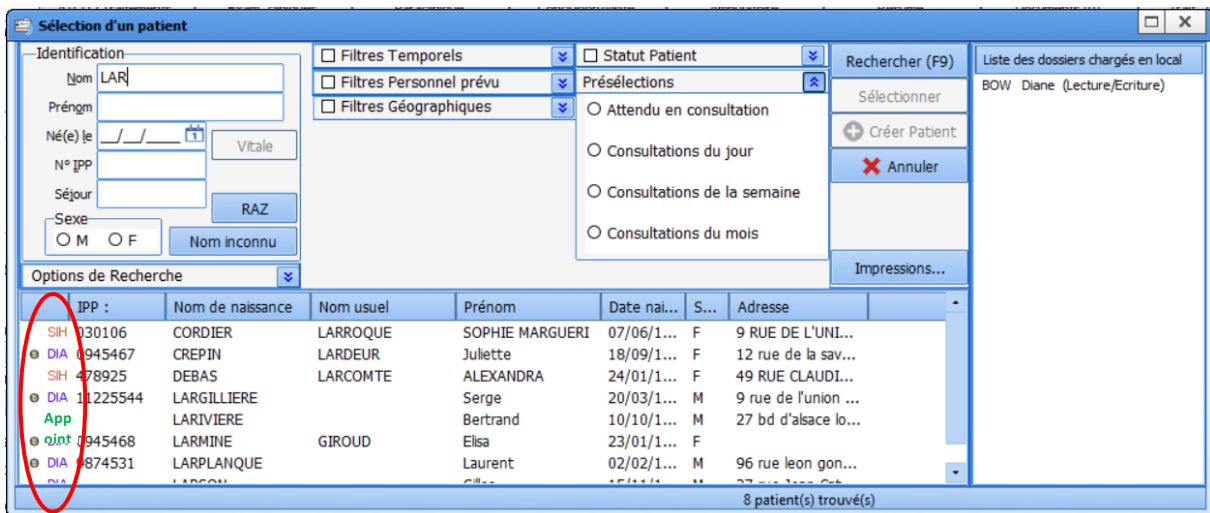
✓ Oui ✗ Non

4.7.4.1

4.3 Creating a patient record

★ **Note:** Depending on the hospital, patient records are **generally** created via DPI (Computerised Patient File) or during a consultation. It may therefore be impossible to create a file as a user.

We will cover how to create a patient who has not been preregistered via DPI. In practice, the patient already has a DPI and is thus included in the DIANE patient list.

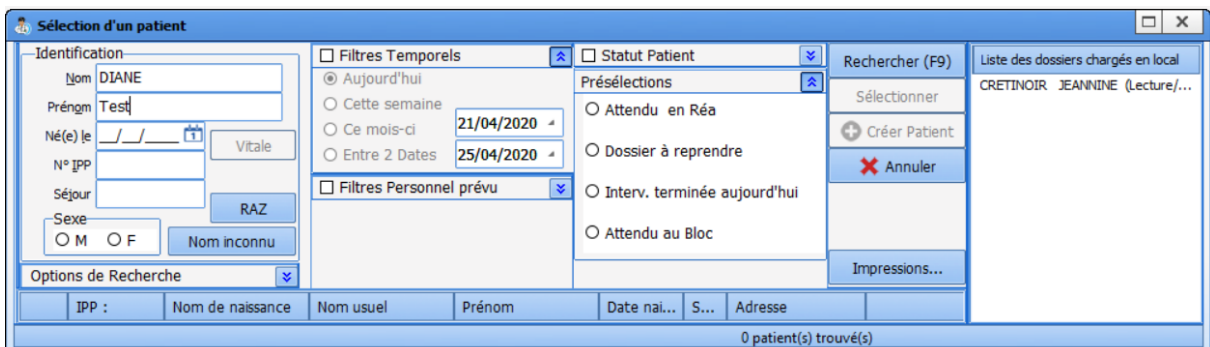


- Rdv Patient from Appointment module
- SIH New identity from HIS
- DIA Patient already known in DIANE and associated with a DPI identity
- DIA Patient already known in DIANE but not associated

If a patient is not included in the list (e.g. an emergency where the patient has not gone through the usual channels), you can create a patient record.

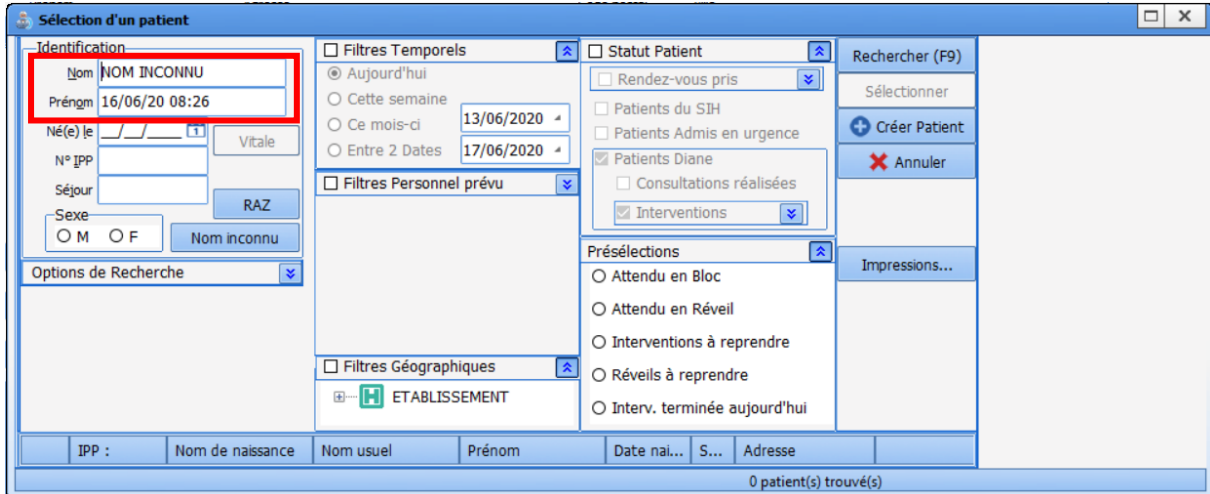
- **If the patient's identity is known**

- 1 Enter a first and last name (the only mandatory details)
- 2 Click + Créer Patient, which is no longer greyed out.



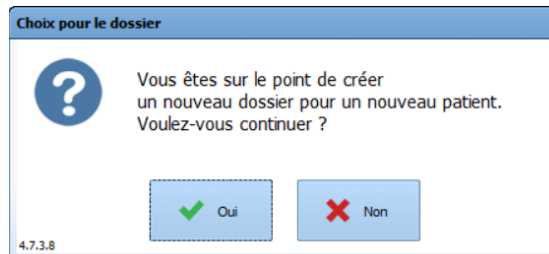
If the patient's identity is unknown and cannot be established

- 1 Click **Nom inconnu** to generate a temporary identity with 'unknown' name and the current date and time. This temporary identity can be changed at a later point.



The screenshot shows the 'Sélection d'un patient' window. In the 'Identification' section, the 'Nom' field is highlighted with a red box and contains the text 'NOM INCONNU'. Below it, the 'Préngm' field contains '16/06/20 08:26'. To the right, there are several filter sections: 'Filtres Temporels' with radio buttons for 'Aujourd'hui', 'Cette semaine', 'Ce mois-ci', and 'Entre 2 Dates'; 'Filtres Personnel prévu'; and 'Filtres Géographiques' with a dropdown for 'ETABLISSEMENT'. On the far right, there are buttons for 'Rechercher (F9)', 'Sélectionner', '+ Créer Patient', and 'Annuler'. At the bottom of the window, a status bar indicates '0 patient(s) trouvé(s)'.

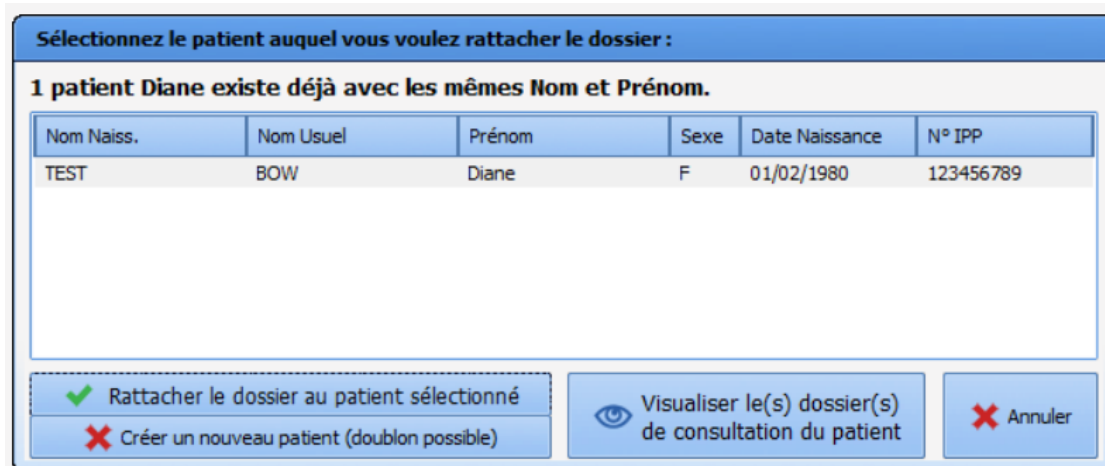
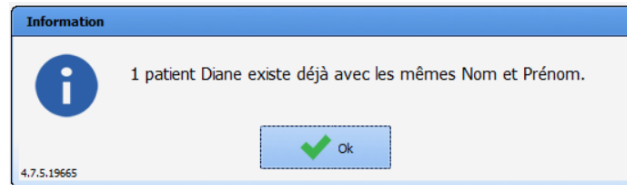
- 2 Click **+ Créer Patient**, which is no longer greyed out.
- 3 When creating a patient record, DIANE will request confirmation with the following message. Click Yes to continue.



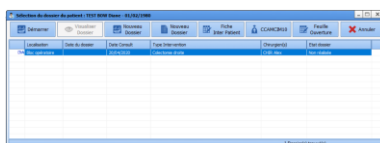
The dialog box is titled 'Choix pour le dossier'. It features a question mark icon and the text: 'Vous êtes sur le point de créer un nouveau dossier pour un nouveau patient. Voulez-vous continuer ?'. At the bottom, there are two buttons: 'Oui' with a green checkmark and 'Non' with a red X. The version number '4.7.3.8' is visible in the bottom left corner.

- **If two or more patients have the same name:**

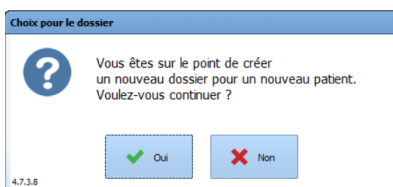
If you enter a pre-existing first and last name, DIANE will inform you of the presence of a record with the same name.



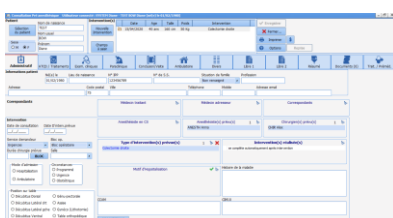
A window allows you to select one of the following three choices:



- Assign the record to the selected patient. The new information will be added to the pre-existing patient record. The patient record selection window will then open and you can start a scheduled operation (if applicable) or start a new operation.



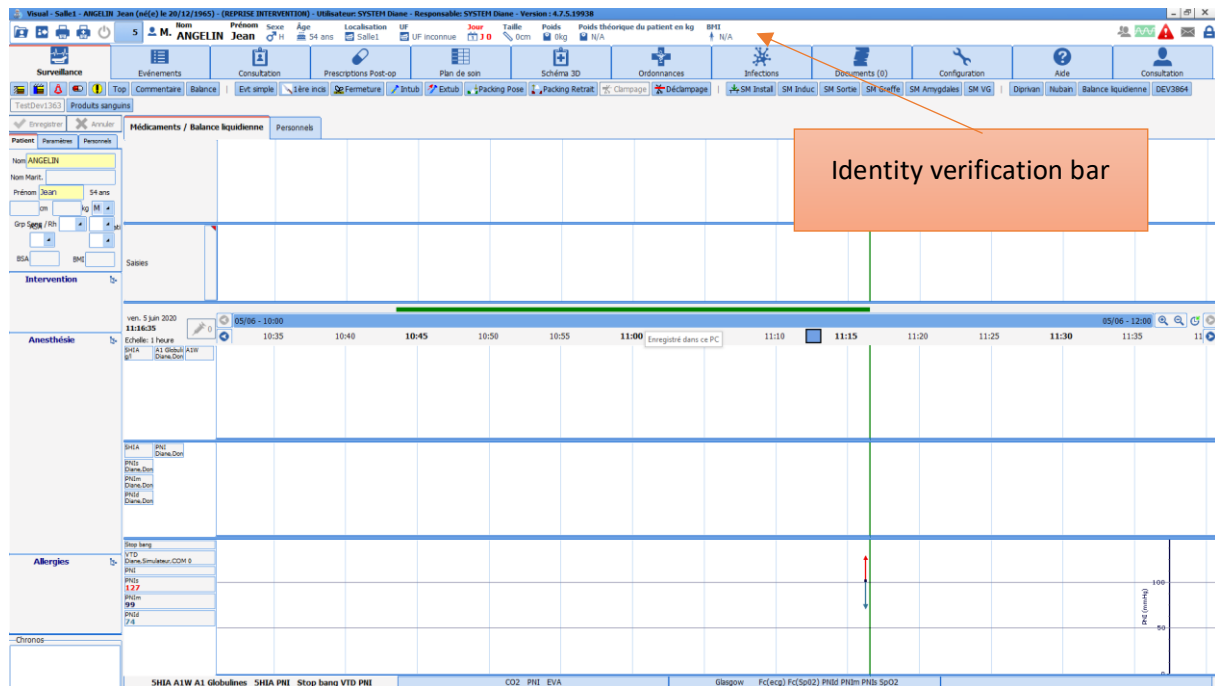
- Create a new patient (same name); DIANE will also warn you of the creation of a new patient record.



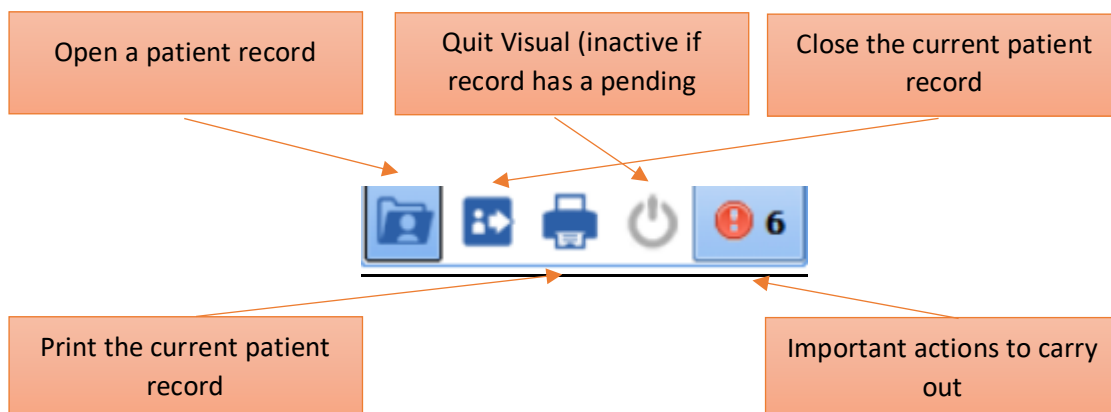
- Display the existing patient record. DIANE will open the consultation module so that you can review the whole record and check whether it is the same patient or not.

5. Navigating in the patient record

After selecting the patient record, the Visual module will open in the Monitoring tab window. The various tabs configured by your site are used for navigation. You can view and modify the information in the patient record by clicking from one tab to another. We will look at the various features of this module.



In the upper part of the window, you will find the patient information bar. To the left of this bar:



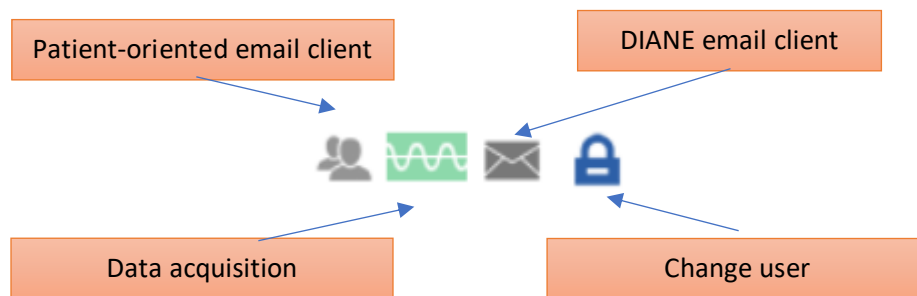
Note: Tabs can be presented and organised differently depending on your site settings. The home tab, tab display and tab layout are fully configurable.



Within the patient record, the identity verification bar shows patient information such as:



- Birth name, married name, first name, gender, age
- Location, functional unit
- Duration of hospitalisation
- Height, weight, theoretical weight, BMI or theoretical weight (according to selected configuration).


Note: Hovering over this bar shows the patient's allergies and usual treatment(s) if this has been entered.


Various icons are found to the right of the identity bar.



Patient-oriented email client:  Clicking on the icon allows you to write a message about the patient which will be visible on hovering with the mouse (also visible on the portal). The  icon turns red when there is a message concerning the record and returns to grey after 24 hours.

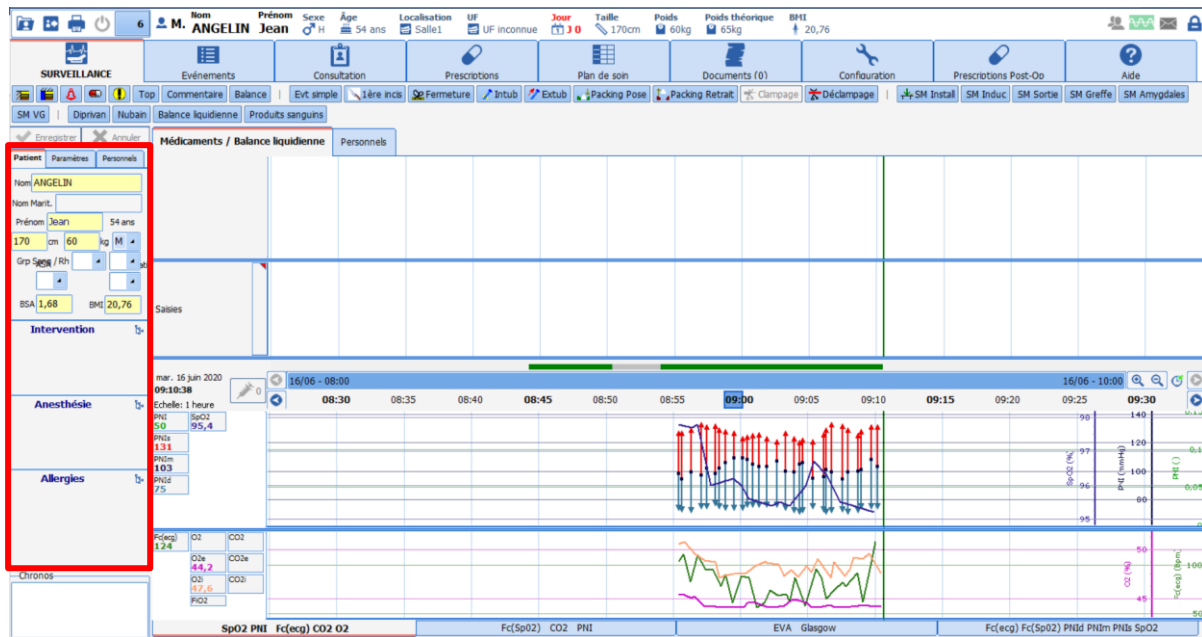
DIANE email service:  : Clicking on the envelope takes you to the DIANE email service, where you can write messages to other computers. After sending/receiving a message, the icon turns blue. 

Change user  : Clicking on the padlock allows you to lock the DIANE application. You can then reconnect using another ID and password via the login window. Hovering over the icon shows the ID of the user currently logged in to the record.

Data acquisition: You can view the data transmission status between the biomedical devices and DIANE.  The icon ripples when data is transmitted.

5.1 Patient - Vital signs - Staff menu

In the Monitoring tab, the left side of the screen shows the patient menu (5.1.1), vital signs (5.1.2) and information on the staff in charge of the patient (5.1.3).



5.1.1 Viewing and modifying operation information

5.1.1 5.1.2 5.1.3

Patient Paramètres Personnels

Nom TEST

Nom Usuel

Prénom Diane 117 ans

150 cm 50 kg

Grp Sang / Rh

ASA Mallampati

BSA 1,45 BMI 22,22

Intervention

Anesthésie

The first “Patient” sub-tab shows basic information from the patient record.

