

Medical controlling with DeltaMaster at Diakonie-Klinikum Stuttgart

Highlights

Data warehouse as single point of truth

Ad hoc analysis and standardized reporting using a single tool

Recipient-specific reports

Fast implementation thanks to predefined key figures and analyses

Web-based access to reports

Report and analysis development and role management even without external support

Projektpartner

phoebus

Diakonie-Klinikum Stuttgart
www.diakonie-klinikum.de

- Hospital in Stuttgart and academic teaching hospital of the University of Tübingen
- Seven main departments, one inpatient ward, psychosomatics unit and psychosomatics outpatient clinic
- 400 beds, including 18 in the psychosomatics unit and 12 places in the psychosomatics outpatient clinic
- Number of patients treated in 2016: 17,000 inpatients, 70,000 outpatients

Diakonie-Klinikum Stuttgart uses DeltaMaster for analyzing and reporting medical key figures from the phoebus data warehouse.

phoebus controlling platform with DeltaMaster technology

Diakonie-Klinikum Stuttgart was looking for a business intelligence solution to improve the evaluation of medical data, and PHOEBUS IT Consulting had just the right prescription. PHOEBUS has specialized in data warehouse solutions for the healthcare industry for over ten years. Its product range includes phoebus portal, an end-to-end controlling solution for hospitals and clinics with integrated cost unit accounting. The modular controlling platform enables ad hoc analyses and standardized reporting using data from all departments.

The concept: Data from the operating systems – e.g. the hospital information system, the laboratory system, or financial accounting – is processed in a data warehouse and made available as a multidimensional data pool. Microsoft SQL Server is used as the database system. The front-end for analysis and reporting is provided by the DeltaMaster BI solution from Bissantz.

“A data warehouse can only develop its full potential if the figures it contains are prepared in such a way as to be usable by a broad audience,” explains Arne Schnabel, Managing Director of PHOEBUS IT Consulting. “The figures must be visualized clearly and in a way that meets the needs of the individual users. This is precisely what DeltaMaster does so well.” DeltaMaster’s Hyper Browser sheds light on even complex

structures quickly and reliably. Users drag and drop to color the data model according to the key figure transferred. This also has the effect of directly highlighting hidden compensation effects. Graphical Tables – pivot tables whose numerical values are supplemented by bars, columns, circles or sparklines – make even number-heavy reports intuitive to understand. Interactive cell graphics such as the zoomable sparklines provide more details on a case-by-case basis with each magnification level. Simple color coding makes it clear at first glance whether a key figure has a positive or negative effect on earnings.



Diakonie-Klinikum Stuttgart was immediately won over by the combination of the phoebus data warehouse and DeltaMaster.

Analytical focus on surgery, care, and MDK

The hospital’s medical key figures are based on data from the hospital information system Nexus and subsystems, including an endoscopy/gastroscopy IT solution and software that records the results from heart catheter measuring stations. Typical key figures include the case mix index,

“For the first time, thanks to phoebus and DeltaMaster, we have the transparency we need to see how things stand and where we can make improvements.”

Katrin Malisi, Controlling, Diakonie-Klinikum Stuttgart

bed utilization, the proportion of private patients, and the average length of stay. In reports, sparklines and diagrams are used to present the development of these values over time.

“Surgery utilization is particularly important for us,” adds Katrin Malisi, responsible for Controlling at Diakonie-Klinikum Stuttgart: “One of our main aims is to optimize surgery planning, i.e. the occupancy of operating rooms. Together with beds, this is one of the most notorious bottlenecks at our hospital. We use DeltaMaster to prepare various reports that give doctors the transparency they need for better planning.” The reports give answers to questions such as: How many operations are performed per department and in which rooms? At what time in the morning is the first incision made on average? When is the first patient wheeled in in the morning? When is the last suture tied off at night? What is the average turnaround time (incision–suture time)? This is one of the most important figures, as it provides information on how long the operating room is unavailable between two operations while it is cleaned and made ready for the next operation.

When it comes to staff planning, nursing management can consult standard reports showing the duration of nursing care according to the nursing staff regulation (PPR minutes), which enables a comparison of utilization in the individual wards. The complex care measures score (PKMS) is also shown.

To improve the case success rate with the Health Insurance Medical Service (MDK), the proportion of MDK queries, the number

of disputed cases won and lost, and the department. “The MDK often raises doubts as to the operation and procedure codes used,” explains Malisi. “Among other things, the information from the analyses helps us to understand where we need to improve our documentation in order to respond to these doubts. For example, we can tell the outpatient department to include diagnostic measures such as radiographs directly in the outpatient treatment report.”

Sixteen different reports are currently in use. Recipients including senior consultants and nursing management can use their web browsers to access the reports, which are tailored to their information requirements.

“The Controlling team at Diakonie-Klinikum Stuttgart is largely independent when it comes to developing reports and analyses,” Malisi says. “We were trained in PHOEBUS in ten two-hour training sessions. Role management is also handled internally. PHOEBUS is available to provide support when things get more complex.”

Expansion to financial key indicators

The use of DeltaMaster will be expanded to include financial and administrative key indicators in the future. Three smaller reports for financial accounting have already been implemented. A system for the results of cost unit accounting is currently in the planning phase. Various reports for the Human Resources department are also planned.

DeltaMaster: Software for analysis, planning, and reporting

Efficient reports with Graphical Tables

Automated variance analysis

All standard databases supported

Report distribution via the web, on tablets, in PDF format, etc.

Patented and award-winning

Top-ranked in user survey “The BI Survey”

A tool for every user, from report recipients to power users

Business intelligence with DeltaMaster: Look, see, do

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