Cardioprotective Haemodialysis **SPOT**

Therapy Data Management System
Data Acquisition, Data Management and Quality Assurance

**FRESENIUS
MEDICAL CARE**

Protect your Patient

Cardioprotective Haemodialysis

The reduction of risk factors for cardiovascular diseases (CVD) is core to the development of dialysis systems and products at Fresenius Medical Care. Outstanding cardioprotection must be reflected in all levels of product development and application.

Wide-ranging cardioprotection

There have been tremendous improvements in the quality and efficacy of haemodialysis (HD) therapy in recent years. Despite this, cardiovascular diseases (CVD) remain the leading cause of death for patients with end-stage renal disease (ESRD).

Cardioprotective

Services

Over 30 years experience in dialysis at your service.

- Project Planning and Consulting
- Training and Education
- Technical Services
- Water Quality Service (WQS)
- Medical Information Services

Products

State-of-the-art technologies enable advanced cardioprotective therapies.

- CorDiax product line:
  - 5008 CorDiax and 5008S CorDiax
  - FX CorDiax haemo*dia*filter
  - BCM-Body Composition Monitor
- Classix product line:
  - 4008S classix
  - FX classix dialysers
- Therapy Data Management System (TDMS)
- Online Purification Cascade (OPC)

Moreover, both overall and cardiovascular mortality are markedly greater in ESRD patients than in the general population. This is why we put Cardioprotective Haemo-dialysis on the SPOT. A comprehensive approach that includes services, products and therapies is needed to achieve the best therapeutic performance – meaning improved clinical outcomes and better quality of life, enhanced control of therapy costs, and simpler, safer handling.
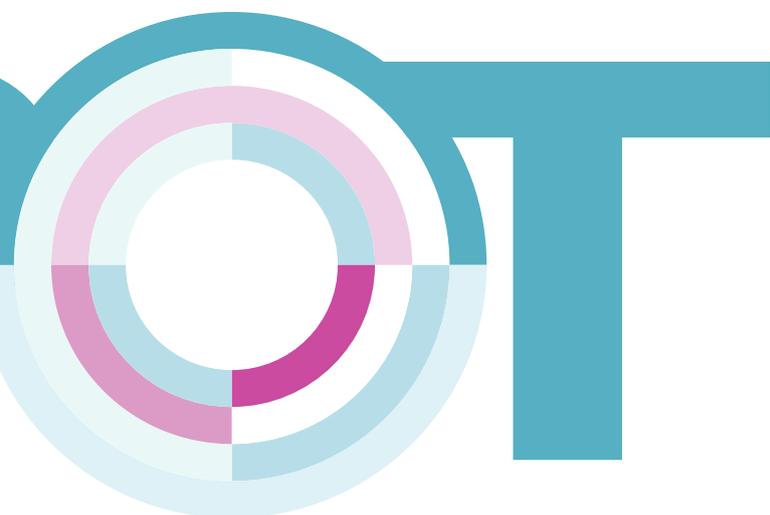
Haemodialysis

Outcomes

Achieving better outcomes with cardioprotective therapies.

- Reduced mortality risk
- Fewer cardiovascular complications
- Optimised use of resources

Therapies

Cardioprotective therapies designed by the world market leader in haemodialysis.

