

## Growing “Big and Strong” together IT Development driven by Needs and used with Pleasure

The imaging center for radiology-nuclear-medicine-radiotherapy Soest, radiox for short, has one of the most modern facilities for radiotherapy in Germany. The imaging center is linked to the hospital Maria in Soest since their foundation in 1998. 21 doctors and 150 employees in Soest and four further locations attend both out-patients and inpatients in close cooperation with more medical utilities in the region. Communication between the facilities is supported by the RADIOLOGY INFORMATION SYSTEM (RIS) from the supplier medavis. It controls the complete workflow, communicates internally with the modalities and externally with the hospital information system (HIS). This simplifies the work for the medical employees and for the patient it means to have a holistic treatment, fast diagnostical decision-making and optimal therapeutical strategies without waiting time.

### Digitalisation ensures growth

Soon after the foundation of radiox in 1998 it was clear in the doctors' mind that they have to grow wider and establish new sites in the western Sauerland in order to treat patients professionally and economically. Hence the five founders decided to digitalise the analogous documentation of the patient file to simplify information flow and management tasks. In April 2000 medavis RIS was introduced initially to 30 workstations for ca. 50 employees. “Creating awareness was the most difficult task”, remembers Dr. med Thomas Krambrich, who is one of the founders of the imaging center at the site Soest. “As a senior physician I already had experience with working PC based and I realised that all signs are pointing to digitalisation. It really was not easy to persuade the colleagues to change something that functioned manually very well. The hurdle in the form of employee-scepticism was overcome quickly. After RIS supported billing and patient data filing successfully, PACS was connected in 2002. Nobody had something to say opposed to the opportunities of the digital picture evaluation” says Dr. Krambrich. Due to the collaboration with the hospital Maria in Soest, the next step in digital evolution was clearly visible: “The HIS was connected so that we were able to exchange reports and therapy referrals with our colleagues from the hospital.” Radiox gradually opened more sites in Arnsberg, Unna, Brilon and Hamm. With increasing size, the size of the IT infrastructure also grew and became more complex. Speech Recognition has been integrated along with scanners and more modalities. The IT today is supported by its own staff. “Our goal has always been and will always be, to focus on the patient's needs. For a patient to feel comfortable,

everyone enlisted in the treatment must work together. Collaboration includes talking to each other and providing information, and in doing so we already have reached the backbone of our daily work: RIS” states Mr. Dr. Krambrich. “Both doctors as specialists have profile based access to the relevant patient files from each PC at all sites. They organize their days via worklists and support each other wherever possible, even across sites. This collaboration between colleagues is surely a factor of success of our imaging center and RIS allows us to easily live it.”

### IT as Permanent Companion

The radiox team currently has 21 radiotherapist, radiologists and nuclear medicine specialist as well as over 150 employees. RIS is established as the central information platform that has every document and report, even those from the referrer, available. From the initial contact with the patient on the phone to appointment allocation, examination, evaluation, service entry and billing as well as documentation; everything is controlled centrally with RIS. The DIAGNOSTIC PATIENT CENTER, which provides the complete examination and evaluation history of the patient, is available for every user. Information that is relevant for the current case can be selected quickly via a filter. “We take care of many patients for years, the files are therefore voluminous. RIS helps me to find the information I need in the current context”, says Dr. Krambrich. “This increases the quality of my work and saves time. A rewarding investment for sure was the INTEGRATED SPEECH RECOGNITION. Due to the software I dictate directly in RIS, correct errors and release the evaluation, report or letter. In doing so, 90 percent of all reports are done

the same day and can be sent to the colleagues in the hospitals, ambulatory healthcare or imaging centers. The users even have fun with their digital work due to the intuitive user interface. Even visiting physicians love the system because they get used to the work within 30-45 minutes and are able to work independently from the second day on. That radiox runs smoothly has also to do with the organization for appointment allocation. "With the scheduler, our call center is able to find gaps and react hereon. If a patient does not come, waiting patients are preponed. The next step is to phone a patient on the waiting list and if possible get him or her a spontaneous appointment", summarises Dr. Krambrich.



come from the supplier. After radiox' service portfolio was extended to radiotherapy, a software for documentation was purchased for it. The radiox team, who was used to working with RIS, assigned medavis to develop a new interface for bi-directional data exchange. On the one hand from medavis RIS to a radiotherapy system to transfer patient master data in order to avoid a manual registration. On the other hand from the radiotherapy system to medavis RIS in order to have all relevant parameters from the executed radiotherapy available for billing and the

physician's letter in RIS.

#### Up to date for Ideal Usage

The medavis RIS is developed continuously. Each update provides an improved and functionally enhanced software. Updates are installed mostly automatically and users are informed via Release Notes about improvements. Beyond that, the radiox employees take place in workshops. "The software is developed continuously, not only by the aspects we as long-term user brought to medavis' attention but also by the wishes of other users or improvements of technology." In order that medavis users can use the software at ideal terms on the most recent version, medavis offers its customers a special consulting service. "A medavis employee has a look at our workflow and analyses our processes", explains Mr. Dr. Krambrich. "He finds out, which functions of the system are used in which way. The result of these analyses shows us new possibilities to work simpler and more efficient. medavis offers a very valuable service", says Dr. Krambrich. Changes do not only

#### Trust in medavis RIS and the Future

Collaboration works well, in both directions" says Dr. Krambrich. He is pleased, that the decision for medavis in 1999 was the right one. "The support is outstanding, quick and competent. I state this also on behalf of my colleagues in the IT." The trust Dr. Krambrich and his colleagues have in medavis was visible also in 2013 when they ordered medavis to install a new PACS. "Communication is very important in our lives. Especially at work I'm pleased to have nice and competent people on the side of our system provider who understand us. The point in radiology is to communicate successfully with other medical vendors like hospitals, medical service centers and registered doctors. We need our IT so that the communication functions well. For the future I wish that the potential of the IT will be used even more and that we e.g. quickly implement the digital physician letter", concludes Dr. Krambrich on the issue of IT in radiology.

#### medavis

**Medizinische Informations Systeme GmbH**  
Bannwaldallee 60 • 76185 Karlsruhe • Germany  
Tel.: +49 721 92910-360  
marketing@medavis.com • www.medavis.com

#### radiox

**Radiologie-Nuklearmedizin-Strahlentherapie Soest**  
Walburger-Osthofen-Wallstr. 17a  
59494 Soest • Germany  
Tel.: +49 2921 3913001 • www.radiox-med.de