The information comes from the consultation.

Staff can modify or adjust this information if required.

Example: modification of the method of anaesthesia

You can modify or add information via the tree structure. An operation can be added via the tree structure or direct entry in the operation and anaesthesia area.

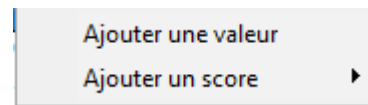
5.1.2 View and add vital signs

Patient	Paramètres	Personnels
Paramètres physiologiques		
- du 29/04/20 à 08:59		
- au 29/04/20 à 11:01		
SimulateurCOM 11		
CO2e	:	42,3
CO2i	:	0
Fc(ecg)	:	124
Fc(pni)	:	142
Fc(SpO2)	:	77
FcF	:	73,1
O2e	:	44,3
O2i	:	47,7
PICd	:	44,4
PICm	:	49,2
PICs	:	43
PNId	:	74
PNIm	:	100
PNIs	:	132
PPC	:	62,5
SpO2	:	95,9
SimulateurCOM 4		
CO2e	:	31,9
CO2i	:	0
Fc(ecg)	:	64
Fc(pni)	:	121
Fc(SpO2)	:	138
FcF	:	117,3
O2e	:	44,2
O2i	:	47,3
PICd	:	45,2
PICm	:	41,1
PICs	:	45,3
PNId	:	76
PNIm	:	96
PNIs	:	131
PPC	:	51,9
SpO2	:	95,3

The Vital signs sub-tab shows all the values transmitted by biomedical devices and received by DIANE.

Regardless of how the software is configured, these values remain visible in this location.

Right-clicking this zone allows you to add a score or value manually.



Saisie de données manuelles

Choix du paramètre ou du groupe : Afficher tous les paramètres

Gaz carbonique inspiré - CO2i

CO2i CO2e Unité

 mmHg

Modifier la date et l'heure d'occurrence : 17:44:39 29/04/2020

Date / Heure actuelle

Envoyer Envoyer et Fermer Fermer

In Example 1, we have chosen to add a CO² value manually. Hovering with the mouse shows the last 10 values transmitted.

Patient	Paramètres	Personnels
Paramètres physiologiques		
- du 05/06/20 à 09:55		
- au 05/06/20 à 13:05		
SimulateurCOM 11		
CO2e	:	36,1
CO2i	:	0,1
Fc(ecg)	:	98
Fc(pni)	:	80
Fc(SpO2)	:	108
FcF	:	Fc(SpO2)
O2e	:	Fréquence cardiaque à partir de la SPO2
O2i	:	80 Bpm enregistré le 05/06/2020 - 11:18:18
PICd	:	90 Bpm enregistré le 05/06/2020 - 11:18:26
PICm	:	80 Bpm enregistré le 05/06/2020 - 11:19:02
PICs	:	92 Bpm enregistré le 05/06/2020 - 11:19:43
PNId	:	74 Bpm enregistré le 05/06/2020 - 11:20:30
PNIm	:	86 Bpm enregistré le 05/06/2020 - 11:20:38
PNIs	:	95 Bpm enregistré le 05/06/2020 - 11:21:31
PPC	:	86 Bpm enregistré le 05/06/2020 - 11:21:51
SpO2	:	107 Bpm enregistré le 05/06/2020 - 11:51:02
SpO2	:	108 Bpm enregistré le 05/06/2020 - 11:51:41
Diane - Simulateur - Port COM 11		

Patient **Paramètres** Personnels

Paramètres physiologiques
du 05/06/20 à 09:55
au 05/06/20 à 13:05

SimulateurCOM 11

- CO2e : 36,1
- CO2i : 0,1
- Fc(ecg) : 98
- Fc(pni) : 80
- Fc(SpO2) : 108
- FcF : 225,6
- O2e : 45,2
- O2i : 49,1
- PICd : 43,6
- PICm : 42,7
- PICs : 48,5
- PNId : 72**
- PNIm : 102
- PNIs : 128
- PPC : 60,5
- SpO2 : 96,2

SimulateurCOM 4

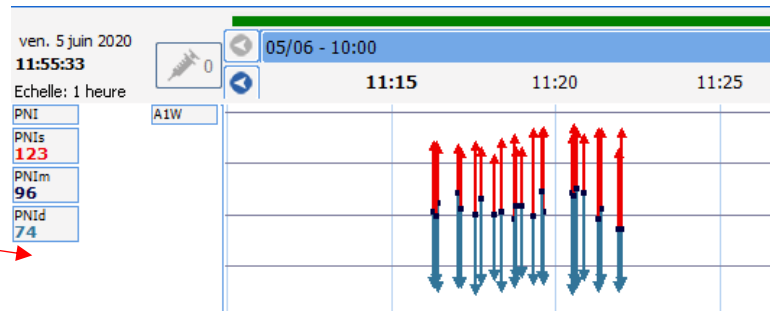
- CO2e : 30,1
- CO2i : 0,3
- Fc(ecg) : 93
- Fc(pni) : 98
- Fc(SpO2) : 91
- FcF : 186,5
- O2e : 45
- O2i : 47,8
- PICd : 43,1
- PICm : 44,7
- PICs : 42,2
- PNId : 74
- PNIm : 101
- PNIs : 131
- PPC : 82,5
- SpO2 : 97,3

The main function of the Vital signs tab is to add the relevant data to the chart bar.

In the example below, we have added NIPd.






Drag/drop the required data to the white area to the left of the bar. Then release.

The NIP group is then added, as well as the default charts.

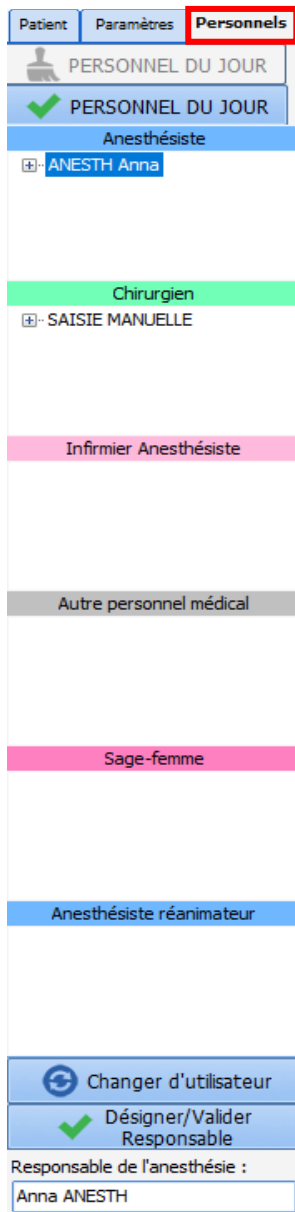


This chart is explained in detail later in this document.

Right-clicking data in the bar allows you to delete the element or group (e.g. NIP) and configure how the data is displayed according to the user's preferences.

-  Donnée manuelle
-  Mode d'affichage
-  Couleur
-  Configuration avancée...
-  Supprimer le groupe
-  Supprimer l'élément

5.1.3 Viewing and modifying staff in charge of the operation

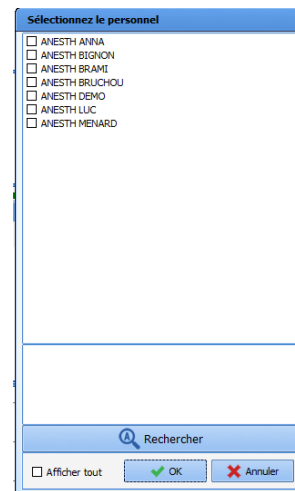


The Staff sub-tab allows you to enter the staff present for the current operation.

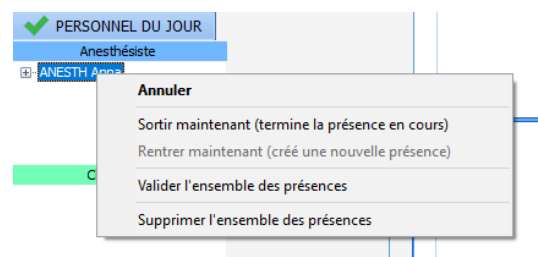
Staff are given categories identified with different colours.

Once the staff members have been selected, the “DAY’S STAFF” button can be used to assign this team to all operations for the day to avoid having to enter the same information repeatedly.

Left-clicking the name of the category opens the list of (configured) staff members. You can select the relevant member of staff. An empty area in the lower part of the window allows you to enter a health professional not found in the list.



Left-clicking the name:



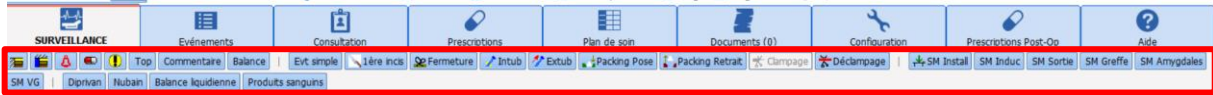
It is possible to remove a member of staff. In case of an error, for example, you can delete a staff member and enter theatre exit information.

The lower section includes a button for identifying/validating an anaesthetist in charge.

5.1.4 Using the shortcut buttons

Under the tab area, there are a series of shortcut buttons. We will only present the buttons common to all configurations.

Shortcut buttons enable you to access a feature or enter an element rapidly. Shortcut buttons are used in particular for entering multiple repeated elements (intubation installation, etc.).



For full-screen display, you can use the following two buttons:



The button to the left allows you to hide the “patient - vital signs - staff” area. The button to the right hides the tab bar.



Example screen after using the two buttons:



This button is used to activate/disable alarms.



This button is used to search for a drug.



This button is used to enter an artefact. When this button is clicked, the icon will automatically move to the entry bar at the current time. It is possible to add a comment. This feature is mainly used when data are disturbed by an operation and correspond to inconsistent values.



The top button is used to add a bookmark to the entry bar. It is generally used when it is not possible to add an entry due to time constraints. An icon is automatically added to the entry bar. Clicking this icon allows you to allocate this element to an entry (events, complications, etc.). You can then move the item in time once the correct category has been selected.

5.2 Presentation of tabs

Within the patient record, tabs are used for navigation (according to the specific configuration). Select the relevant tab (left or right click).



The screenshot displays the patient record interface for M. ANGELIN Jean. The top navigation bar includes tabs for SURVEILLANCE, Evénements, Consultation, Prescriptions, Plan de soin, Documents (0), Configuration, Prescriptions Post-Op, and Aide. Below this, there are sub-tabs for Top, Commentaires, Balance, Evt simple, 1ère incis, Fermeture, Intub, Extub, Packing Pose, Packing Retrait, Clampage, Déclampage, SM Instal, SM Induc, SM Sortie, SM Greffe, and SM Amygdales. The main area shows a monitoring chart for SpO2, PNI, Fc(ecg), CO2, O2, EVA, and Glasgow. The chart displays various physiological parameters over time, with a red vertical line indicating the current time (09:50). The interface also includes a sidebar with patient information, personnel, and other medical data.

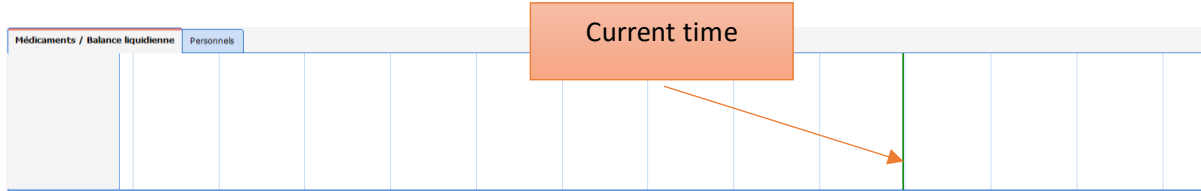
5.2.1 Monitoring tab

The monitoring tab allows the user to document the record during the operation. The following sections will cover the three main bars:

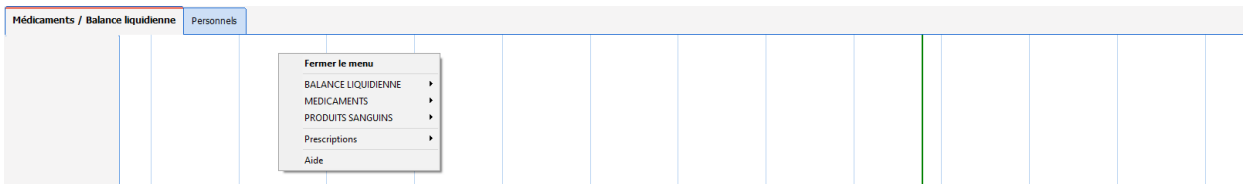


5.2.1.1 Drug and staff bar

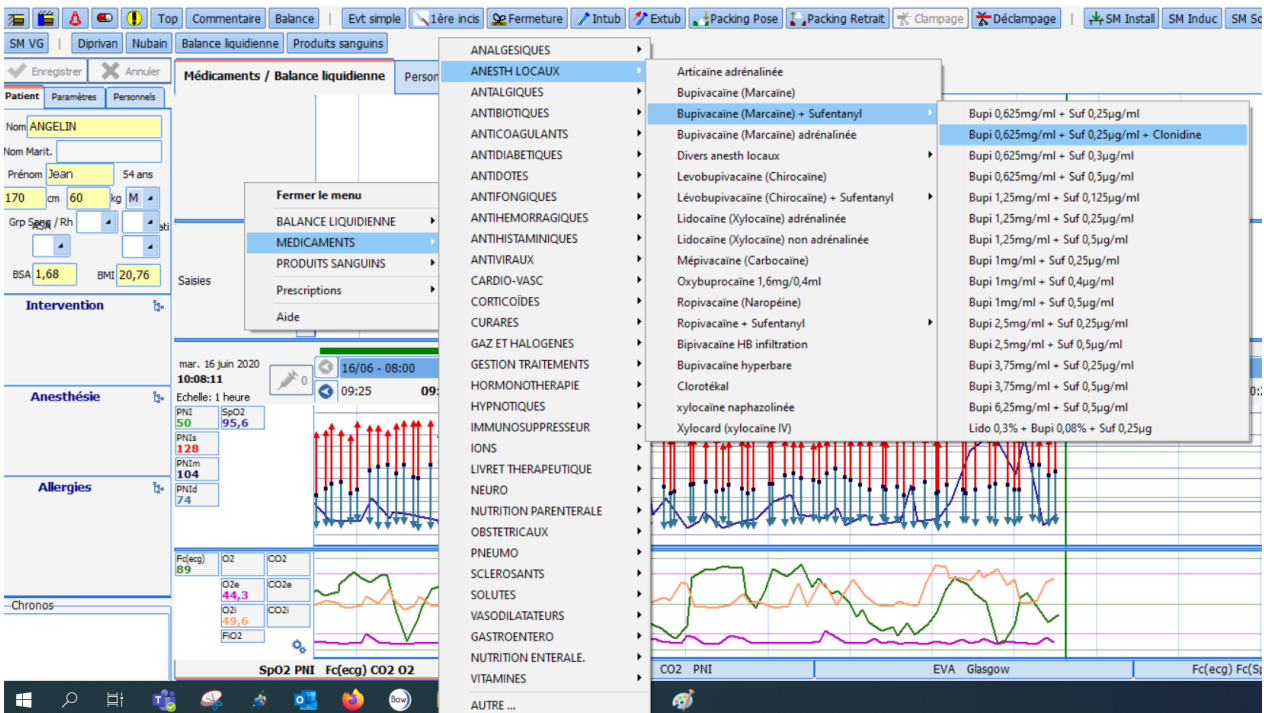
The “Drug/Fluid balance” bar allows you to enter the administration of productions and the patient’s fluid balance.



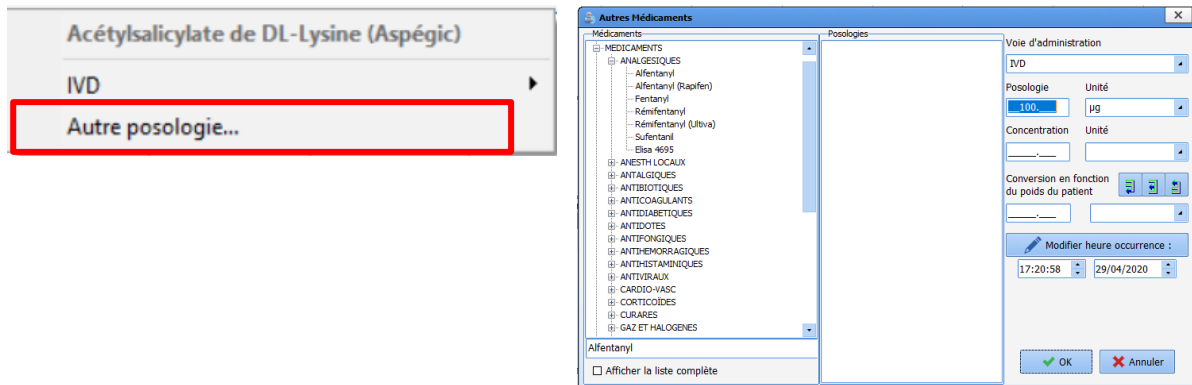
Clicking the drug/fluid balance area brings up a drop-down menu from which you can select the relevant item:



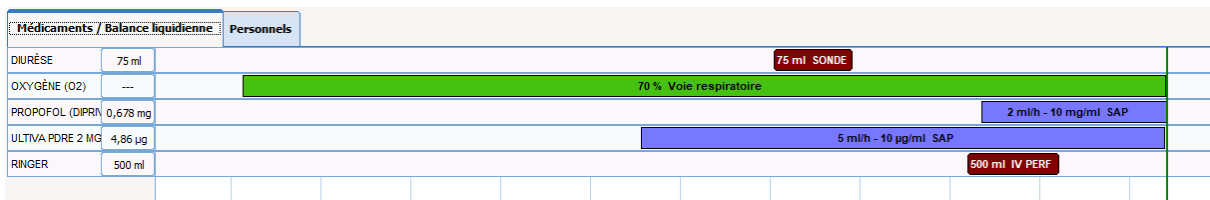
Below is an example of a drug selection via the drop-down menu.



When selecting a product, you can potentially modify the route of administration, the posology, the unit and the time of occurrence.



Example “Drug/Fluid balance” bar after entry.



Injections with automatic syringes can be entered manually or retrieved automatically: A progression bar is used to show continuous injections. This is synchronised with the time bar. When the flow rate changes or is stopped, the colour of the bar representing the previous flow rate also changes.

You can enter an automatic syringe drug without specifying a concentration, in which case the volume injected will be calculated automatically.

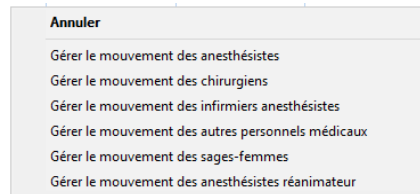
Ventilator injections: These work in the same way as automatic syringe injections, although they have a different colour and no total is indicated.

Flash injections: These are product entries/exits. These injections are depicted by their posology.

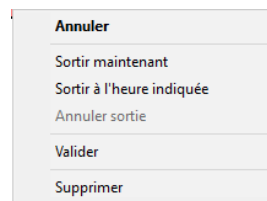
To the right of the “Drug/Fluid balance” bar, you can view and modify information in the “Staff” sub-tab.

Médicaments / Balance liquidienne	Personnels																		
SYSTEM Diane																			
SAISIE MANUELLE																			
INFIRMIER Ugo																			
ANESTH Anna																			

Right-clicking in this area allows you to manage staff movements and add a member of staff from a preconfigured list or manually.



Clicking on a present member of staff:



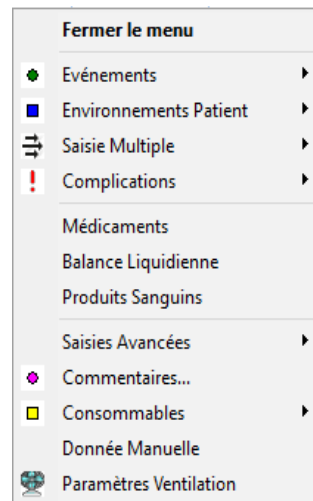
You can modify the on-duty time range for a member of staff by holding down the cursor and moving the mouse.