- High-Flux dialysis
- HighVolume**HDF**®
- Advanced Fluid Management

The dialysis ward of today
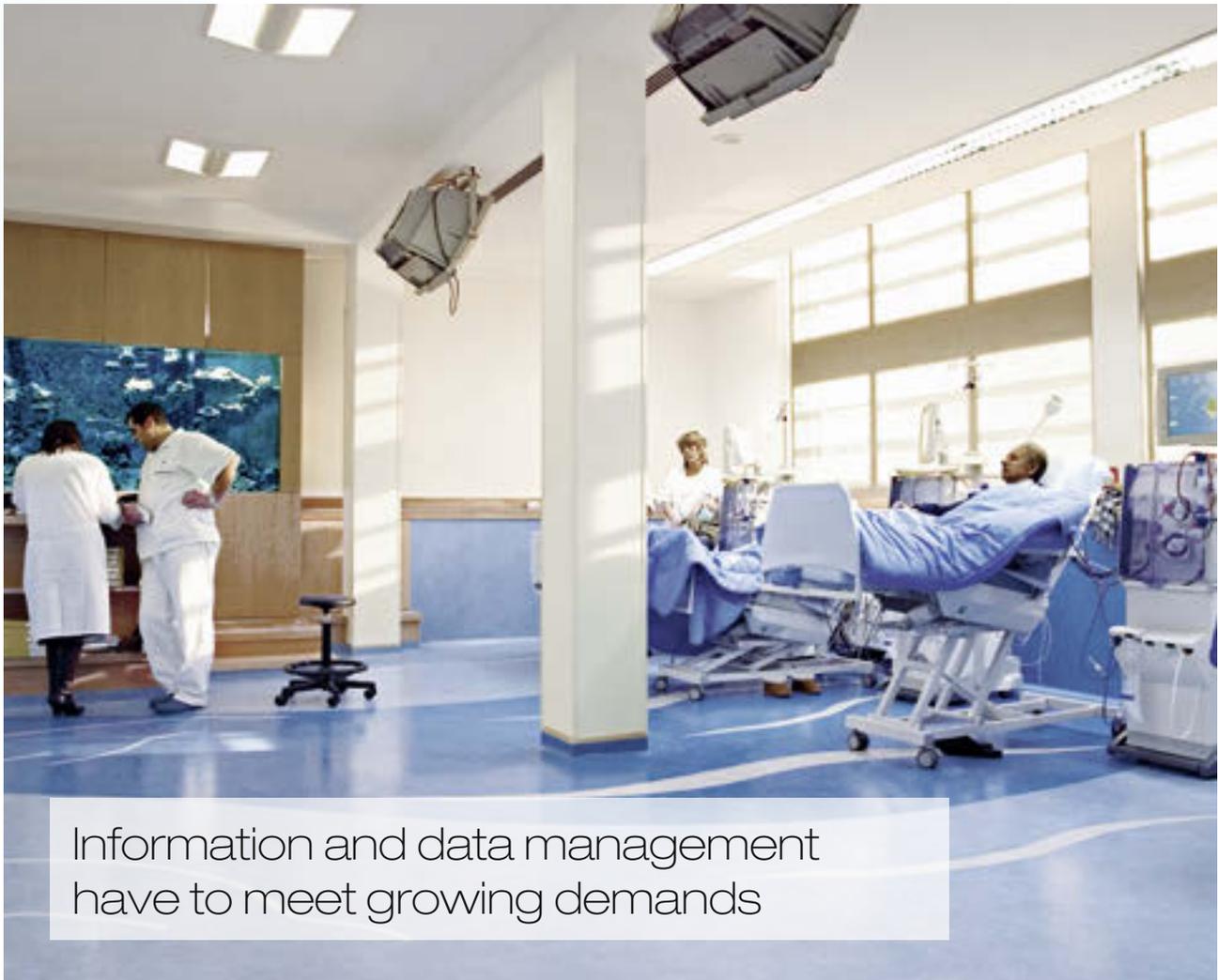
Information and data management
have to meet growing demands

Increasingly more time is now being spent on the documentation of treatments, along with the usual day-to-day medical and nursing activities. It is likely that the extent of documentation will increase even further in future. This is indicated by the growing number of patients and the increasing requirement for documentation in dialysis wards.

These developments have pushed targeted data management more into the foreground. Managing this data manually would mean higher administrative costs and would consume valuable resources.

