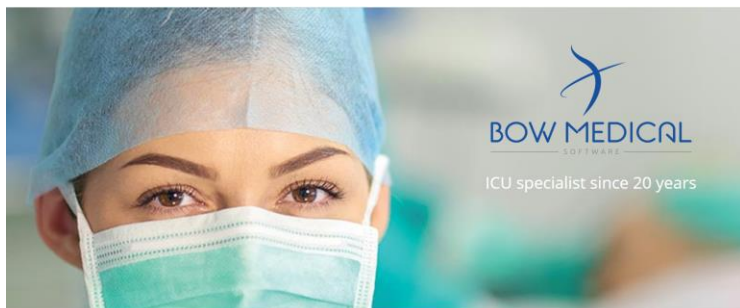




**BOW MEDICAL**

— EDITEUR DE LOGICIELS —

Corporate Product Portfolio



## ABOUT BOW MEDICAL

Created in September 1999, Bow Medical has become a major player in the medical anesthesia field through the Diane software suite deployed within 2700 operating room in France.

Bow Medical has then continued its development through the intensive care market segment.

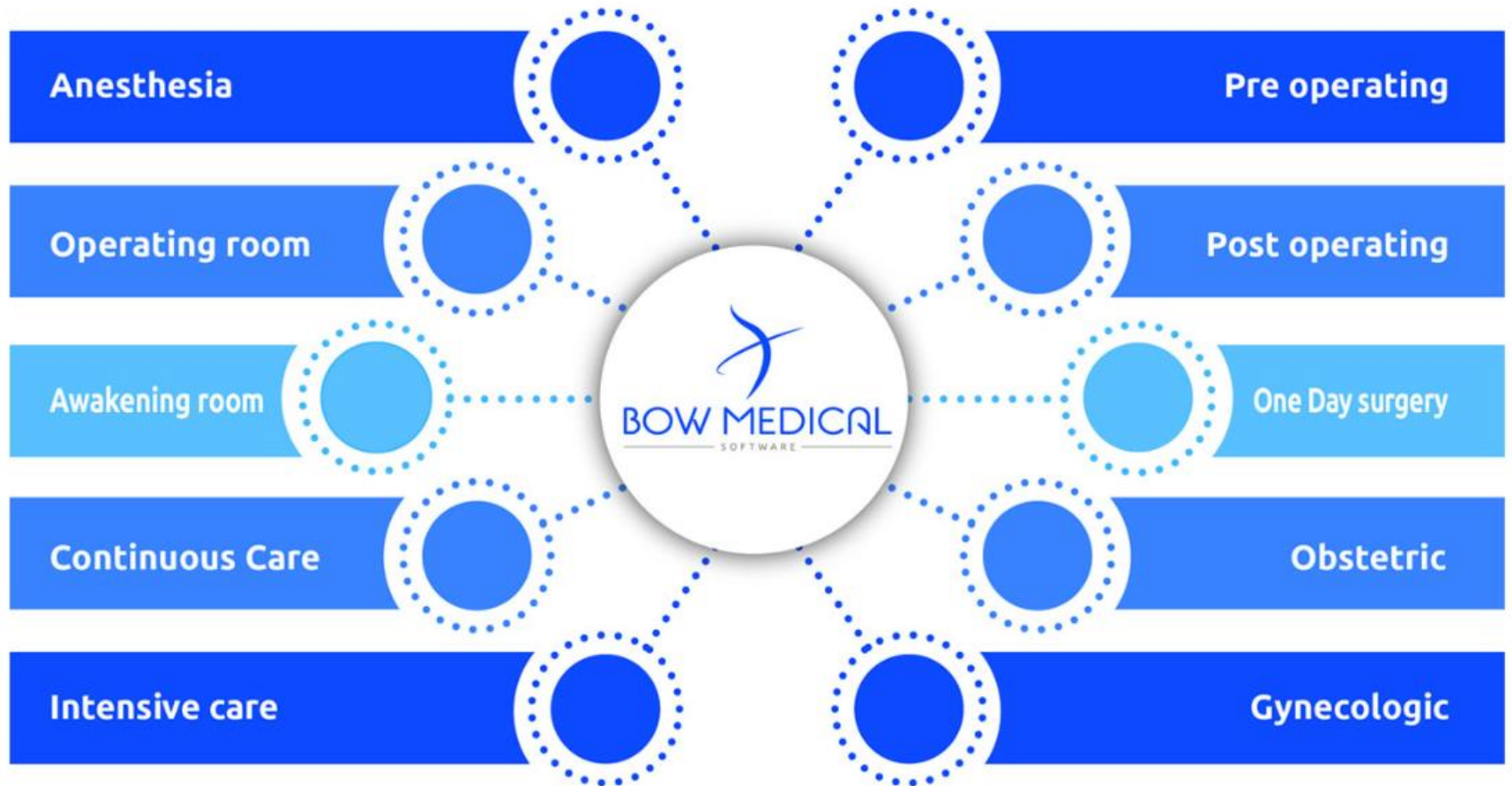
- **French company founded in 1999.**
- **Headquarters in Amiens France.**
- **Subsidiary 6 Villa Ballu 75009 Paris.**
- **Company specialized in anesthesia, intensive care obstetric and outpatient care**

- **Headcounts 33 people:**
  - › Engineers and technicians for research and development including technical support
  - › Trainers
  - › Application engineers
  - › Growing commercial and marketing network
- **A stake in the Extens E-Health investment fund**



BOW MEDICAL

OUR INDUSTRY



**DIANE | ANESTHESIA**  
A BOW MEDICAL brand

**Performs the main functions of a computerized anaesthesia sheet.**

**DIANE | ICU**  
A BOW MEDICAL brand

**Data sharing by all healthcare professionals within the same department or department through a collaborative space**

**DIANE | OB-GYN**  
A BOW MEDICAL brand

**Sharing data by all health professionals in maternity wards to ensure women gynecological follow-up. Pregnancies survey, childbirth, postpartum and newborn follow-up.**

**AMBUCARE**  
Une marque de BOW MEDICAL

**Provides a solution to outsourcing care, therapeutic education and improved rehabilitation of patients, during acute or chronic pathologies with a constant concern for quality and safety, regardless of the duration of surveillance**