5.2.1.2 Entry bar

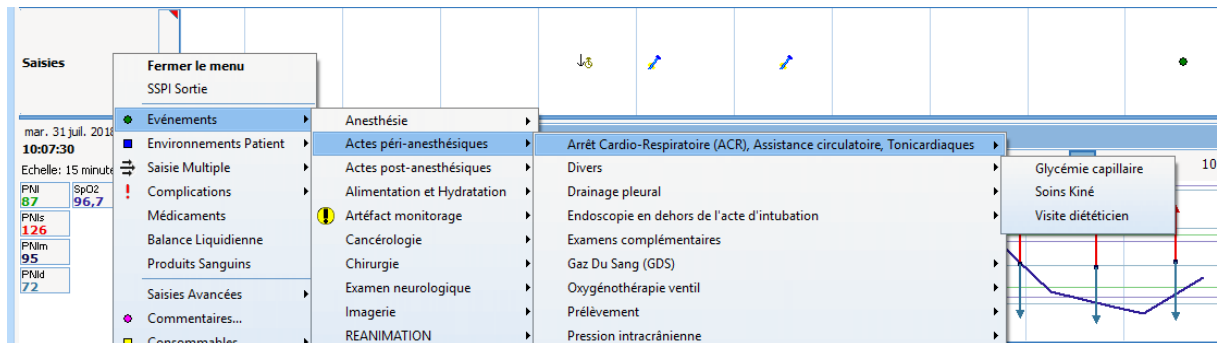
The entry bar allows you to document the operation as well as events/complications and entries associated with the operation.

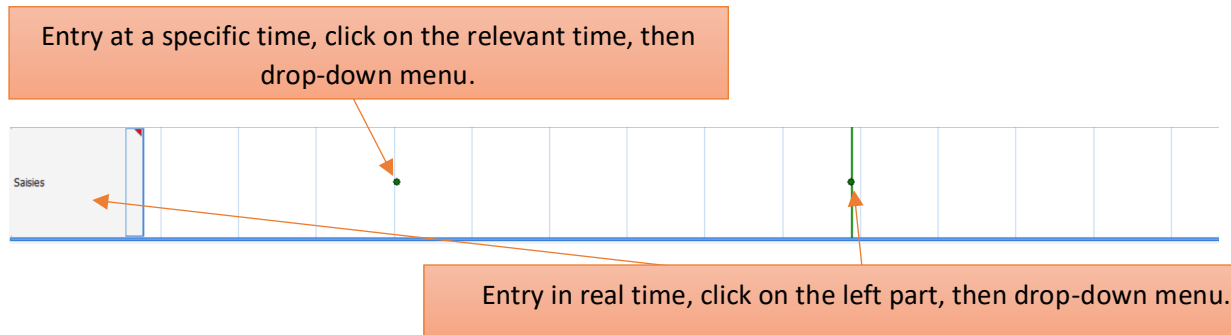
5.2.1.2.1 Presentation and use of the entry bar

Clicking the bar brings up a drop-down menu allowing you to organise the various categories.

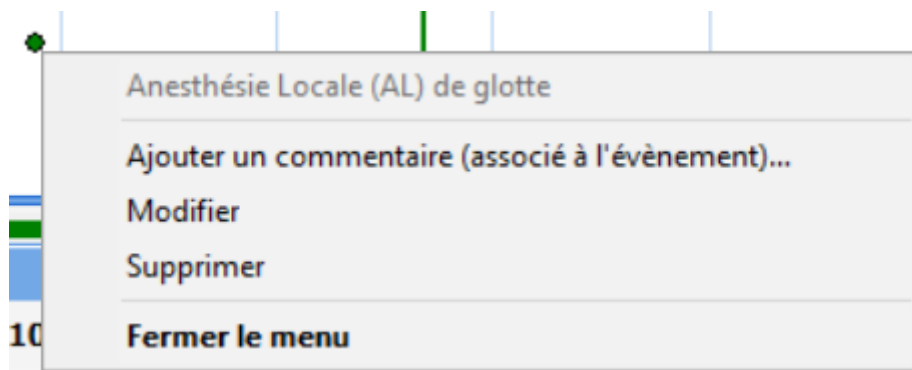


Example of entry using drop-down menu:





Clicking an entry already present in the bar allows you to add a comment, change the time, or delete the item.







An item can also be moved by dragging/dropping the relevant item.



A confirmation window opens to validate the changed event time.

5.2.1.2.2 Different types of entry

To complete the presentation of the entry bar, it is important to understand the function of the various categories present.

- **Events:** This section includes events that are associated with anaesthesia (induction, intubation, etc.) and surgery (first incision, clamping, etc.). Events are marked with . Entering events is simple. This involves navigating in the drop-down menu. Move the cursor to **Events** then slide to the event you wish to enter. Only the last item of each branch will be saved.
- **Patient environments:** You can insert all elements concerning the patient such as position, ventilation type, venous access type, etc. Patient environments are marked with  where the patient position is entered. Entering patient environments is the same as entering events.
- **Complications:** All complications, whether allergic, cardiovascular etc. can be inserted. Complications are marked with . Complications added during the operation are automatically included when scheduling the patient's next operation. Entering complications is the same as entering events.
- **Consumables:** You can indicate all consumables used during the operation, such as compresses, needles, probes, etc. Consumables are marked with . Entering consumables is the same as entering events, although the last two items will be recorded rather than just the last item.
- You can insert an event, a patient environment, a complication or a consumable not found in the lists set up by your unit, your theatre, your room, etc. but that has been created in your hospital's configuration by clicking **Other choice**.

Note: All these lists are fully configurable by your site administrator. They are configured by unit, by theatre and by room.

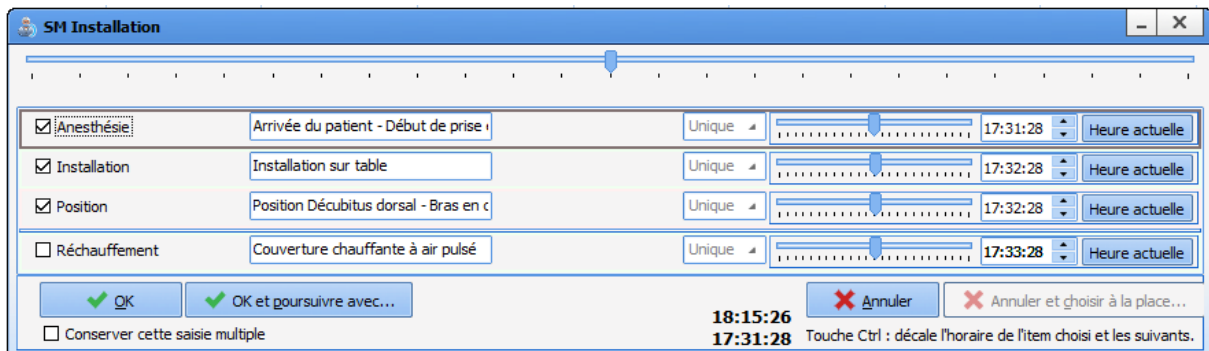
Note: It is possible to configure automatic event entries in the configuration tool during record opening/closing phases (arrival in OT, discharge from OT, arrival in RR, discharge from RR, return to OT, etc.) from the section "Automatic events during record opening/closing" under the Visual settings tab.

Multiple entries: Multiple entries are particularly useful at certain key moments of anaesthesia (patient arrival, induction, recovery in the patient's room).

They are needed for many entries, or for short-term operations where all entry elements can be configured, with the possibility to tick a box to add predefined elements without leaving the current multiple entry window, or for drug administration protocols.

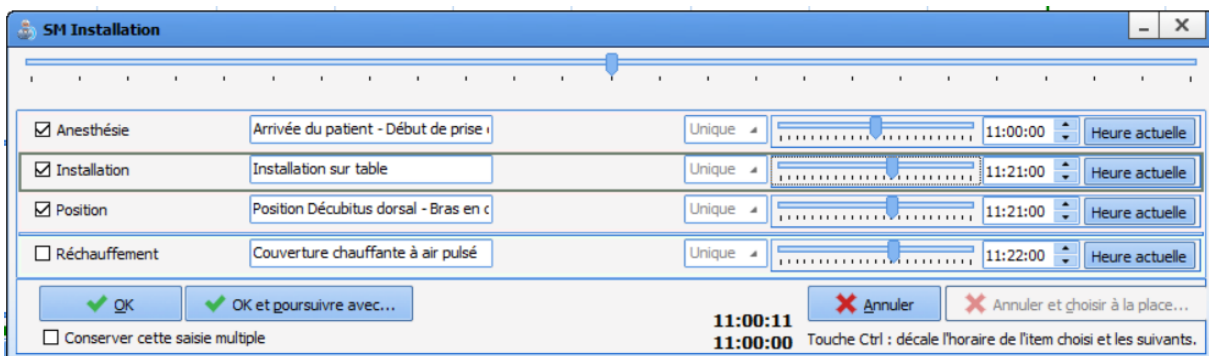
They can be entered retrospectively to the event in question and help save time, as all differences in time between elements entered are governed by a protocol, although they can always be modified in real time by users.

In the shortcut menu, move the cursor to **Multiple Entry** then slide to the multiple entry you require. Once you have selected the multiple entry, you must complete it according to your requirements.



Example: For **patient arrival**, we can modify the time via drag-drop.

Holding down the CTRL button on the keyboard allows you to move the times located under the element selected while maintaining the gaps between the different lines.

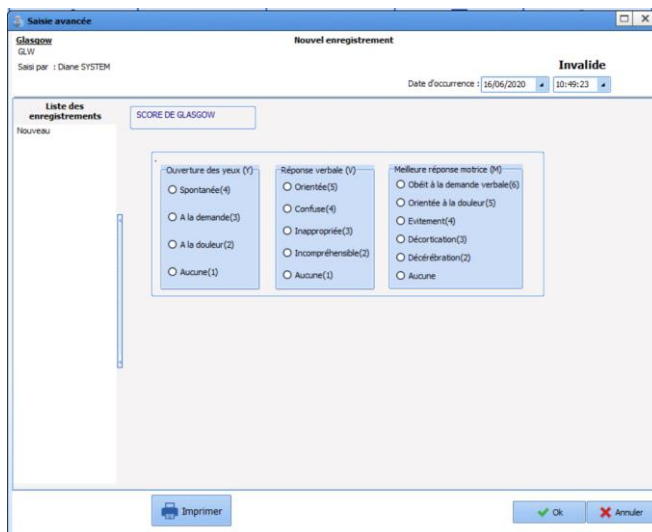


A multiple entry can be followed by other multiple entries in order to 'follow on' several entries. ("OK and follow with" button), or not carry out the entry and select a different entry ("Cancel and replace with" button). If a button is greyed out, your settings do not allow you to choose an alternative/follow-on entry.

- **Advanced entries and timers**

Advanced entries allow you to enter scores (e.g. Glasgow) or typical procedures such as 'adult care' or 'patient environment'.

In the shortcut menu, move the cursor to **Scores** then slide to the score you require. A **Score entry** window opens. Enter all the fields for the score so that a value is shown then click **OK** to confirm your entry.



The score can be identified by the ¹²³ icon.


Normal entries are identified by the different icon shapes.

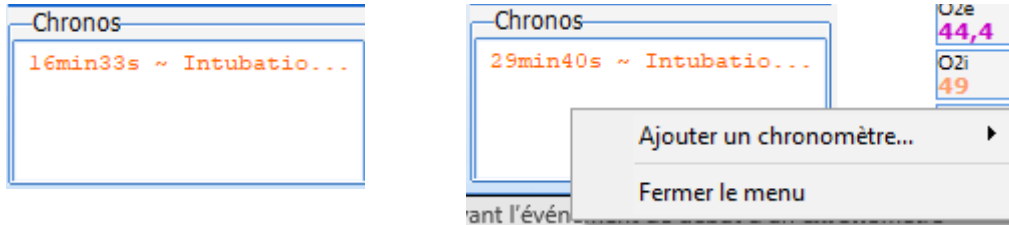
When a score is entered, it is displayed in the relevant area of the **Vital Signs** tab. As with other vital signs, the result of a score can therefore be inserted in the chart area in order to track its evolution.

You can then move the mouse over each one to view them. When you position the mouse over an entry, two buttons appear: **modify** the entry in case of error or **carry out a new entry using current values**.

This enables you to save time when making entries by retrieving elements already entered and noting only changes between two entries.

Some entries are associated with a timer (automatic). This timer is visible in two ways:

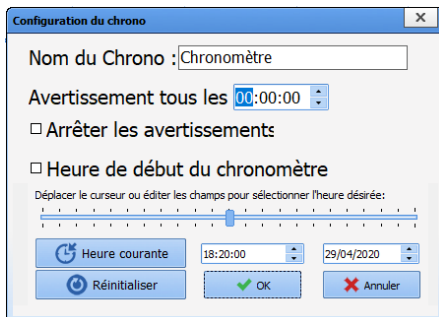
- The icon representing the entry flashes (green box) 
- In the lower left part of the screen (under the “patient - vital signs - staff area”), the timer will be shown:



Right-clicking allows you to add other (manual) timers to this area.

There are two types of timer: automatic configurable timers associated with an event or entry, with or without alert, and manual timers.

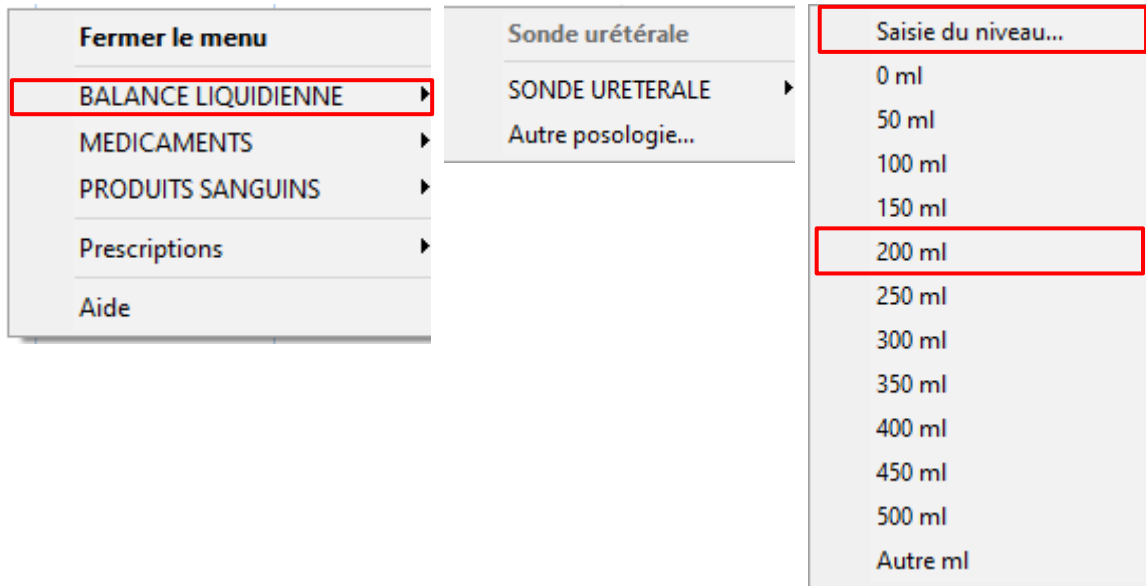
Automatic timers are characterised by three elements: name, starting conditions and stopping conditions.



Manual timers: Right-clicking the Timers area, in the lower left part of the Monitoring tab, shows a menu allowing you to Start a new timer manually. The New Timer window opens so that you can indicate the timer name and time interval between Warnings if you need your timer to generate warnings.

Right-clicking a manual timer opens a menu that allows you to **Stop** or **Start the timer** and configure the time interval between warnings.

- A patient's **fluid balance** can be accessed via the shortcut button: Balance liquidienne, or by clicking the entry or drug bars.

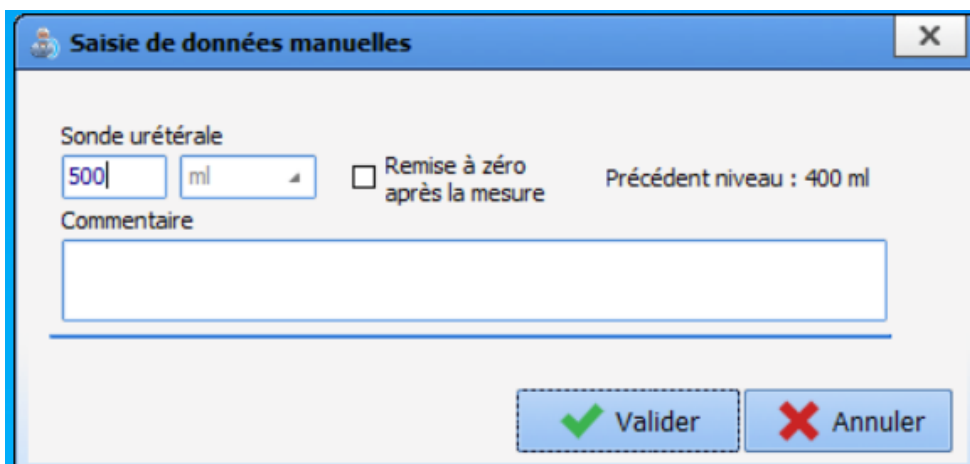


Two methods are possible for the fluid balance:

- Enter the quantities (e.g. 200 ml x 2). In the bar, the chart will show each report and the total (to the left).



- Enter level: the nursing assistant does not report the quantity, but the level of the container. Selecting the option "Enter level" opens the entry window and indicates the previous level of 400 ml. The new level is identified as 500 ml, i.e. a report of an additional 100 ml. (it is possible to add a comment and return the container reading to zero).




- **Ventilation settings:** If your ventilator does not have a RS232, local HL7 or network HI7 port for automatically retrieving settings, you can enter these ventilation settings manually.

In the shortcut menu, move the cursor to **Ventilation settings**. A **Ventilation settings** window opens. Enter the various elements of the ventilation settings using the relevant drop-down menus (Ventilation, VT, F, i/e, fiO2, Peep, pressure). The date and time of occurrence can be modified. Click **OK** to confirm your entry.

Manual data: If your biomedical monitor does not have a RS232, local HL7 or network HI7 port for automatically retrieving data, you can enter these data manually.

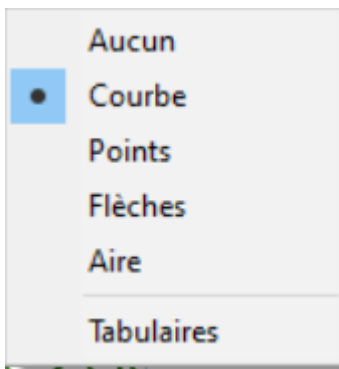
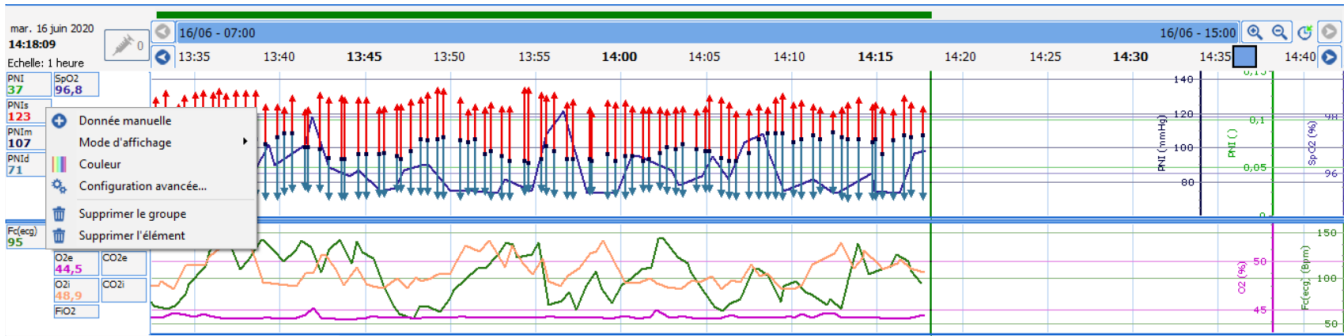
In the shortcut menu, move the cursor to **Manual data**. A **Manual data entry** window opens. Select the parameter or group of parameters you wish to enter manually using the drop-down list. You must then complete the various fields depending on the previously chosen parameter. The date and time of occurrence can be modified.

- **Comments:** In the shortcut menu, move the cursor to **Comments**. A **comment entry** window opens. Write in the relevant area. Comments are marked with  in the marker line. These comments can only contain up to 250 characters.

5.2.1.3 Constants bar

As a reminder, chapter 5.1.2 showed how to add parameters to the constant bar (from the Vitals sub-tab on the left).

Right-clicking the parameter shown allows you to modify the display mode and colour or use an advanced configuration.