A highly automated data management system offers:

- Optimisation of resources
- Increased accuracy of compiled data
- Shared use of data
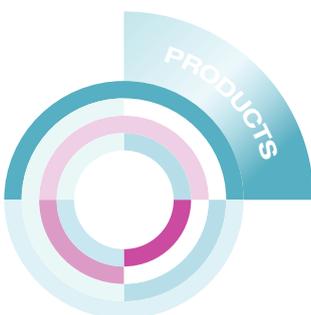
Therapy Data Management System
An integrated solution

The answer to growing demands: the right working tools for professionals along the processes in a dialysis centre

The Therapy Data Management Systems – TDMS – is seamlessly integrated in existing working processes and supports the user in his or her daily tasks, such as ultra-filtration management, pre-setting of dialysis devices or treatment documentation.

As a total integrated solution, the Therapy Data Management System is a seamless link between the world of dialysis and information technology and provides the right tool for every professional in a dialysis centre.

The answer to growing demands: the right services to empower your working tools

In addition to the necessary working tools, the planning, installation and maintenance of such a system on a professional and individual basis are important to ensure the effective and targeted use of software solutions that have been adapted to the interdisciplinary professional groups.

A one-stop shop is created. This applies to the initial and future training of users of the applications. Just one contact partner should be responsible both for coordinating the installation and the ongoing support of the integrated system.

Fresenius Medical Care is one of the few companies able to provide the full range of products and services required for an integrated IT solution that supports haemodialysis.

TDMS
Therapy Data Management System

TDMS – Therapy Data Management System
Our modular approach

Monitoring
in a dialysis centre

Scales	Analysis machines	External blood pressure monitors	Home dialysis patients	Personnel	Personnel

Therapy Monitor

| 5008 CorDiax	5008S CorDiax	4008	Network	Patient card
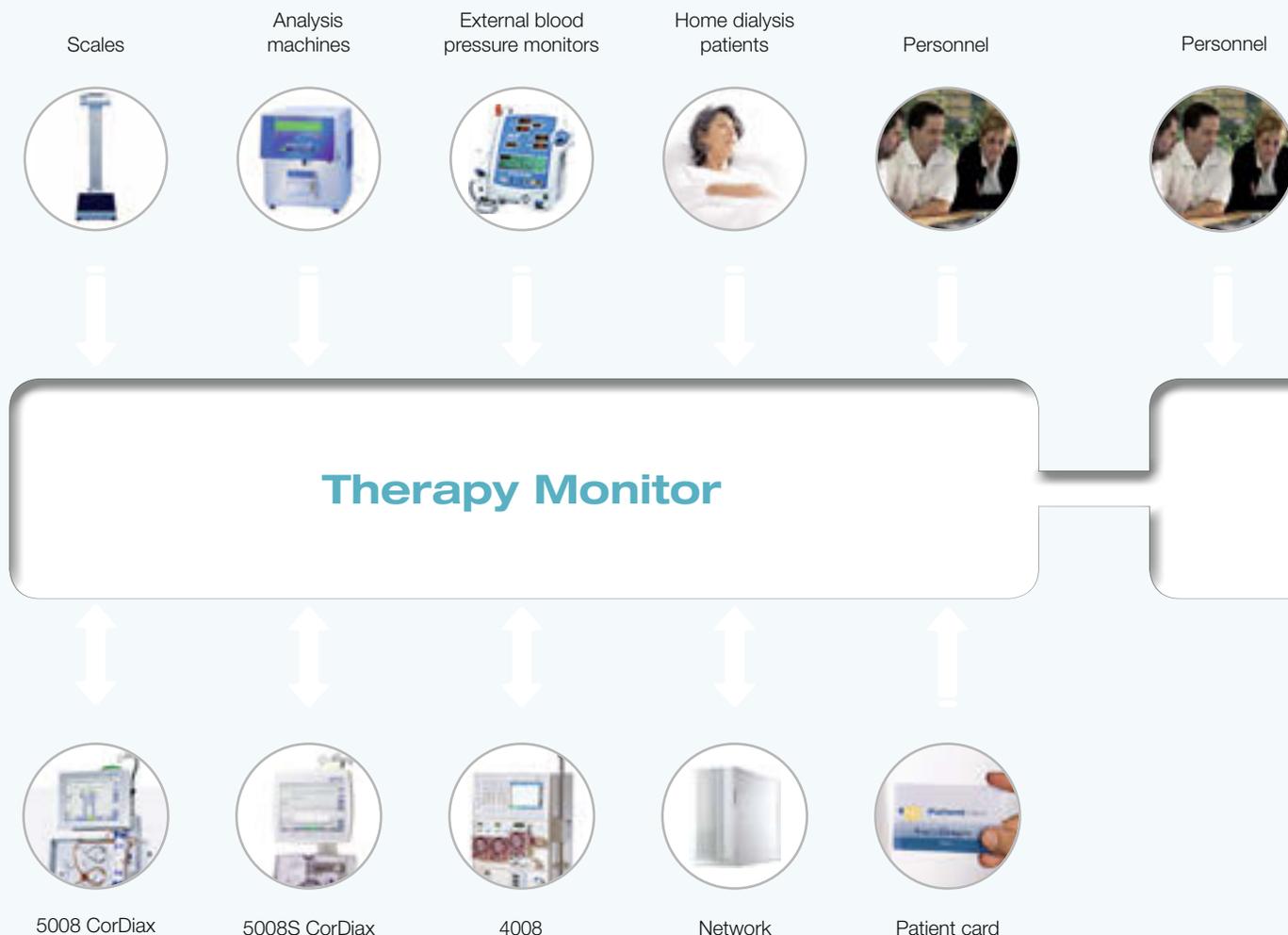
The Therapy Data Management System is a flexible solution to support working processes for individual demands in dialysis centres and hospitals. It stands for effective and safe support of your day-to-day work in your clinical routine

