

## **MEDICONNECT®** MANAGES THE CLINICAL PROCESS

















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The ability to record clinical data in a platform-independent system gives structure to workflows and processes. This includes preparation, presentation, communication and archiving of patient and study data, as well as appointment planning. It is a modern, flexible, adaptable and future-oriented system.

Over the last few years we visited many institutions across Europe and found that more than 20 IT subsystems in cardiology departments are the rule and not the exception. It is obvious that IT islands, which are often poorly interfaced, cannot be the basis of user-friendly and well-organised processes.

MediConnect® covers all aspects of clinical work with patients.



## THE ADVANTAGES OF DATA NORMALISATION

### Normalisation makes work simple and efficient.

If items are placed just anywhere in a warehouse, over time they become very difficult to locate. Normalisation brings order into the data warehouse and makes items easy to find. Fields from the normalised data warehouse can be dragged and dropped to create workflows and report templates according to the needs of the local hospital. This is why workflows, findings and statistical-report templates can be created by application specialists inside the hospital in a few hours. Traditional IT systems can require months of technical customisation that would be carried out by a company IT programmer. MediConnect® gives you the flexibility to make the changes at the local hospital level.

# MEDICONNECT® IS A DATA WAREHOUSE

A normalised SQL database differentiates Mediconnect from other IT solutions.

One of the foundations of MediConnect® is that all data elements are normalised: this means that the same information is always stored in the same place. This is vital in regard to process optimisation, quality management and the exchange of patient data. It is also the only solution that allows for an evaluation of all recorded data, independent of its format and source. For example, it is simply not possible to create a report when the length of the QRS complexes needs to come from various databases because different ECG devices were used.





When the doctor orders an examination, the results are automatically sent to the MediConnect® data warehouse.



In this case, for a follow-up of a Medtronic implant.



Each individual parameter is received ...



... and converted into the MediConnect® internal format. Then, the parameter is sent to its unique stock location.



Together with hundreds of other parameters for the same follow-up. Regardless of the manufacturer and the device type. The same parameter is always stored at the same inventory location.



The same concept is applied to more than 400 other modality interfaces. In this case, to an ECG examination recorded with a GE ECG, and the examination results are once again converted into the MediConnect® internal format.



All other elements of the clinical process are treated according to the same principle. For example, data originating from admissions, patient histories, medications, diagnoses and billing codes are all stored in a normalised manner.



Each data element is transferred to the MediConnect® SQL database and can be easily selected in order to create workflows, letter templates and reports.



To stay with the image of the data warehouse: instead of physically handing out examination orders, ...



... order lines are created with the help of a template. The doctor places an examination order with several order lines.



Respective departments electronically receive the request to perform an ECG or an ultrasound. The captured data is normalised and stored in the MediConnect® data warehouse.



Upon completion of each task, all information is available for review by the doctors at their own desks. Efficiency is substantially increased, as information needs to be entered only once and is available afterwards to all authorised personnel.



MediConnect® automatically combines parameters, images and selected drop downs into full text findings. These may be combined across all modalities.



As the data have been normalised, these are simple tasks which can be handled by an application specialist instead of a programmer. This allows hospitals to adjust workflows by themselves to the constantly changing requirements.









#### **Scalability**

MediConnect® is based on a combination of the Microsoft .Net framework® and the Microsoft SQL Server®. Installation options range from single mobile workstations to complex client server environments with several thousands of workstations.

#### **Communication capabilities**

The MediConnect® integrated HL7 server handles all current message types. MediConnect® also supports the exchange of information over GDT (1.1, 2.0 and 2.1), CSV, EDI and XML.

#### **Structured exchange of patient files**

MediConnect® supports the exchange of partial or complete patient records in a structured format between institutions. All or selected parts of information previously recorded can be imported or exported. Patient history, laboratory values, technical examinations or ICD-10 codes are readily available – as if the patient had been treated in-house. Consequently, workflows may be defined across institutions assigning specific tasks to each party.

It is a clear advantage for the exchange of partial or complete patient records that a single viewer presents examinations recorded with different devices, as referrals and hospitals usually do not work with devices from the same manufacturers. Repeats of the same examination can thus be eliminated.

Thanks to the better transparency, decisions are consequently based on a far better understanding of the patient's history.







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