# DIANE

Une marque de BOW MEDICAL

## Déploiement



### DIANE | ANESTHESIA

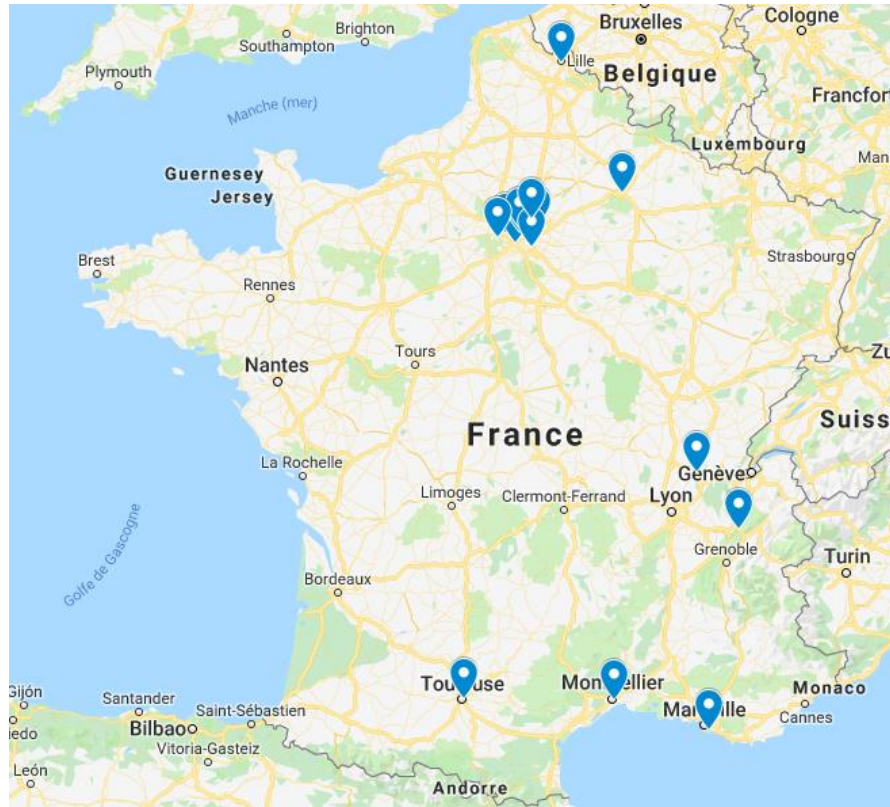
A BOW MEDICAL brand

The anaesthesia software solution in France  
8 000 licenses dont 17 University  
hospital

### DIANE | ICU

A BOW MEDICAL brand

The ICU software solution  
17% market share  
park installed



More than 530 beds :

1. Hôpital Privé d'Antony
2. Clinique Convert (Bourg en Bresse)
3. Hôpital Privé de Marne Chanteraine (Brou sur Chanteraine)
4. CH Chambéry – Métropole Savoie
5. Hôpital Privé Parly II (Le Chesnay)
6. Hôpital Marie Lannelongue (Le Plessis Robinson)
7. Hôpital Privé Le Bois (Lille)
8. Hôpital Privé Clairval (Marseille)
9. Institut Jacques Cartier (Massy)
10. CH Montélimar
11. Clinique du Millénaire (Montpellier)
12. Fondation Adolphe de Rothschild (Paris)
13. Clinique Geoffroy St Hilaire (Paris)
14. CTB - AHP St Louis (Paris)
15. CHP Claude Galien (Quincy-sous-Senart)
16. CHU Reims
17. Clinique de l'Union (Toulouse)
18. Hôpital Privé de l'Ouest Parisien (Trappes)
19. Clinique Vert Galant (Tremblay en F.)

Intensive care Adult, neurological and large burnt critical care,  
Pediatric and neonatal Intensive care, critical care

# Our partners



**Dräger**

It is an international leader in medical and safety technology.



**MAINCARE  
SOLUTIONS**

Maincare is a leading software digital and medical solutions editor for the healthcare world.



**MOEBIUS**

MOEBIUS is a software that masters the course of care. It proposes to increase the added value of your pre-anaesthesia consultation to homogenize, secure and improve the patient care



**anamnèse**

Anamnèse helps healthcare professionals to invent the patient-practitioner relationship by involving the patient. Our artificial intelligence structure is interviewing patients in their natural languages, as a medical assistant would do.



**logipren**  
protecting babies' health

Designed by a community of neonatologists for health professionals and supported by the B-PEN research project of the University Hospital of Reunion with the support of the European Union and the Reunion region.



**Manage with efficiency**  
your intensive care unit.

- **Allows patient follow-up in critical care services**
- **Brings all relevant information to the healthcare team**
- **Includes advanced tools for intensive care.**



Statistical analysis of activity,  
infections, mortality...

Ergonomic computerized sheet for a  
clear and complete view of the  
patient data

Quick access to all areas of the  
service

A structured and shared patient  
recording file with all teams

Ease of use and efficiency in  
intensive care service

An ergonomic and secure medication  
order module with protocols and  
safeguards

Access to the patient recording file by  
contextual call

A secure Data traceability with  
automatic reporting

Biology and media devices  
automatic integration o

CCAM and CIM10 quotation acts



Présents		Rapports / Impressions	
<p><b>Lit 1</b> ANGELIN Francis (M) - 55 ans <b>J 157</b> Détresse respiratoire aiguë hypoxémique</p>	BMR Streptococcus pneumoniae (pneum...		
<p><b>Lit 2</b> Aucun dossier</p>			<p>Admission patient</p>
<p><b>Lit 3</b> MULARD David (M) - 58 ans <b>J 157</b> ACR récupéré</p>			
<p><b>Lit 3</b> Lit Vide</p>			<p>L'entrée de patient n'est pas possible à partir de ce poste</p>
<p><b>Lit 4</b> POULIQUEN GEORGES (M) - 85 ans <b>J 694</b> Connexion au DiaServeur impossible : affichage restreint</p>			
<p><b>Lit 5</b> TRAPAND COLETTE (F) - 77 ans <b>J 692</b> Connexion au DiaServeur impossible : affichage restreint</p>			
<p><b>Lit 6</b> Lit Vide</p>			<p>L'entrée de patient n'est pas possible à partir de ce poste</p>
<p><b>Réanimation</b> Lit Vide</p>			<p>L'entrée de patient n'est pas possible à partir de ce poste</p>

**Synthetic vision of the service:**

**Bed Number visibility**

**Patients (Name/first name)**

**Root Causes of hospitalization**

**Infections BMR**

**Duration in days in hospital stay**

**Alerts**

**Important elements**

IULARD David 58 ans Lit 2 J 24 (Taille:173, Poids:81,5, PoidsTheor:68,75)

Jan. 03 sept. 2018 | 2 | Aucun personnel responsable renseigné pour ce jour.