In the area of Monitoring

- Recording the weight of a patient before and after dialysis

- Preparation and pre-setting of the dialysis devices
- Documenting the treatment process
- Documenting any additional laboratory tests during the dialysis
- Documenting any administration of medication
- Documenting results
- Documenting predetermined working procedures
- Documenting any changes in the treatment procedures

Clinical Data Management
in a dialysis centre

Medical reporting systems	Clinics	Medication	Reporting

Corporate Data Management
in a hospital

Therapy Support Suite*

cDL

HIS
(Hospital Information System)

Administration data	Laboratory data	Treatment documentation
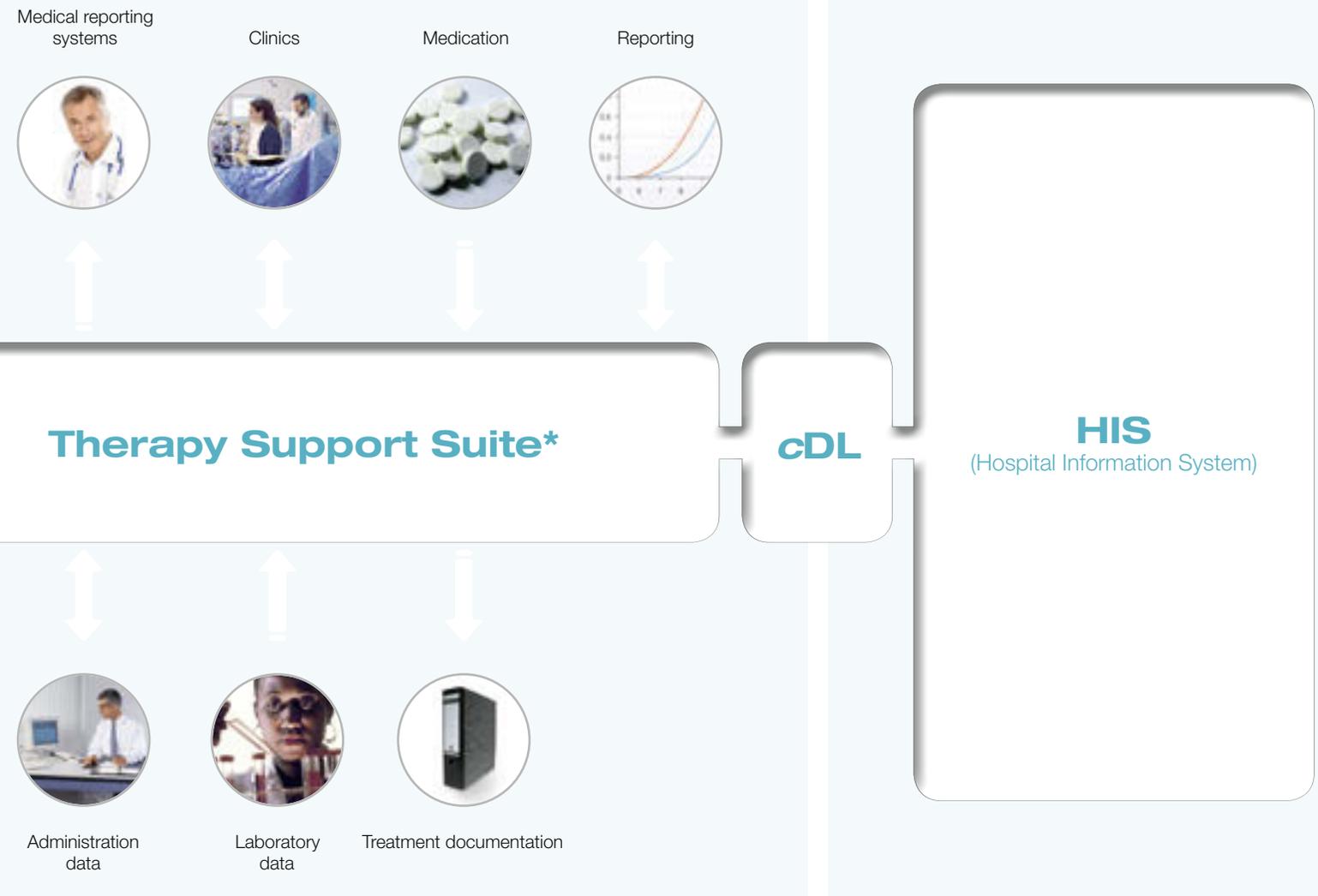
In the Clinical Data Management field

- Creation and processing of instructions for dialysis treatment
- Creation and processing of medication instructions
- Maintenance of administration data
- Maintenance and interpretation of laboratory data
- Production of reports and writing doctors' letters
- Supporting internal and external quality assurance
- Multicentre management capability