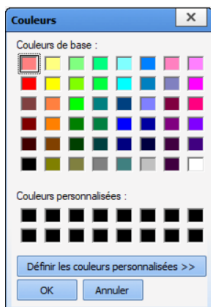


There are five display modes:

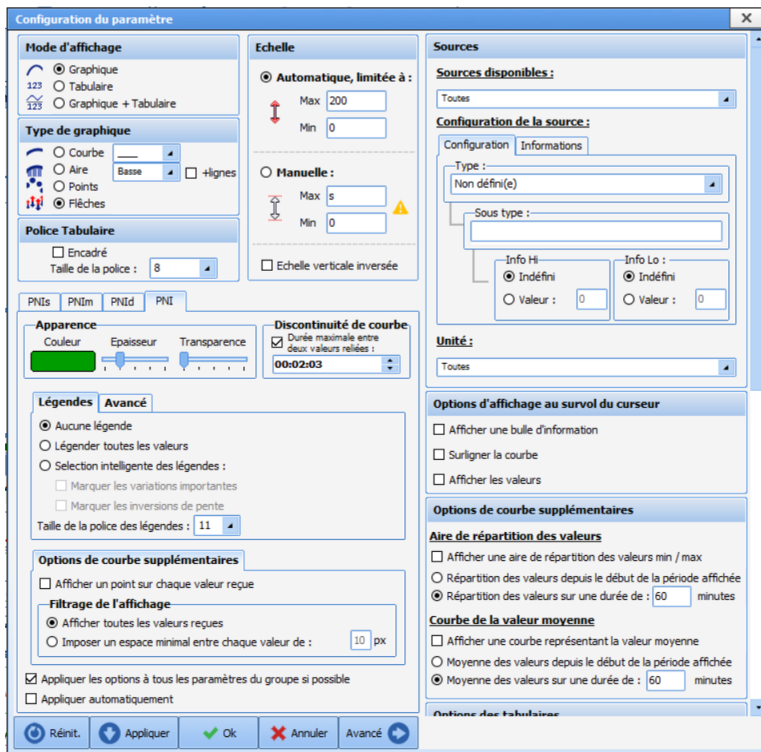
- None
- Curve
- Points
- Areas
- Arrows (depending on type of data)

Table mode is an additional display mode and allows a numerical line to be shown.

124	121	128	124	133
102	100	96	93	106
71	77	72	76	72
29	76	91	59	42



Colours are selected via a predefined palette with the option of choosing customised colours.

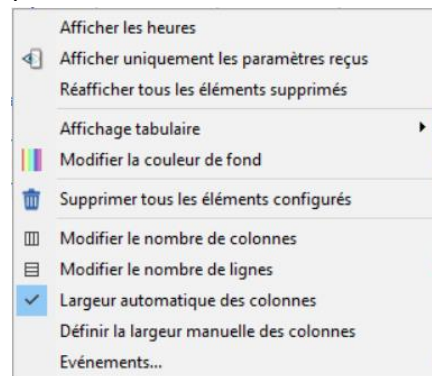
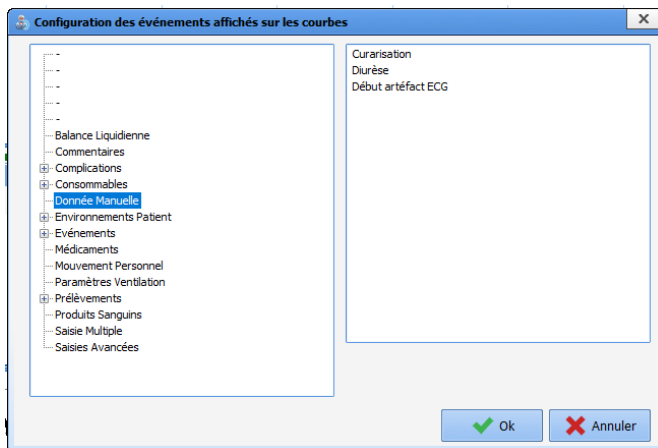


Advanced configuration allows for greater diversity or precision in how charts appear.

This document will not cover all possibilities in detail.



Finally, the cog icon in the entry bar allows you to modify other display elements, add events to the chart etc.



5.2.2 Events tab

The Events tab allows you to access all event, alarm and drug entries, including fluid balance and blood products.

It acts as a 'black box' for verification via a simplified list. It is useful for ensuring that an element is entered correctly if the user cannot see this elsewhere.

You can sort the list of events, drugs and alarms by clicking the column headers in the window.

Modifier un événement		Supprimer un événement		Modifier un médicament		Supprimer un médicament												
Événement	H.Occurrence	H.Saisie	Catégorie	Saisi par	Commentaire	Alarme	H.Début	H.Fin										
Extubation	04/05 14:47:00	14:47:05	Événements	Diane SYSTEM														
Arrêt de la VNI	04/05 14:46:00	14:47:03	Événements	Diane SYSTEM														
Extubation	04/05 14:29:20	14:29:29	Événements	Diane SYSTEM														
Intubation naso-trachéale	04/05 14:29:06	14:29:06	Événements	Diane SYSTEM														
Pose de la VNI (début)	04/05 14:28:49	14:28:51	Événements	Diane SYSTEM														

Médicament	Voie	Numéro S...	Poso	Unité	Concen	Unité C.	H.Occurrence	H.Fin	H.Saisie	Total	Unité T.	Bal. Liq.	Saisi par	Commentaire
SODIUM CHLORURE ...	intraveine...	Seringue 48	0,333	m/h	3,52	mg/ml	04/05 15:05:00	en cours	15:05:00	0,009	mg	+0,002 ml	Diane SYSTEM	
SUFENTA AMP BIU 2...	intraveine...	Seringue 50	2,083	m/h	5	µg/ml	04/05 15:05:00	en cours	15:05:00	0,078	µg	+0,016 ml	Diane SYSTEM	
SODIUM CHLORURE ...	intraveine...		10,417	m/h	9	mg/ml	04/05 15:05:00	en cours	15:05:00	0,702	mg	+0,078 ml	Diane SYSTEM	
INS HUMALOG 100 ...	intramus...	Seringue 60	2,5	m/h	16,667	UI/ml	04/05 15:05:00	en cours	15:05:00	0,312	UI	+0,019 ml	Diane SYSTEM	
BIONOLYTE G 5 % ...	intraveine...	Poché à p...	41,667	m/h	1		04/05 15:05:00	en cours	15:05:00	0,312	ml	+0,312 ml	Diane SYSTEM	
SODIUM CHLORURE ...	intraveine...		10,417	m/h	9	mg/ml	04/05 15:05:00	en cours	15:05:00	0,702	mg	+0,078 ml	Diane SYSTEM	
MIDAZOLAM 50mg-1...	IV	Seringue 50	3	m/h	1	mg/ml	04/05 15:05:00	en cours	15:05:00	0,022	mg	+0,022 ml	Diane SYSTEM	
VALECOXYCENE SAN...	intraveine...	Seringue 48	1,667	m/h	50	mg/ml	04/05 15:05:00	en cours	15:05:00	0,624	mg	+0,012 ml	Diane SYSTEM	

- Events diary

This contains the list of all events (Events, Patient environments, Complications, Consumables, Comments and Ventilation settings) with times of occurrence and entry.

These events appear in decreasing order, with the most recent event always at the top of the events diary.

Nasotrachéal

Ajouter un commentaire (associé à l'évènement)...

Modifier

Supprimer

Fermer le menu

When you click an entry, a menu allows you to delete the event or change the time at which it occurred. A confirmation message prompts you to confirm each modification or deletion.

Note: If the entry was made during a previous session, you can no longer modify or delete it.

- **Alarms diary**

This contains the list of alarms transmitted by biomedical devices with their start and end times. Over 500 alarms emitted by biomedical devices linked with DIANE via the RS232 connection are recognised. These alarms appear in decreasing order, with the most recent alarm triggered always at the top of the alarms diary.

Note: Alarms cannot be modified or deleted.

- **Drugs diary**

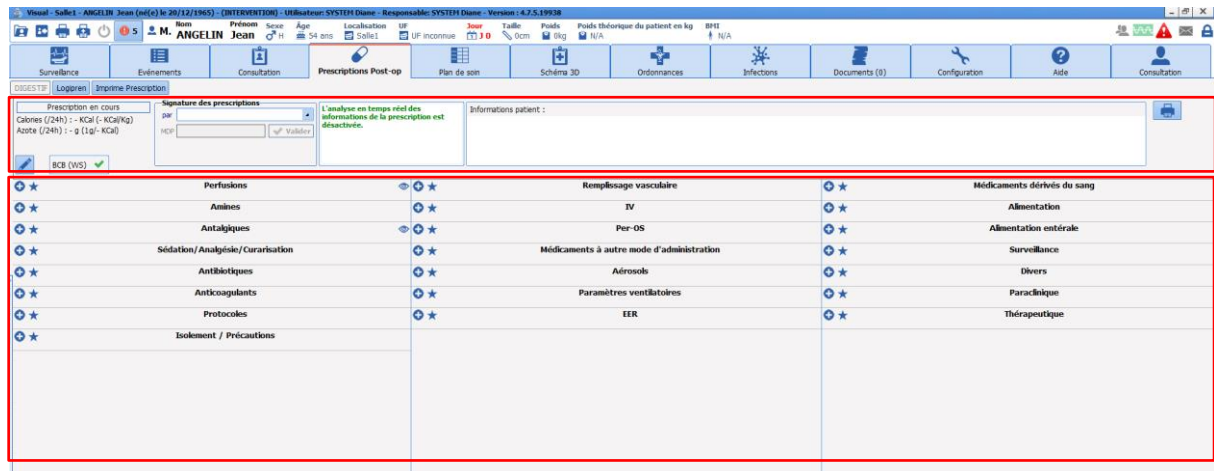
This shows the list of all drugs (drugs, fluid balance and blood products) entered for the operation. These drugs appear in decreasing order, with the most recent drug injected always at the top of the drugs diary.

Clicking one of the drugs brings up a menu allowing you to delete the drug, modify its time of injection or stop the speed when the selected drug is given as a continuous injection. A confirmation message prompts you to confirm each modification or deletion.

Note: If this drug was entered during a previous session, you can no longer modify or delete it.

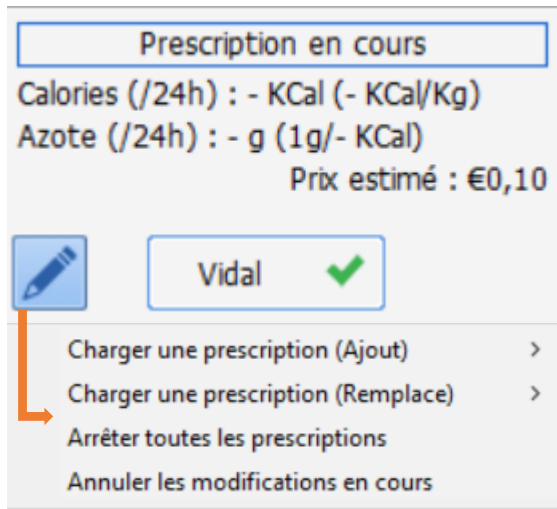
5.2.3 Post-op medication order tab

This tab is used by doctors to prescribe drugs to be administered to patients and forms the basis of the care plan. It looks as follows. As various configurations are possible, the screen grab below may not correspond to what you see on your screen. Nevertheless, the features remain the same.



5.2.3.1 Medication order tab - top area

At the top of the tab there is a bar with useful information.



The calorie to nitrogen ratio shows the total per day and per kilo.

The pencil icon allows you to use the medication orders window via four options:

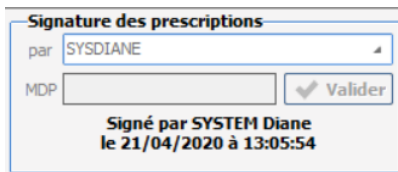
- Load a medication order (add) Add one or more protocols.
- Load a medication order (replace) Allows one or more protocols to be replaced before a medication order is signed.
- Stop all (unsigned) medication orders Allows you to keep medication orders and mark them as stopped.
- Cancel unsaved changes.

Rapport de la base de médicament :

1 Surdosage(s)
1 Redondance(s)

This area summarises all interactions associated with current medication orders: drug interactions, redundancies, allergies, pathologies and dosages 'to be verified'. This information is taken from the configured drug database. Clicking this area opens the detailed report from the database.

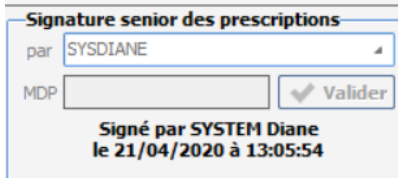
5.2.3.1.1 Signing medication orders



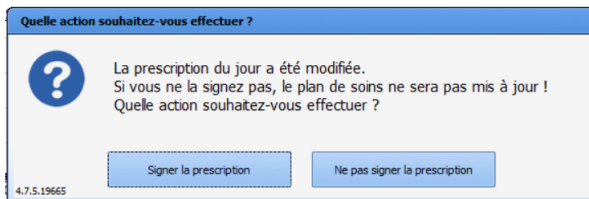
Signature des prescriptions
par SYSDIANE
MDP Valider
Signé par SYSTEM Diane
le 21/04/2020 à 13:05:54

The signature box allows medication orders to be signed by entering the doctor's ID and password.

Depending on how the software is set up, a second signature by a senior doctor may be required (if the first signature is that of a junior doctor and requires validation).



Signature senior des prescriptions
par SYSDIANE
MDP Valider
Signé par SYSTEM Diane
le 21/04/2020 à 13:05:54



Quelle action souhaitez-vous effectuer ?
? La prescription du jour a été modifiée.
Si vous ne la signez pas, le plan de soins ne sera pas mis à jour !
Quelle action souhaitez-vous effectuer ?
Signer la prescription Ne pas signer la prescription
4.7.5.19665

When a doctor changes tabs without signing the medication order(s), a warning message is shown so the medication order can be signed or not.



Visual
DIANE
Une marque de BOW MEDICAL
4.7.5.19890
Prescription modifiée
Par ANESTH Luc le 03/06/2020 à 16:20:59

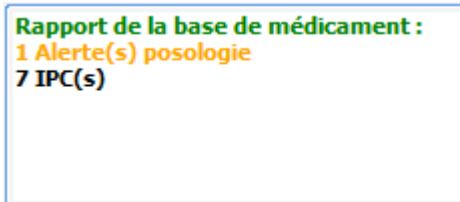
Note: If medication orders are not signed, the care plan will not be updated.

5.2.3.1.2 Interaction report

This area summarises all interactions associated with current medication orders: drug interactions, redundancies, allergies, pathologies and dosages 'to be verified'.

This information is taken from the configured drug database (Vidal, BCB, etc.).

Clicking this area opens the detailed report.



Colour key:

Red: Allergy alerts.

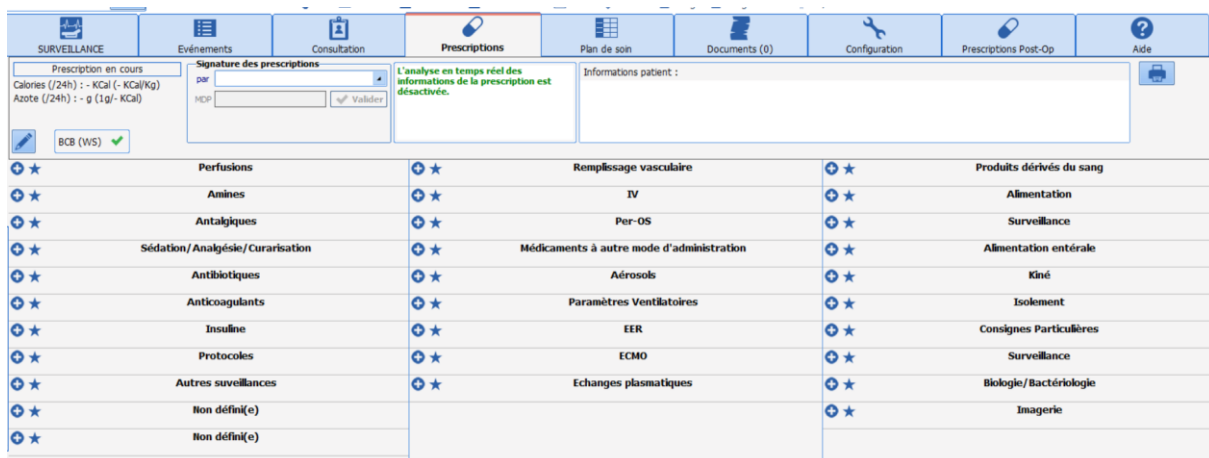
Orange: Dosage, interaction, contraindication and pathology alerts.

Black: Redundancies and precautions for use.

5.2.3.2 Medication order area

A large proportion of medication orders are for 'products'. This means everything that is administered to a patient: antibiotics, glucose or vitamin supplements, expanders, etc. These products can be prescribed in various forms and with various routes of administration (oral, injection, etc.), with or without infusion, with or without dilution...

The product medication order entry form is therefore more complicated than the others as it must cover all eventualities while ensuring the data is structured so that the care plan is completed correctly when the doctor signs the medication order. It must therefore be possible to prescribe an oral tablet, or a dilution of several products in an infusion.



A drug product medication order includes:

- One or more products (in the case of a dilution)
- A dosage per product corresponding to a quantity 'per administration'. In the case of an infusion, this is the quantity 'per container' (bag or syringe).
- A route of administration
- A flow rate and/or duration of infusion if applicable
- A schedule

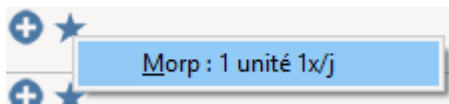
To enter this information, the medication order editor has three areas.

In these areas, hovering over most icons and fields brings up guidance on their content.

5.2.3.2.1 Using Favourites



Left-clicking this button brings up a menu allowing you to choose from any favourites below:

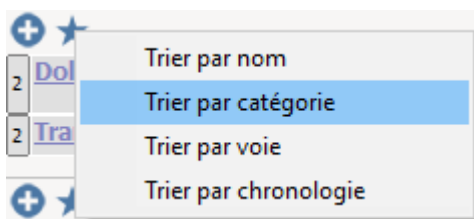


Clicking an entry in the menu automatically enters the favourite in the medication order area.



Click the line to modify the medication order generated by the favourite. This opens a prescription window set up when the favourite was created.

NB: Right-clicking this button allows you to sort entries in a medication order area according to four criteria:

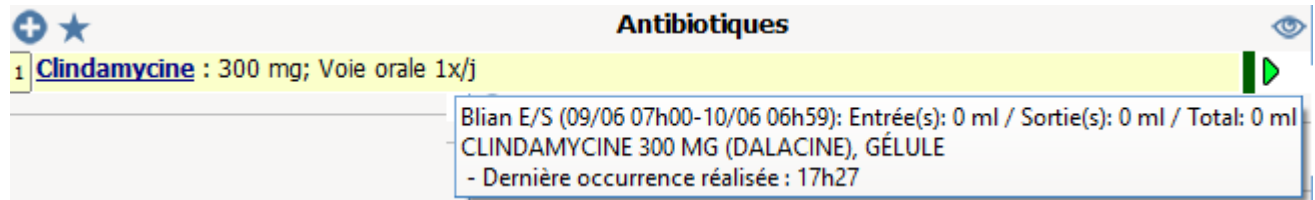


5.2.3.2.2 Medication order assistance



Hovering over this icon shows patient information your key users think is relevant for helping you when issuing a medication order.

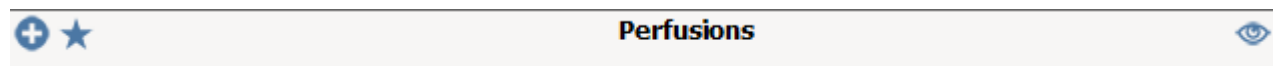
You see:



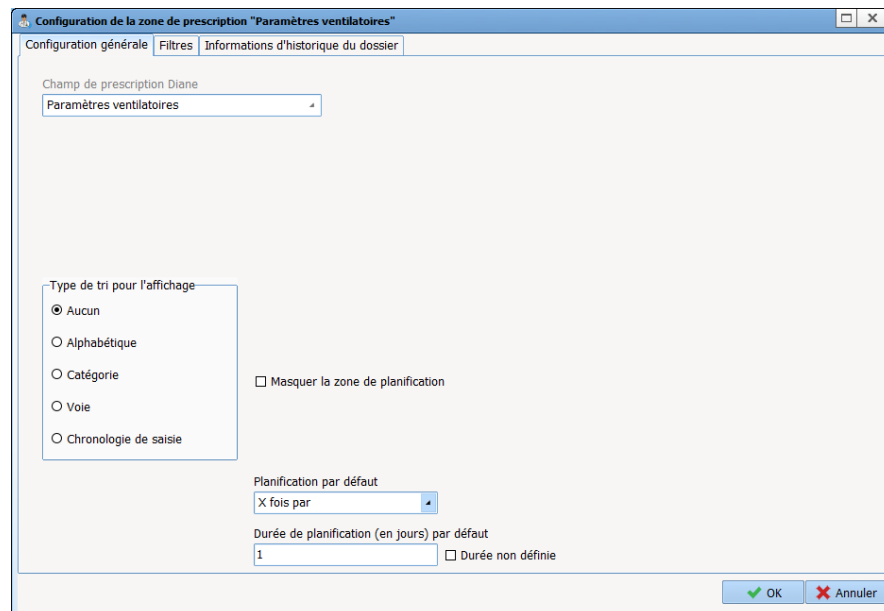
You can access:

- Fluid balance
- Latest care plan occurrences
- Scores
- Vital signs and lab results.