Prescription du 02/09/2018

Signature des prescriptions: [Signature] | Signature senior des prescriptions: [Signature]

Prescription de base de médicament: 1 Adrenaline, 2 Adrenaline, 1 Ceftriaxone, 2 Rifampicine, 6 Prescriptions d'emploi

Informations patient: [Patient Name], [Patient ID], [Patient Address]

Prescription	Remplissage vasculaire	PSL
Perfusions Dose 5.5% : 1000 ml + Sodium chlorure 10 % : 4 g + Potassium chlorure 10 % : 2 g en continu Dum chlorure 0.9 % : 1000 ml en continu Dum chlorure 0.9 % : 1000 ml en continu	Remplissage vasculaire Isosfandine poche 500 ml perf iv chx : 500 ml D=1h à 15h44	PSL Médicaments dérivés du sang
Amines Amiodarone bitartrate : 24 mg (0.5 mg/ml); V=2 ml/h en continu Objectif PAM > 70 mmHg Atropine sulfate : 0.5 mg à 02h00 Magnesium sulfate 10 % : 3 g (0.06 g/ml); D=20h à 19h45	IV Amiodarone chlorhydrate : 300 mg D=30min à 19h43 Amiodarone chlorhydrate : 600 mg (12.5 mg/ml); V=2 ml/h en continu Atropine sulfate : 0.5 mg à 02h00 Bicarbonate chlorhydrate : 50 mg; V=libre en continu Commentaire associé : "Y de 0 à 6ml/h pour TAG <160 et > 120 mmHg" Potassium chlorure 10 % : 3 g (0.06 g/ml); D=6h à 19h58	Alimentation Alimentation entérale Sondale standard : 500 ml en continu
Antalgiques Sédation/Analgésie/Cararisation Atazacurium : 100 mg; V=6 ml/h 1x Fentanyl : 50 mg (1 mg/ml); V=1.5 ml/h en continu Fentanyl : 50 mg (1 mg/ml); V=3 ml/h en continu Epinephrine chlorhydrate dix milligrammes par millilitre solution injectable : 50 mg (1 mg/ml); V=1 ml en continu Propofol 1 % : 50 mg 1x	Per-OS Acide acetylsalicylique : 75 mg Le midi Clopidogrel : 600 mg à 15h19 Commentaire associé : "Administer par SNG" Clopidogrel : 75 mg Le midi Commentaire associé : "Administer par SNG"	Surveillance Fréquence cardiaque à partir de l'ECG : ttes les 4h Fréquence respiratoire : ttes les 4h Glycémie capillaire : ttes les 4h PNI (Groupe) : ttes les 4h Poids du patient : ttes les 24h Saturation en oxygène du sang artériel : ttes les 4h Tympanique : ttes les 4h Commentaire associé : "Hypothemie objectif 34-36"
Antibiotiques Clérolanque : 1000 mg + Diluant non perçé : 50 ml D=30min ttes les 6h	Médicaments à autre mode d'administration Paramètres ventilatoires VAC, Sonde d'intubation : en continu	Autres surveillances Surveillance neuro GCS + pupilles : ttes les 4h
Anticoagulants Héparine sodique : 25000 UI (500 UI/ml); V=2 ml/h en continu Commentaire associé : "Se référer au protocole pour adaptation TCA"	Aérosols Eparation Extra-Réale	Consignes Particulières Biologie / Bactériologie Bio_Bilan complet : 1x Bio_Bilan d'entrée : à 18h00 Bio_Bilan simple : ttes les 6h
Protocole Meynaar	E.C.M.O.	Kinésithérapie
Protocoles	Echanges plasmatiques	Imagerie

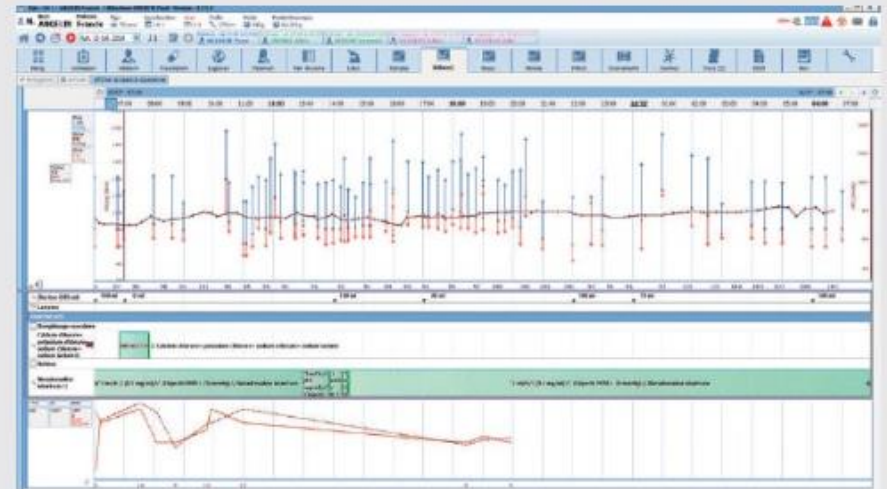
- ✓ Securing the medication order
- ✓ Collecting biological collection automatically
- ✓ Billing automation (CCAM, CIM 10)
- ✓ Improved information sharing
- ✓ Standardized documentation

## Improve

the patient monitoring efficiency.

All laboratory results are integrated automatically in DIANE ICU.