- Advanced data analysis and reporting functionality

- Treatment and medication scheduling at patient or clinic level

In the area of Corporate Data Management

- Communication with higher-level hospital information systems (HIS) in hospitals
- Supporting core business processes in hospitals, e. g. billing process and treatment documentation in electronic health records

* Or other local clinical management systems. Information about connectable local clinical management systems can be made available as required.

TDMS – Therapy Data Management System

The Monitoring Software
Therapy Monitor – TMon

The Therapy Monitor provides online documentation of all data to be recorded before, during and after the dialysis. The Therapy Monitor is easily adapted to all working processes on the dialysis ward so that a glance at the screen is enough to grasp all the important information.

Clinical staff will be supported in their day-to-day routine by reduction of time consuming activities such as presetting dialysis devices and record-taking.

Therapy Monitor
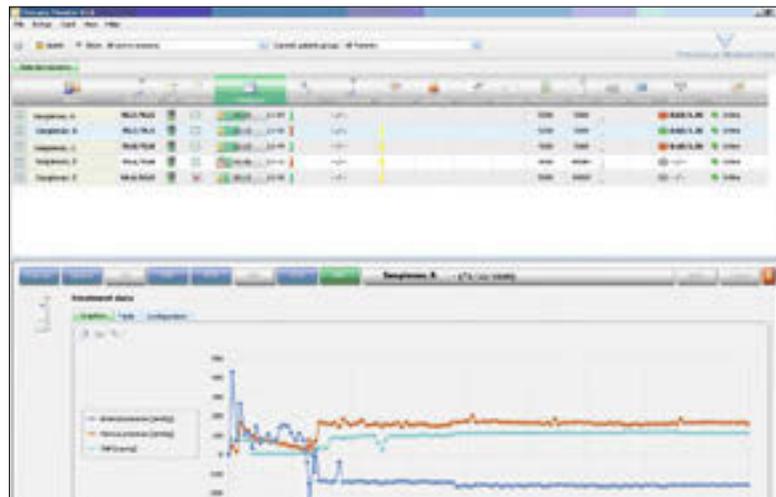
Therapy Monitor – Treatment documentation for UF process

