



**Technology improves
the treatment comfort.**

Client's profile.

Independent Public Healthcare Centre [SP ZOZ] in Kędzierzyn-Koźle is one of the largest hospitals in Opole Province. It consists of more than a dozen hospital wards as well as more than a dozen specialist laboratories. These include an operating block, birthing centre, and a large number of laboratory and diagnostic facilities. The hospital is growing at an impressive pace. It is also a pioneer in the use of information systems to aid the treatment process. It was the first hospital in Poland that decided to carry out a pilot implementation of the AMMS applications. The facility is constantly implementing IT technologies that support modern and efficient provision of medical services. This attracts both doctors and patients.

Consolidation of medical processes.

The objective of the management team of the hospital in Kędzierzyn-Koźle is to consolidate all the medical processes into a consistent mechanism that will facilitate the monitoring of treatments and related settlements. Therefore, they decided to implement a comprehensive solution – AMMS [Asseco Medical Management Solutions].

The implementation project conducted by Asseco for the hospital in Kędzierzyn-Koźle lasted from October 2010 to January 2012. It involved the deployment of over a dozen specialized modules that run on 200 workstations. These are used by nearly 500 users, who are provided with OCR readers, time and attendance recorders, and electronic inventory-taking equipment. Furthermore, the project included the modernization of

computer networks and hardware, such as servers, disk arrays and terminals.

As a result of the pilot project, the Healthcare Centre in Kędzierzyn-Koźle implemented the following AMMS modules: Patients Traffic, Admissions, Hospital Ward, Statistics, NHF Settlements, Hospital Pharmacy, Clinic, Diagnostics Laboratory, Hospital Infections, Operating Block, First Aid Kits, Orders, and DRG (diagnosis related groups) Simulator. In addition, the following modules were launched: Management Information System (BI), Treatment Cost Calculation, Valuation of Medical Procedures, Electronic Records of Fixed Assets and Equipment, Graphics, Time and Attendance Record, Billing, Cash Desk, Public Procurements, and Online Patient Registration (ePatient).

Readily available medical records.

The hospital's admissions office uses necessary technologies to ensure quick and comfortable reception of patients. The implemented patient information system is equipped with identity card readers. Each and every medical procedure is reflected in the system. Recommendations, test results, medical treatments – all these information are used for the rapid preparation of electronic medical records. The system utilizes the data that were entered throughout the patient's stay in the hospital. Such data are also used when closing the medical history with a post-disease analysis and when giving recommendations for the patient.

Customer benefits achieved.

Managers of the Healthcare Centre in Kędzierzyn-Koźle have gained a state-of-the-art tool for managing a medical facility. Doctors will benefit from having a full set of patient information (test results, consultations, orders, and treatments). Once entered, the data will be available to fully authorized personnel at any place in the hospital (at the admission, consultation and treatment rooms). The screen layout adjustable to individual user needs as well as the possibility of using mobile devices brings much comfort to the work of medical personnel. The system is used willingly thanks to its simple and intuitive operation. The combination of modern technology with the readers of identity cards, orders and referrals resulted in a reduction of the time spent on formal procedures, e.g. at the admission room. Computerization also helps patients save time as they are now able to sign up for a visit to a specialist, using a computer. The hospital is well prepared for the introduction of electronic health records.

User-friendly interface.

The AMMS system presents to the user only the information that is most relevant at the moment, and it requires introducing only the necessary data. The screen displays only the windows which are needed to perform the task. Be it a nurse in a treatment room, or a person issuing a discharge from the hospital, or a ward nurse, they are all shown something else. At the same time, the system supports the user by providing fault and error messages, and it can even detect interactions of drugs administered with those already taken by the patient. The comfort of the medical personnel work is improved by adjusting the screen layout to individual needs and specific tasks. The system is intuitive and user-friendly.

Exchange of medical data.

Asseco Medical Management Solutions work with mobile devices, are designed for using touch screens, and in the future will enable the hospital to easily integrate with the P1 Platform (a solution developed by Asseco Poland for the National Centre for Health Information Systems) to share medical data with other hospitals, outpatient clinics and doctors.

In addition, the Healthcare Centre in Kędzierzyn-Koźle is planning to launch a platform for the exchange of electronic documents with public institutions, such as courts, prosecutor offices or insurance companies. Also third-party entities that contract the hospital to provide radiology or laboratory services will be able to receive the test results in an electronic form, right

at their locations. Doctors will have access to complete patient information anywhere in the hospital. The results of tests, consultations and medical procedures will be always at hand. This will make it possible to observe the condition of patients based on the data entered by physicians and test results provided by laboratories and medical rooms. Medical consultation results and recommendations will be shared as well. Doctors will be relieved from bureaucratic tasks. It will also be easier to generate referrals. A doctor, using a touch screen, will determine the subsequent examination, and this information – along with the patient details – will appear on the monitor at the right doctor's office or treatment room.

Selected information about AMMS.

AMMS (Asseco Medical Management Solutions) are the successor to the previous healthcare solutions offered by Asseco. This innovative solution is the result of many years of investing in the latest IT technologies. It was designed and developed in line with global trends in both information technology and ergonomics. The solution features a number of improvements for the identification of patients – registration of referrals on the basis of two-dimensional barcodes, retrieval of demographic data from identity documents, etc. The applied technology allows to run AMMS on mobile devices, giving doctors the comfort of using the software right at the patient bedside.

The AMMS application satisfies the new requirements for electronic medical records that will apply to all medical centres as of August 2014. The system also cooperates with the National Healthcare Fund application called eWUŚ, which has been used for electronic verification of the eligibility of beneficiaries since January 2013. The AMMS solution greatly simplifies the verification process and enables collective verification of patient rights, working in the background without user intervention.

Key features of the AMMS system.

- Ergonomic, innovative and convenient graphical interface that is loved by its users. It comes equipped with configurable user panels, making it easy to access the most often used data and functions.
- Access to data through mobile devices, so the system is available at any place, even at the patient bedside.
- Keeping records of and quantitative and financial accounting for medical services provided under contracts signed with the National Healthcare Fund and other commercial payers.
- Full reporting to competent control and supervisory authorities, founding entities, payers of health benefits, and also conducting analyses for the needs of the hospital's management board, including real-time analyses.
- High quality and security of information flow thanks to such mechanisms as asymmetric cryptography.
- Electronic medical records are supported starting from the moment of data entry, during automated document creation and electronic signing, and ending with the issuance of electronic records.
- Scanning of identification documents at the patient registration and utilization of 2D barcodes for the handling of referrals.
- Ability to operate on various operating systems, support for multiple languages, emergency mode operation which allows to interrupt work, perform an urgent action and return back to the previous task.
- Smooth cooperation with eWUŚ – an automatic mechanism for the processing of register confirmations.