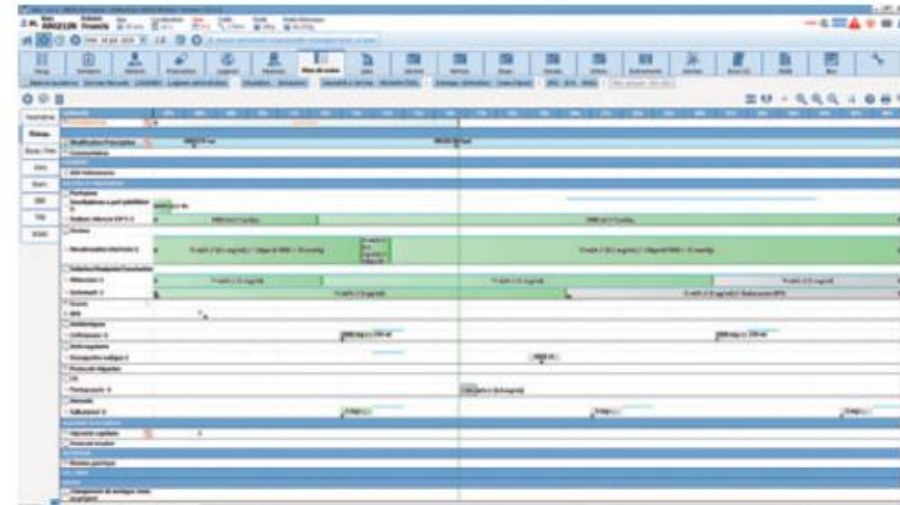
The overall results can be displayed graphically with curves and time scale modulation. Within the same sheet, the caregiver will analyze the data from different sources (laboratory, medical devices, drugs) to evaluate the overall patient health conditions.



## A customizable care plan.

Each specialty ward can model its workspace according to their specific needs allowing a quick start with the system.

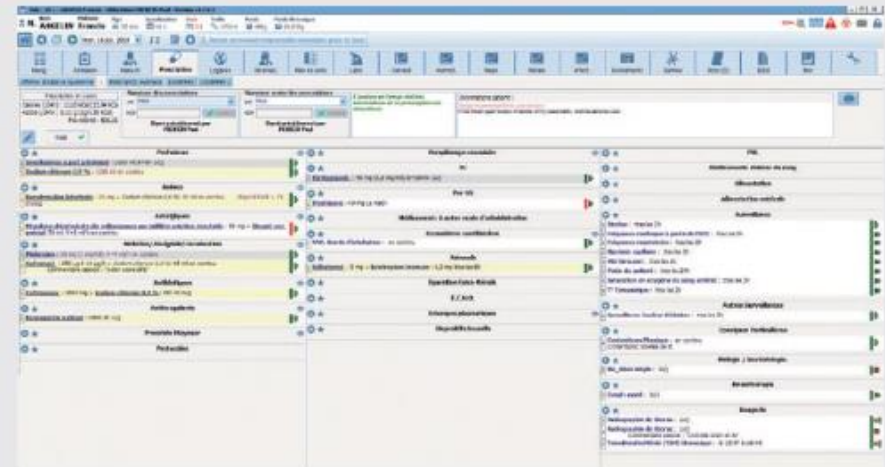
To further secure the care plan, especially when the actual occurrence requires to be modified, a dedicated rule's engine allows the caregiver to document caregiver. This documentation reflects the reality and offers reliable medical track record.



# Outil de prescriptions.

DIANE RÉA apporte un moteur de prescription ergonomique, adapté aux besoins de rapidité et d'adaptation en continu, inhérent à une prise en charge en réanimation.

Basée sur les protocoles du service, la prescription informatisée permet ainsi la réduction des risques (surdosages, contre-indication, interactions médicamenteuses, erreur de lecture...). Par ailleurs, l'affichage sur une seule et même zone offre une vision globale du patient et une prise en charge rapide par le médecin.





**STABILITY** :More than 510 beds already equipped in intensive care



**FLEXIBILITY** :Pilot the Pilot critical care process.



**ERGONOMICS** :Designed to replace 80% of data entry with only one simple process .



### **RULES' ENGINE**

Architecture around a protocols' library and a rules' engine.



### **INTEROPERABLE**

Connected to more than 410 medical devices.



### **MEDICAL DEVICE CE CERTIFIED**

DIANE ICU prescription engine is certified as medical device, manufacturer in the sense of the Directive 93/42/EEC.





Consultation

Operating theatre

Anaesthesia

Recovery room

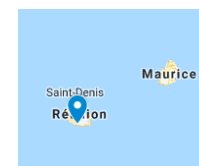
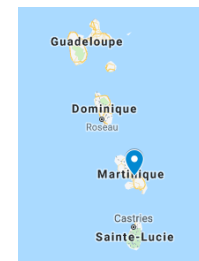
Intensive care

Une base de données et des interfaces communes



50 Public Hospitals  
 10 Cancer Centre  
 135 Private hospitals including:

- 75 Ramsay GDS - Capiro,
- Almaviva,
- Clinifutur,
- Domus Cliniques,
- Elsan
- OC Santé,
- PBNA,
- Saint Gatien
- Santé Cité
- Vedici
- Vivalto



3

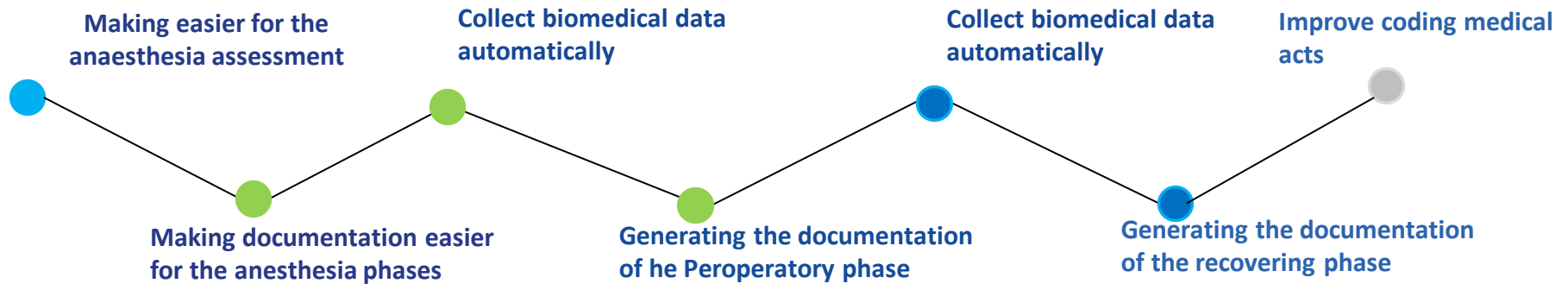


fuseaux horaires



**The solution**  
for facing the challenges  
of anesthesia.

- Monitor patient information status in real time.
- Reflect the accuracy of the patient care
- Generate quickly the documentation in order to ensure the continuity of the patient care



Operative

Per Operative

Post operative

Billing

Consultation Pré anesthésique Utilisateur connecté : MEDECIN Paul - CREPIN LARDEUR Juliette (né(e) le 18/09/1972)

**Patient**  
 Nom de naissance: CREPIN  
 Nom usuel: LARDEUR  
 Prénom: Juliette  
 Sexe: M

**Intervention(s)**

Date	Age	Taille	Poids	Intervention
23/09/2019	47 ans	175 cm	56 Kg	Dilatation coronarienne avec pose...
23/06/2008	35 ans	175 cm	68 Kg	Septorhinoplastie
20/09/2005	33 ans	175 cm	65 Kg	Endoscopie digestive Echoendosc...