The Bed-side Monitoring Software
data Xchange panel – dXp

The dXp innovation redefines bed-side monitoring in dialysis and enables the clinical staff to do the treatment documentation on the screen of the 5008 CorDiax and 5008S CorDiax.

Gone is the former need to additionally enter data manually on a PC. This increases the security of data handling and the efficiency of the documentation. Potential errors when inputting and transcribing data are also minimised.

data Xchange panel

The Clinical Data Management Software
Therapy Support Suite – TSS

The Therapy Support Suite (TSS) is the central clinical management system within TDMS. As such it supports the user in carrying out, creating and managing patient prescriptions, medication plans, longterm documentation of treatment data, and patient-related laboratory data. Furthermore, it provides enhanced reporting capabilities and allows the professional management of an association of dialysis centres.

The immediate, simple and secure access to patient data in combination with the optimised data analysis and visualisation of results empowers the clinical staff to ensure a consistent quality of care for the patients.

Therapy Support Suite
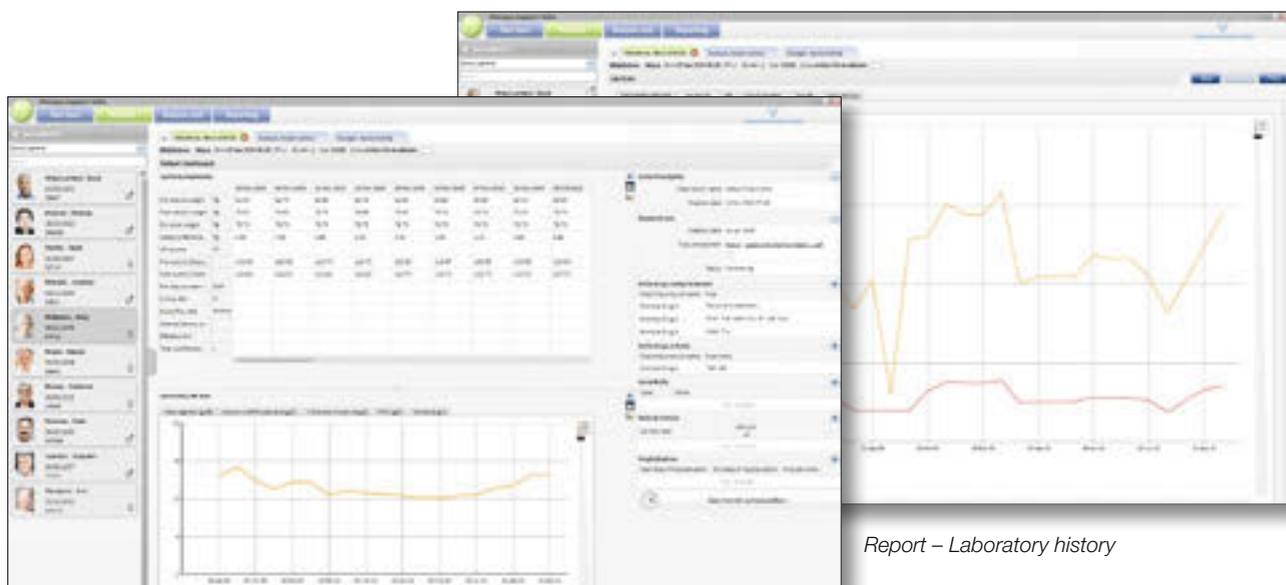
Report – Laboratory history

Exchange of

Therapy Support Suite – Individual presentation of the documented treatment data

Interaction with existing hospital information systems
Communication Data Link – *c*DL

The *communication* Data Link *c*DL allows the seamless integration of TDMS as a sub-system in a higher-level hospital information system. The direct data exchange allows a consistent use of essential patient data in all hospital wards.

