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

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
Current developments in information and medical technology call for integrated solutions in patient data management and patient monitoring. Otherwise it would be difficult to cope with the increased demands for information and data management.

As well as the necessary hardware and software solutions, the planning, installation and maintenance of such systems on a professional and individual basis are important to ensure the effective and targeted installation of software solutions that have been adapted to the interdisciplinary professional groups.

Therapy Data Management System – an integrated solution

The Generation 4008 dialysis devices and the components of the 5008 Therapy System in combination with the TDMS therapy and data management system are compatible with numerous external medical machines and devices and are able to fully meet the high demands placed on the information and data management systems of a modern dialysis station.

The TDMS is seamlessly integrated with existing working processes and supports the user in his or her daily tasks, such as ultra-filtration management, pre-setting of the device, and data exchange with a higher-level hospital information system.

A one-stop shop is created. This also applies to the initial and future training of software users. 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.

The answer to increased demands: the total system of Fresenius Medical Care

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

Fresenius Medical Care therefore offers the following software applications:

- Therapy Monitor
- Therapy Manager*
- Additional modules for external applications

* Or other local clinical management systems. Information about connectable local clinical management systems can be made available as required.
Data acquisition, data management and quality assurance

Increasingly more time is now being spent on documentation, which plays a central role, along with the usual day-to-day medical and nursing activities:

In the area of data 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 (check list)
- documenting any changes in the treatment procedures
- documenting any changes in consumables
Monitoring Software and the data Xchange panel

The Therapy Monitor provides online documentation of all data to be recorded before, during and after the dialysis. This – largely automated – documentation benefits from the Therapy Monitor’s direct link with external medical equipment. The Therapy Monitor is easily adapted to all working processes on the dialysis station so that a glance at the screen is enough to grasp all the important information. Tables and charts can even be self-configured and delivered in an individual format.

In combination with the 5008 Therapy System, the data Xchange panel dXp is available on the screen of the dialysis device. This means that the monitoring function is extended to this screen. We therefore demonstrate new and innovative ways to realize bedside monitoring in the field of haemodialysis.
The Clinical Data Management Software

The Therapy Manager is the Clinical Data Management Software that communicates directly with the Therapy Monitor, prepares the necessary treatment data and permanently stores and manages information that has been documented online. The Therapy Manager provides all functions necessary for the administration of data produced by a dialysis station.

The Therapy Manager enables a quick and efficient overview of important laboratory data, findings and other patient-oriented data.
Interaction with existing hospital information systems

It is also possible to communicate with a higher-level hospital information system via a HL7 interface. TDMS is seamlessly integrated with an existing system environment. This is made possible by a widely used interface (HL7) for the exchange of patient data. This interface ensures a high level of flexibility to enable information to be exchanged or made available to the user in an efficient and usable way.

It is assumed that interoperability requirements will become more important in future. TDMS will help to meet this challenge head on.
The Therapy Data Management System is a combination of hardware and software components. It provides a seamless link between the areas of dialysis and information technology.

Due to increased demands the modular structure of this system, enables a flexible adjustment and/or to change procedures within the dialysis centre. In addition, this architecture provides numerous options and different ways of combining with other systems. For example, links can be established with hospital information systems. In addition, there is room for future developments and expansions. As well as dialysis devices, other medical equipment such as scales, analysis machines and blood pressure monitors can be integrated within the network.

TDMS is a patient-oriented system. Thus the patient card plays a central role as a form of identification as well as a storage medium for information about ongoing treatment.
In the 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

Additional modules for external applications

- Communication with higher-level hospital information systems
- Preparation of data for external quality management systems

* Or other local clinical management systems. Information about connectable local clinical management systems can be made available as required.
Our service portfolio
Individual projecting, 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 projecting 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.

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.

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 an on-site service when required.