Enregistrer, Annuler, Imprimer, Options, Reprise

**Généralités**  
 Taille 175 Poids 56 SC 1,64 IMC 18,29 Poids Idéal 66,07

**Appareil cardio-respiratoire**  
 FC 92 PA systo 144 PA diasto 63 Dyspnée 1

**Abord veineux / Varices**  
 CAPITAL VEINEUX CORRECT : Pas de difficultés de perfusion à priori

**Examens cardio-respiratoires**  
 Souffle systolique au foyer aortique Bilan non fait

**Examens généraux**

**Intubation**  
 Mallampati 1 normal  
 Ouverture de la bouche 3 Doigts  
 Distance ThyroMentonnière > 65 mm  
 Mobilité cervicale Diminuée  
 Profil du patient Normal  
 Score 6

**Accès aux voies adriennes**  
 Intubation OroTrachéale (IOT) avec sonde préformée  
 DIFFICULTÉS PREVISIBLES A L'INTUBATION +++

**Prothèses - Piercing - Piloosité**  
 Piercing de Narine droite à laisser en chambre

**Examens spécifiques et Scores**

Abord veineux  
 Anesthésie Ambulatoire  
 Asthme détails  
 Autres ALR  
 ESB  
 MCJ

Voie périphérique  VP sans problème  VP difficile  VP très difficile  
 Voie centrale  VC jugulaire  VC sous-clavière  VC fémorale  Chambre implantable

Atcd Chimo  Atcd curage axillaire  O D  O G  
 Enfant

**Schéma dentaire**  
 Incisive centrale, Incisive latérale, Canine, Première prémoiaire, Deuxième prémoiaire, Première molaire, Deuxième molaire, Dent de sagesse  
 Haut, Bas, Droite, Gauche  
 Légende: Bridge, Pivot/prothèse/Implant, Mobile, Cassée, Manquante, Autre  
 Saisi à 20h35 Par MEDECIN Paul

**CORMACK** LEE FAGERSTRÖM WILSON Prédiction VAM  
 CORMACK  
 Classificateur de Cormack et Lehane  
 Aucun enregistrement

✓ Patient overview

✓ Ergonomic data entry

✓ Automatic quotation

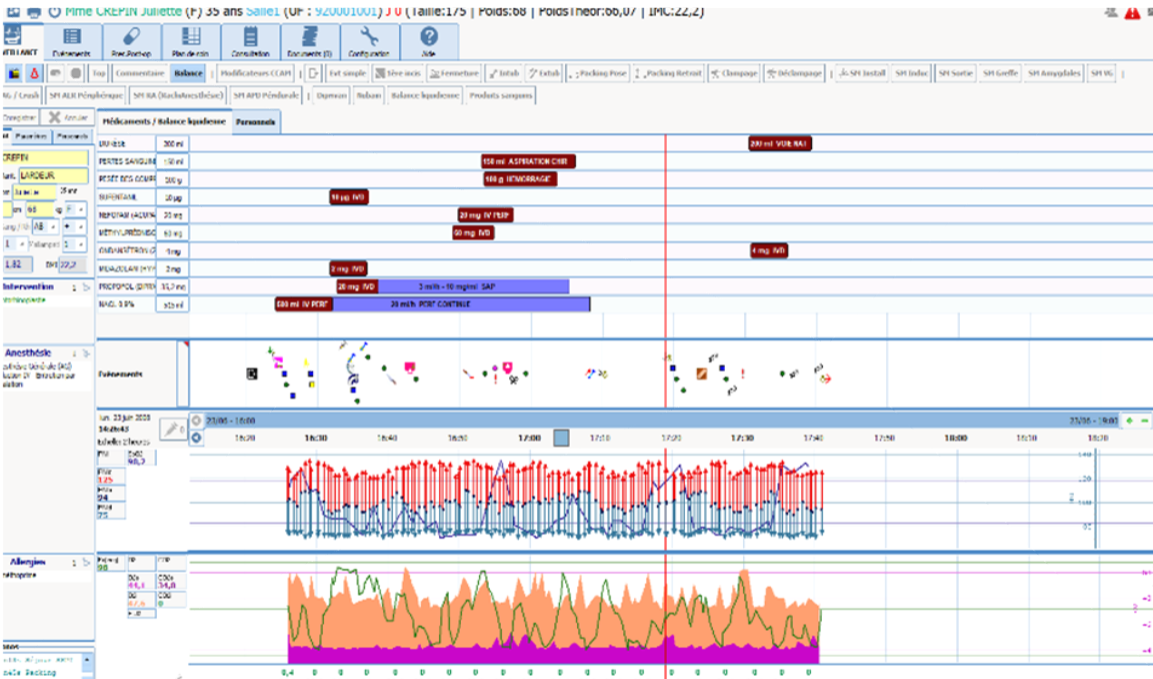
✓ Quick access to all patient information

✓ Exporting patient data

history and treatment

✓ Generating report

- ✓ Ergonomic view screen
- ✓ Synthetic view
- ✓ Automatic data collection
- ✓ Continuity of the anaesthesia assessment file between the operating theatre and the recovery room
- ✓



RA (RACHIANESTHESIE)