This takes away workload from clinical staff and increases the quality and accuracy of patient data processed in the Hospital Information System. It saves valuable time and increases the effectiveness und efficiency of the core hospital processes. Furthermore, it puts the hospital in a position to demonstrate the high quality of the hospital standards.

Communication Data Link

*c*DL

Hospital Information System
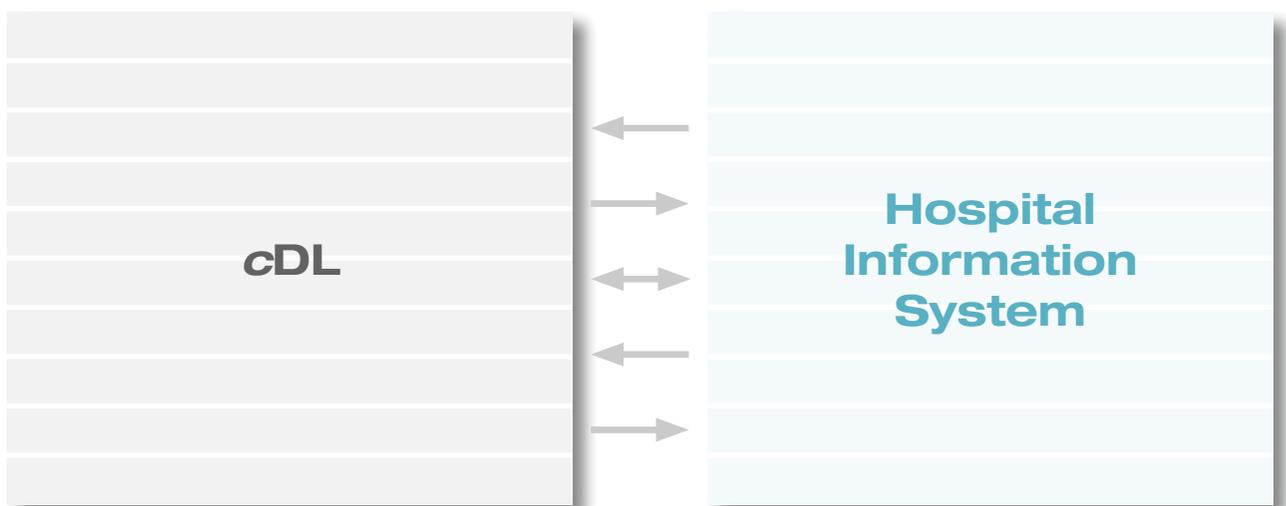
patient data

*c*DL
communication Data Link

HL7

HIS
(Hospital Information System)

The Monitoring Software
Therapy Monitor

The Therapy Monitor helps clinical professionals to optimise the utilisation of resources. Less time is required for the documentation of patient data before, during and after dialysis.

Initial pre-setting of the dialysis device

The Therapy Monitor supports the user in the patient-specific pre-setting of the device. This means less time spent on the preparation of the treatment.

Bed-side monitoring via data Xchange panel (dXp)

The innovative **d**ata **X**change **p**anel (dXp) is designed for direct data input, such as check lists, medication, on the 5008/5008S therapy system and thus directly at the bed-side of the patient.

