

## More and more Radiologies rely on medavis RIS for future Sustainability

Five German imaging centers in the Munich area jointly decided to introduce medavis RIS in the summer of 2012. Coordinated by Anyserve GmbH, a regional IT service provider for radiologies, medavis RIS was installed at 17 sites altogether from December 2012 to May 2013. The first system went live at the seven sites of Radiologicum München on December 1st 2012, followed by another system start each month at the other four radiologies: Herrsching (then 1, now 3 sites), Prinzregentenplatz (4 sites), München Zentrum (2 sites) and Diagnostikum Bayern Mitte (then 3, now 7 sites).

"By introducing the new software, we were able to professionalise, optimise and rationalise our workflows. By unburdening our medical team, we can now focus again more closely on the most important thing, the optimal service for our patients."

**Dr. med. M. Röttinger**  
**radiologicum münchen**  
Medical partner

### Increase in Efficiency due to digital Speech Recognition

The reason for switching to a new RIS was the dissatisfaction of the radiologists with the previous solution, especially the lack of digital speech recognition. Many products were evaluated during an extensive selection process. The medavis RIS finally convinced everyone involved due to its efficient workflow management along with deeply integrated speech recognition and its future sustainability. The greatest challenge for the project team was to consider the specific requirements of each imaging center within a very short timeframe. For appointment scheduling, it was decided to play it safe - the appointments were entered in both systems for two months before the system start. Consequently, all appointments were available in the new scheduler right after the system start. Therefore, the institutes were prepared for all eventualities and all system starts went smoothly without downtime - in all cases, all sites of the same imaging center went live on the same day. The collaboration of the project team, consisting of project managers from medavis, Anyserve and each of the imaging centers, was excellent. A careful workflow analysis conducted beforehand made sure that all

aspects were taken into account. The former workflow was compared to future possibilities.

"By introducing medavis RIS we could improve efficiency and productivity of all processes and all participants involved. This is particularly true for the physician's core process of creating reports due to the introduction of integrated speech recognition. In addition, we were able to optimise process transparency and processing times and carry out the service entry earlier and with less effort. The medavis RIS also made it possible for us to take a significant step towards a paperless imaging center and offering demand-oriented services and workflows to our patients and referrers."

**Dr. med. Thomas Hilbertz**  
**Radiologie am Prinzregentenplatz**  
Medical partner

The medavis project manager explained the functionality of the medavis software in detail to the team, so that the requirements of all imaging centers could be taken into account in a perfectly adjusted way. Anton-Richard Jaman, CEO of Anyserve: "The medavis project manager, who really had a lot of experience, always asked the appropriate questions and kept track of all issues at all times." Thanks to an open communication and a clear comparison of the old and the new system, the team was aware of the expected changes from the beginning. Anton-Richard Jaman: "We ran through the workflow several times. The medavis project manager always explained exactly how the product works. What is possible and what is not. Of course it is impossible to not make any changes at all. However, thanks to the open communication with medavis, everything worked out just fine."



Sophisticated interface know-how is one of medavis' strong suits. No matter on which subjects

a question came up – on the HL7 connection to the four different PACS systems or the connection to over 100 modalities via DICOM modality worklist – the experienced medavis project manager always had the appropriate solution for each problem. And thanks to the specialists at medavis, the data migration went smoothly as well. All previous reports from the old system are now available to the physicians in medavis RIS - an important aspect for diagnostic security. Mr. Jaman: "Personally, I liked that our contact person had a vast knowledge in all relevant areas, especially concerning the interfaces." Already after a short operating period, all participants realised that the desired workflow optimisations had been achieved with medavis RIS as the leading system. All workflow steps were standardised as far as possible in order to benefit from synergies and increase efficiency sustainably. Report creation in particular was made easier and quicker. By using the latest speech recognition software, the typists had free capacities and could take over other functions. The standardised RIS now enables a cross-site appointment scheduling and evaluation at all imaging centers. If a physician alternates between two different sites, his personal workstation settings are available without changes at any workstation, e.g. for using speech recognition. In addition, medavis RIS offers a large number of optimised statistics that can be configured individually to conduct analysis across sites, thus allowing radiology administrators to quickly identify measures to further improve workflow and efficiency. All of Anyserve's clients opted for a central architecture - the server for all sites is located at the main site respectively. Due to the excellent infrastructure in Munich, all sites have a transmission rate of at least 100 Mbit/s. This makes consultations with colleagues for a second

"The Radiologie München Zentrum has sustainably improved its workflow by introducing medavis (CALL CENTER and INTEGRATED SPEECH RECOGNITION). The occupancy rate of particular modalities could be increased by 12% by introducing the CALL CENTER module. The workflow for creating and releasing reports has been improved by using speech recognition in such a way that we can now work without a typing pool. The physician's workstation is considerably more effective than before."

**Dr. med. Philipp Remplik**  
**Radiologie München Zentrum**  
 Medical partner

opinion possible across sites in just seconds. Also, all connections are fail-safe.

**Sustainability thanks to optimised Workflows**

The joint implementation of medavis RIS generated many synergy effects. Due to the intensive information exchange among the five imaging centers, different workflows could be compared and questioned. Before entering the master data, e.g. the examination ID codes, all methods used up to now were compared and the most future-proof method was picked; but not without scope for possible enhancements. The information exchange was a benefit for planning user trainings as well. According to the motto "The more training, the better the system start", the medavis trainer trained key users on site in Munich for 5 to 15 days per institute. Afterwards, the knowledge of these key users was passed on to all users at each imaging center internally. The trainings were carried out more or less in parallel to daily operations. At the Radiologicum, a training room with 10 workstations was set up especially for this purpose. All users could get acquainted with the new software on a medavis test database and practise the new workflows themselves. Thus, everyone already had the required knowledge at the time the system went live.

"We have been using a speech recognition system for years, but nevertheless we could shorten our reporting times due to the fully INTEGRATED SPEECH RECOGNITION in medavis RIS. In addition, the workflow for our physicians has been further improved due to the DIAGNOSTIC PATIENT CENTER, because important previous reports can be viewed at all times - even while writing a report. The workflow is now significantly more efficient in other areas as well, thus leading to shorter patient passthrough times. Thanks to the good project preparation, the system could go live during normal daily operations."

**Dr. med. Rudolf Conrad**  
**Diagnostikum Bayern Mitte**  
 Medical partner

**High User-Satisfaction and faster Reporting**

When asked about the user satisfaction today, almost 2 years after the system start, Mr. Jaman says: "The level of satisfaction is high. The most important issue for our radiologists was speech recognition. By using speech recognition, the time until a report is released is now consider-

ably shorter than previously. We would opt for medavis again. The medavis RIS is being developed innovatively. We are on good terms with the medavis team." Any new integration that occurred in the meantime always went smoothly – no matter if new sites were connected or a new PACS was installed at one client site. The Anyserve GmbH currently provides support for about 350 medavis RIS workstations in the Munich area with direct connection to more than 100 modalities and the complete IT and telecommunications infrastructure in the respective imaging centers.

That the decision for medavis had set the course for a sustainable solution has already proven to be true for the owners of Anyserve GmbH. A framework agreement was signed with medavis.

"By introducing medavis RIS with INTEGRATED SPEECH RECOGNITION and a PACS connection, our evaluation workflow improved significantly, but other areas were also enhanced and are organised more clearly now. The collaboration with Anyserve and medavis during the installation and introduction of the new systems went very reliably and structured. The combination of the current software and services of medavis and Anyserve respectively fulfilled our requirements to a high degree."

**Dr. med. Christian Teusch**  
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