5.2.3.2.3 Temporarily change default schedule



To change the default schedule of a specific zone temporarily, double-click the header in the medication order area.



This window allows you to change the **default medication order process** until DIANE is next restarted. The default process is mentioned as these changes do not change the schedules previously saved as favourites.

In the bottom area, you can define the schedule you want:

- X times per
- Manual
- One time only
- X times every
- X times in
- Continuously

For the schedule duration, enter the relevant number of days, except for One time only schedules.

If you select 'Undefined duration', the prescriber may limit the duration of the medication order (or not).


Validation de la prescription

Commentaire |

Rapport de la base de médicament

ANALYSE

- Synthèse
- VIDAL focus (0)
- ⚠ Posologie (1)
- Allergies (0)
- Contre-indications /
Précautions d'emploi (0)
- Interactions
médicamenteuses (0)
- ⚠ Grossesse /
Allaitement /
Procréation (3)
- Effets indésirables
(137)
- Incompatibilités
physico-chimiques (0)
- ⚠ Mises en garde
(39)
- Surveillances (6)



Analyse d'ordonnance

date : 04/06/2020

Base VIDAL version 2020.5.0, données du 21/04/2020

Alertes de sévérité maximale

Aucune alerte de sévérité maximale n'a été déclenchée

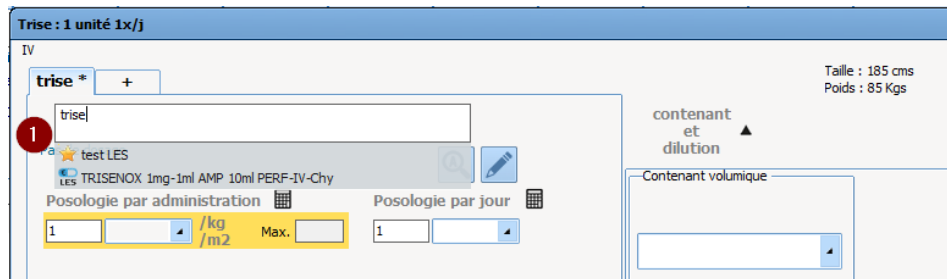
Rappel du dossier

Sexe féminin	40 ans (01/02/1980)	160 cm	50 kg
0 Allergie		0 Pathologies	

VIDAL Sécurisation 2020.5.0 [Instructions d'utilisation](#)

5.2.3.2.4 Prescribing costly drugs

DIANE takes into account the notion of costly drugs.



Trise : 1 unité 1x/j

IV

trise * +

trise|

test LES

TRISENOX 1mg-1ml AMP 10ml PERF-IV-Chy

Posologie par administration

1 /kg /m2 Max.

Posologie par jour

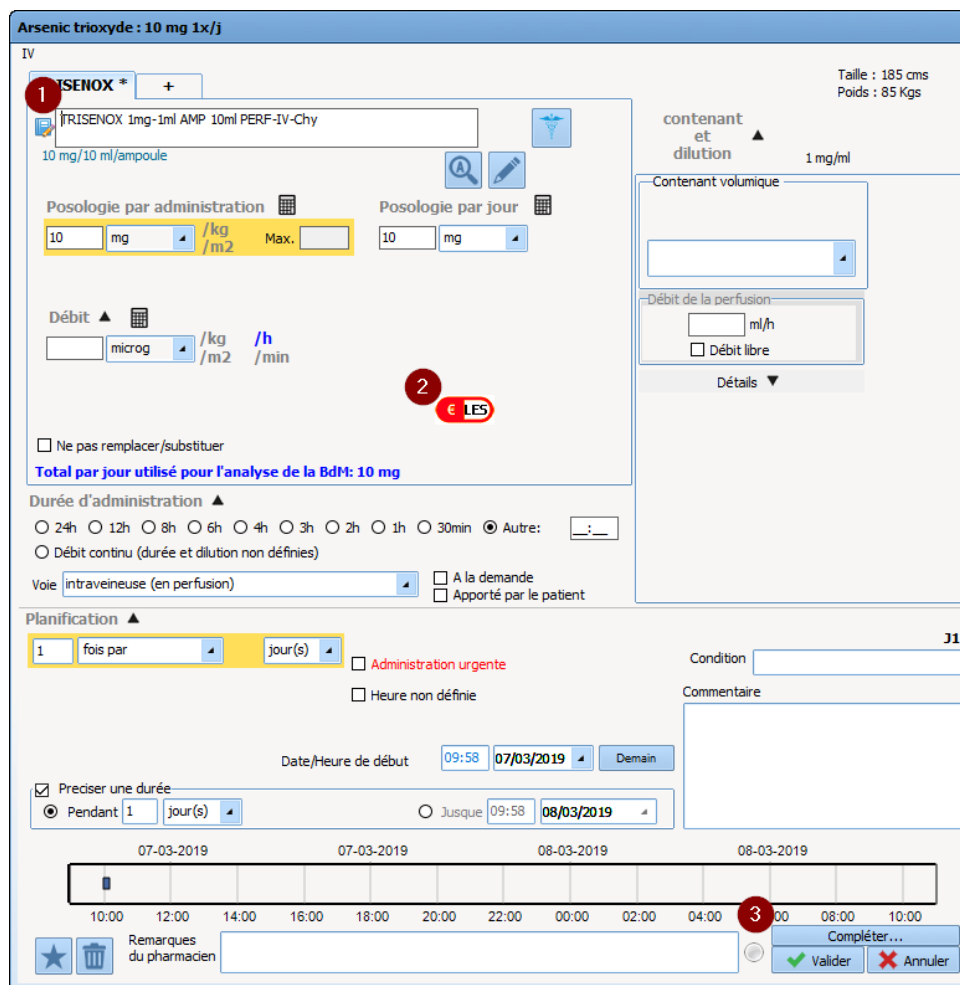
1

contenant et dilution

Contenant volumique

Taille : 185 cms
Poids : 85 Kgs

When you select your product, as shown above, an 'LES' logo appears next to products included in the list of costly drugs (i.e. reimbursed under certain conditions).



Arsenic trioxyde : 10 mg 1x/j

IV

TRISENOX * +

TRISENOX 1mg-1ml AMP 10ml PERF-IV-Chy

10 mg/10 ml/ampoule

Posologie par administration

10 mg /kg /m2 Max.

Posologie par jour

10 mg

Débit

microg /kg /h /min

contenant et dilution

1 mg/ml

Contenant volumique

Débit de la perfusion

ml/h

Débit libre

Détails

Ne pas remplacer/substituer

Total par jour utilisé pour l'analyse de la BdM: 10 mg

Durée d'administration

24h 12h 8h 6h 4h 3h 2h 1h 30min Autre: _:_

Débit continu (durée et dilution non définies)

Voie intraveineuse (en perfusion)

A la demande Apporté par le patient

Planification

1 fois par jour(s)

Administration urgente

Heure non définie

Condition J1

Commentaire

Date/Heure de début 09:58 07/03/2019 Demain

Préciser une durée

Pendant 1 jour(s) Jusque: 09:58 08/03/2019

07-03-2019 07-03-2019 08-03-2019 08-03-2019

10:00 12:00 14:00 16:00 18:00 20:00 22:00 00:00 02:00 04:00 06:00 08:00 10:00




Remarques du pharmacien

Compléter...

Validater Annuler

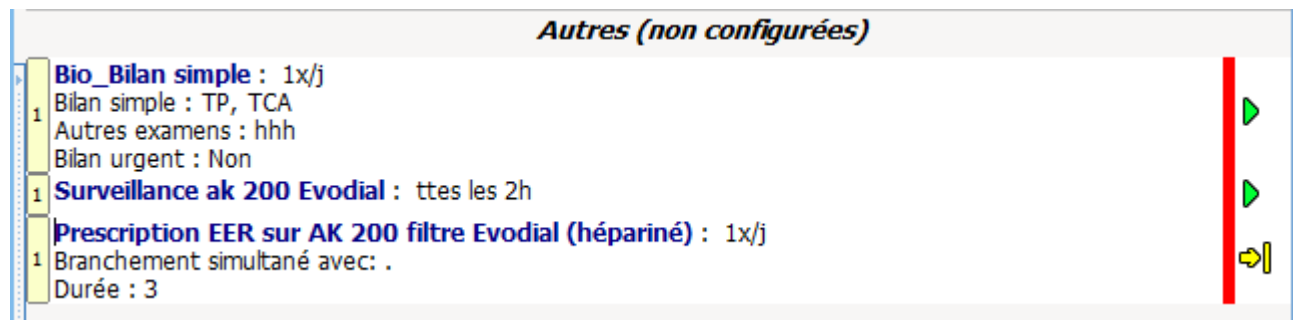
When you select a drug included in this list **(1)**, a red logo appears **(2)** in addition to the "Add information..." button **(3)**.

LES logo colour key:

	<p>This means that the indication for this costly drug has not been completed: Click on the "Add information..." button (see: Choosing the indication code).</p>
<p>Red</p>	<p>This can also mean that the drug is not eligible for reimbursement.</p>
	<p>This means that you have correctly validated the indication for this costly drug but the reimbursement status is unknown.</p>
<p>Blue</p>	
	<p>This means that you have correctly validated the indication for this costly drug and it will be reimbursed.</p>
<p>Green</p>	

5.2.3.2.5 Visual medication order code

As you can see on this screen grab, the normal colour for a medication order is black (dark blue indicates a clickable link).



The black lines under the tests shown below are context-sensitive. These are tests in the form of advanced entries and each line represents an advanced entry field completed by the prescriber.

When the medication order is signed, the red bar turns green.

Antalgiques	
1	<u>Morniflumate</u> : 200 mg; Voie rectale 2x/j
1	<u>Morphine chlorhydrate</u> : 100 ml; Voie SC 1x/j
1	<u>Nalbuphine chlorhydrate</u> : 0,2 mg/kg; Voie IM 3x/j Si douleurs malgré paracétamol et AINS
1	<u>Paracétamol</u> : 15 mg/kg; Voie rectale 3x/j En systématique

The dark green bar is found with medication orders that have been modified and signed recently. The light green bar is found with medication orders that have been signed but not modified.

Antalgiques	
1	<u>Morniflumate</u> : 200 mg; Voie rectale 2x/j
1	<u>Morphine chlorhydrate</u> : 100 ml; Voie SC 1x/j
1	<u>Nalbuphine chlorhydrate</u> : 0,2 mg/kg; Voie IM 3x/j Si douleurs malgré paracétamol et AINS
1	<u>Paracétamol</u> : 15 mg/kg; Voie rectale 3x/j En systématique
1	<u>Tramadol chlorhydrate</u> : 100 mg + <i>Diluant non précisé</i> : 50 ml; D=15min; Voie IV 1x/j

Medication orders marked in pink mean that an oral medication order has been carried out by a nurse from the care plan.

The doctor must confirm this medication order retrospectively (medication order tab, in the window of the relevant product).

Colour key:

Text colour:

- **Black**: normal.
- **Purple**: medication order line completed from care plan (dilution info, schedule delay, modified infusion flow rate).
- **Pink**: 'oral' medication order line to be confirmed.
- **Brown**: antibiotic medication order line to be completed.

Product names have a different appearance in the text so they are highlighted.

- The principal product (and/or solution for a bag) is shown in bold and underlined.
- Other products are shown in bold.
- The diluent is shown in italics.

Background colour (result of drug database analysis):

- **Orange** interaction indicator: product interacts with another, interaction not recommended.
- **Red** interaction indicator: product interacts with another, interaction contraindicated.
- **Mauve**: product redundant with another.
- **Yellow**: product validated.
- **Grey**: product not found in drug database/problem with dosage.
- **White**: Line not taken into account in the drug database report.

You can see and check the medication order to the right of the medication order line.

▶ : In progress

▶▶ : Pending with no set end date

▶| : Scheduled end (end soon) - End scheduled today. The medication order will be considered completed when the end date and time has elapsed and will not be kept the following day.

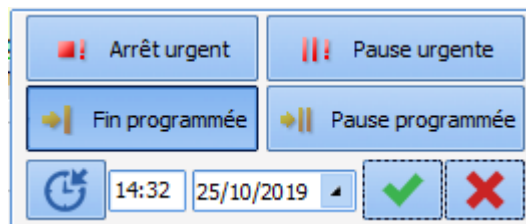
▶|| : Scheduled pause (pause soon) - Pause scheduled today. The medication order will be considered paused when the end date and time has elapsed and will be kept the following days for as long as it remains in this state.


■ : Completed

|| : Paused

■! : Emergency stop – Unlike a classic stop, an emergency stop means that all occurrences with 'to do' status (including occurrences prior to the current time) will be removed from the care plan at the doctor's signature.

||! : Emergency pause – Unlike a classic pause, an emergency pause means that all occurrences with 'to do' status (including occurrences prior to the current time) will be removed from the care plan at the doctor's signature.



Clicking this icon  allows you to change from one status to another using the pop-up that appears.

Remember the colour code for the vertical bar next to this status indicator. This bar indicates whether and when the entry has been signed.

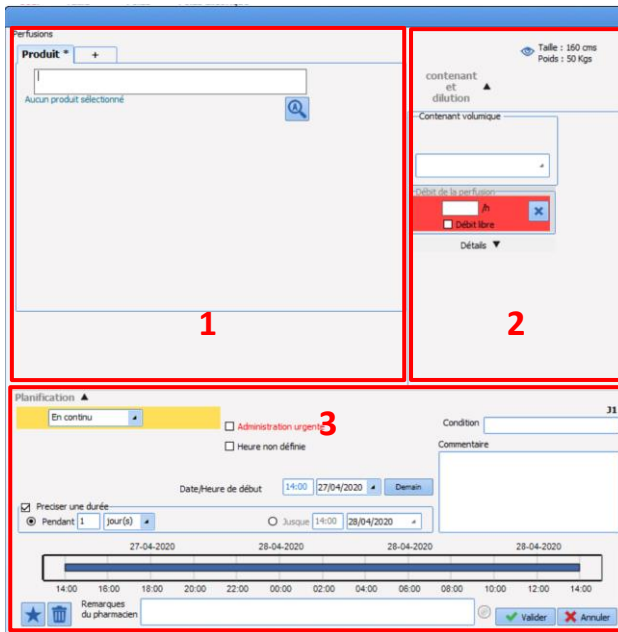
- Red: prescription line has not been signed.
- Dark green: medication order line signed recently (action on the care plan).
- Light green: medication order line signed recently (recent action on the care plan).
- No rectangle: medication order line has not been modified for at least the last 3 doctor signatures (previous action on the care plan).

This icon indicates the presence of context-sensitive information. To view the information, hover the cursor over the icon.

The context-sensitive information shown when hovering over the icon can be configured by double-clicking the header of the medication order field (name of medication order field), in the “Historical record information” tab of the window that opens.

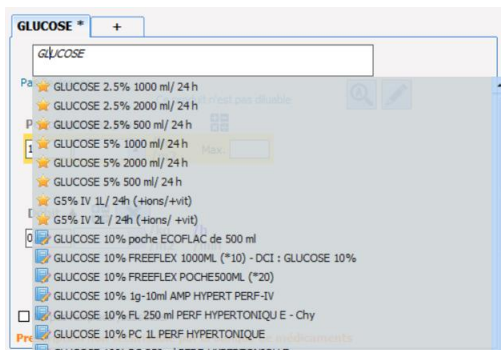
This may be the most recent lab results, most recent vital signs, or most recent scores.

5.2.3.3 Drug selection window



The drug entry window has three parts:

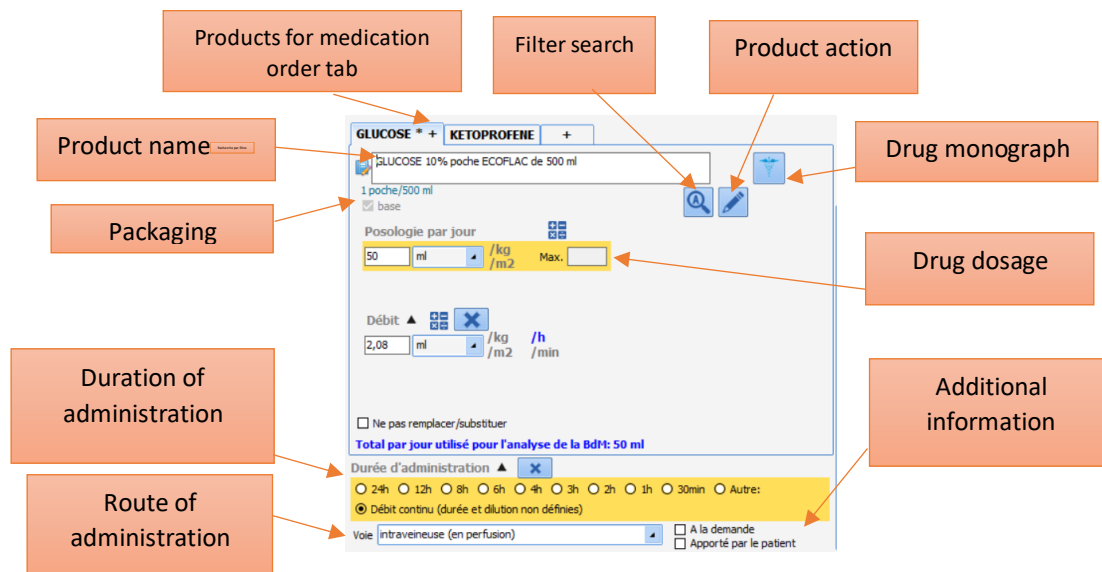
- 1 – selection of product(s)
- 2 – selection of container and flow rate
- 3 – selection of schedule, any conditions and comments.



When you enter the relevant drug, DIANE will first show the list of favourites (set up by key users) indicated with a star:

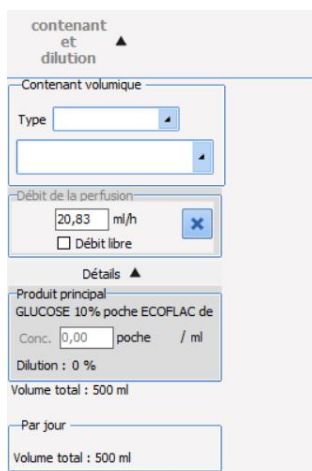
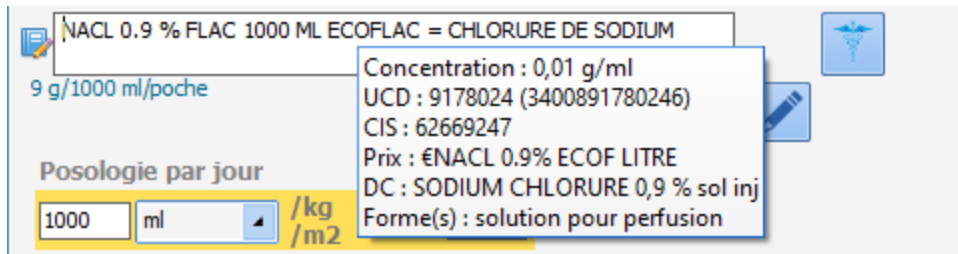
The search will then show products from the formulary:

Then products from the drug database (BCB or Vidal).



NB: An automatic search starts when you type and that a match may show the equivalence of two products even if the name is different (search using DCI code not CIP code).

You can show additional product information by hovering over it:

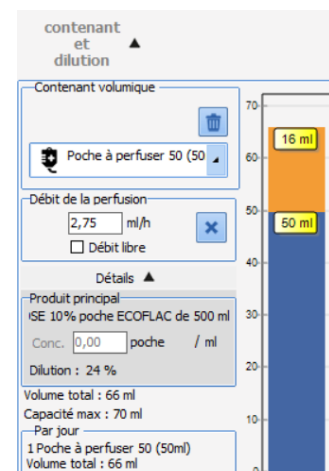


This can be shown by clicking ▼ (and hidden by clicking ▲) and allows you to:

- Select the volume container, i.e. type (bag or syringe) and capacity expressed in mL
- See the daily dosage expressed in the container unit

Select the container and the dilution of the first product on the left.

Select the second product on the right.



