

## Bad Krozingen Heart Center in Germany uses MetaVision to fully support perfusionist workflow

Results include better patient safety, enhanced operational efficiency, and streamlined research and analysis

### Hospital Profile

Founded in 1972, Bad Krozingen Heart Center is a non-profit, acute care, 250-bed hospital that provides dedicated state-of-the-art medical care for diagnostic and interventional cardiology. With 16,000 admissions per year, Bad Krozingen Heart Center is the regional leader for high-quality, compassionate cardiovascular health care. Bad Krozingen Heart Center was rated the second most popular hospital in Germany in a survey done by health insurance company Techniker Krankenkasse in 2010.

### The Need

The perfusionists at Bad Krozingen Heart Center were using Stockert S3 heart-lung machines with software provided by the manufacturer. The software recorded and stored all the pertinent patient information such as age, weight, pump rates, fluid balance, and pressure rates. However, there was no link from the perfusion software data to the anesthesia machine or the hospital information system (HIS). As a result, the perfusionist had to enter the anesthetic data and case data manually into those systems, as well as into systems belonging to other departments.

Having to enter data manually was problematic for a number of reasons. Heart surgery is a critical situation that requires constant vigilance, and manually entering data was an unnecessary distraction. The accuracy of the information was compromised by repeated entries, leading to the introduction of errors. Additionally, it took a lot of time for clinicians to make sure that all the different systems had the necessary information.

Further, the perfusionist software developed by the manufacturer could not be customized to meet the specific needs of the hospital. Bad Krozingen Heart Center required a solution which could automatically collect data for viewing by multiple departments, and with the flexibility to support their workflow.



### At a Glance

#### Hospital Profile

- > Non-profit, acute care, 250-bed hospital
- > 16,000 admissions per year
- > Rated the second most popular hospital in Germany

#### The Need

- > Support for perfusionist workflow by automating data entry
- > Interoperability with other systems
- > Customizability in order to accommodate unit needs

#### iMDsoft Solution

- > MetaVision replaced the management software provided by the heart-lung machine manufacturer, giving perfusionists an integrated patient data management system.
- > Bad Krozingen implemented MetaVision throughout their continuum of care, in their OR, IMC, and ICU departments, for a total of 85 beds.

#### Results

- > Better patient safety
- > Enhanced operational efficiency
- > Streamlined research and analysis

## The Solution

After witnessing MetaVision at work in other hospitals, Bad Krozingen Heart Center was convinced that MetaVision could answer their anesthesia information management needs, including automatic data capture from heart-lung machines, HIS, and other medical devices. The hospital was impressed with MetaVision's high degree of flexibility, which allows perfusionists and other clinicians to modify data presentation at any time to accommodate changing requirements.

Since implementation, Bad Krozingen Heart Center has found that MetaVision enables clear presentation of the case data through graphical elements such as tables, charts, and forms. The simple and logical layout allows for fast training and for efficient use of the system. The hospital now has customized views of patient information for each department.

MV-OR was implemented in the anesthesia department in 2005, followed by MV-ICU for intensive care units the next year. In 2009, Bad Krozingen Heart Center introduced MetaVision for their IMC-stations. The software is now available across a total of 85 critical care beds in the hospital.

## Results

### Better patient safety

Since the implementation of MetaVision, patient data is imported automatically into the system from the heart-lung machines and other medical devices. Fluid flow from the heart-lung machine is calculated automatically, eliminating the need for manual data entry and calculations. The system retrieves data from the HIS, significantly increasing the accuracy and security of critical data such as patient name, birth date, weight, laboratory values, blood type, and allergies. Since this data is essential for important decisions such as the administration and dosage of medications, more accurate data translates into better patient safety.

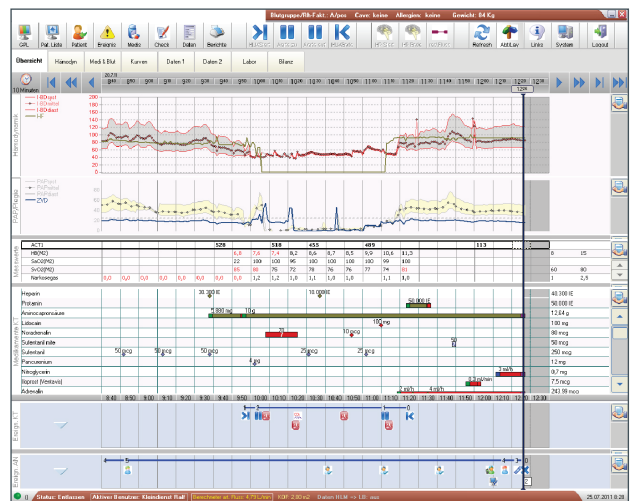
Bad Krozingen Heart Center uses MetaVision Event Manager for advanced decision support. This tool sends notifications about potentially critical events, helping in the early detection of significant changes in the patient's condition.

### Enhanced operational efficiency

Using MetaVision, the hospital is able to quickly and easily formulate schedules and analyze the utilization of the operating rooms. When medical assistants performed these processes manually, it took a minimum of twelve hours a month. With MetaVision, which generates these reports automatically, Bad Krozingen Heart Center saves this time that is redirected for patient care.

### Streamlined research and analysis

Since the introduction of MetaVision, the hospital can present data about individual cases and use their pool of data for statistical analysis across their entire patient population. Evaluations that were previously possible only with considerable expenditure of time are now automated and ready within minutes.



“ Since implementing MetaVision, we have seen tremendous benefits in many areas of the hospital. MetaVision makes it easy for each department to quickly access the data they need, resulting in improved patient care. We now have complete, accurate case documentation, enabling us to realize more revenue. Because we can efficiently retrieve elaborate statistical data, we are able to reduce costs by operating more efficiently. The system is invaluable for capturing SAPS and TISS scores as required by law, saving us time. MetaVision's capabilities have exceeded our expectations.”

**Ralf Kleindienst**  
User support/software configuration



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