<input checked="" type="checkbox"/>	Installation	Position Assise	Unique		14:36:57	Heure actuelle	
<input checked="" type="checkbox"/>	Anesthésie LocoRégionale (	RachiAnesthésie (RA)	Unique		14:37:57	Heure actuelle	
<input checked="" type="checkbox"/>	Aiguille RachiAnesthésie (RA)	Whitacre 25G 090mm (+intro)	Unique		14:37:57	Heure actuelle	
<input checked="" type="checkbox"/>	Niveau de ponction	Ponction rachi L4-L5	Unique		14:38:57	Heure actuelle	
<input checked="" type="checkbox"/>	Nombre de ponction cutané	1 ponction cutanée	Unique		14:38:57	Heure actuelle	
<input checked="" type="checkbox"/>	Réalisation de la ponction	Ponction facile	Unique		14:38:57	Heure actuelle	
<input checked="" type="checkbox"/>	ANESTH LOCAUX	Bupivacaine (Marcaïne)	Voie intrarachidienne - 8 r	Unique		14:39:57	Heure actuelle
<input checked="" type="checkbox"/>	ANALGESIQUES	Sufentanil	Voie intrarachidienne - 2,!	Unique		14:39:57	Heure actuelle
<input checked="" type="checkbox"/>	ANTALGIQUES	Chlorhydrate de morphine (Morphin)	Voie intrarachidienne - 10	Unique		14:39:57	Heure actuelle
<input checked="" type="checkbox"/>	CARDIO-VASC	Clonidine (Catapressan)	Voie intrarachidienne - 25	Unique		14:40:57	Heure actuelle
<input checked="" type="checkbox"/>	Position	Position Décubitus dorsal	Unique		14:41:57	Heure actuelle	
<input checked="" type="checkbox"/>	Niveau sensitif	Niveau sensitif T10	Unique		14:44:57	Heure actuelle	
<input checked="" type="checkbox"/>	Bloc moteur	Bloc chirurgical	Unique		14:44:57	Heure actuelle	

OK
  OK et poursuivre avec...
  Conserver cette saisie multiple

**14:37:04**  
**14:36:57**

Touche Ctrl : décale l'horaire de l'item choisi et les suivants

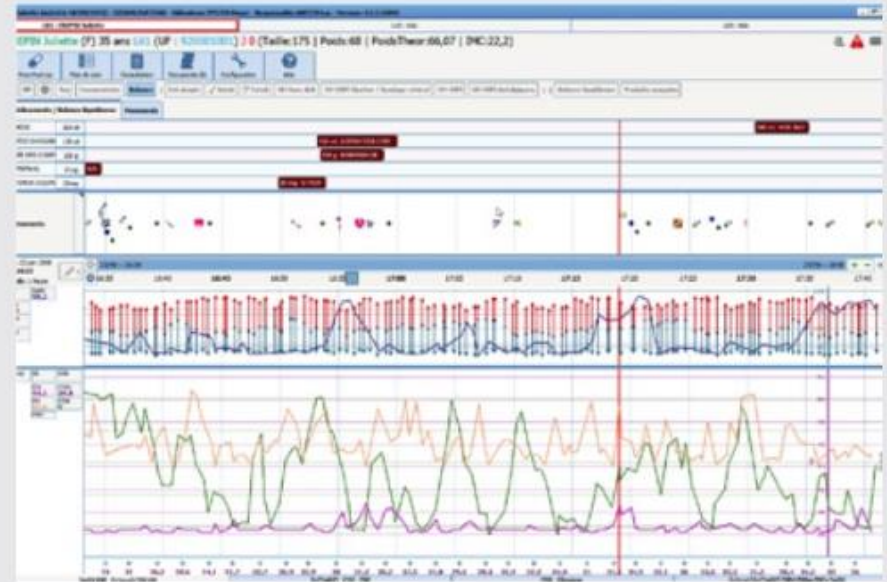
- ✓ Quick entry via Diane protocols
- ✓
- ✓ Rating of modifying acts
- ✓
- ✓ Compliance with IPAQSS (certification)



## Intuitive user interface.

We implemented a unique interface to ease the usage of the software by caregivers along the different phases of the patient journey.

Vacancies or occupied beds are displayed graphically and navigation from one bed to another is simple. These features are improving the overall management of the recovery room.





## Simplify administrative tasks.

DIANE ANESTHESIA integrates tools facilitating the patient medical record and the patient Media care.

With a print engine, a quick entry module, or preconfigured favorites tools, DIANE ANESTHESIA ensures easy documentation during the different phases of the medical record, from the first appointment to the exit of the patient.

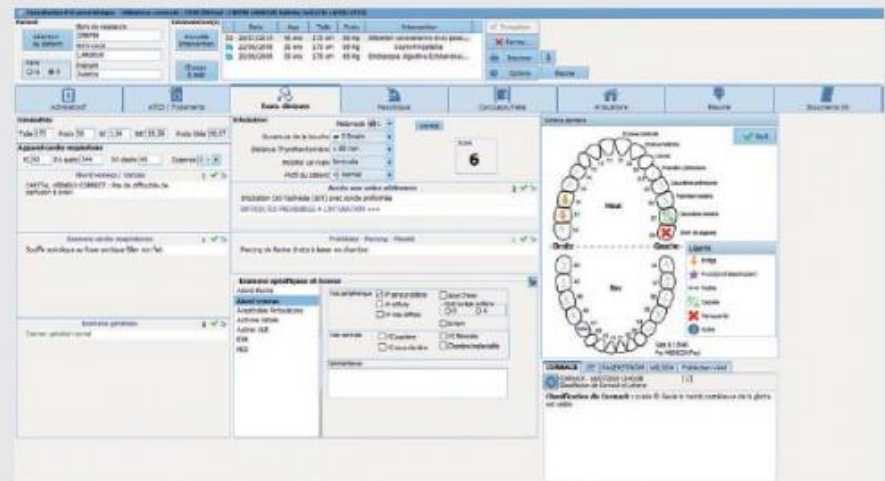
The print engine automates and accelerates the reports.



## Improve patient care during the perioperative phase.

DIANE ANESTHESIA interfaces to more than 70 different software vendors, including other modules from Bow Medical.

As soon as the anesthesia assessment ends, it is possible to start the patient follow-up process by a simple contextual call from our “AMBUCARE” tracking solution. During all the patient survey period, the data are exchanged daily between the hospital and the patient. AMBUCARE collects all information such as (appointment, prescriptions, reports, care plan).





**STABILITY:** Deployed in more than 2700 operating rooms.



## **FLEXIBILITY**

Setting up user interface according caregivers' habits



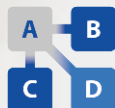
## **ERGONOMICS**

Designed to optimize 80% of seizures in one operation.