Once the volume container has been specified, the dilution is 'automated' depending on the type:

- For a syringe, the application will automatically add a diluent if required, which will fill the remaining space in the syringe. The first product prescribed is then called the 'principal product' and the second product added automatically is called the 'diluent product'.
- For a bag, the application will suggest modifying the dosage of the principal product (solution) in order to match the volume of the bag. The principal product is therefore the second product in the dilution.

The principal product is the only product in the dilution for which the user can set a flow rate. All other products in the dilution are given a quantity only.

5.2.3.3.1 - Drugs and infusions

Prescribing drugs and infusions

A large proportion of medication orders are for 'products'. These can be prescribed in various forms and with various routes of administration (oral, injection, etc.), with or without infusion, with or without dilution...

Product here means everything that is administered to a patient and can therefore be glucose or vitamin supplements, expanders, antibiotics, nutrition etc.

It must therefore be possible to prescribe an oral tablet, or a dilution of several products in an infusion.

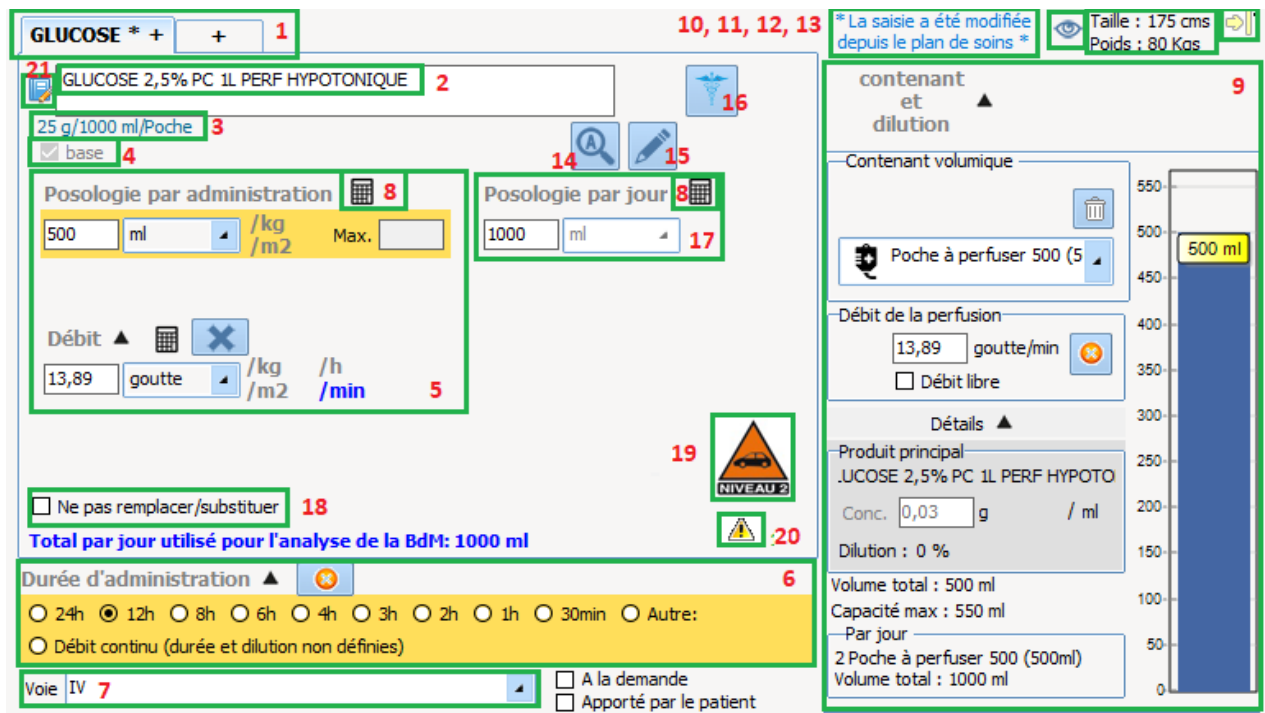
A product medication order includes:

- One or more products (in the case of a dilution)
- A route of administration
- A dosage per product corresponding to a quantity 'per administration'. In the case of an infusion, this is the quantity 'per container' (bag or syringe)
- A flow rate and/or duration of infusion if applicable
- An associated schedule.

The product medication order form is therefore more complex than the others as it must meet different requirements:

- be user-friendly
- allow rapid entries
- structure data so that a corresponding care plan can be generated when the doctor signs off.

Corresponding data entry form:



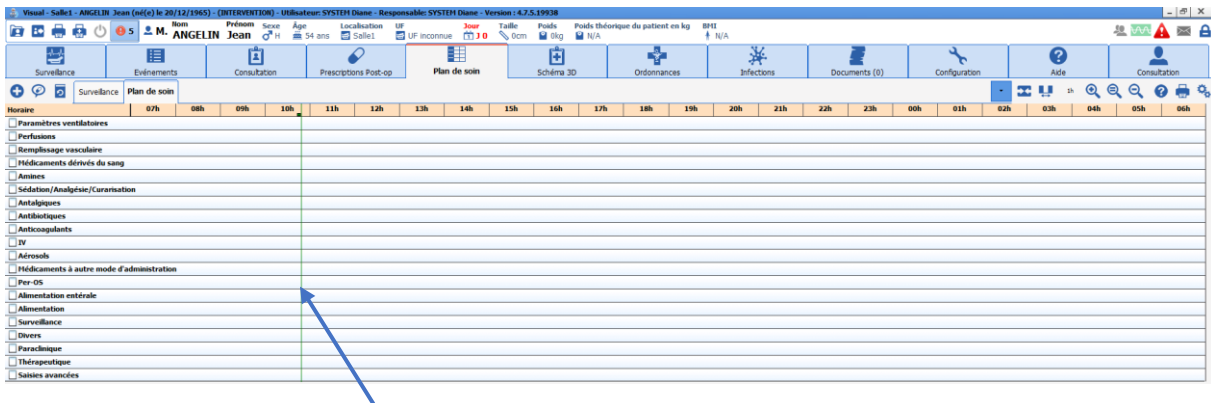
The screenshot shows a medical data entry form for 'GLUCOSE * +'. The form is divided into several zones, each highlighted with a red number:

- Zone 1:** Product name 'GLUCOSE * +' and a '+' button.
- Zone 2:** Product name 'GLUCOSE 2,5% PC 1L PERF HYPOTONIQUE'.
- Zone 3:** Dosage '25 g/1000 ml/Poche'.
- Zone 4:** Diluent/solution 'base'.
- Zone 5:** Administration rate '13,89 goutte /kg /h'.
- Zone 6:** Duration of administration '12h'.
- Zone 7:** Route of administration 'Voie IV'.
- Zone 8:** Calculator for 'Posologie par administration' and 'Posologie par jour'.
- Zone 9:** Detailed view of the container and dilution, showing 'Poche à perfuser 500 (500ml)' and 'Volume total : 1000 ml'.
- Zone 10:** Warning icon 'NIVEAU 2'.
- Zone 11:** Context-sensitive information indicator '10, 11, 12, 13'.
- Zone 12:** Current height and weight 'Taille : 175 cms Poids : 80 Kgs'.
- Zone 13:** Medication order status indicator '10, 11, 12, 13'.
- Zone 14:** Search options button.

Hovering over most of the zones on the form brings up a window with details on the contents.

- Zone 1 - Products to be administered tab
- Zone 2 - Name of product administered
- Zone 3 - Product dosage
- Zone 4 - Diluent / solution
- Zone 5 - Product posology
- Zone 6 - Duration of administration
- Zone 7 - Route of administration
- Zone 8 - Calculator
- Zone 9 - Dilution
- Zone 10 - Warning: content modified from care plan
- Zone 11 - Context-sensitive information indicator
- Zone 12 - Current height and weight
- Zone 13 - Medication order status indicator
- Zone 14 - Search options button


The Monitoring sub-tab covers complications, events, drugs, fluid balance and blood products found in the tab of the same name.



The vertical green bar shows the current time of the computer.

The care plan is generated when the medication order is validated by the doctor. On each validation of a medication order a message is shown on all computers connected to the record:








The Care plan sub-tab shows medication orders. Nurses can indicate whether or not medication orders have been carried out and include a comment. These are marked with a rectangle .















A colour code allows nurses to see what has been prescribed by the doctor and what has been carried out/not carried out.

Libellé	Etat	Début	Fin	Prescripteur	Voie
Glucose 2,5% : 1000 ml en continu		15h19	le 04/06/2020 à 15h19	SYSTEM Diane	IV
Glucose 2,5% : 1000 ml en continu	A Faire	15h19	le 04/06/2020 à 15h19	SYSTEM Diane	IV

Libellé	Etat	Début	Fin	Prescripteur	Dernière modif. par	Voie	Infos Suppl.
Glucose 2,5% : 1000 ml en continu		15h19	le 04/06/2020 à 15h19	SYSTEM Diane		IV	
Glucose 2,5% : 1000 ml en continu	Démarré	15h31	le 04/06/2020 à 15h31	SYSTEM Diane	SYSTEM Diane	IV	41,7 ml/h - 0,025 g/ml (Poche à perfuser 1000) DM : 1,04 g/h [0,131 g]

				Libellé	Etat	Début	Prescripteur	Voie
				Paracétamol : 100 ml 3x/j		15h15	SYSTEM Diane	IV
				Paracétamol : 100 ml 3x/j	A Faire	15h15	SYSTEM Diane	IV

Left-clicking allows you to:

-  Specify the dilution
-  Start administration (only for occurrences with a duration, e.g. infusion).
-  Start administration, changing the date/time or entering additional information
-  Change administration flow rate or start at another flow rate now
-  Change administration flow rate or start at another flow rate at a specific date/time
-  Not carry out the medication order, changing the date/time or entering additional information
-  Display prescription
-  Finish the injection
-  Finish injection, changing the date/time or entering additional information
-  Pause administration
-  Pause administration at a scheduled date/time
-  Clean the volumetric container (change the container)
-  Clean the volumetric container at a scheduled date/time
-  Enter a comment



Carry out an injection: **For an infusion containing several products, a partial performance can be indicated, giving the products actually administered.**



Carry out an injection, changing the date/time or entering additional information



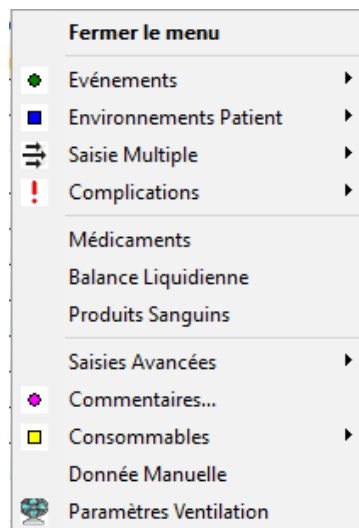
Link to a syringe pump

Left-clicking allows you:



Carry out a new entry:

The + button allows you to enter information and open the drop-down menu.



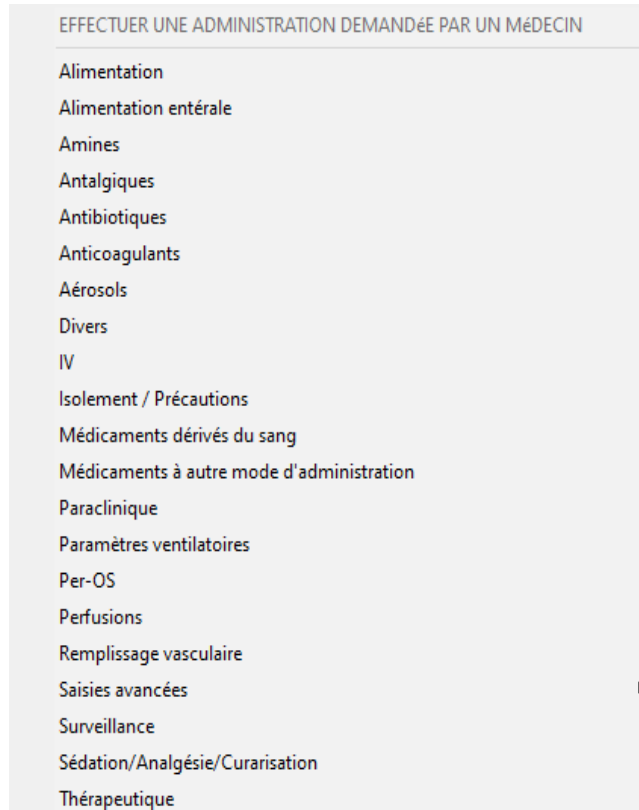
Carry out an administration requested by a doctor:



The oral medication order button allows you to administer a drug that has not been prescribed in the DIANE system.

The nurse must enter the name of the doctor in charge of the medication order. The doctor must then confirm the oral medication order retrospectively.

The drop-down menu then opens with the same classification as the medication order tab.

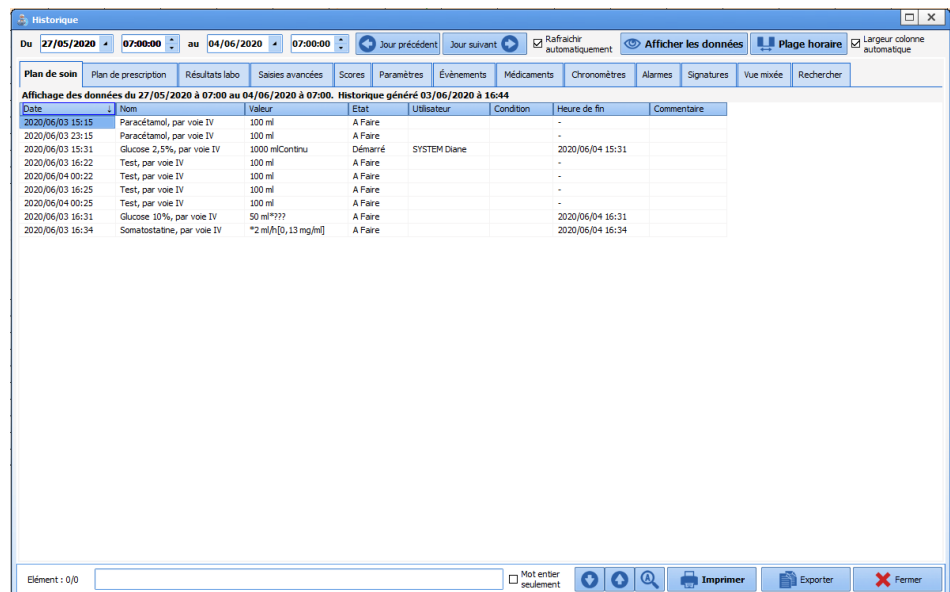


The History button shows all element history:

- vital signs
- drugs
- entries

(for a specified timespan for the patient record).

To see the history:



Historique

Du 27/05/2020 07:00:00 au 04/06/2020 07:00:00

Plan de soin

Date	Nom	Valeur	Etat	Utilisateur	Condition	Heure de fin	Commentaire
2020/06/03 15:15	Paracétamol, par voie IV	100 ml	A Faire			-	
2020/06/03 23:15	Paracétamol, par voie IV	100 ml	A Faire			-	
2020/06/03 15:31	Glucose 2,5%, par voie IV	1000 mlContinu	Démaré	SYSTEM Diane		2020/06/04 15:31	
2020/06/03 16:22	Test, par voie IV	100 ml	A Faire			-	
2020/06/04 00:22	Test, par voie IV	100 ml	A Faire			-	
2020/06/03 16:25	Test, par voie IV	100 ml	A Faire			-	
2020/06/04 00:25	Test, par voie IV	100 ml	A Faire			-	
2020/06/03 16:31	Glucose 10%, par voie IV	50 ml***?	A Faire			2020/06/04 16:31	
2020/06/03 16:34	Somatostatine, par voie IV	*2 ml/h(1,13 mg/h)	A Faire			2020/06/04 16:34	

Élément : 0/0

Imprimer Exporter Fermer

Care plan buttons (right)



Centre the display on the current time (current day only)



Personalise the time slot

Divide column duration by 2



Return column duration



Double column duration



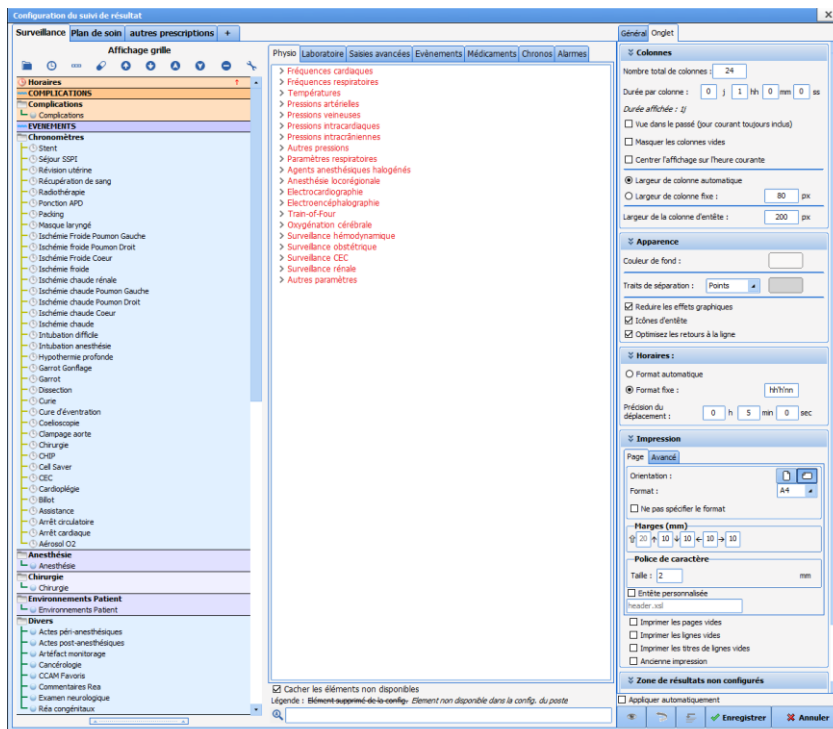
DIANE assistance



Generate a print report

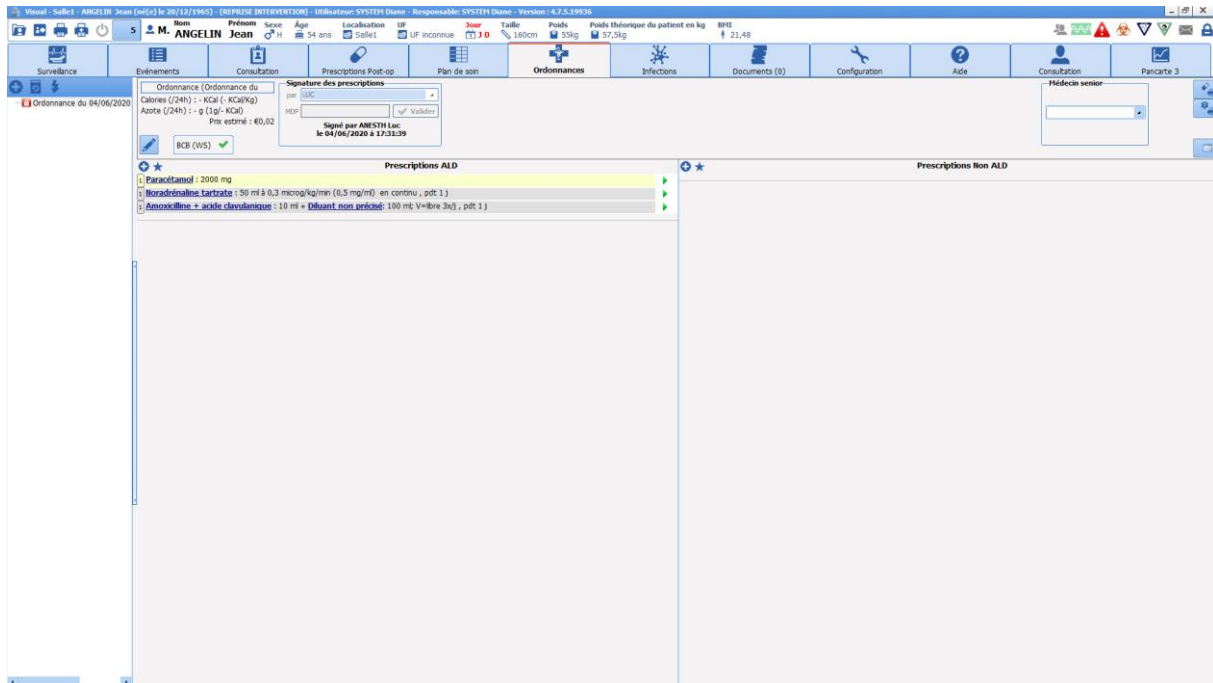


Care plan configuration: result tracking





The configuration of the care plan by a user will be available until the program restarts.

5.2.5 Prescription tab



A prescription can be created or modified.



* To create a prescription, click .

* To create a prescription from a medication order, click .