Automatic treatment documentation

The Therapy Monitor supports the user in the documentation of the treatment process, administered medication, events, and modifications in the treatment process.
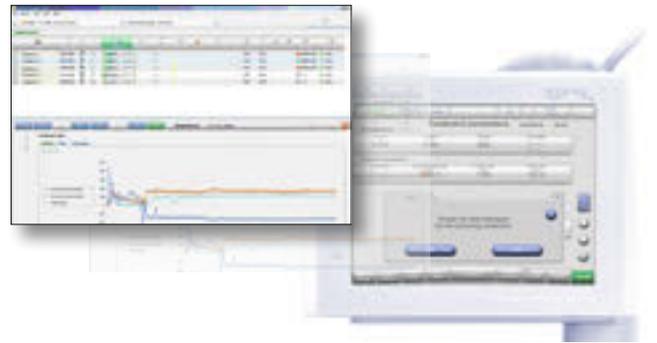
Integrated solution – Initial pre-setting of the device

Bed-side monitoring with dXp
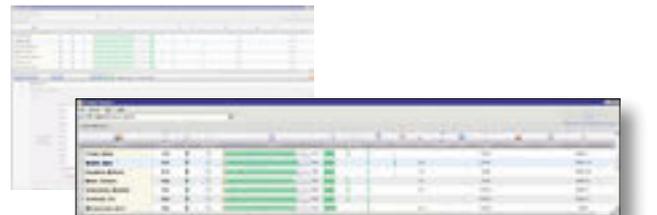
All information at a glance

TMon
Therapy Monitor
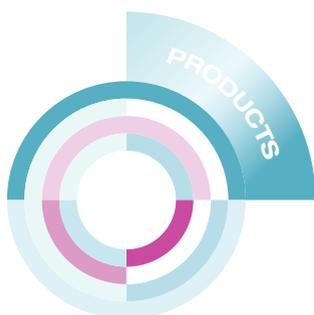
The Clinical Data Management Software
Therapy Support Suite

Seamless communication between Therapy Support Suite, Therapy Monitor and Hospital Information System

The Therapy Support Suite is the heart of the Therapy Data Management System and ensures seamless communication from dialysis devices up to a Hospital Information System. The modular approach allows the adaptation to the individual needs of dialysis wards. It provides

- the data required for the patient-specific pre-setting of the dialysis device and documents the long-term treatment process
- shared management of dialysis treatment data, laboratory data, medical findings and medication processes
- communication via *c*DL with higher-level Hospital Information Systems (HIS) designed for the exchange of patient data

Besides pure data documentation, TSS allows values to be evaluated in appropriate combinations. This enables, for instance, the support of internal quality assurance.

The Therapy Support Suite allows the presentation of the collected data according to individual demands and processes, and in highly flexible reports and as comprehensive views.

Furthermore, TSS has the capability to manage clinical processes, for example, it allows an easy and quick overview of scheduled treatments.

Dash board – All information at a glance

Clinic scheduler – Scheduled treatments at a glance

Our service portfolio

Individual project management, professional installation, extensive employee training and comprehensive problem-handling

Planning and projecting

Once a decision is made to deploy TDMS, our project engineers carry out the planning and project management for the system according to the agreed requirements. We thereby take into account individual requirements relating to the implementation period and when the system should go live. Dedicated contact partners are available during the entire project phase.

Training

As soon as TDMS has gone live, our specially trained software consultants instruct all future users on how to work with TDMS. Further training at a later date is of course available at any time.

Technical service

We provide a comprehensive range of technical services, including a hotline for remote support or on-site service when required.

Installation of the necessary hardware and software

After the completion of the project phase, and once local suppliers have carried out the necessary cabling according to individual specifications, the hardware and software are installed and any external medical equipment is connected to the system.

TDMS
Therapy Data Management System

Therapy Data Management System
Technical aspects

Due to increased demands for technological aspects, the modular structure of the system in combination with used state-of-the-art technologies and architectures, also enables a flexible adaptation and integration of the system in your infrastructure within a dialysis centre.

In addition, this architecture provides numerous options and different ways of combining with other systems, so that there is room for future development and expansion of your dialysis centre.

It will provide the professionals in your team responsible for technical issues with the tools to perform efficient and effective work either for administration, updating or the needed documentation to implement the system in your quality management system.

4008 dialysis devices

Medical equipment (for example, online analysis machines or external blood pressure monitors)

5008 CorDiax / 5008S CorDiax

Scales

Work stations

Local Area Network (LAN)

PatientCard

Server

FRESENIUS MEDICAL CARE