## ENGINE RULES

Architecture around a complete rules and protocols library



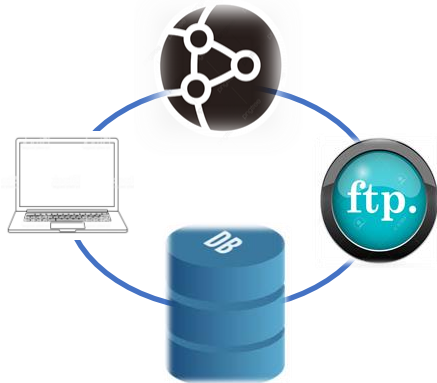
**Interopérable:** collecte des données de plus de 410 dispositifs médicaux



## MEDICAL DEVICE CERTIFICATION CE

DIANE ANESTHESIA

prescription engine is certified as medical device, manufactured in the sense of the Directive 93/42/EEC



Patient records and setting data are loaded locally

High execution speed (No server request access)

Continuity of operations (in case of lost connection with the server)

Quick installation on servers and customer work station

Compatible database: Oracle / MySQL / MsSQL

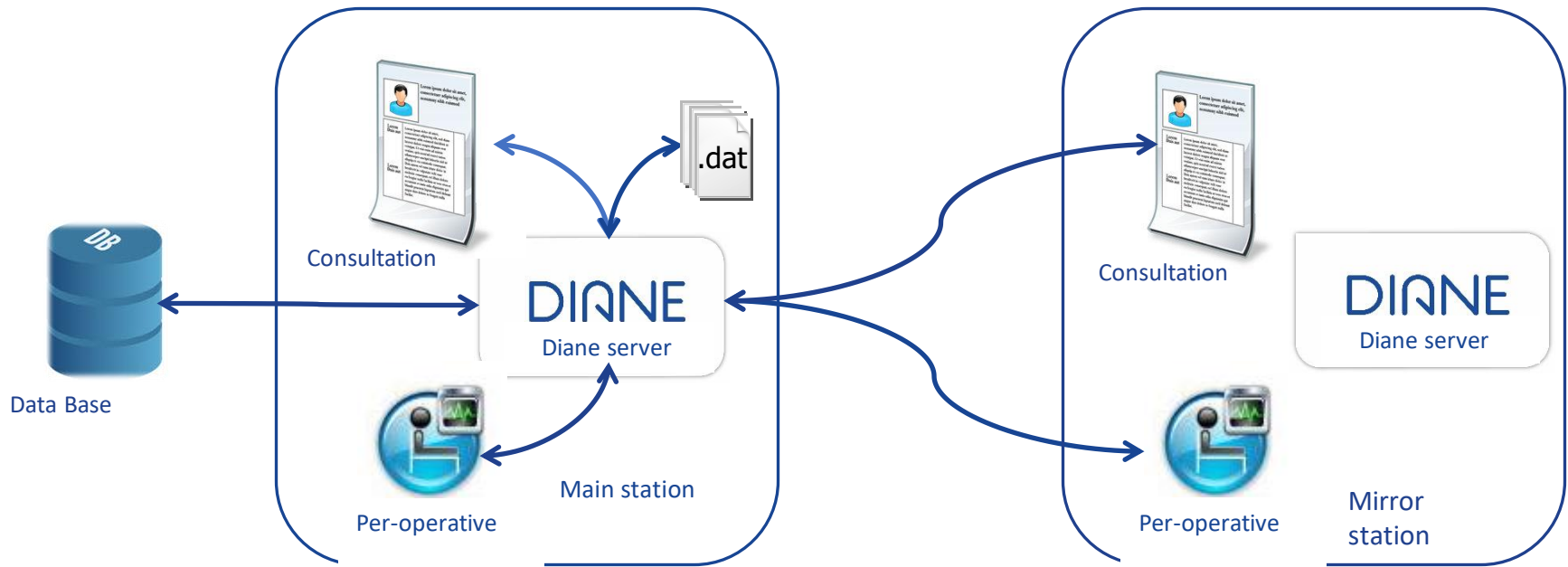
Automatic update managed by customer work station

Mirror stations for:

Access to all reading/writing patient recording file of the service

From two different locations

- In real time
- Via a portal and or via a patients present list





### Mirror Stations :

Mobiles

full list of patients present

Reading/writing access to all patients recording file simultaneously

allows access to all the files of all units from the portal

Operating theatre

Recovery room

ICU

Intensive care

### Main station

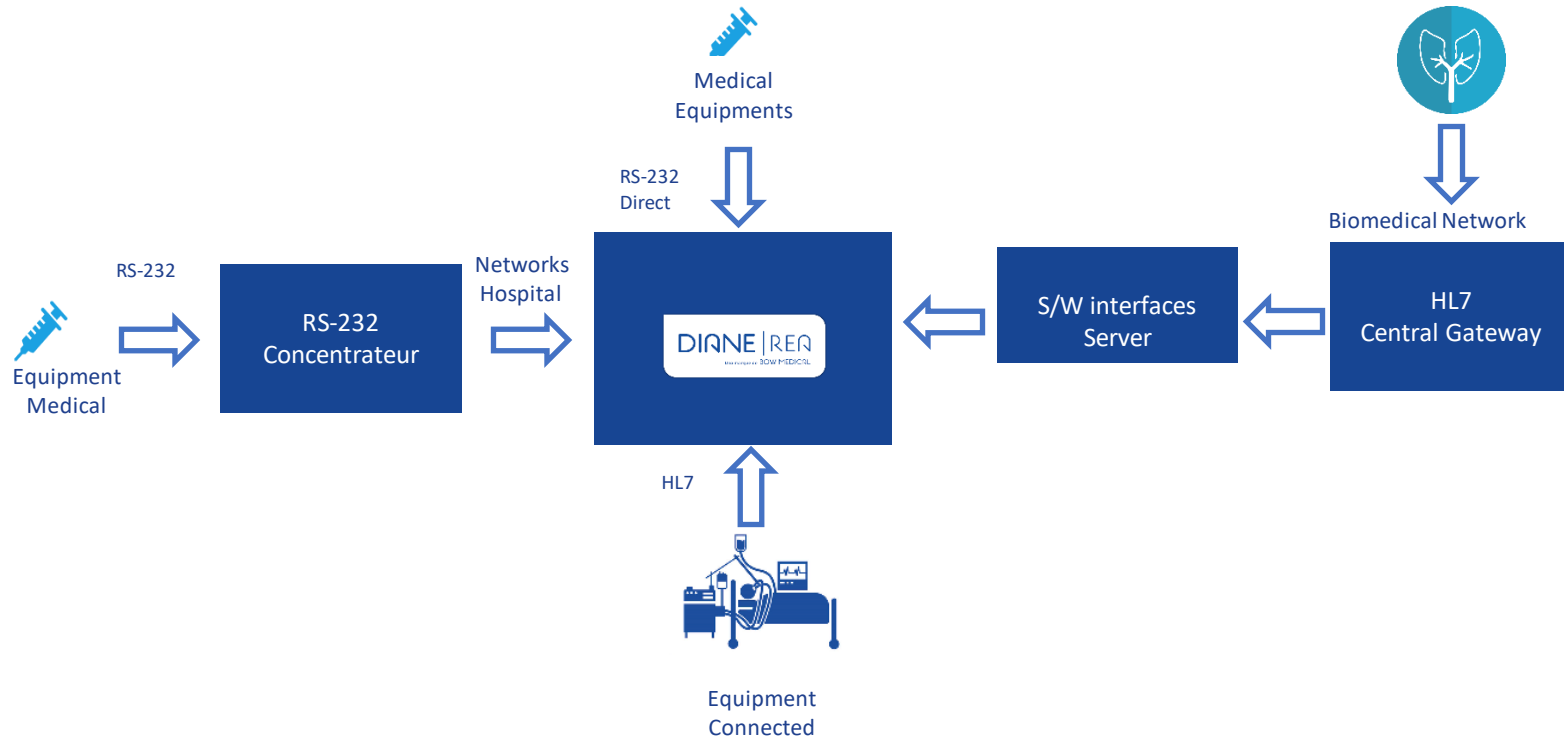
1 PCs that can handle b 1 up to 8 beds

Regrouping all the connection medical devices

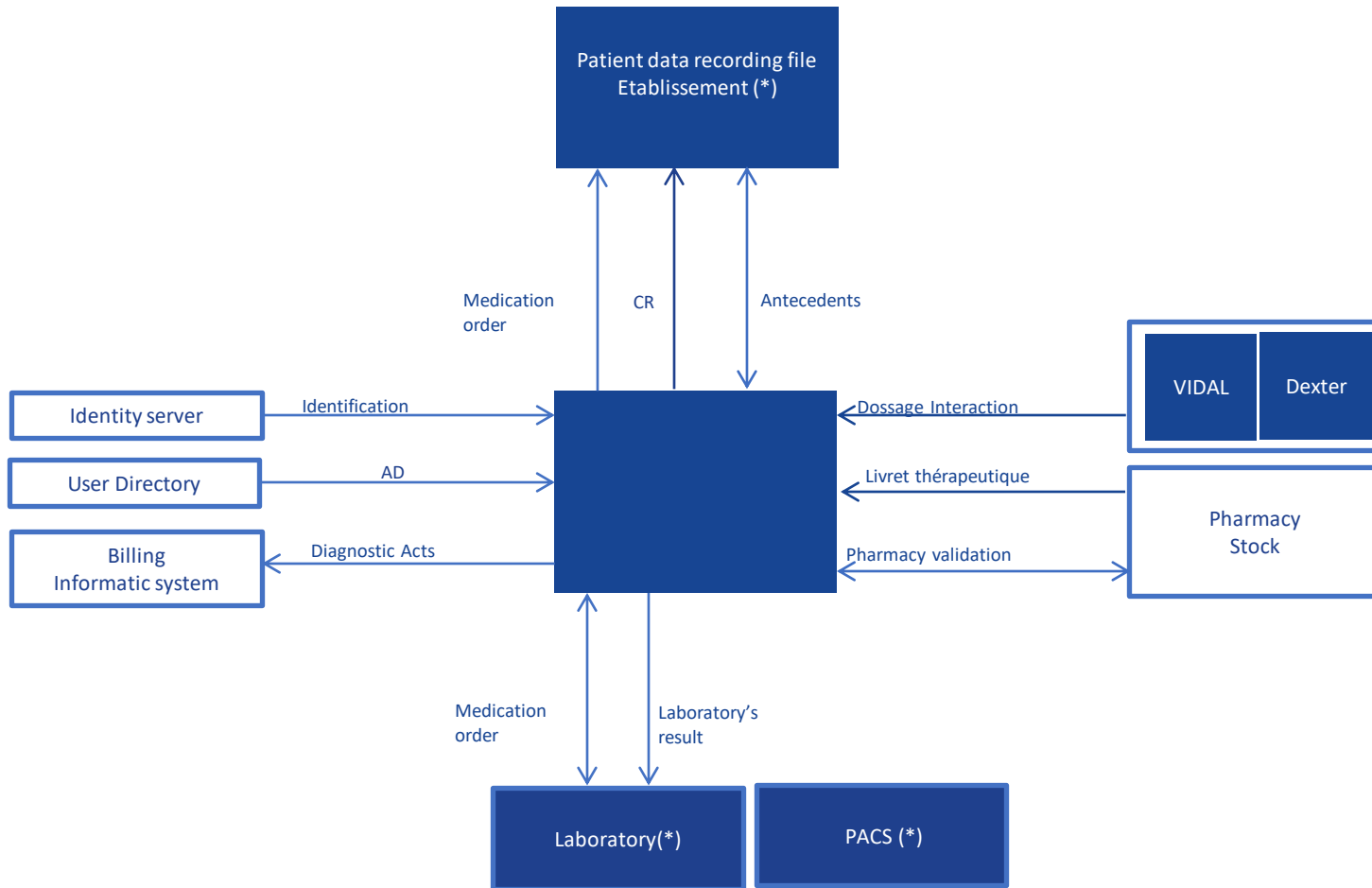


**Multiple connection link:**

- Via RS-232 serial cable
- Via RS-concentrator
- Via HL7 direct
- Via S/W interfaces server







Features	Communications Standard
Identity/ Stay	HL7, IHE PAM, HPRIM, XML, Web service, Proprietary Flat Files
Export reviews and documents	<ul style="list-style-type: none"> <li>•Word, Pdf, SXW files, with header in HPRIM or HL7</li> <li>•</li> </ul>
Export CCAM, CIM 10	HPRIM-XML, HL7, HPRIM
Operating theatre management	Shared internal base, HL7
Laboratories	HPRIM, Contextual Call Button
Medication Orders	Contextual button, PN13 or codification

Appendix: Computer Interfaces

Connection type	Benefits	Risks
RS-232	Out of network, cheap, easy	Wires, spaghetti syndrome, length, specific.
RS-232 via serial port server	scalable, no need to be next to the device	Expensive, installation and configuration, no network - no data
Ethernet via gateway	Economic if homogeneous, compatible Citrix/TSE.	Uneasy to change, gateway cost. no network - no data,
Ethernet (direct connection)	Cheap, easy to set, independent of network.	Second board, adapted device (rare).

## Annexe: Device connection (410 drivers)