* To modify a current prescription, click a line with a green padlock  in the same left column.

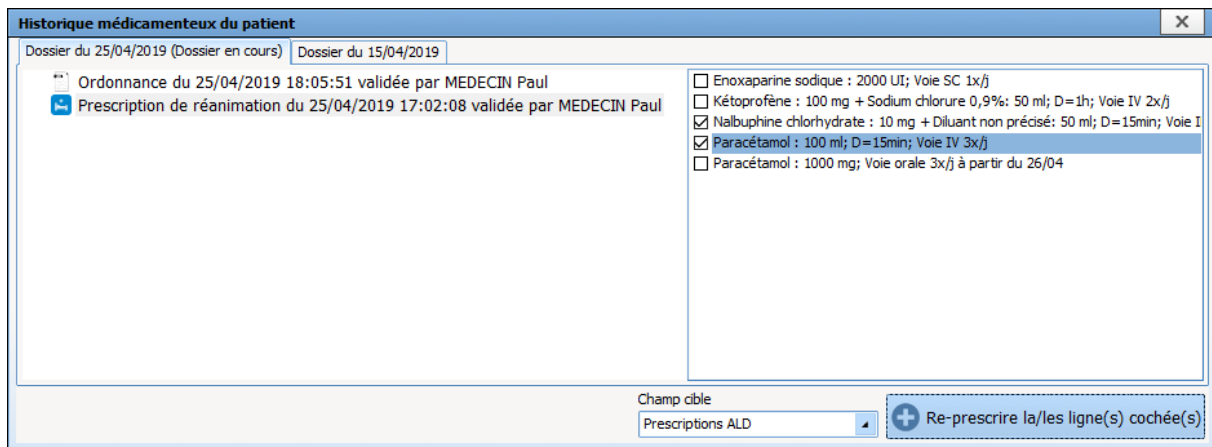
The most important information when creating a prescription is whether the element must be entered as a LTC (long-term condition) or not.

As the procedure is identical in both cases, we will use an LTC prescription as an example.

If you use the buttons  or 

This window will allow you to choose the lines to prescribe again.

This window contains three areas:

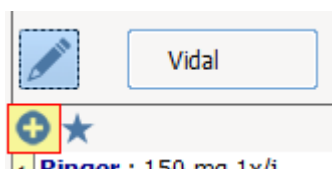


- Select the lower bar (“LTC prescription”) for our example, in the “target field” menu.
- The top left area allows you to choose the required medication order or prescription from the medication order and prescription history.
- When you have chosen your medication order, the prescription lines will appear in the top right area with tick boxes.
- Select the relevant lines for the LTC part of the two-part prescription.
- Click “Represcribe the selected line(s)”.
- Repeat these five steps after changing the target field.
- When you have finished, close the window.

On the main screen shown above, you can add lines in the LTC and non-LTC areas.



To add an entry to the LTC area:

Click  - highlighted in yellow in the image below - in the LTC medication order area.



This opens the usual DIANE medication order window.

The button  next to  allows you to access specific favourites.

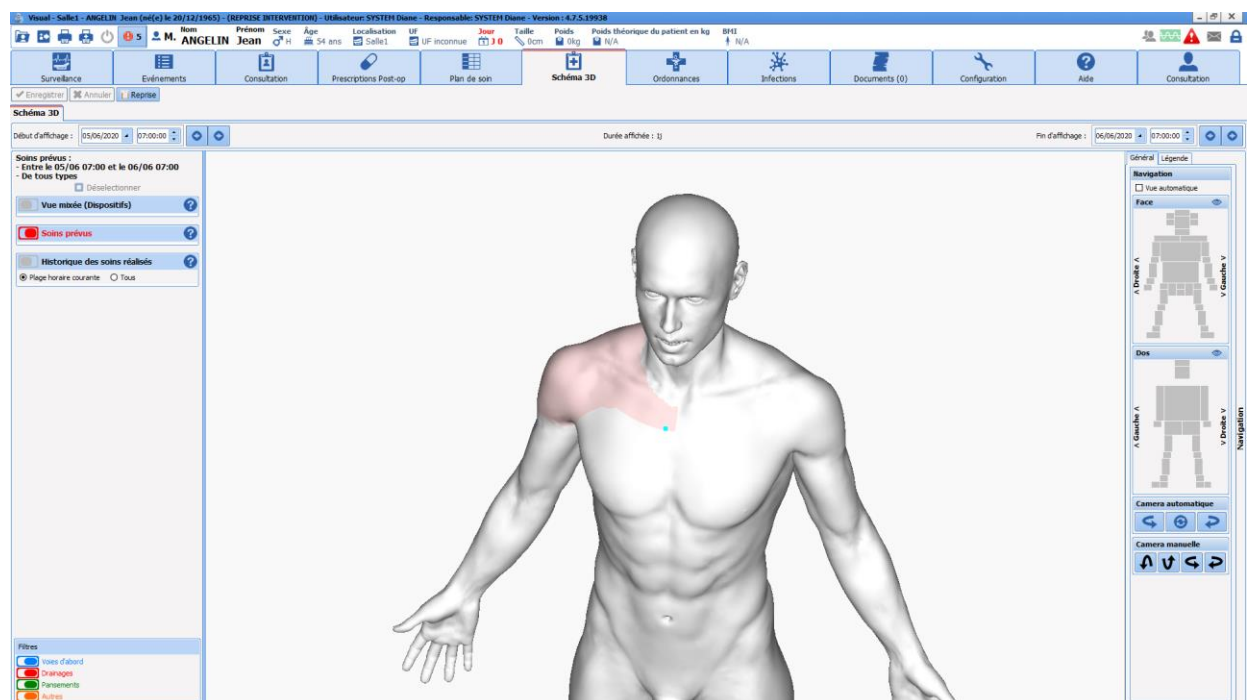
The button  above  allows you to launch medication orders.

- **Add medication order:** previously entered information remains unchanged.
- **Replace medication order:** previously entered information is replaced by medication order entries.

All automatically added lines, whether by addition or replacement, can be modified or deleted.

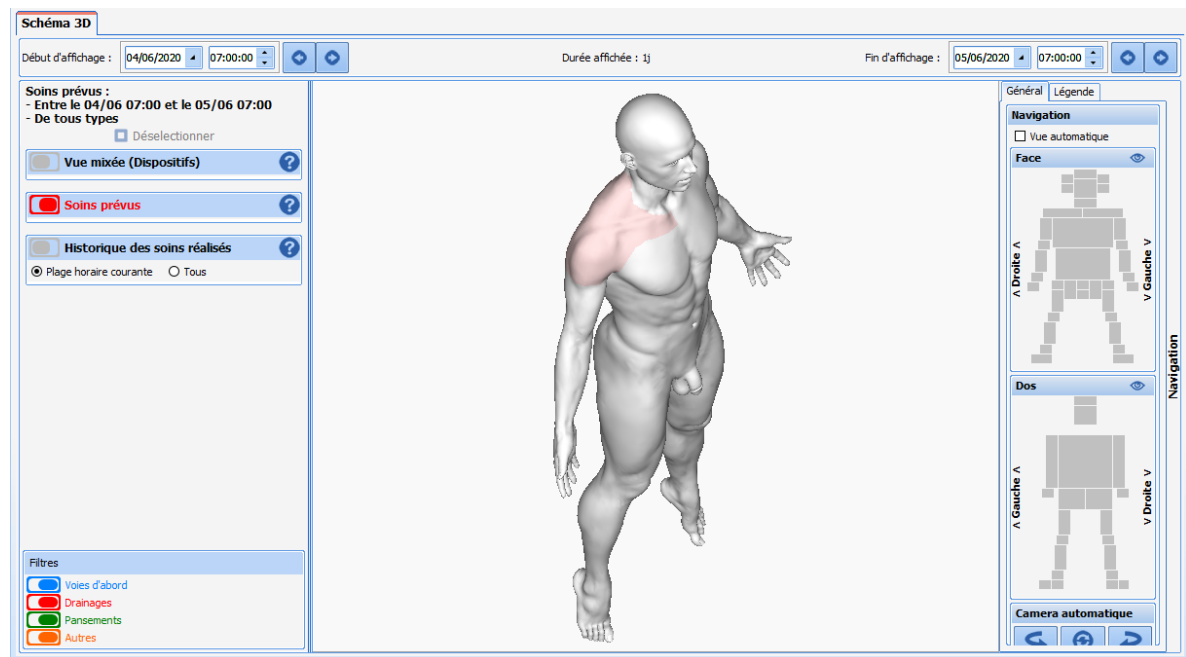
5.2.6 3D diagram tab

The 3D diagram allows to you locate treatments on a representation of the patient.



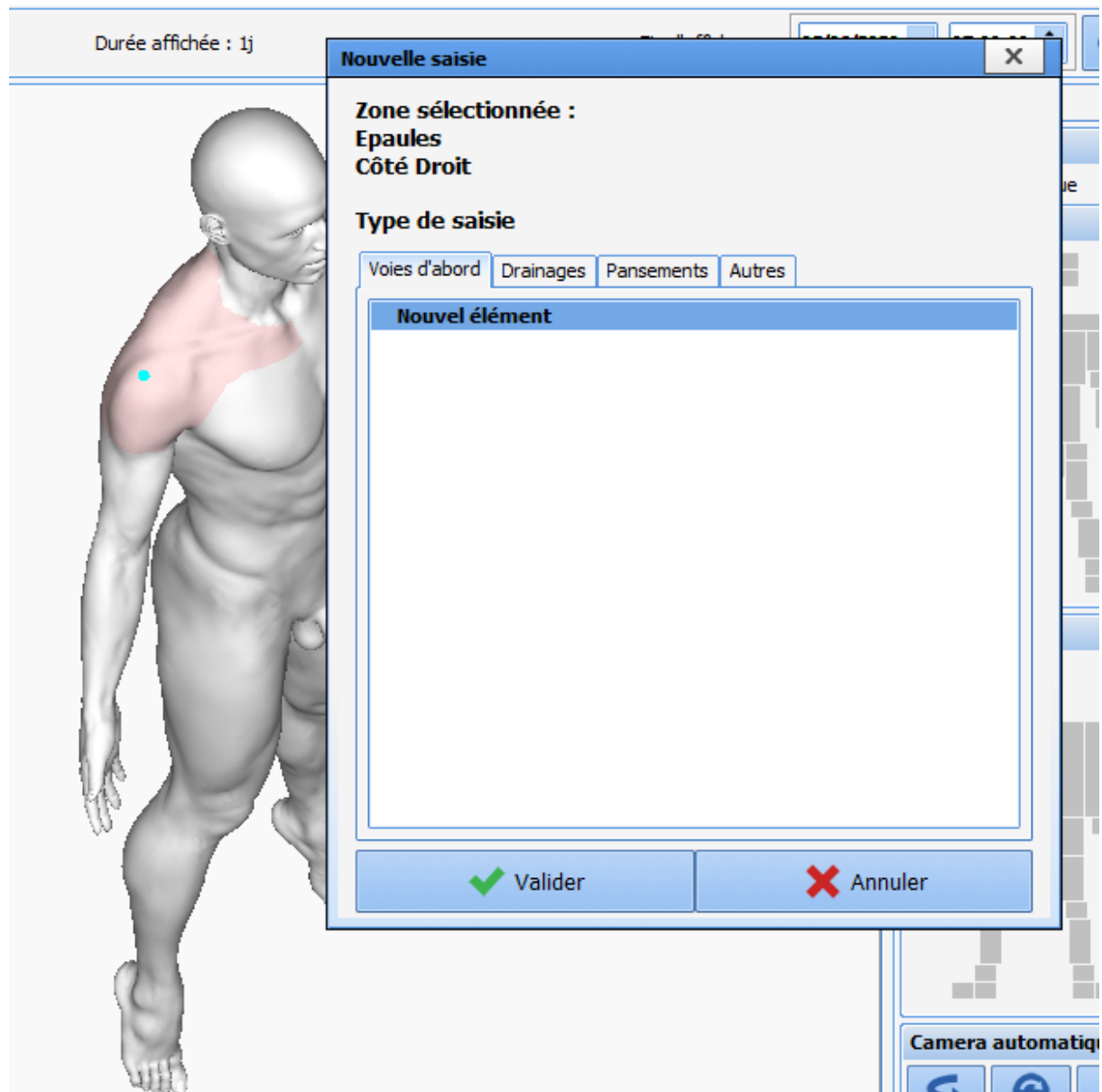
5.2.6.1 3D diagram

Here is a simple demonstration:



You can 'navigate' around the figure by moving your mouse.
You can also zoom in on one area by clicking the area you need (on the right).

When you click on the figure, a window opens.

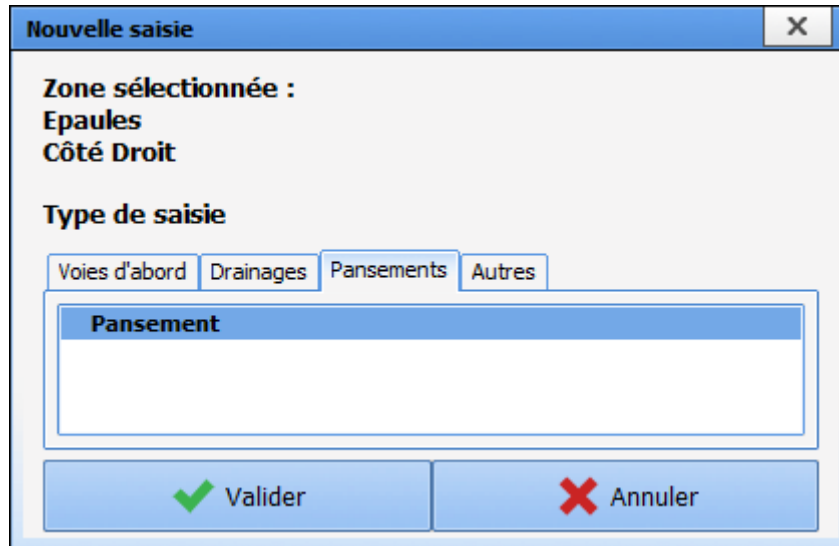


You can choose from four options:

- * Ports
- * Drainage
- * Dressings
- * Other

5.2.6.2 Example: Applying a dressing

In a new entry window, choose the Dressings tab then Dressing in the list. Your hospital may provide several choices, depending on the settings your key users have configured.



Click Dressings. The user zooms to the area you clicked previously. You are prompted to draw the dressing area then click 'Finish drawing' when you are satisfied.

After completing the shape of the dressing, you will be asked to complete an application form. This form has been set up so that you can add a numeric rating scale for pain on resting and the lower part shows that the dressing must be checked in 2 hours.

Date de réalisation : 04/06/2020 18:11:34 Commentaire...

EN au repos
Aucun enregistrement Saisir/modifier la valeur de score...

Pose de pansement Bétadine 4 temps

Technique de pansement
 Bétadine 4 temps Autre technique

Images / photos associées

Formulaire suivant :
 Surveillance de pansement

Dans : 2 A : 20:11:34
 Unité
 minute(s)
 heure(s)
 jour(s)
 Le 04/06/2020

✓ Enregistrer ✗ Annuler

You have four choices:

Formulaire suivant :
 Surveillance de pansement
 Surveillance de pansement
 Refection du pansement
 Retrait de pansement Bétadine 4 temps
 aucun : le soin est terminé

Dans : 2 A : 20:11:34
 Unité
 minute(s)
 heure(s)
 jour(s)
 Le 04/06/2020

✓ Enregistrer ✗ Annuler

Each option has its own alert settings.

Formulaire suivant :
 Refection du pansement

Dans : 2 A : 18:11:34
 Unité
 minute(s)
 heure(s)
 jour(s)
 Le 06/06/2020

✓ Enregistrer ✗ Annuler

5.2.6.3 Example: Removing a dressing

After validating the removal, the left column shows the list of devices in the mixed view, upcoming (scheduled) care and previous care (history).



The screenshot displays a software interface for managing medical care. It is divided into three main sections, each with a header and a list of items:

- Soins réalisés :**
 - Entre le 04/06 07:00 et le 05/06 07:00
 - De tous types
 - Déselectionner
- Vue mixée (Dispositifs)** (with a question mark icon):
 - Section: Pansements
 - Item: 1) Pansement droite 1
- Soins prévus** (with a question mark icon):
 - Section: Pansements
 - Item: Pansement droite 1
 - Item: 1) 06/06 18:30 : Refection du pansement
- Historique des soins réalisés** (with a question mark icon):
 - Radio buttons: Plage horaire courante, Tous
 - Section: Pansements
 - Item: Pansement droite 1
 - Item: 1) 04/06 18:30 : Pose de pansement Bétadine 4...

5.2.7 Infections tab

The Infections tab allows you to add infections and isolation measures. The corresponding icons can be found in the patient record (top left).



Colonisation (MDRO, etc.)



Droplet isolation



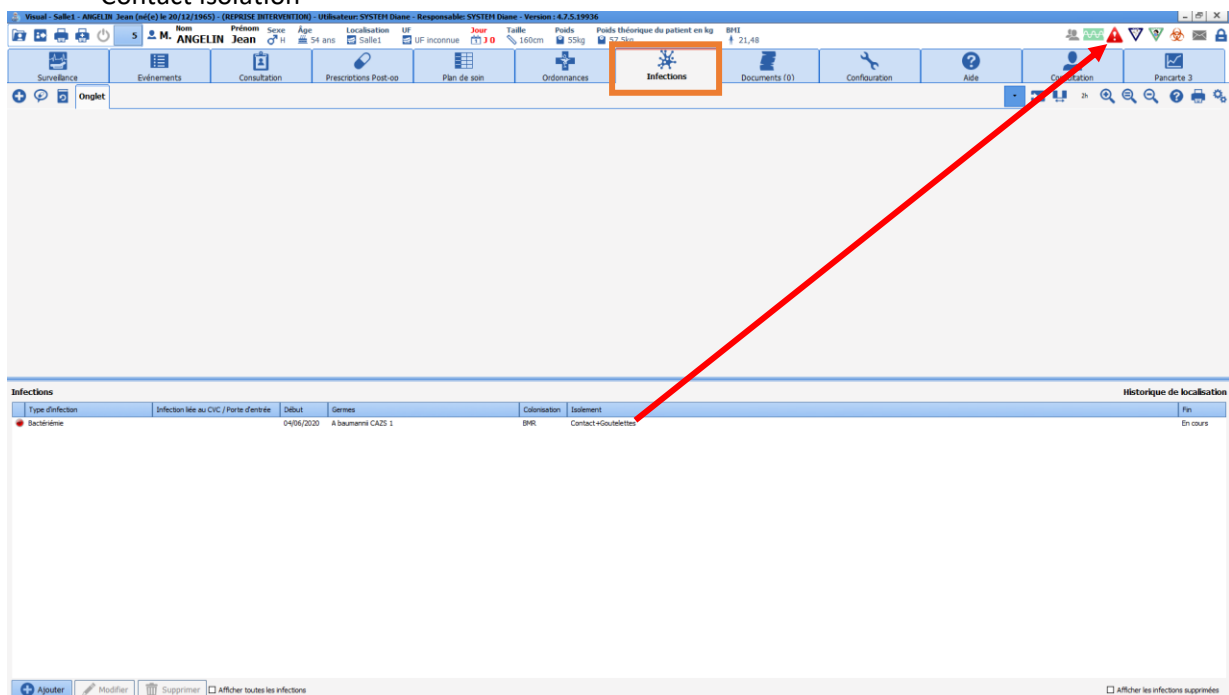
Airborne isolation



Protective isolation

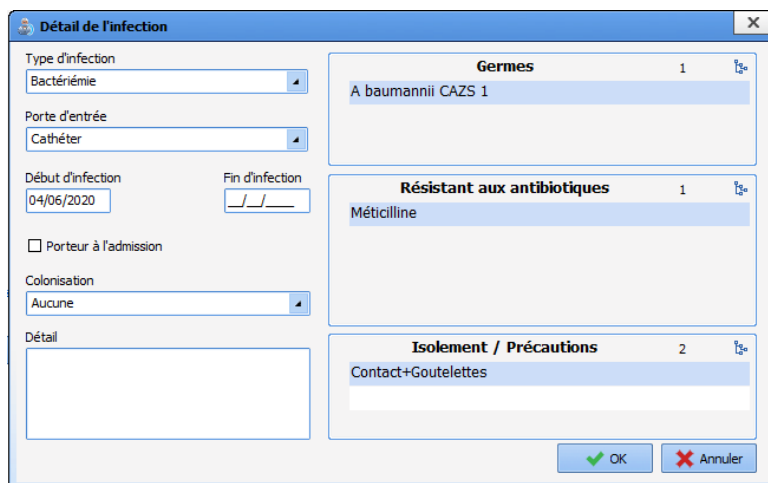


Contact isolation



The screenshot shows the patient record for Jean Angelin. The 'Infections' tab is highlighted in the top navigation bar. Below the navigation bar, there is a table with the following data:

Type d'infection	Infection liée au CIC / Porte d'entrée	Début	Germes	Colonisation	Isolément	Historique de localisation
Bactériémie		04/06/2020	A baumannii CAZS 1	BMR	Contact+Goutelettes	En cours

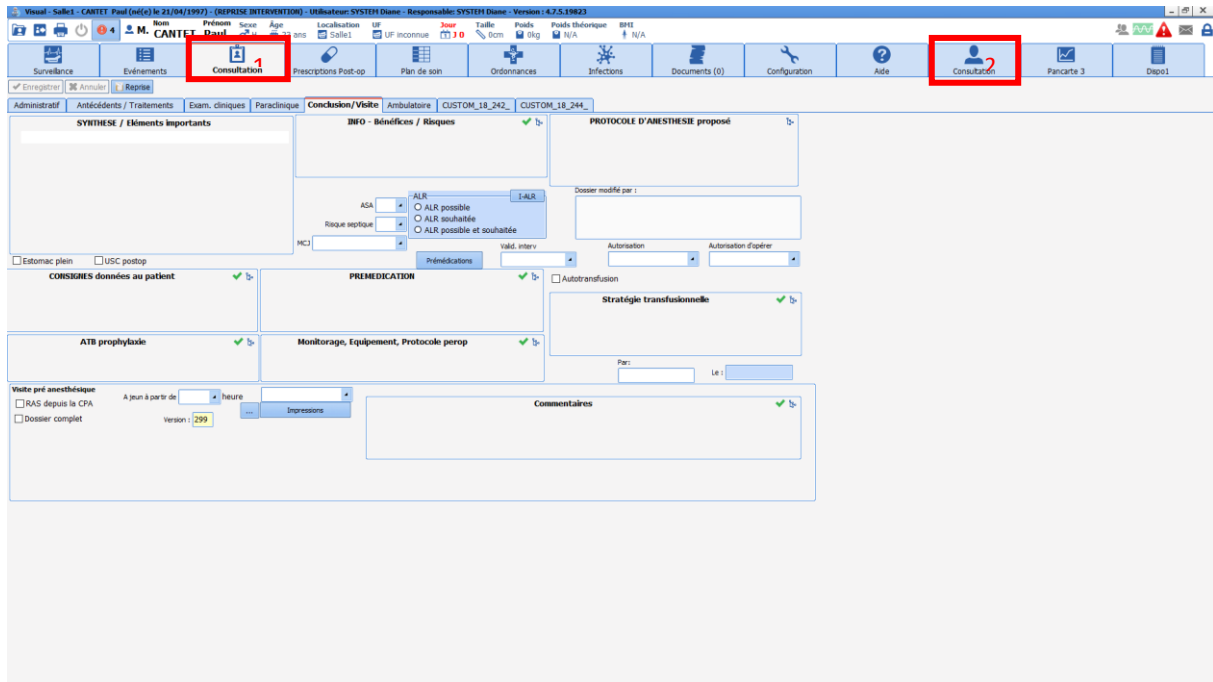
The 'Détail de l'infection' window contains the following information:

- Type d'infection: Bactériémie
- Porte d'entrée: Cathéter
- Début d'infection: 04/06/2020
- Fin d'infection: [empty]
- Porteur à l'admission:
- Colonisation: Aucune
- Détail: [empty text area]
- Germes: A baumannii CAZS 1 (1)
- Résistant aux antibiotiques: Métilcilline (1)
- Isolement / Précautions: Contact+Goutelettes (2)

This window allows you to add new infections.

5.2.8 Consultation tab

This tab shows information from the preoperative assessment relating to the current operation.



- Tab 1: This is a shortcut for accessing the preoperative assessment module. (see Consultation documentation)
- Tab 2: This is a copy of the assessment module accessible from Visual (see Consultation documentation).

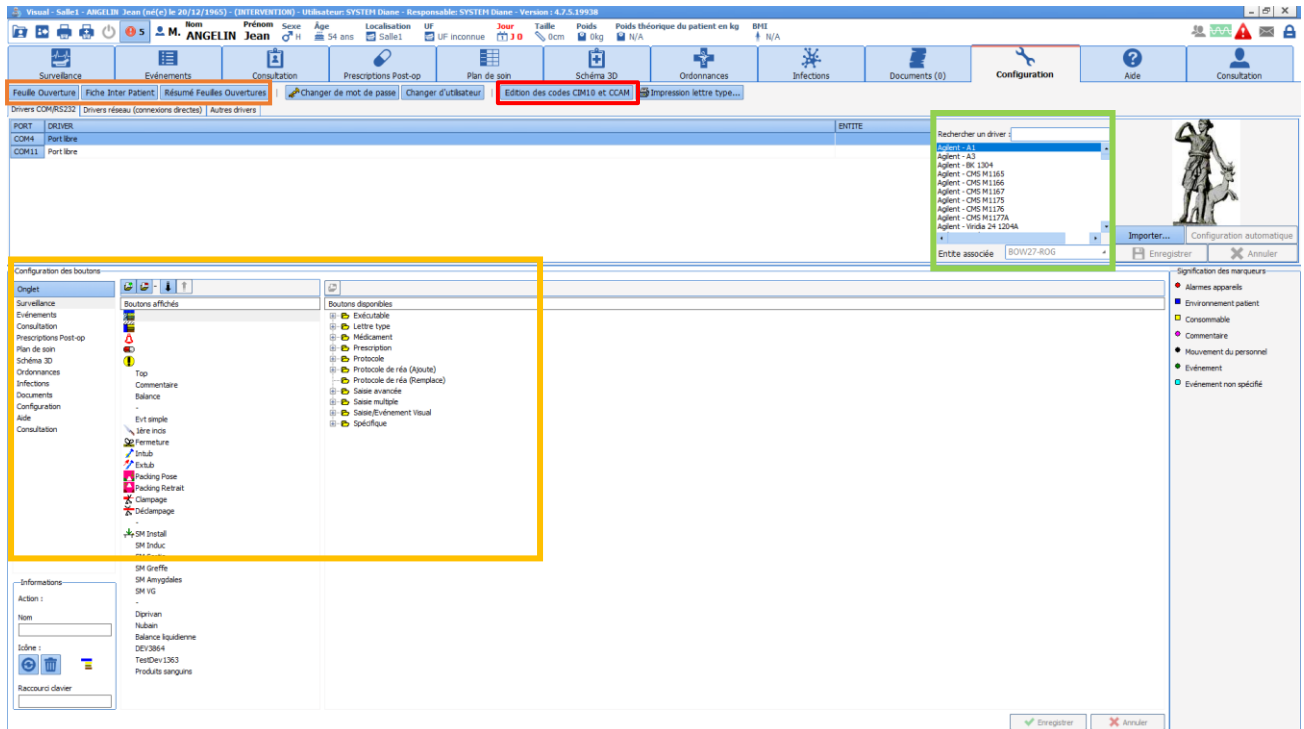
The information included (which you can view or modify depending on permissions) complete the **Patient** page on the **Monitoring** tab.

You can view or add to the consultation of another patient by selecting it using the **Patient selection** button.

5.2.9 Configuration tab

The Configuration tab allows you to configure medical equipment ports and the buttons in the configuration module.

To receive constants during training (by definition not connected with data uploads), you must search for the SIMULATOR driver (if not already active).



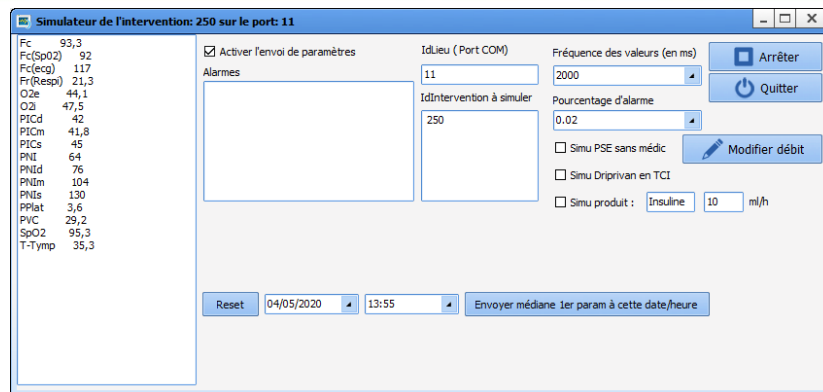
In production:

This is where **Driver configuration** for biomedical devices associated with the computer via RS232 and **Button configuration** are carried out.

Features: **Via left-click**

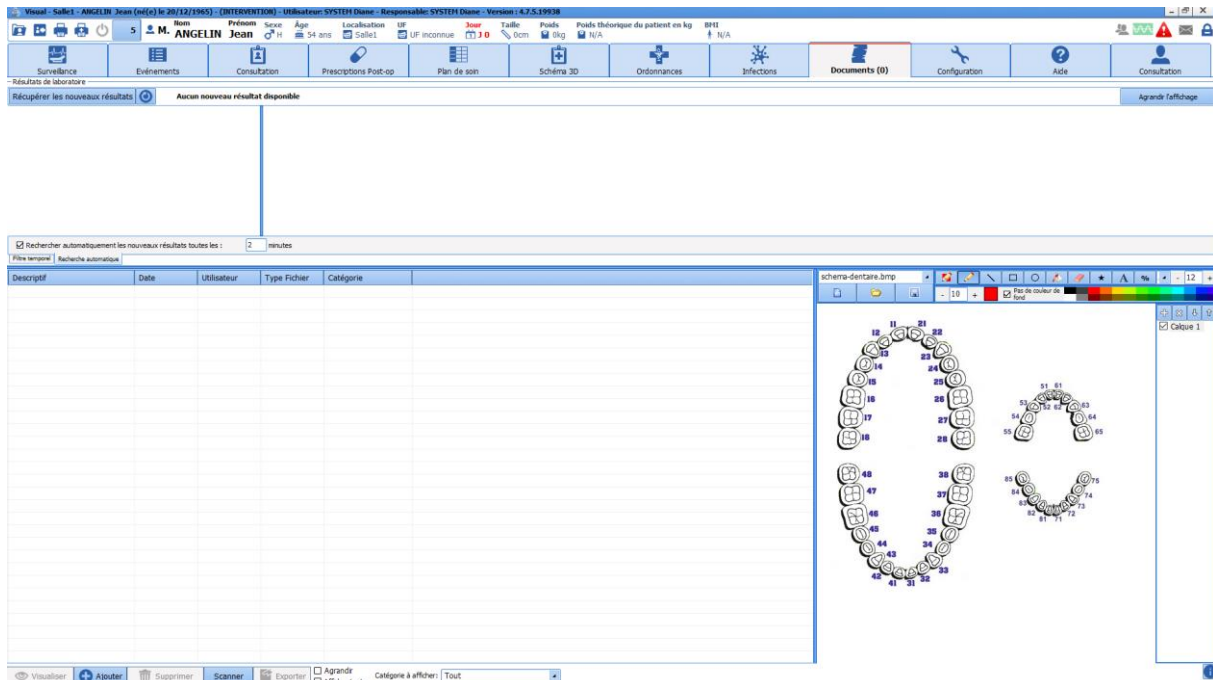
- This tab shows certain advanced entries (check-lists, identity verification etc.)
- Allows you to issue ICD-10 and Procedure codes
- Allows you to change the order of tabs and call buttons for advanced entries
- Allows you to verify and control the sending of data from biomedical devices (patient monitoring)

Example simulator window (do not close, reduce in task bar).



5.2.10 Documents tab

The Documents tab groups together all documents integrated generated during a patient's care.



It includes: Via left-click

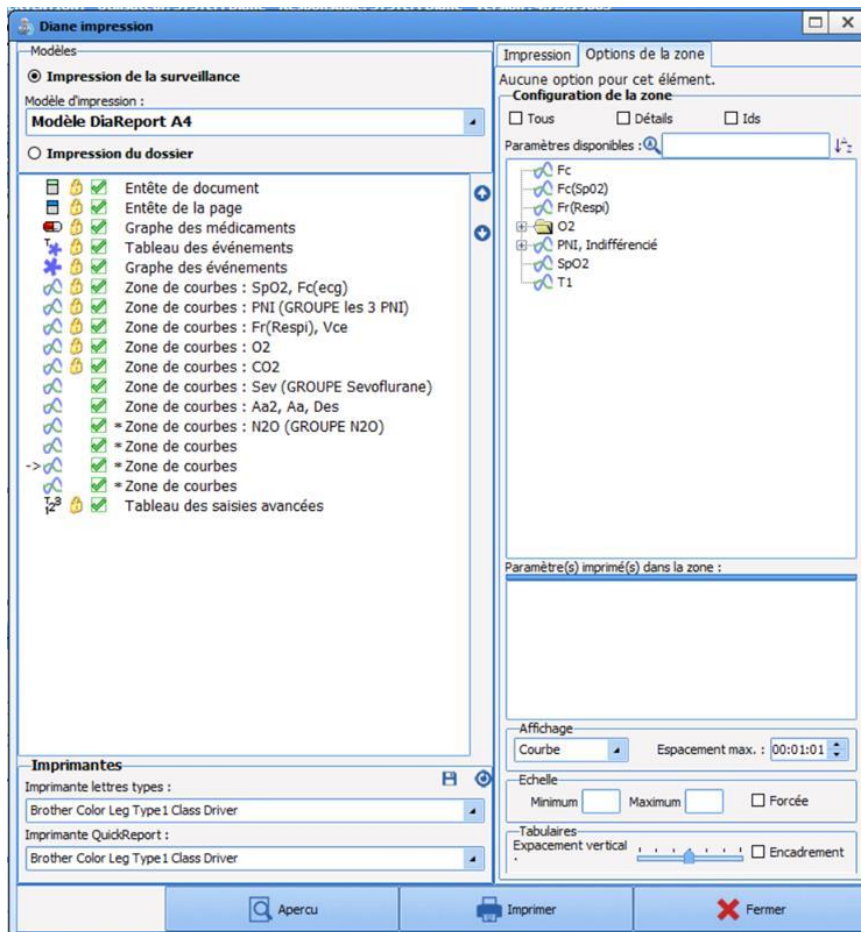
- Scanned documents (lab results, ultrasounds etc.)
- Anaesthesia consultations (exported from DIANE Anaesthesia)
- Letters (summaries, liaison letters, etc.).

These documents can be viewed by clicking on the relevant line and can be edited (in PDF format, for example) and printed from this tab.

6. Conclusion:

6.1 Print manager

After clicking **Print operation**, a **DIANE Print manager** window opens for you to confirm printer settings.

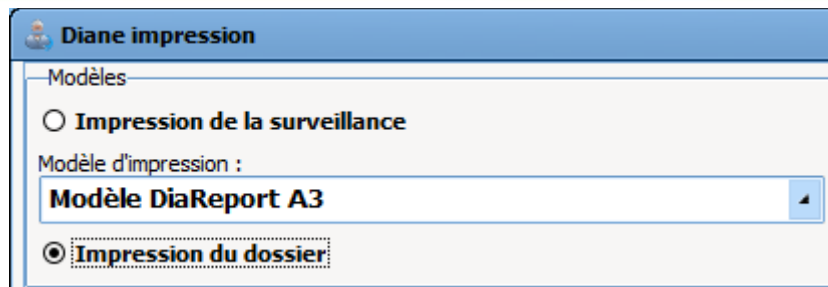


It is possible to set up several printing templates with different formatting.

If the print-out does not fit on one page, the pages will be numbered.
However, no page number is included if only one page is printed.

Sometimes, printers are not able to print graphs. This can be configured by your site administrators.

It is possible to set up several printing templates with different formatting.



6.2 Offline mode

Note: It is important that offline mode is never considered a 'normal' status for the application. This mode simply avoids losing work that has been carried out in the case of a network outage, for example. Restart DIANE as soon as you are informed that the situation has returned to normal.

Continuity of operation is ensured in the case of a server issue or (more commonly) loss of connection between the workstation and the network or server.

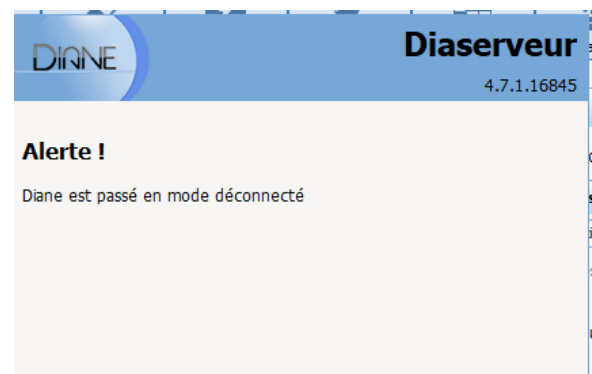
Workstations continue to save data uploaded locally by biomedical devices. This is because all the lists that are useful in the room are downloaded locally on logging in, which allows you to use all entry possibilities for all current patients or newly created patients.

Note: It is possible to change user in offline mode.

Note: When a server issue occurs, the inter-computer connection feature continues to work. However, if there is a network cable problem directly affecting a theatre, you will no longer be able to access other computers from the disconnected computer. Other computers in the unit will also not be able to access the disconnected computer in the network.

The following message indicates a change to offline mode, either on launching the application or during its use.

Note: The following icon appears in the top right corner of the application when you are in offline mode



If you have lost the network connection, all data is saved on your workstation.

Resynchronisation is attempted when the application is closed. Resynchronisation is also attempted on patient discharge (after you click **Close patient record**).

On each restart, DIANE tests the network access and sends local patient data to the central server. If your network access is still not re-established, your data will be resynchronised with the server when you next log in **from this computer**.

6.3 Closing and transfer

The 'Patient discharge' button in the Navigation tab allows you to discharge a patient from the unit. A confirmation message appears before the record is closed.



This window appears when a patient is discharged.

It allows you to close the record or transfer the patient to another unit.

It includes mandatory elements and warnings.

Êtes-vous sûr(e) de vouloir fermer le dossier ?

Fermer le dossier du patient Jean ANGELIN ?

Il y a 6 avertissement(s) :

- Saisir l'anesthésiste présent
- Saisir le chirurgien présent
- Saisir le risque ASA
- Saisir le type d'anesthésie
- Saisir le type d'intervention
- Saisir la saisie avancée...

Il reste 1 PSE(s) qui n'a(n'ont) pas été arrêté(s) :

- PARACETAMOL 10MG/ML BBM FL 100ML10 PR#12145

Terminer tous les PSEs automatiquement à la fermeture

Il y a 2 prescription(s) de réanimation non fermée(s)

Fermeture de toutes les prescriptions de réanimation automatiquement à la fermeture

Choisissez les actions à effectuer pour le dossier

Cloturer le dossier

Transférer : Ambulatoire

Heure de fin d'intervention

16:50:00 04/06/2020

Imprimer le dossier

✔ Oui

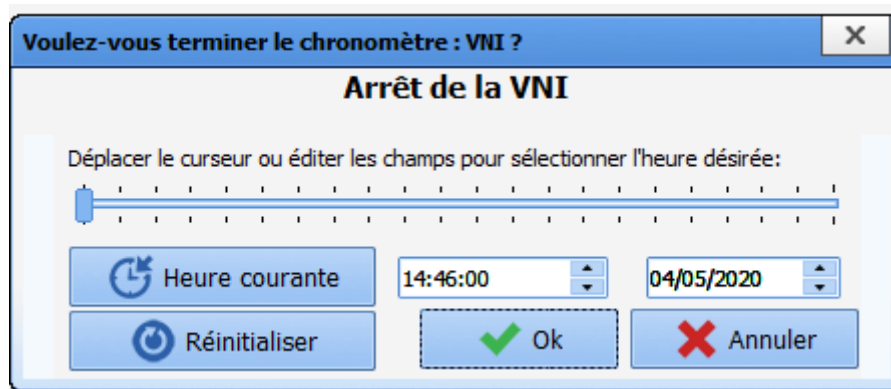
✘ Non

You can choose between two options:

- Close record => this should be used when the patient leaves the scope of DIANE (for example transfer to a unit that is not equipped with DIANE)
- Transfer => select from several choices in the drop-down menu depending on settings ('Recovery room', 'Theatre', 'ICU') IF the unit in question is equipped with DIANE.

Selecting 'Print record' allows you to print the record from the printer that has been set up for your hospital or export the record to the EHR.

If certain drugs or devices have not been stopped in the record, the confirmation window will indicate the items still ongoing.



By selecting 'Finish all timers automatically on closing' and/or 'Finish all syringe pumps automatically on closing', you stop the devices and drugs that are still ongoing. Of course, it is not necessary to select this if the patient is being transferred to another unit with their devices and infusions, and then coming back to Visual, for example.